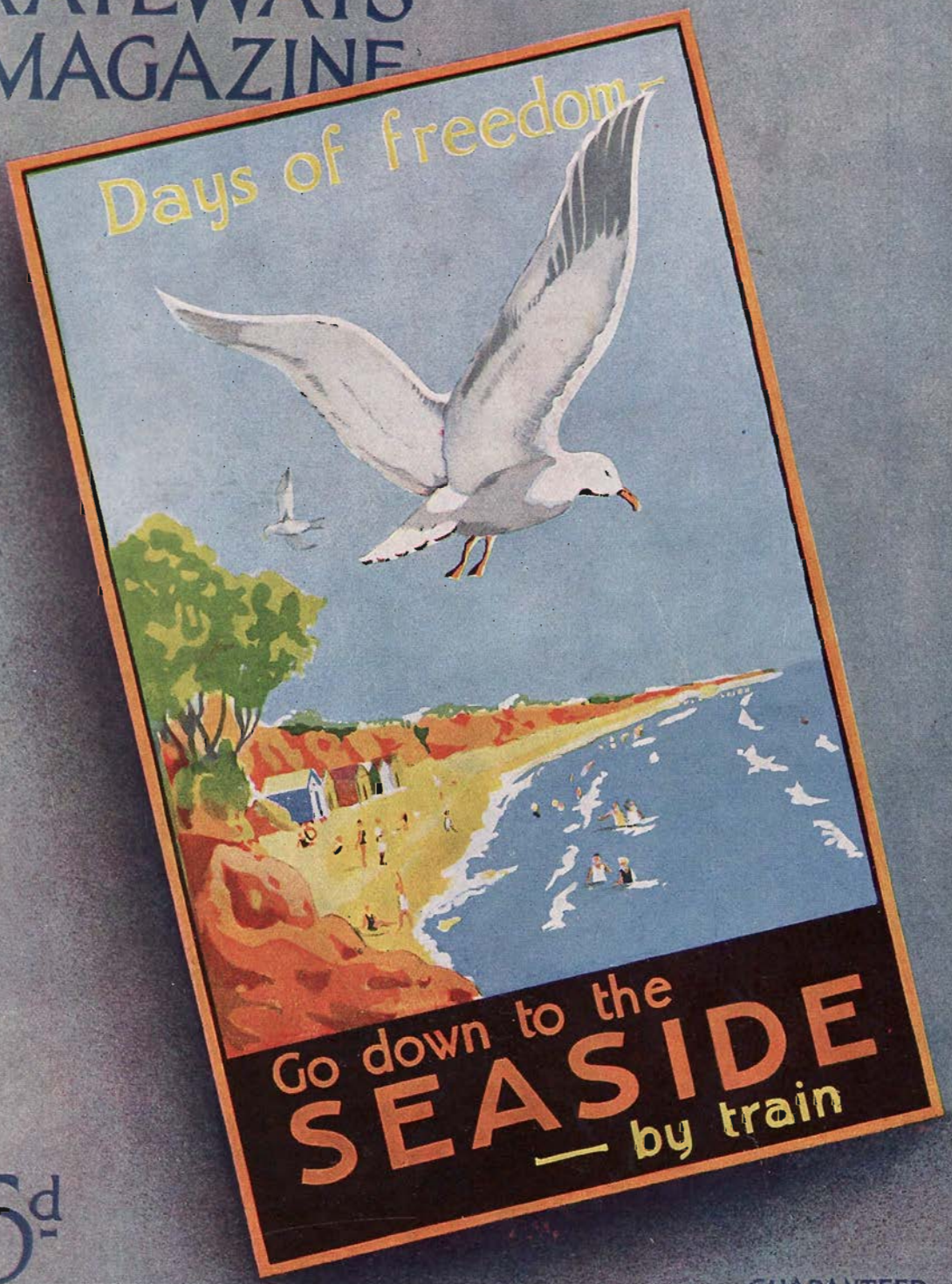
The VICTORIAN RAILWAYS MAGAZINE

JANUARY 1928



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VOL. 5 No 1

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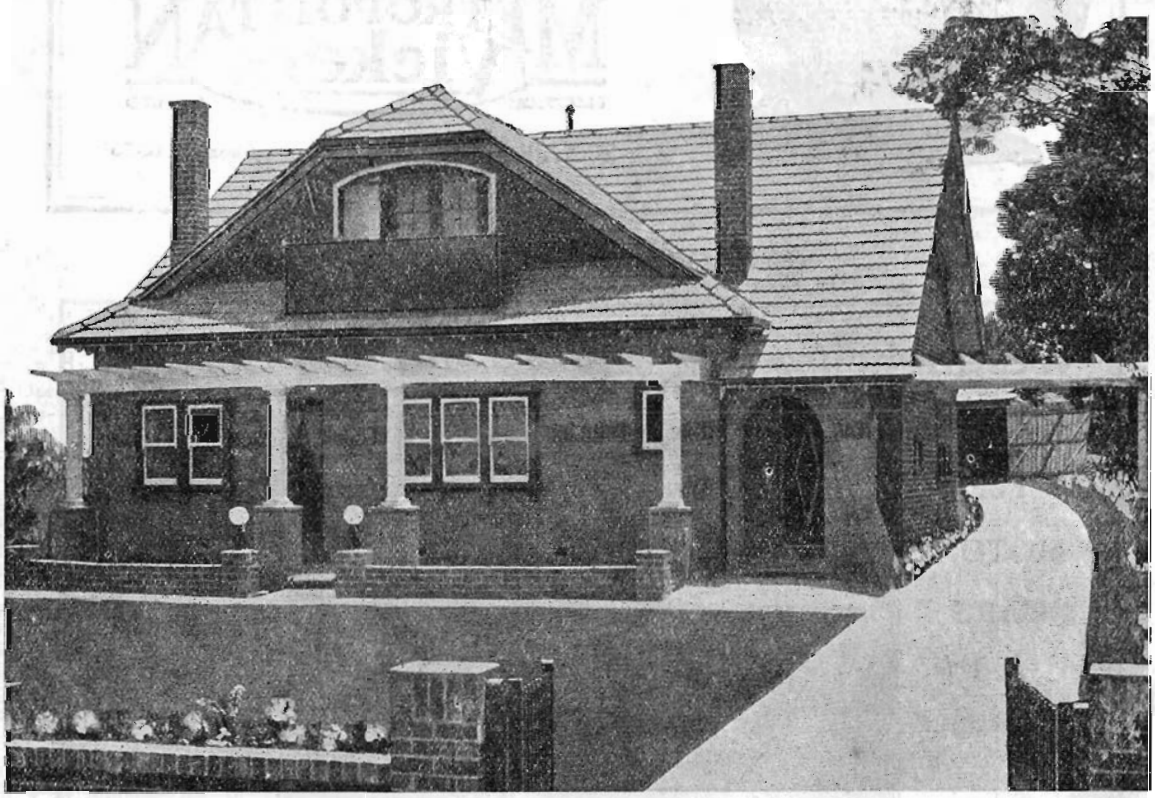
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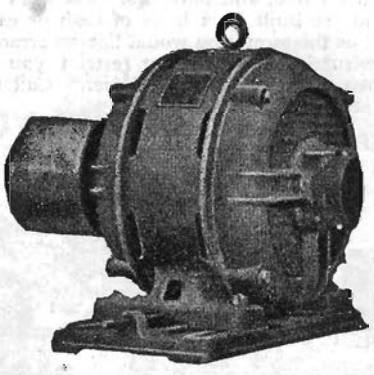
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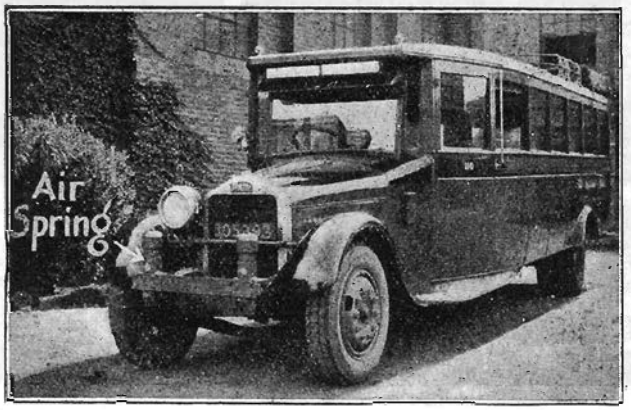
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Combat Lurking Danger *with* Safety First Rules

By J. D. MICHIE

IF the danger seems slight, then it is not slight. Dangers by being despised grow great. This danger that all of us foresee so clearly will not happen. Nothing does that we foresee. Let us demonstrate to one another that we appreciate the chance we have of living and retaining our faculties and limbs by practising at all times "Safety First."

FOR the twelve months ended December 31, 1926, in seven of the Branches of the Victorian Railways System 2,352 accidents were recorded as having happened to employes while they were on duty. The Transportation Branch headed the list with 860, closely followed by the Rolling Stock Branch with 823.

Classified under 38 different heads the greater portion of these personal accidents in any one class is that of strain from lifting, the runner up being injury to the eye caused by flying pieces of steel or iron, etc. Slipping, jammed fingers or hands, knocks, etc., come next in order.

Unnecessary Risk

Analysis of the causes that produced such a formidable list of casualties forcibly suggests the question : could not a certain percentage of these accidents have been avoided ? Was unnecessary risk taken before first having made sure that any element of liability to danger was safely guarded against ?

In referring specifically to each accident, can it be said that the person concerned was practising SAFETY FIRST ? SAFETY FIRST ? perhaps someone will ask : what does it mean ? It means exactly what it says. It means that you and I and each and every other railwayman should, at all times, on and off the job, think and practice SAFETY.

We are prone to imagine that most of the mishaps that come to us are the visitations of fate, that we are the victims of conditions which could not be controlled, and we feel quite justified in expecting unqualified sympathy in our misfortunes.

So far from being pitied, it would sometimes perhaps be better if we were taken to task for the negligence we have shown in omitting the ordinary precautions which might reasonably be employed to ward off liability to danger.

A wise old man when a new thought was presented to him would sometimes remark : " I have known that all my life but I never thought of it before."

Familiarity and Contempt

That is just the point. Most of us are quite familiar with the dangers to which we sometimes needlessly expose ourselves ; but when we should have our minds fixed upon the work in which we are engaged we allow our attention to wander far afield, and then comes the blow or the crash or the mis-step, and damage has been done which is beyond repair.

The universal application of the principle of protection and safety as a daily habit by all, would, possibly, constitute the greatest advancement in human happiness which could be accomplished. The public does not realise how much of its suffering, distress, agony and poverty have their real foundation in preventable accidents.

The Tragedy of It

Thousands of people today have a deep cloud in their lives caused by the loss or incapacity of the bread-winner through accident. Little children are fatherless or unprovided for, and must suffer cruel experiences when, had it not been for a preventable accident, they would be enjoying the happiness which is every child's right.

A period of hundreds of days of inability to work—think of it ! In the aggregate, probably more than a year's happiness and productive work is lost largely through the want of thought on somebody's part. Great oaks from little acorns grow, and it would be well always to take precautions against doing any piece of work, the nature of which, for example, involves risk of receiving injury to the eyes, without first protecting them.

It is always a little more trouble to make the effort necessary to avoid danger, but when an eye is lost and

the other possibly endangered with the diminished earning capacity because of the difficulty a one-eyed man has of getting a job, and the narrowing of opportunities because of imperfect sight, no ambitious fellow with the responsibilities of an existing, or an expected family should hesitate a minute to take the necessary precautions to preserve his high standard of working ability.

The very saddest experiences of life are caused by preventable accidents. The most acute sufferings and disappointments are caused by preventable accidents. The greatest single cause of human suffering is preventable accidents.

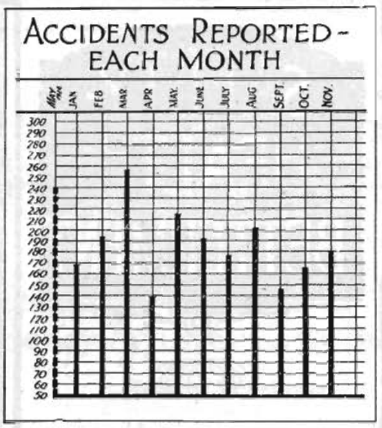
Great Britain claims world leadership in railway safety. In 1925 only one passenger was killed in a train accident. As 1,700,000,000 passenger journeys are made by train every year, the chance of death is infinitesimal. In the workshops, and other branches of the work on British railways generally, it is claimed that accidents to employes have been considerably reduced since the introduction some years ago, of Safety First propaganda. A substantial reduction has also been made in the number of casualties to trespassers.

The greatest safety device in the world is the careful human mind. When it is properly trained we conduct ourselves in a safe and proper manner without fear of fatigue, and most of the time unconsciously. Of the great value to this proper training of the mind is the intelligent study and application of Safety First rules on the part of all railroaders. When each recognises such responsibility there is no doubt that preventable accidents will taper off to vanishing point.

GOOD HEALTH DEPENDS ON GOOD TEETH

THERE is no doubt that much ill-health is caused through bad teeth. When you remember that through the mouth and nose we take in the food and air which keeps us alive you will see at once that if food and air be affected by the poisons which come from diseased teeth, the body must, as a whole, be also affected. Not only this, but if the diseased teeth set up infectious pus away down out of sight below the teeth, where the poison cannot reach an outlet, that wonderful piece of machinery, our body, will do the next best thing it can to get rid of the poison, by compelling the blood to take it away. A healthy body can rid itself of a great deal of this poison, WHILE IT IS HEALTHY; but remember, the poison is being thrown out all the time, and when the body becomes a little bit weak, the poisons begin to get in their deadly work.

We see how great a reason there is for watching carefully the teeth all through life. Consult your dentist often. Don't be afraid of cost. No



reputable dentist will operate on your teeth unless it is necessary. He knows all about them, and he knows how great a part they play in your general health. Make him your advisor, and you will find that the cost of preserving these most important organs of your body is very small.

Prevention Costs Shillings—Cure Costs Pounds

(Extract from a publication issued by the Colonial Mutual Life Assurance Society Ltd.)

JANUARY SUGGESTIONS DRIVE

The subject chosen for the fifth Suggestions Drive, which will be held during January, is :—

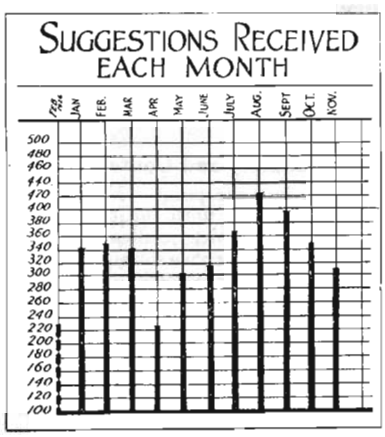
How can we Stimulate Tourist Traffic ?

Suggestions should be submitted to the Betterment and Publicity Board in the usual way.

BENEFIT BY YOUR IDEAS

The following awards were made during November for adopted suggestions :—

Total amount ... £160
Highest award ... £36



LET'S DO IT WITH A WILL, THIS YEAR!

By A. V. STENNING

AS we get older we get wiser. Let us hope 1928 will see us wiser than 1927. There's always room for improvement. As the bells rang out the old year and rang in the new, I sat ruminating and taking stock. 1927 had for me its pleasures, pains, disappointments and duties. It might have been a lot worse. Did I deserve better? Can I make 1928 any better for those I come in touch with from day to day as well as for myself? Shall I give it a trial? I think I shall find satisfaction in it if I do.

Looking back I cannot recall that I ever did any good by crossing my fellow men. Perhaps it is better to give a bit for the sake of friendship and progress rather than be unkind and selfish. Friction frets the nerves of all and poisons the blood. It is well worth the effort to cast our bread upon the waters of friendship, for in due time it will come back an hundredfold, and friendship is just about the best thing anyone can expect to get in this life. To be rich in friends is to be poor in nothing. Good friendship is better than riches on earth.

There's Nothing in Scamping!

I cannot recall that I ever got any real pleasure out of getting anything I was not reasonably and honestly entitled to, or by dodging my job, or by scamping it or putting into it as little as I could. I have done it, of course, and so have we all. But the things I most enjoyed were those into which I threw my whole heart and soul. So I think for 1928 I shall try to put more of myself into what I have to do and just see how good a job I really am capable of when I try. The devil at one's elbow is, of course, always saying, have a spell! take it easy! or something of that sort. It doesn't matter who we are, or what our walk of life may be, it takes a bit of effort on our part to tell him to push off and to screw ourselves up to what in our heart of hearts we know we should and can do. But if we make the effort, I'm sure it will give us a better zest for life in every phase of it.

We talk of Christmas as the season of Peace and Goodwill. But the whole year round should be a time of Peace, Goodwill and Good Works. Every year gone gives us one less to go, and, for me, I am going to try and make use of the experience I am gaining all the time in the art of how to live in order to put myself in a position to reflect as each New Year milestone passes by that the year just gone, as far as I can make it good, is the best yet. After all, that seems to me a commonsense way of looking at it. What do you think?



Alcock's

Home Billiard Tables

PAY *as you* PLAY

ALCOCK'S BIJOU JUNIOR BILLIARD TABLES (lift on), perfectly made, absolute accuracy, fitted with Slate bed, fast running Cushions. brass adjusting Toes to level table, with accessories.

Deposit 17/6 ; balance, 3/- per week

Write for Art Catalogue V.R. for further particulars and prices.

ALCOCK & CO., Pty. Ltd.

338-340 Flinders-lane, Melb.

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Albury Express and train stops at Winton. Close to Mokean Ranges—faces the Winton Lake—Bird life wonderful. Beautiful mountain views—First class meals—Spacious grounds—Tennis Courts—Hacks and conveyances—All farm produce—Piano—Golf—Orchard—Spring water—Walks and drives—Hot and cold baths—Large log fires—Excellent shooting—Beautiful wild flowers—Visitors met Winton Stn.

Tariff from 40/- weekly, 8/- daily. Apply Proprietors
(Children taken)

New Pocket Kodak

The Model You Want !

THE New Pocket Kodak is the latest product of the Kodak Works. Available in two models: No. 1 for pictures 2½ x 3¼ ins., price, **49/6** ; No. 1A for pictures, 2½ x 4¼ ins., price **55/-**. Though of comfortable pocket size, they are wonderful picture makers.

Start the New Year making snapshots with one of these Kodaks. Other Kodaks from **25/-**. Box Brownies from **10/6.** Ask for Catalogue.

Of all Kodak dealers and

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"The Block," 284 Collins Street, and 161 Swanston Street, Melbourne.

And all States and N.Z.

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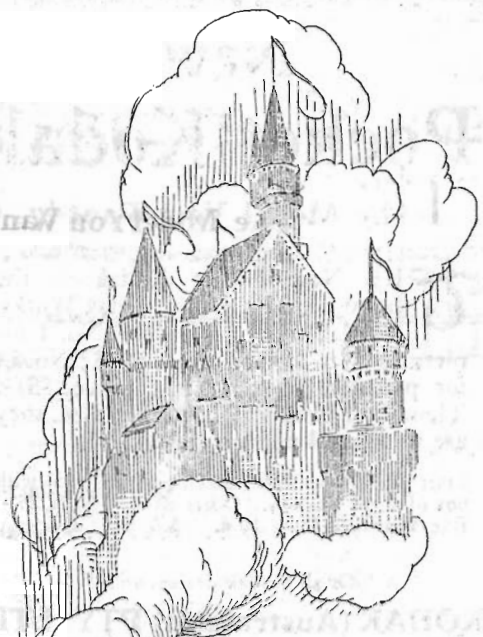
BELL'S ASBESTOS MATTRESSES, ASBESTOS ROPE LAGGING, as supplied to the British, Australian and Colonial Governments



Sydney : 226-8 Sussex-st. **Melbourne : 541 Bourke-st.**

Brisbane : E.S.C.A. Ltd. **Perth : Murray-street**

Adelaide : Metal and Machinery Co., Hindley-street



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Your Castle in the Air

HOW often have you dreamt of that cosy little home that's going to be yours? Yes, REALLY yours. You've got it all planned out but you're afraid you can't afford it just yet—You're wrong! For if you can afford to pay rent, you can actually own your dream home.

If you own a block of land or have a nominal cash deposit, your home can be built at once—designed the way you want it.

We will design and construct a residence with 4 main rooms, complete with all modern fittings and conveniences for :—

WEATHERBOARD - £525

BRICK - - - - - £637

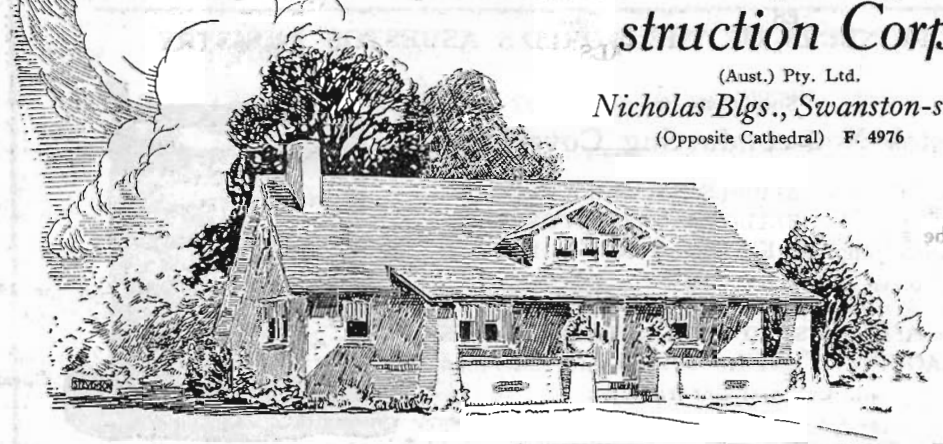
The weekly payments (covering both Principal and Interest) are 20/- and 24/- respectively for this house. Now would any sane man pay rent when he can have a home on these terms?

The Designing & Construction Corp'n.

(Aust.) Pty. Ltd.

Nicholas Blgs., Swanston-st., Melb.

(Opposite Cathedral) F. 4976



Open Friday Nights 7.30 to 9 p.m.

COME right in and have a chat with us, you will incur no obligation by doing so. If it is inconvenient to call just post the coupon for fuller particulars

Dear Sirs–Please send me fuller particulars by return mail

Name.....

Address.....

R.M. January .....

The Victorian Railways Magazine

Issued under the auspices of the Victorian Railways Commissioners

Vol. 5.—No. 1 **MELBOURNE, JANUARY, 1928** **Published monthly Price : SIXPENCE**

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Articles published in the Victorian Railways Magazine express the views of contributors, and are not to be accepted as coming from the Administration unless specially stated.

FOR 7s. per annum, in advance, the Magazine will be forwarded to any address.

A copy is issued free to all permanent Victorian railwaymen, including temporary and casual employes with six months' service.

Articles and reports on matters of interest both to employes and the public, short stories and verse, personal paragraphs, photographs and pen-and-ink sketches, suitable for reproduction, are invited from employes and others willing to help. They should be sent to reach the Editor, Betterment and Publicity Board, Railways Department, Spencer-street, Melbourne, not later than the 12th of each month. Correspondence relating thereto is carried free over the Victorian Railways.

Matters for publication should bear the signature of contributor, and should state whether it is to appear over his name or a nom-de-plume.

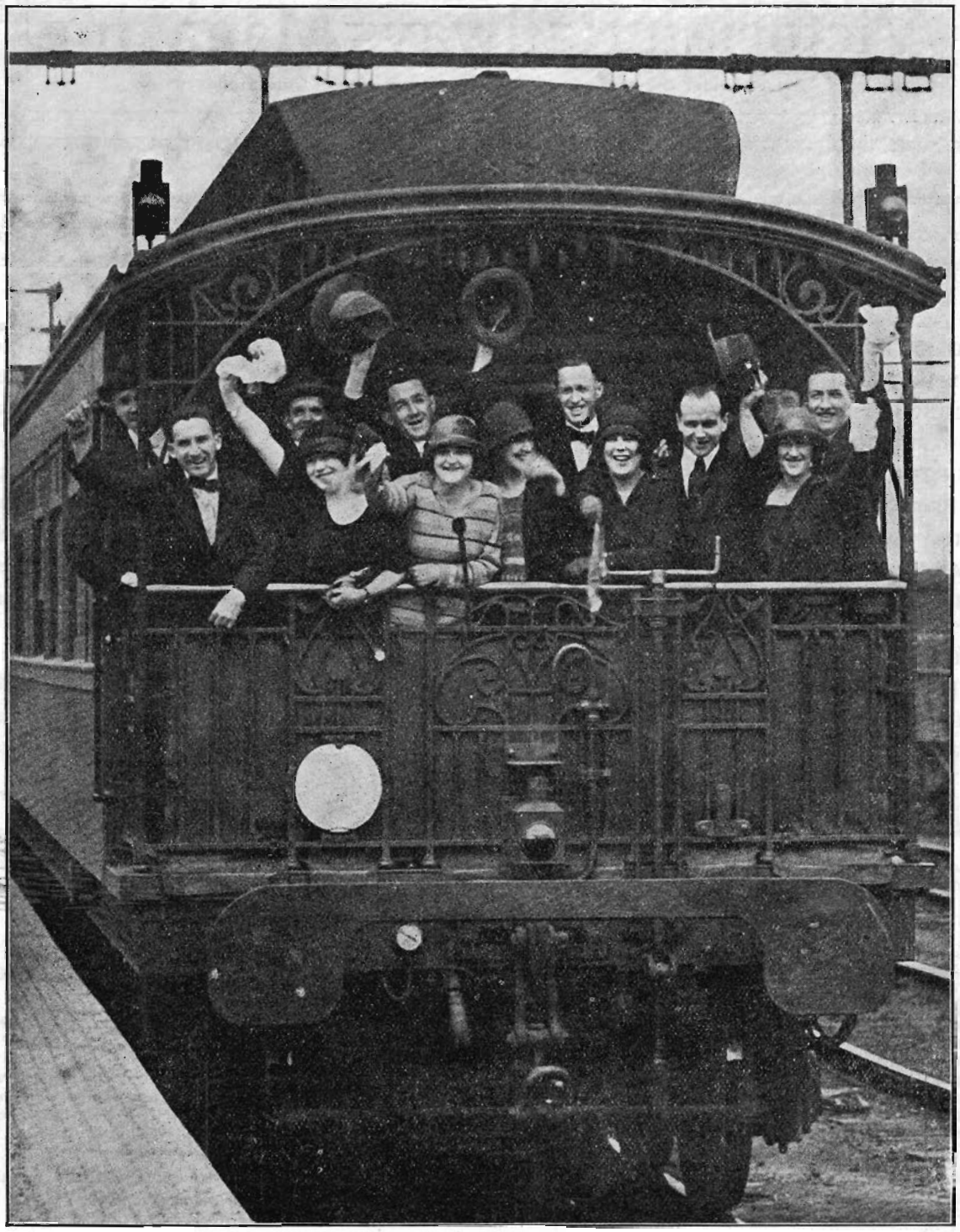
Telephone enquiries to Railways 393.

For advertising rates application should be made to the Railways Advertising Division, Saving Bank Buildings, corner of Spencer and Collins-streets, Melbourne. Telephone enquiries to Central 6414, or Railways 139.

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Off for The Holidays!



—Photo, W. Howieson

The VICTORIAN RAILWAYS MAGAZINE



OBJECTIONS

A TEAR-OFF calendar perched prominently on a Railway Head Office mantelpiece, the other day, bore in bold type Dr. Johnson's famous observation: "Nothing will ever be attempted if all possible objections must be first overcome."

BY now, no doubt, the leaf has been torn off; in fact, the calendar itself has outlived its usefulness. The beginning of another year has consigned Dr. Johnson to the waste paper basket. But his message remains for us to emphasise as a guide to better service in 1928.

READ it again, and then think of accomplishment frustrated, in 1927, by "It's never been done before," "The boss mightn't like it," "Somebody might raise a query," "It mightn't work," and all those threadbare phrases that tend to dam, but, in the long run only wastefully delay, the tide of progress.

NOTHING worth while is ever done except against resistance. The trouble is that too many people fail to distinguish between mere opposition and sound objection. Nobody knew that better than Dr. Johnson who, far from decrying ordinary caution and wise planning, discountenanced the reactionary worthlessness of timidity and lack of confidence.

SUCCESS in anything that matters implies the taking of a reasonable chance—the adverse chance that lurks in "It's never been done before." Let us remember that throughout the next twelve months.

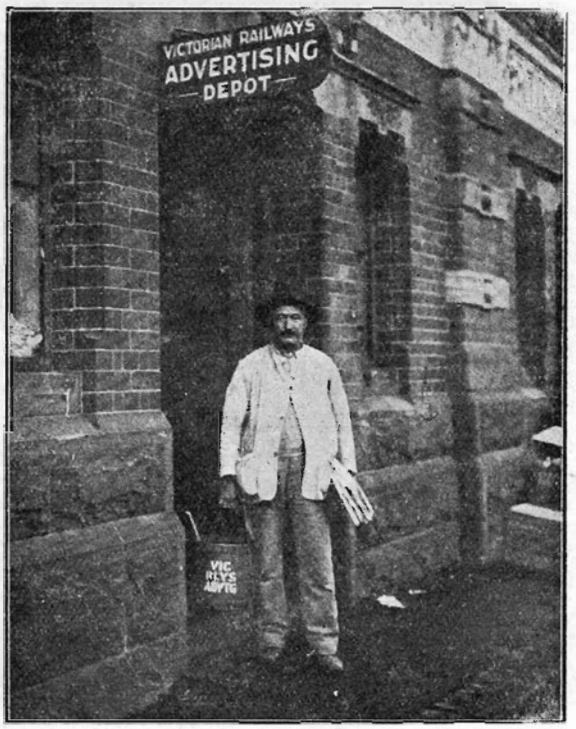
Advertising's Artful Aid

By J. D. MICHIE

"GREAT is advertisement: 'tis almost fate," wrote Le Gallienne.

Le Gallienne was right: the success or failure of a commercial enterprise often hangs on its power of advertising. The Victorian Railways have given the commercial man ample opportunity to make a success of his business as far as telling the world about it is concerned. He can choose his medium from nine miles of hoarding, thousands of carriage spaces, metal plates, painted boards, show cases, electric signs—and, of course, this Magazine.

And, what is more important from the public point of view, his "ad." is helping to swell railway revenue. Last year it brought in nearly £45,000.



Going out to tell the world

ADVERTISEMENTS were not unknown in ancient Greece and Rome. The ruins of Pompeii and Herculaneum afford examples, the walls in the most frequented parts being covered with notices, painted in black and red. Announcements of plays and gladiator shows were common; and so were those of salt-water and fresh-water baths.

Advertising is now an art, and great ingenuity and activity are shown in catching the eye of the public. The aid of painters, poets, and essayists is called in to make advertisements attractive; and posters have been designed by such well-known artists as Professor Herkomer, and Marks, as well as those members of the Royal Academy who designed the London, Midland and Scottish Railway posters.

The remarkable advance in the department of advertising, by means of hoardings at railway stations and on other railway properties in Victoria since the present Commissioners have operated the State's biggest business, has been phenomenal. The science and art of advertising is probably one of the most important of our generation. It is closely allied to the profession of salesmanship, which, in most countries is regarded as one of the vital considerations in the efficient conduct of commerce.

The art of wooing the public, no matter whether you are clergyman, politician, lawyer or shopkeeper, is really the art of advertising your services, your wares, or your talents. Hiding one's light under a bushel leads to failure, generally, and not to success. Advertising, whatever its drawbacks, is a highly organised business, and the Railways Commissioners can, and do offer a most excellent means of pictorial advertising, to the benefit of the public exchequer.

Railway advertising has been in existence from the earliest days. Crude poster hoardings and painted signs then did service at the stations; of course there was no particular system of advertising in vogue; the methods were haphazard, and for many years there was no attempt to standardise and reduce to a definitely efficient system of advertising display at stations.

Gain to Public Purse

Until quite recently indeed, the control of the railway advertising was operated by private firms under a lease from the Commissioners. In June, 1923, however, the Commissioners bought the plant and goodwill from the Railway and General Advertising Company, and began to operate the advertising service on the public account. The results have been most satisfactory, alike from financial and artistic points of view.

As in the case of the refreshment rooms services, the change to the control of the Commissioners has been both profitable and advantageous to the public.

The railways Advertising Division is distinct from the Betterment and Publicity Board. The former sells space to outside advertisers; the latter buys it. Thus the operations of both branches are kept commercially separate, and no space which can be sold by the Advertising Division is used for railway or tourist publicity.

That the Commissioners rendered a public service to the State in taking control of the advertising facilities on the railways is conclusively shown by the figures following, which cover the period since the resumption of the service by the Commissioners:—

	1923–4	1924–5	1925–6	1926–7
Revenue	... 27,383	36,333	38,896	44,868
Working Expenses	... 20,498*	19,801†	18,995	21,858
Profit	...£6,885	£16,532	19,901	£23,010

* Includes £6000 instalment of amount payable to lessee as purchase.

† Includes £3000 instalment of amount payable as purchase.

The working expenses for each year also include the cost of the erection of new hoardings, either to provide additional space or in replacement of old hoardings. Bearing in mind the valuable assets thus created, the actual results of operation are substantially more favorable even than the figures indicate.

It has to be borne in mind that, owing to the system of railway accounting, these hoardings, which will last for many years, must be paid for out of the working expenses in the financial year in which they were built. Thus if the hoardings were regarded as assets and depreciated over the estimated period of their life, the net profit shown would be much larger.

The following table shows how the area of railway advertisement hoardings has increased since June, 1923 :—

	Country	Sub-urban	Total
	sq. ft.	sq. ft.	sq. ft.
Area at July, 1923...	116,069	229,777	345,846
Area at June 30, 1925	117,036	263,209	380,245
Area at June 30, 1926	122,787	283,787	406,574
Area at June 30, 1927	162,002	315,918	477,920

That is to say, the total hoarding area has increased 132,074 square feet, net, in four years. Placed end on end, railway hoardings, most of which are 10 feet high, would extend for nine miles.

With its characteristic methods of doing business on efficient lines, the systems of the Advertising Division differ in nowise from those of a commercial house. There are three regular salesmen on the staff, whose sole duty is to secure advertisements. Business is also derived from outside advertising agents, who receive commission for the contracts they secure.

In approaching business men for the purpose of selling advertising space, the salesman has no easy task. That all the difficulties, however, are met and surmounted goes without saying, and it may fairly be claimed that the business methods of the Victorian Railways are sound, and are so regarded by patrons.

Adopting the plural form, the motto of the Advertising Division might well be that of the Prince of Wales : "We Serve." Advertisers are well served; the public is well served; and the standard of the hoardings has been raised artistically, and created a thing of beauty. The model hoardings at South Yarra, North Melbourne, and other stations are pleasing examples.

In addition to the space salesmen, the staff consists of 18 billposters, five of whom have definite country sections allotted to them, which they continually traverse. There is also a clerical staff of seven, two artists and three laborers. The artists provide graphic demonstrations, which the salesmen find almost indispensable when creating a desire for outdoor advertising in the mind of an enlightened "prospect."

Here it may be pointed out that the Commissioners themselves advertise by means of posters which may be regarded as works of art. In this, they set an example to private advertisers in keeping up the artistic standards of the hoardings.



This photograph, taken at South Yarra station, speaks for itself



An example of louvre truck advertising

The base of the operations of the billposters is a vault under the Flinders-street Viaduct Buildings. Here all advertising material is stored. Ranged in orderly fashion along shelves, indexed and labelled, are the posters of the many customers. Posters are here received from the printer and collated; that is, each sheet is folded separately and put one inside the other in such a manner that the outside sheet will be the first to be posted up

Paste, which is the adhesive used, is made from best grade flour with the addition of a little bluestone to keep it sweet and preserve it from the depredations of rats and mice. The bill for flour reaches the respectable total of £120 per annum.

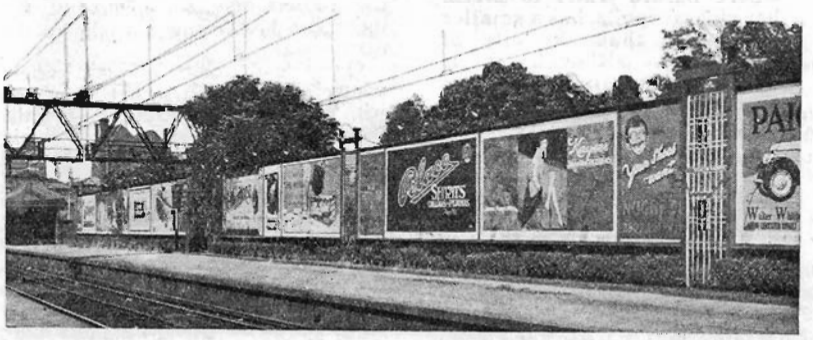
Many Media to Choose From

The advertiser who makes an appeal to the travelling public has an extensive variety of media to choose from. He can use poster hoardings, painted boards, carriage panels, electric signs, show cases, metal advertising plates, besides rail motors and the electric trams which run from St. Kilda to Brighton, and from Sandringham to Beaumaris. He can, of course, buy space in this Magazine.

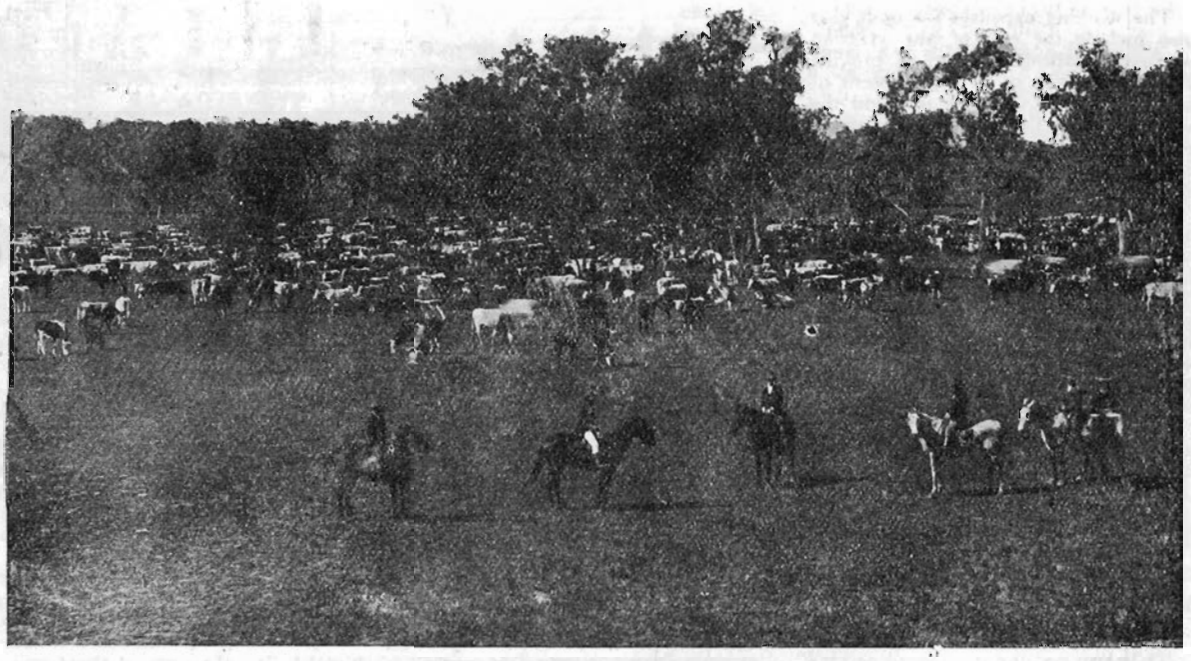
It will be seen that the advertiser who desires to cover the State can be easily served when he buys railway advertising. The iron horse carries his message to the public into the farthest corners of the State. Wherever it goes it acts as an ambassador of commerce.

At stations which are little more than a name-board and a waiting room, there will be found the pioneer of business in the shape of small metal plates. From these, through many grades, the adventitious aid of railway advertising to the man of business can be studied all along the line from the little station perched almost on the peak of a mountain range, round the great city of Melbourne, to the illuminated hoardings at South Yarra, now gay in their setting of green lawns, golden privet hedges, and climbing roses.

At least it can be claimed for most of the hoardings that they are attractive and neatly kept.



A typical station advertisement hoarding



Mustering cattle in North Queensland

Unpopulated Queensland

By CHARLES H. HOLMES

WHILE the peoples of a crowded world jostle one another in a cramped existence, the vast open spaces of Queensland are crying out for settlers. Here is a state covering no less than 670,500 square miles, being five and a half times as large as Great Britain and Ireland, which has slightly more than one person to the square mile. This great slice of our Commonwealth boasting rich pastoral and agricultural areas, mineral wealth, tropical lands where nature waits to lavish her richest spoils, has a smaller population than the city of Melbourne, although it is nearly eight times as large as the State of Victoria.

HAVING such a meagre population, there is no home market to speak of, and what market there is necessitates primary produce being transported exceptionally long distances, with the result that many industries languish or at any rate have expanded little during past years. Having no home market as a stepping stone, markets outside the borders of the State are more difficult to reach, and there is not the fostering influence for primary production that would exist with a populated State.

From time to time Northern Queensland has been decried as unfit for white men and white women to live in, but most noticeable to the traveller are the fine healthy looking children. The Commonwealth Year Book effectually removes any such stigma, for therein you will see that Queensland, more than half of which is in the tropics, claims a low death rate compared with the leading countries of the world. The death rate per 1000 of population in Queensland for the year 1926 is 9·4, compared with England's 11·6, the United States's 12·1, Germany's 11·9, and France's 17·5. Then, too, the birth rate is higher than most of the other States, being 22·58 per 1,000 of population.

Queensland appeals to me as an Eldorado for both settler and tourist, for, in truth, you might travel the wide world and not find the enthralling diversity of scenic and rural attractions which here exist—sun kissed orchards and golden wheat lands in the south, woollen wealth spread over endless miles of rolling western downs, ponderous bullocks, leagues of cane, and northern jungle lands which, when cleared, yield up a bountiful harvest of cane and fruit.

THE climate is warm in summer, but it is infinitely less hot than we southerners imagine. November, December and January are reputed to be the hottest months, but, following the main coastal route to the far North, to Cairns and the Atherton Tableland, in mid-November I failed to experience any heat to worry about. There were no hot winds and dust.

The people dress to suit the climate. For instance, in Townsville 90 per cent. of the male population goes about its business in soft shirts and trousers and leaves its coat at home. On asking at a shop for a suit of pyjamas, the attendant inquired whether I wanted the trousers only, so, apparently, the night also holds some wrinkles in the matter of clothes.

Queensland boasts a most perfect winter climate. It is not associated with wet and mud, for, in these months (June, July and August) you will obtain a maximum of sunshine. You will experience blue cloudless skies, and clear crisp tropic nights will invigorate and beguile you. With a Queensland winter in mind, the slogan "See Australia First" becomes a tonic. Springtime commences in September and the summer ends in February. As you travel inland the climate becomes more dry and the extremes of hot and cold have wider range. On the highlands

away from the coast the heat of the day is invariably followed by cool nights.

It is understood that the extremes of rainfall in Queensland range from about 10 inches in the south-west corner (equivalent to the rainfall in the Macdonnell ranges in Central Australia) to 168 inches in parts of the tropical coast.

Thousands of Water Bores

On the western side of the Main Range which ribs Queensland from north to south is the great artesian basin which is tapped by thousands of bores. The bore water which is used for stock and domestic purposes has enabled the well-grassed districts of Western Queensland to become a wonderful pastoral area. There are between 4000 and 5000 artesian bores in Queensland. The average depth is about 1000 feet. The deepest bore is at Springleigh in the Blackall district, Central Queensland, which has a depth of no less than 7000 feet. There is one bore in Queensland which, although only 10 feet deep, yields several thousand gallons per day. Some bores have been known to produce a flow of up to two and even three million gallons a day. Quite a number of bores have a flow of more than one million gallons a day. At some places, bores have been screwed down and the water has been reticulated as a town supply. Hot showers may be had direct from the pipes.

Sugar production in Queensland has come with a rush—like gold! The yield last year was 3,715,000 tons of cane from which nearly 500,000 tons of sugar, worth approximately £10,000,000 were extracted. Along the north-east coast of Queensland, cane is King. It is the life blood of the settlements. Here the people grow cane, talk cane, think cane.

There is hustle in the cane towns. Railway clerks are invoicing cane feverishly, people on the station platforms are talking cane, those men over at the hotel are arguing cane, citizens have so much cane in their system that they forego sugar in their tea.

Orchards have been ploughed in to grow cane, and soon kiddies will have to howl for a banana, for some of these plantations have been sacrificed for cane. Energetic settlers are hacking further slices out of the jungle lands to grow more cane.

In the early stages, the cultivation and cutting of the cane was carried out by black labor, imported from the Pacific Islands, but for many years it has been demonstrated that the industry can be carried on successfully by white labor.

Cane is enthralling study. See that canefield burning, blazing! Some cane farmer's toil gone for nothing? Not a bit of it.

That is the first phase of harvesting some of the cane crops. A match is put to the cane, and all the dry leaves are burnt off.

Then the cutters start slashing the cane off just below the surface of the ground, the green top is cut away and the cane piled on small tramline trucks, holding two tons each, which carry it to the mills where it is gathered up by revolving teeth into grinding maws.

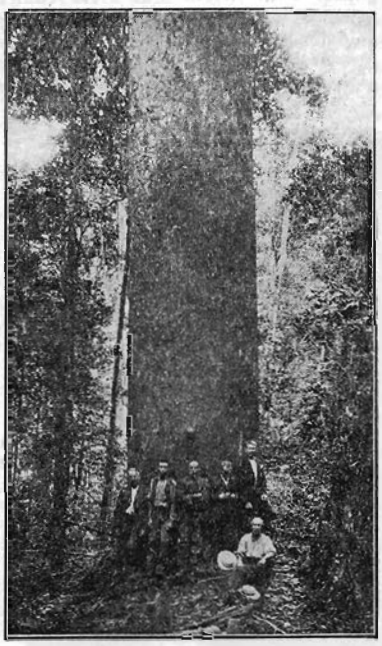
The process at the mill is a long story, but eventually the sugar emerges slightly brown and is sent to the refinery. Here it is reduced to a liquid again which is strained through 20 ft. of charcoal contained in tall cylinders, out of which it filters practically colorless.

The charcoal is made from the bones of animals, which I was told have peculiar propensities for drawing out all the impurities in the sugar.

That the sugar industry is one of the most important in the Commonwealth cannot be gainsaid. It is an industry thriving in tropical areas, claimed at one time to be unfit for the white man, but it has peopled the north-east corner of our continent with a white virile race.



Maize at Atherton



A giant kauri pine, North Queensland



How bananas grow in Queensland

From the Roof of Queensland

In the far north, near Innisfail close to the coast, the main Range of Queensland attains its highest elevation in Mount Bartle Frere (5,348 ft.). Come with me in fancy to the top of this great mountain, the highest in all Queensland, and look down on one of the richest areas in Australia, the Atherton Tableland, covering close on 15,000 square miles on which maize growing, dairying, pig raising, and the timber industry flourish. Here, too, are immense areas not yet cleared where you will see a tangled riot of luxurious vegetation out of which giant palms push their way up—to breathe. The creepers climb over the heads of the lesser trees, but the huge maple and kauri trunks streak up to the sky, oblivious of the intense plant life in the jungle at their feet. On the north the old mountain with its summit lost in the clouds looks down on one of Australia's most alluring scenic highways, the Range Road, which winds from Youngaburra to Cairns, and overlooks valleys full of green and golden cane. On one twelve mile section of this road there are no less than 600 curves.

On the Atherton plateau are butter, cheese and bacon factories together with meat works which receive the cattle from the wild gulf country. All the minerals necessary for development are close to hand beyond the foothills of the tableland, from which the pastoral country extends north to the gulf and west and south to the borders of the State.

Practically the entire area south of Mt. Bartle Frere is devoted to cane growing. To the north are the Barron Falls which leap some seven or eight hundred feet from a high tableland into a rocky gorge. Here is a great power waiting to be harnessed to man's use. More or less midway between the Barron Falls and Mt. Bartle Frere are Queensland's most attractive lakes, namely Lakes Eacham and Barrine which are formed in the craters of extinct volcanoes.

Gathering together all her most lavish hues, nature has grouped them in careless abandon in the tropical north. Not only are they reproduced in brilliant flowers, but in the gorgeous wings of living creatures. The butterflies and moths of Queensland are worth travelling across a continent to see.

Kuranda in the Ranges north of Cairns boasts a collection of butterflies and moths in which the glory of color riots so lavishly as to make the senses almost swim. Here a man has spent a lifetime collecting. For over 30 years he has built up what must be one of the finest collections in the world. Conversation with Mr. Dodd is an inspiration, for he can relate to you in a fashion altogether inimitable the romance of his specimens, the majority of which have been obtained in the Kuranda area.

In his cases are butterflies and moths ablaze with bright and vivid colors, others soft, almost elusive, with tracings so delicate as to defy not only imitation, but description. Butterflies, six and eight inches from tip to tip of wing in reds and blues and greens, colors conceived and blended in a most bewildering fashion—the glory of the whole world of color is reflected in the creatures' wings. There are leaf butterflies, brown and black and beautiful, which, when they settle and fold their wings, resemble a leaf shaped and veined and even possessing a marking to represent a stem. The deception is perfect.

For every variety of butterfly nature creates about twenty varieties of moths. The moths rival the butterflies in their exotic beauty. They are just as colorful. The Great Hercules moth is nearly a foot across. There are moths with wings of old English lace, mother of pearl moths, moths with daubs of blue and green.

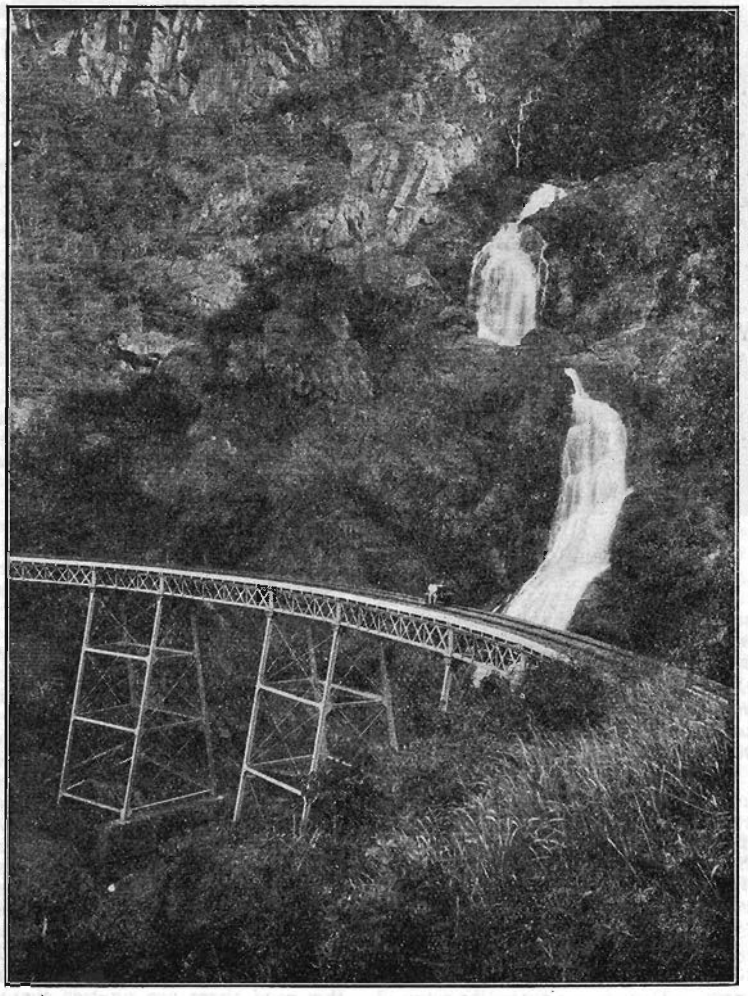
Queer Creatures

Nature also has her freakish moods. Here queer creatures have been created, stick insects, for instance, with long torpedo shaped bodies more than a foot in length without taking their legs into account; a grasshopper shaped like the body of an aeroplane and as large as a banana; huge beetles and spiders; beetles that look like crayfish and beetles that look like nothing on earth; weird and fanciful creatures that make you breathe a pious hope they will never be your bed-fellows. One insect with a black evil looking body some four inches long and only an inch wide had feelers eighteen inches across, and forceps like jaws which could nip a woman's finger to the bone. Mr. Dodd mentioned that there are sixteen thousand varieties of beetles already discovered in Australia. How little we realise what a world of beetles we live in!

Mr. Dodd is, in himself, a book, and his collection half a dozen books. His home is one of the most interesting places in North Queensland. If you get the chance call and see him. You will not only be amazed and enthralled at his collection and his conversation, but you will leave with an infinitely greater appreciation of the wonders of the world in which you live.

Railroad difficulties in Queensland are very pronounced. Long lines and little freight can only tell one story. A study of the railroad map is interesting. You will find that the north coast line and its three long feelers running west through the pastoral country cover an immense area remarkably well. Of the total area of Queensland, only 21 per cent. is situated more than 100 miles from a railway, and these three western lines run direct to a port on the coast The lines are well laid out for the pastoralist.

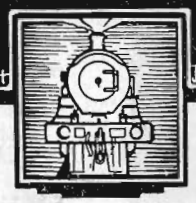
Although train journeys in Queensland are long, the travel is quite comfortable, and the refreshment rooms at



Stony Creek Falls, near Barron Gorge

(*Concluded on page 60*)

Things we are talking about



ANOTHER year has gone into the limbo of history, another year of achievements and disappointments, of plans realised and plans frustrated. But a bird's eye view of 1927 unquestionably discloses progress as far as the Victorian Railways are concerned—progress in service, progress in efficiency, progress in the welding of railwaymen into a willingly co-operative whole, which is the essential of progress. And we look to 1928 with confidence.

LOOKING BACK

AHEAD, there are serious problems. That of making ends meet is, possibly, the knottiest. Fraught, to begin with, with other than purely business considerations, it has bound up with it the road transport competition problem. Every ounce of brain, muscle and go-getting will be wanted in 1928, if the Railway is to hold up its head as a business concern. We haven't the slightest intention of being pessimistic about it. We merely stress the point that the next 12 months will demand good solid co-operative effort, and the Victorian Railways are not in the habit of shirking that.

PROBLEMS AHEAD

UNFORTUNATELY, the usual New Year problem of hauling Victoria's wheat to the seaboard for shipment to the world's flour mills is less difficult than usual, thanks—or otherwise—to a dry season. But it will still be necessary to keep the trucks on the move. The aim to make each vehicle average 35 miles a day with a load of 12 tons stands as it did last season, and it's just as necessary for rail users to combine to make full loads, and to send forward as much as they can of their firewood, road metal and other such traffic before wheat haulage begins in earnest.

HAULING THE WHEAT

WHICH reminds us that another kind of primary product will demand a considerable amount of haulage this season—fruit. Already, the newspapers are talking about a glut, and it looks as if the Railways will be called upon to handle large export crops as well as city supplies which, following Eat More Fruit campaigns, will also be large. Some people have been telling orchardists that the quantity of export fruit will be limited, because the Railways haven't sufficient trucks to cope fully with the crop, which, of course, is utter rubbish. We can haul all the fruit that's likely to be exported, and to cope with future expansion of the trade, more louvre trucks are being built at Newport.

—AND FRUIT

DISAPPOINTMENT has been expressed at the comparatively poor patronage accorded the new Flier which has brought the Western District an hour and a half nearer Melbourne. The train is still running on trial, and unless 40 more first class passengers are carried daily, there is danger of the Western District losing what it was considered important enough to have in the way of train service. It is a pity, but that's the position. The Department can't possibly afford to run the Flier at a loss.

DISAPPOINTING FLIER PATRONAGE

THE Flier is one of the finest trains now running in Australia, other than between capital cities. Its A2 locomotive and its cars are kept in the pink of condition, and it is a consistent time keeper. Its schedule took weeks of planning, and involved the juggling of 33 metropolitan trains to make them fit in, and more than 4,000 alterations to time table figures. When it was all computed it was found that the Flier, in point of departure each day, would be No. 13 on the Geelong line; so to avoid any chance of bad luck in its time-keeping or running, it was altered to No. 11.

ON TIME ALL THE TIME

INCIDENTALLY, the Flier, through a connecting train at Geelong, has brought Ballarat 67 minutes nearer the Metropolis. And Ballarat values that service. A couple of months back, Ballarat supplied Geelong with some millions of gallons of water when the latter was up against it, and the point now for Western District people to consider is whether, after such a neighborly act on Ballarat's part, they are going to let down that city over its train service.

A POINT TO CONSIDER

THIS connecting train which leaves Ballarat daily at 2.55 p.m. is according to a correspondent—Mr. Arthur Rogers, a retired signalman, who makes a hobby of collecting railway statistics—the fastest train over 100 miles in Victoria. "Time for this train," Mr. Rogers writes, "is three hours eight minutes, less 27 minutes, standing time at 12 stations. The train is handicapped, moreover, by having to climb 307 feet in the first five miles. Actual running time for the distance is two hours 41 minutes." As a comparison, Mr. Rogers has gone to the trouble of recording running times of other better known trains over varying distances. The figures make interesting reading. The Sydney Limited covers the 121 miles between Benalla and Melbourne in two hours 57 minutes, with one stop of five minutes. Running via Bacchus Marsh, the Overland does the 73 miles between Ballarat and Melbourne, with one stop, in two hours and 20 minutes. The 100 miles sprint of the Great Northern Limited to Bendigo occupies three hours, or two hours 50 minutes actual running time. The Warragul Express reaches Melbourne in one hour 52 minutes, with one stop en route. Arriving Geelong in three minutes over the hour, the Flier swoops

VICTORIA'S FASTEST TRAIN



Some of the members of the Railway and Postal team which has installed wireless in ten hospitals as a spare time job

onward and, halting for five minutes on the way, lands at Camperdown two hours and seven minutes after it left Melbourne—two hours two minutes actual running.

RADIO FOR THE HOSPITALS

WHILE on the subject of figures, there are a few worth quoting in connection with the work carried out by Signal and Telegraph branch railwaymen who collaborated with Postal department employes in fitting wireless equipment in Melbourne and metropolitan public hospitals. The *Herald's* public appeal for funds to provide wireless for all patients realised £2,500, and the railway and postal volunteers set up that value of equipment in 10 institutions, which comprised 2,750 beds. Fifteen hundred and twenty six headphones were connected, and 49 loud speakers supplied. This generous activity, which has eaten up the spare Saturday afternoons of many railwaymen since March last, has often occupied a team of 80 Signal and Telegraph volunteers at one time, and, in the case of the Women's Hospital, no fewer than one hundred. Rolling Stock men assisted at these peak periods.

RAILWAY GOVERNORS

SO appreciative have the hospital authorities been of this service that a dozen life governorships have been handed out to Signal and Telegraph men, affecting the After Care Home, the Women's Hospital, the Queen Victoria Hospital and Alfred Hospital. The railwaymen who have attained the dignity of excellency-ship are M. R. O'Brien, C. Foote, R. Trail, J. Clifford, A. N. Kerr, B. Lavell, J. Stark, K. Millar, T. Golding, N. H. McDonald, W. R. David and C. Green. Apart from the graceful recognition, the railwaymen have the satisfaction of knowing that they have helped to brighten the weary hours of many sufferers, and even to curtail those hours. For music and entertainment are great healers.

16th RESO TOUR

RESONIANS, a week or two ago, who did the North-Eastern district, had one of the most enjoyable and successful tours since Reso. began. In their efficiently organised stride they took in the Yarrawonga and Riverina districts of the Riverina, the wine industry of Rutherglen, the mountain country of Bright and Mt. Buffalo National Park, the wheat area of Wangaratta, Dookie Agricultural College, the valley of the Mitta, the Hume Reservoir and the Albury district. "I thought I knew the North-Eastern district" said one Resonian when he landed back at Spencer-street, "but I've come to the conclusion I didn't. What I have seen has been an eye-opener." That, of course, is why Reso. is steadily growing in popularity, and why accommodation is invariably over applied for.

RESO SANTA CLAUS

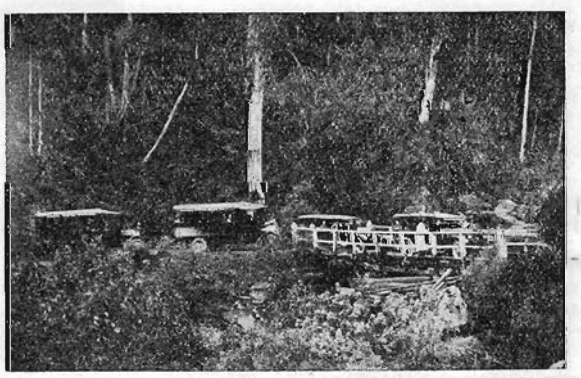
ONE of the features of the 16th tour was the visit of Resonians to the Bright Higher Elementary School to which they subscribed £17 on the spot. The money, at their suggestion, was since used to provide prizes for essays on "The British Empire," and "Co-operation," by the senior boys and girls, to give the boys and girls of the forms a day's outing at The Chalet, Mt. Buffalo National Park, to give members of the junior classes a suitably inscribed book each, and to give the pupils of the middle grades a picnic.

ANOTHER TICKET RECORD

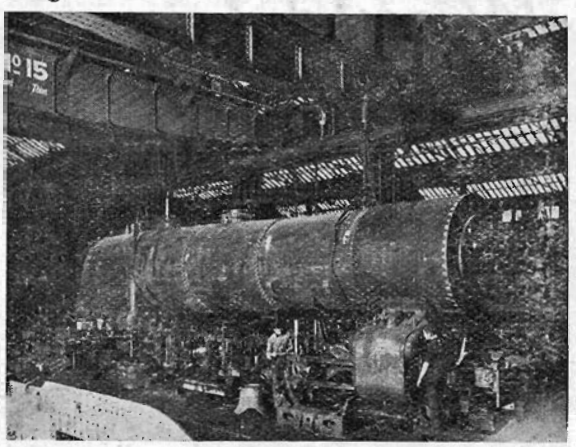
RAILWAYMEN'S eyes in Victoria, these days, seem to be getting keener, and their fingers more efficient every month. Latest news from the ticket collecting world is that, in one recent month, a new record was put up at the station barriers, when only 1·6 per cent. of tickets issued was non-collected. Altogether, 284,699 printed tickets, and 7,960 blank tickets were issued for the month throughout the State, and only 4,738 printed and 225 blanks were missed. Seymour district has the best figures with an infinitesimal ·8 per cent. of printed tickets, and 1·9 of blanks non-collected. Dandenong and Bendigo districts made sure of 99 per cent. of the printed variety, and Maryborough, Ballarat and Geelong secured 98·9 per cent. The Metropolitan area of course had as many tickets to handle as any three of the country districts put together, but of its 108,496 printed tickets, it lost only 2,873, and of its 2,235 blanks, a mere 78. Few railways can boast a record like that, but it's those few that the Victorian system is out definitely to beat.

THE NEW PACIFIC

VICTORIA'S new Pacific locomotive is rapidly taking shape. Another important stage was reached last month when the 25-ton boiler was lifted into the frame. A feature of the lifting was the new method of slinging. The usual practice at Newport is to suspend the firebox end of a boiler by a hook, but in this case steel wire rope slings were used. The Pacific's boiler is the biggest yet built in the Southern Hemisphere. All the essential mountings have been now fitted. The main frame castings and extension pieces were imported, but steel castings such as the frame stays and frame and boiler stays were made by private contractors in Victoria. Prior to the lifting of the boiler into the frame, all the auxiliary parts had been marked off, machined and attached to the frame. This, in all vital instances, was done with machine-tapered



Resonians of the 16th Tour on the way to Mt. Buffalo National Park



The boiler of the new Pacific locomotive after having been lifted into the frame

bolts, an innovation, as far as locomotive work at Newport is concerned, which necessitated the making of a special reamer.

THE next step is to get the wheels under the frame. The main 6 ft. driving wheels which weigh 5 tons have been completed. These are the heaviest ever used on a Victorian engine. The two webs of the centre crank alone weigh about 34 cwt. Quite an interesting operation, last month, was the bending of the leading axle, which the designing engineer found necessary to permit of clearance for the centre connecting rod. The bending was done in a 300-ton hydraulic press. This month, the Pacific will really begin to look like an engine, and a few more weeks will probably see it ready for the road.

5-TON DRIVING WHEELS

WITH raised glass, 1927 Gippsland toasted the memory of 1877 Gippsland one recent night in Warragul. The district's progress association had arranged a banquet to celebrate the jubilee anniversary of the first Gippsland railway. Parliamentarians, representative railwaymen, local identities and old pioneers of the district came along to talk about the difficulties of the past, the progress of the present, and the promise of the future. Station-master E. B. McTaggart, now 77, who was on duty at Warragul when the first train puffed its way from Melbourne to Sale, wrote saying that the original station building was a four-by-four sentry-box set in the midst of a typical Gippsland jungle. There were four houses in the neighborhood, including J. Biram's store and Tringa's saw-mill. Today a handsome brick station building looks across green, undulating and cleared pastoral country on one hand, and towards a flourishing town with fine shops and houses, and picturesque tree-lined streets on the other.

GIPPSLAND'S FIRST RAILWAY

IT was appropriate that the toast of the Gippsland pioneers at the banquet was left to Mr. G. H. Wise. Mr. Wise represented Gippsland for a score of years in the Federal Parliament, has been a resident of Sale for 52 years, and travelled many times between Melbourne and Sale before the coming of the railway. He was one of the committee which induced the Government to commence the line from both ends, this method completing it far sooner than would otherwise have been the case. He was also present at the festivity which attended the turning of the first sod in connection with the construction of the track. Mr. Wise told his listeners that he had travelled between Melbourne and Sale by water, coach and rail. The water route had been bad, but the coach route was worse. He had seen the terrible hardships of the pioneers, very few of whom lived to reap the reward of their ceaseless toil in the virgin bush. The development of the country depended on the railway, and to his mind there was much to be done before Gippsland's rail system was completed. Just as the first 1877 line had expanded to the 1927 system, so must the 1927 network of lines grow and keep on growing. Orbost should be linked with New South Wales.

THE PIONEERS

MILDURA'S Chamber of Commerce objects to the introduction of railway 'buses in the Mildura district. It voiced its objection in the form of a resolution passed at a recent meeting. It does not seem to mind competition by private 'bus against the public railway, but it can't bear the thought of level competition between private 'bus and railway 'bus. Most people know the railway attitude on this matter, and it is interesting to see the Mildura *Sunraysia Daily* taking up the cudgels for the Department in a leading article. "There was nothing constructive about the resolution of the Chamber of Commerce," the paper says: "..... In effect, it meant, if anything, that the Railways Commissioners should run the railways only, and continue to pile up losses for the people to pay, leaving private individuals to enter the transportation business on its most profitable side without any attempt on the part of the Commissioners to secure a share of it . . . . . The general complaint against Government undertakings is that they are not run on business lines, yet here is a body of business men opposing the businesslike proposals of the managers of a Government undertaking!"

ILLOGICAL OBJECTIONS

THE leader goes on to make some pertinent observations on the responsibilities of public transportation. "In February, March and April of the year," it points out, "when the harvest was on in the irrigation areas, private motor transport of all sorts was running for hire through the settlement. Private persons with no responsibility for maintaining a transportation system throughout the year, and with no intention of taking on any such responsibility, came in while business was brisk, and dropped out when the rush was over. The State department that is essentially responsible for carrying passengers and goods surely has more right to share in this harvest traffic than has the private individual who comes in when business is brisk and goes out when it slackens. It surely has as much right to go on the road after business as has the man who has done so with the idea of becoming a permanent competitor with the railways . . . . . There should be no attempt to tax the motor off the road; it has a definite function to fulfil. Nor should the people of the State ask their railway managers to stand idly by and watch the road motor push the railway system out of the profitable avenues of business . . . . . It is to be hoped that the Mildura Shire Council and the Mildura Town Council will give far more consideration to the matter than appears to have been given by the Chamber of Commerce when it passed its resolution of negation, and asked the municipal bodies for their support to it." Which is an admirably packed nutshell.

THE UNFAIRNESS OF IT

Where They Would Go

By RICHARD HUGHES

SUPPOSE some genie planted you down on Spencer-street station, thrust a couple of handfuls of assorted tickets to Victoria's holiday resorts under your nose and told you to take your pick where would you go?

The question was put by Mr. Hughes to several well-known men and women in literary, artistic, business and public life. Here he gives a resume of their replies.

UP at the eastern end of Collins-street—on the fringe of that select locality where a yellow blotchy rash of brass plates lightens rather than disfigures the sombre faces of the buildings, where trees spread fretted shadows over the wide pavements, and where reverent gripmen, with instinctive respect for the sacrossanct neighbourhood, clang subdued and muffled tram bells—I found Mr. John Longstaff.

I use the word advisedly. I found him. I scaled more than fifty steep, narrow, winding, linoleumed steps, hesitated before the entrance to an oculist's, peered confusedly through another door which led to a popular cafe, passed a solitary wash hand basin set forlornly in the wall, and, halted in front of a locked wooden door. Never before have I seen a door so obviously wooden or so aggressively locked. Under the slit of its letter-box was pinned a small card, neatly inscribed "John Longstaff."

I knocked. Timidly.

Footsteps sounded inside. A shadow fell across the letterbox. Eyes peered through at me. I felt like a bailiff. Then the lock clicked, the door opened and Australia's great colorist and portrait painter smiled kindly on me. His greyed hair was ruffled. His studio coat had evidently seen many canvases. He held a half-smoked cigar in one hand and an eyeglass in the other. Behind him exhausted easels swooned against the wall.

"Mr. Longstaff," I began abruptly. "I am interested in the holiday impulse as it affects certain wellknown people. Or may I call it the vacation complex?"

With a courteous inclination of his head, John Longstaff implied that I might. He looked a little puzzled.



Mr. John Longstaff

I hurried forward in a flurry of explanation.

"Briefly, Mr. Longstaff, I am anxious to discover where Melbourne notabilities spend their holidays, or where they would like to spend their holidays. Let me put a direct question to you. This now is the holiday season. Suppose you were on Spencer-street railway station and an eccentric railway official flung himself into your midst, thrust two handfuls of assorted railway tickets under your nose, and invited you to take your pick and go wherever your holiday fancies dictated. How would your vacation complex manifest itself? In what direction would your holiday impulse propel you? Where in short, would you go?"

"Ah, I see." John Longstaff's face cleared. He smiled. "Well, now, I doubt really whether my opinion is of any great value. My holidays are few and far between. Theoretically there is nothing to prevent my going away for a holiday at whatever time of the year the fancy seizes me. Perhaps that is the reason I go so seldom. Somehow I never seem to have the time. I am always promising myself a good long holiday. I will have one some time. And I will of course see Victoria first. Usually I travel to the north-eastern part of the State for any brief spell I have. Shepparton sees me most. Because I was born there, I suppose. Although on the district's own merits there are attractions enough. Some of the views on the river outside Shepparton, for instance, are very fine. Very fine indeed. Consequently I am able," he flicked the ash from his cigar, "to have a busman's holiday."

SO I gave John Longstaff a ticket to north-eastern Victoria (at least, I let him know where he could buy one), and I went along to the Herald office to see what C. J. Dennis had to say on the subject.

The Sentimental Bloke is a little man with a sensitive mouth, large horn-rimmed spectacles, the kind of hair that is called negligent, and the cleanest shaven chin in Melbourne. He stroked the last meditatively as he considered my question.

"Well, I'd want the scene shifted from Spencer-street to Flinders-street," he said. "Healesville would be my choice. I've got a place at Toolangi, you know. The Melbourne-Healesville run is about the only regular rail travel I have these days. I've travelled a lot between Melbourne and the border, too—both Adelaide and Sydney way. I like the trip to the South Australian border the better.

"And I like Victorian railways travel the best. I've been on the trains in every Australian State, so I can speak from personal experience. For comfort and courtesy and reliability—consistent comfort, courtesy and reliability—give me the Victorian Railways every time."

I gave them to him. He thanked me warmly . . . . . .

I COULD detect nothing of the Bohemian about Will Dyson when I ran the black-and-white man to earth in his quiet Toorak home. His hair was carefully brushed, and he wasn't even wearing a bow tie or a black coat. Certainly he had left off his waistcoat, but it was a hot day. He puffed twice at his cigarette before answering, contemplating the carpet as earnestly as though he intended introducing the pattern into his next cartoon.

"I would take a ticket to Lakes Entrance," he said at last. "I passed



Mr. C. J. Dennis
—Stuart Tompkins photo

through the district a little while ago and decided that, for an artist, there could hardly be more ideal holiday surroundings. You have the blue sea and the white sand on one hand, and then further back you have the green of the trees and the shade of the bush. I don't like the sea better than the bush. Or the bush better than the sea. But, in any case, you've got both at Lakes Entrance.

"I am prepared," he was quite open about it, "I am prepared to accept that ticket to Lakes Entrance straightaway, if you'll tell me where to get in touch with the railwayman who is giving them away."

MIRACULOUSLY, Sir James Barrett was at home when I called at his Collins-street consulting room. I waited in a small room furnished with three or four hard chairs, a rug-covered settee, a few engravings of the coliseum and other Roman scenes, and a table stacked neatly with some copies of



Mr. Will Dyson

last year's Musical News. Sir James strode in heavily, a commanding figure in a grey suit, Winton Churchhill collar and black tie. I broached the reason for my visit diffidently. Sir James grasped my meaning before I had finished speaking. He rode roughshod over my concluding words.

"To the Ocean! And as Far Away from Melbourne as Possible!" Sir James talks in capital letters and notes of exclamation. "Mallacoota would be One Place. But I don't Specify any Particular Spot. It Must be the Ocean! The Ocean! I would go to Waratah Bay. If there Was a Railway There."

BUT while the ocean suits Sir James Barrett, Mr. Lee Neil, Myer's managing director, entertains different ideas. He discoursed quietly upon them in the calm of his efficiently appointed office, perched far above the uproar of the bargain tables.



Sir James Barrett
—Lafayette photo

"I would go to the hills," he told me. "To my mind, the foothills of the Dandenongs—Sherbrooke, Olinda, Sassafras—are more picturesque and more restful than the Blue Mountains. They are close to Melbourne. Easily accessible. There is a grandeur about the scenery, a serenity and repose about the tall cool trees and the misted ranges which I find a never-failing restorative for jaded city nerves. I am not unappreciative of the seaside. Far from it. But where it would take a fortnight for me to recuperate at the seaside—say, Mt. Martha — Sassafras would prove as thorough a healing agent in half the time."

I WAS moved to compare this definite and clearly expressed vacation complex of Melbourne's most notable business man with that of one of the capital's most public spirited women. Mrs. Glencross was disengaged for three minutes—or was it two-and-a-half?—between committee meetings at the rooms of the Housewives' Association when I arrived. She had been embroiled in sudden and unexpected flour and sugar price wars too often to display any surprise when a stranger rushed in and asked her where she would like to go for her next holiday.

"Ten years I've been in Melbourne,' she confided, "and I haven't had one holiday yet. I like the seaside best. Lorne's lovely. I've been there once but never stopped any length of time. Most likely I'd go there if I had the opportunity. But then I want to go to Emerald too. When the flowers are out. So that makes two places. Which, I wonder? Perhaps I may manage both one of these days."

A current of femininity was streaming in through the door, coalescing into expectant groups. Despite Mrs. Glencross's unforced smile, I realised that I was delaying a committee meeting. I ceased being a delay.



Mr. E. Lee Neil

INSTEAD I hurried along and interrupted Mr. Geo. E. Emery, General Manager of the State Savings Bank, as he wrestled with millions at the big desk in his panelled office. I reminded him, before he made a statement in reply to my customary question, that the alliance between the State Savings Bank and the Railways Department in the "Save



Mr. George E. Emery

For Your Holidays" scheme would lend added weight to his words. I warned him that whatever he said would be taken down and used against him.

Mr. Emery treated my warning lightly. He eyed my notebook with undisturbed tranquillity.

"As it happens," he observed, propping his chin on his hand, "I have already seen Victoria first. I have travelled considerably. And I saw a good deal of the countryside during my term as inspector. I have as a matter of fact, seen Victoria so thoroughly, that my next holiday will be across Bass Strait to Tasmania.

"But that doesn't help you, does it?" Mr. Emery frowned pensively. "If I remember rightly, your imaginary railwayman would offer me a handful of railway tickets from which to choose. So Tasmania is ruled out of the discussion. I have to select a Victorian holiday resort. Let me see now."

I maintained a profound and helpful silence.

"Yes, that's the place." The bank

manager became decisive. "I would go to Mt. Buffalo National Park. I haven't seen Buffalo since you railway people took over the Chalet and made all the improvements I've heard so much about. When I went to Buffalo there was only a rough track to the plateau. No well made road with luxurious motor cars purring along to a palatial guest house. We went up with pack-horses. Our guide insisted kindly that we ride while he walked. But we realised also that the cold made walking much the better proposition. So we climbed the stiff track, pitched our camp in the open, told yarns round a roaring fire and slept under the blazing stars."

Mr. Emery was staring across his paper littered desk. He was staring at the panelled wall opposite. And not seeing it.

"And in the morning we climbed the Horn and watched the sunrise. The black shadow of the huge rock flung itself miles to the western horizon. And as the sun rose the shadow grew less and less and fell back gradually to the base of the Horn.. Wonderful, wonderful . . . . . "

"In all seriousness," Mr. Emery addressed me gravely, "you'd better see that that railwayman of yours doesn't meet me with his free tickets. I'll be ending up by going to Buffalo again and leaving Tasmania for next year."

MUCH the same sentiments were voiced by James Liddy, or His Royal Highness Prince Karl of the Student Prince Company at His Majesty's. I saw Mr. Liddy in a singularly uninviting little room, just inside the theatre stage door. We sat side by side on a hard dusty bench at



Mr. James Liddy

the head of a flight of wooden steps leading down to mysterious subterranean depths. An austere notice on the whitewashed wall warned me that J. C. Williamson's would not be responsible for any discrepancy in my wages unless I checked the amount before leaving the office.

Prince Karl was swathed in an enormous overcoat, and his slouch hat was pulled well down over his eyes. He was too healthy looking for a German prince. He wasn't guttural either. Or discourteous with his verbs.

"Buffalo National Park," he said firmly. "That would be my choice. I saw the Jenolan Caves in New South Wales. If we had a place like that on the other side, the whole world would know about it. I never heard of the Caves until our company played in Sydney. But we've all heard of Buffalo



Miss Irene Vanbrugh

Park in California. I've seen pictures too. I'm expecting much more than I saw at the Jenolan Caves. Which is saying a whole lot. When I have the time you won't find me waiting for free passes to get to Buffalo.

"And I must see your Heidelberg." James Liddy showed white teeth amiably. "To come out here to play lead in the stage version of Old Heidelberg and not see the Victorian edition of the town would be folly, wouldn't it? I certainly—" Leaping like a rubber slippered buck, a small boy shot up the wooden steps behind us. "Quarter to eight, please," he called in a tone of gentle remonstrance. "Quarter to eight, *please*."

Even the mightiest must obey the call-boy. Impressively His Royal Highness rose. For the first time in my life I shook hands with royalty.

NEXT morning, in the cobbled lane beside the King's Theatre, I met Miss Irene Vanbrugh hurrying to a rehearsal. I had my question word and tone perfect now. Irene Vanbrugh peeled off her gloves as she reflected.

"When we can," she said, "Mr. Boucicault and I naturally prefer to spend our holidays at home. We're travelling so much. But if I could, I think I would go to the Dandenongs. What a glorious playground you Melbourne people have there! Personally I like the bush and the countryside here in Victoria better than the seaside. There is a vastness and a stillness about the inland scenery which is lacking in other countries.

"And Buffalo! I would love to go there too. I would put Buffalo before the Dandenongs of course. But while you can snatch a day or a week-end in the Dandenongs, you want a week or a fortnight to appreciate Buffalo, don't you? And imagine me with a fortnight to spare just now. It is unkind of you to make me discontented by talking about holidays."

And Miss Vanbrugh smiled and stepped inside the sombre frame of the King's stage-door.

IT struck me that I ought to terminate my quest with a comedian's opinion. I searched high and low for Arthur Stigant. Arthur Stigant eluded me enthusiastically. I looked for him at the theatre and I looked for him at his home. I haunted the stage entrance to His Majesty's until the apprehensive doorkeeper had a word with the police.

Arthur Stigant was the active nigger and I was the fractious mule: I never kicked him but I frequently kicked the place where he just previously was . . . .

And then, with hope ebbing and despair flowing and the Editor snapping his fingers for copy, I got him on the 'phone.

"I want to know, Mr. Stigant," I said, beaming, "where you go for your holidays?"

"I beg your pardon?" said Arthur Stigant courteously.

"I want to know," I repeated, raising my voice, "where — "

Strange feminine accents, breaking in mysteriously from the ether, cooed an intimate "Hello." I said "Hello" too. Stigant came in with a third. The strange voice began all over again. Stigant assured me he was still there.

"I was wondering," I bellowed, "where you—I say, I was wondering where you usually spend your holidays, Mr. Stigant." "Holidays?" The comedian seemed surprised. "Why, I never have holidays. I haven't had a holiday for thirty years or—"

"I think you must be on the wrong number," said the unknown inter-



Mr. Arthur Stigant
—Broothorn photo

rupter brightly.

"Eh?" said Arthur Stigant.

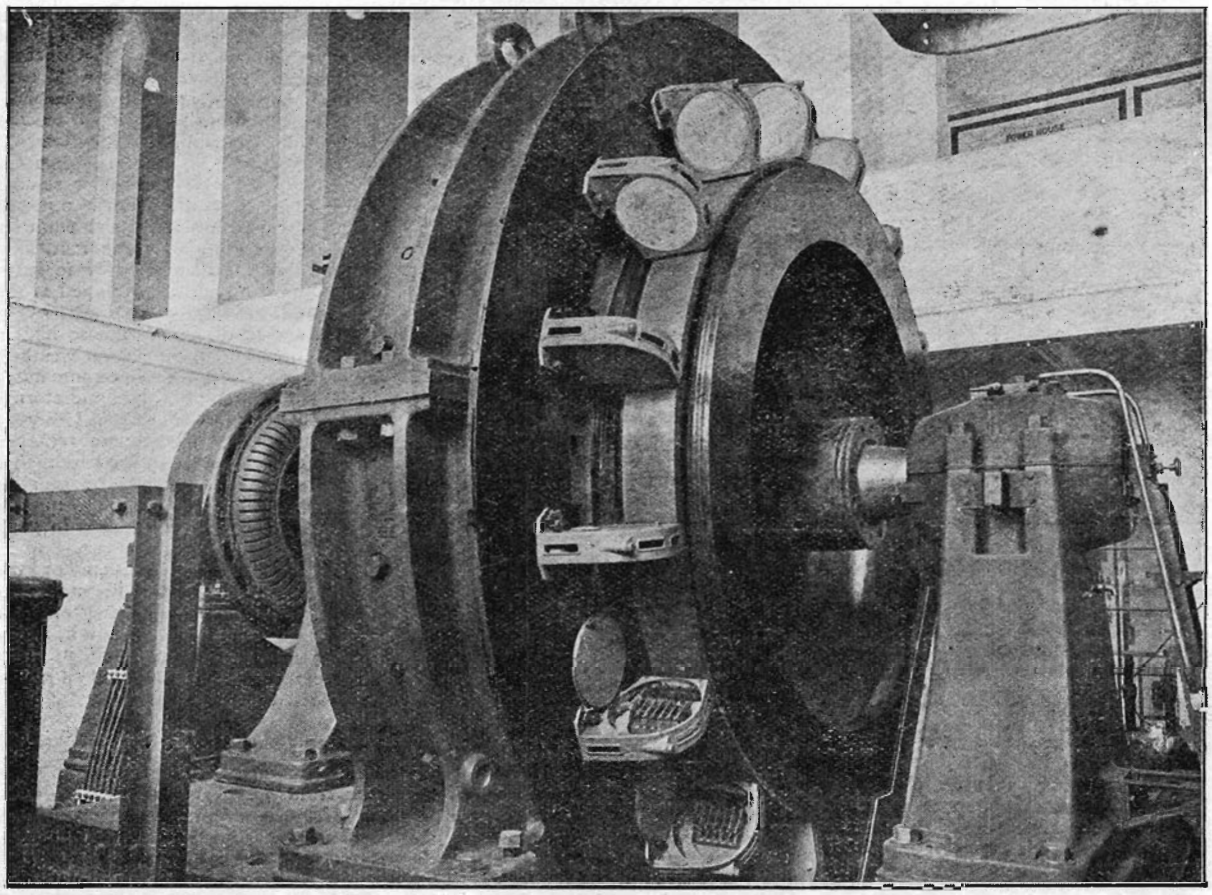
"Hello!" I screamed. "Hel-*lo*! There's someone breaking in."

"What's broken?" queried Stigant.

"I can't hear you very well. I'm afraid—"

"Oh, I can hear you quite plainly,"

(*Concluded on page 58*)



B.T.H. 4,500 k.w. rotary converter at Jolimont sub-station. This is one of the largest converters ever built

ELECTRIC POWER

Its Control and Distribution

By W. STEIGER

THE successful operation of the Victorian Railways Electrified System depends not only upon each of the several branches concerned playing their own particular part, but also upon the close co-operation between them. The Distribution Section which is responsible for the direct control and distribution of the power supply can exercise, with the proper co-operation of other branches, a very important co-ordinating influence on the system.

The Distribution Engineer and his staff are responsible for the control, transformation or conversion, and distribution of electric power for traction and industrial purposes in the Victorian Railways, as well as the necessary interchange of power between the railway system and that of the State Electricity Commissioners.

ELECTRICITY, that mighty yet intangible giant whose strength propels hundreds of trains daily along their tracks, whose unfailing eye warns through signal arms and lamps of obstruction — how does he work, how does he unerringly distribute his energy where and when it is most wanted, how is his complicated system kept at the concert pitch of efficiency?

Let Mr. Steiger, Victorian Railways Electrical Branch Distribution Engineer, explain.

They are also responsible for the operation and maintenance of all plant in the sub-stations, both for traction and bulk supply, on the railway system, and the electrical plant of both the Newport "A" Power House and the Newport "B" station of the State Electricity Commission.

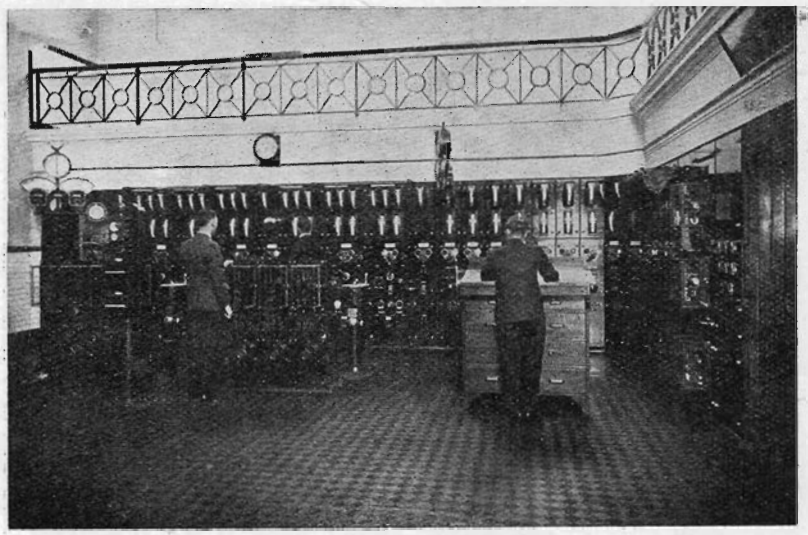
The capacities of the Power House and various Sub-stations are approximately as follows :—

MANUAL

Newport Power House "A," 80,000 k.w.; Newport Power House "B," 15,000; Jolimont Substation, 24,000; Caulfield Substation, 9,000; Newmarket Substation, 9,000; North Fitzroy Substation, 10,000; Middle Brighton Substation, 9,000; Newport Substation, 7,500; East Camberwell Substation, 9,000; Albion Substation, 2,250; Glenroy Substation, 1,500; Elwood Substation, 1,575; Sandringham Substation, 1,050; Mentone Substation, 4,500; Seaford Substation, 3,000; Spencer-street Substation, 1,050.

INDUSTRIAL SUBSTATIONS AND SUPPLIES

Jolimont Workshops, 2,000 k.w.; Newport Workshops, 4,000; Signal Shops, 300; Spots



The Control Room at Newport

wood, 600; M.M. Board of Works, 2,000; Angliss and Footscray Trams, 2,500; North Melbourne, 600; Arden-street, 600; Montague, 266; Darlings, 300; Concrete Co. and H. V. McKay, Albion, —.

AUTOMATIC—ROTARY

Mitcham, 3,000; Reservoir, 3,000; Spring Vale, 3,000; Rosanna, 1,500; Greensborough, 1,500.

Each morning, at nine o'clock, a typed "trouble" report is made available, so that the Distribution Engineer and his supervising staff can size up the position and issue the necessary instructions.

By far the most important function performed by this section (apart from the actual supply of power) as regards train running, is co-ordination in case of abnormalities or trouble.

Throughout the 24 hours, a control engineer is located at the Newport Power House control room. Owing to special telephone facilities—and his knowledge of the electrified system, he is, beyond all doubt, in an excellent position to receive all information regarding abnormalities or troubles, sum up the position, and inform those concerned. Indeed, very frequently the instruments in front of him warn him that something is doing.

An Example of Trouble

The Control Engineer alone gives all orders for the switching of power. Let us illustrate by taking an extract from his log at random :—

1.5 p.m.—Newport "A" receives "kick" on generators.

1.7 p.m.—Jolimont Sub-station advises heavy kick.

1.8 p.m.—Middle Brighton Sub-station reports Rotary 1 flashed over at 1.5 p.m. Rotary 2 on bus at 1.7. Advised Overhead Depot and S.M., Flinders-street.

The entries, 1.5 p.m. to 1.8 p.m., indicate trouble on the Brighton line, that the overhead depot was warned to watch for an overhead trouble, and the S.M. for a faulty train.

At 2.18 p.m. the log, continued Inspector Stark, Overhead Depot "advises re entry at 1.5 p.m., a loose dropper found hanging from Overhead between Balaclava and Windsor on the Up road and wind had blown same to earthed side of tension gear."

Verily the Control Engineer is like unto an octopus (except, let us say, in appearance) with his feelers outstretched in all directions ready to receive impulses of trouble on the electrified system, be it in the form of approaching storms, overhead defects, broken rails, burst pipes, power failures, signal failures, or what not. All roads lead to Rome, and all telephone wires to the control room when there is trouble.

The District Engineer's Job

The whole electrified system is divided into three districts, each in charge of a District Engineer. These officers, all of whom have held the Control Engineer's position, are responsible for the maintenance and operation of the sub-stations within their districts, and work in close touch with the control engineer as regards operation.

As each sub-station contains a variety of complex and costly machinery, these officers find their time very fully occupied, what with inspections, maintenance, repairs, alterations dealing with operating staff and attending to the automatics, which at times are refractory children and live a long way out. In a nutshell, whilst the control engineers look after the system switching, the district engineers look after the system.

Each day the district engineers ascertain what is on the trouble report concerning their territory, and make arrangements accordingly. Concerning major matters they will have already been informed by telephone, and these matters would be discussed with the Distribution Engineer, if necessary.

The old saying, "troubles seldom come singly," is often borne out. It is not unusual that a district engineer may be attending to some matter at one end of his district, only to learn that some trouble has developed at the other end.

While such things are not so bad in the daytime and during good weather, an emergency call put to a remote automatic sub-station on a dark and stormy night has its drawbacks.

The district engineers are required to cultivate the gift of observation to a high degree, as it is only by practice and keeness that one is able to note at a glance whether everything is in good order.

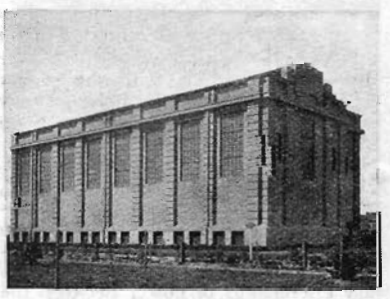
The maintenance foreman or the "sergeant-major" and his staff perform all the maintenance on the system—overhauling, grinding, rendering first aid (to plant) and, in times of stress, some very fine hurry up jobs are carried out.

Where the Spirit must be Willing

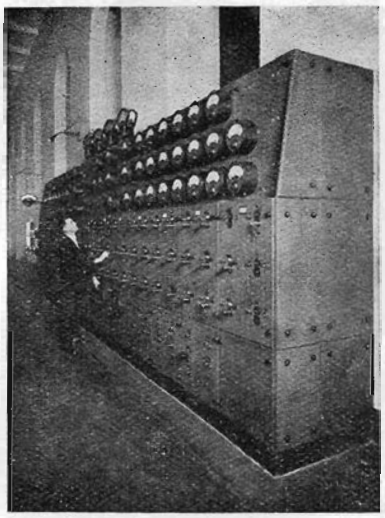
The maintenance foreman, too, reads the trouble report and prepares himself for the telephone calls which he will receive from the district engineers, requesting special work to be carried out in the various places; and, of course, one of his main assets is the possession of an obliging nature and a willing spirit, for naturally there is a tendency for everyone to require his troubles to be attended to first.

All plant is overhauled to graphic schedules, and as nearly as possible to definite dates; but, as might be expected a large proportion of the work is special and must be done at once, owing to some defect arising. In spite of this, however, the schedule overhauls must be kept up with.

It is the practice to specialise certain men in certain classes of maintenance, but, in order that all may be able to attend to any class of work, changes are made from time to time.



Caulfield Substation



New Control Board at Jolimont Sub-station

In all the manual sub-stations and the Power House, shift electricians and assistants carry out all the operating and running attention, and a certain amount of maintenance to plant. They keep in close touch with the Control Engineer as regards all major operations. The buildings themselves are kept in good order by cleaners. The appearance of the plant and buildings will show that these men are keen on their jobs. When trouble is about, the shift electricians find the job somewhat exciting; on one occasion, a new man after experiencing his first flashover, disappeared!

What a Flashover Is

What is a flashover, anyway? Well, something like this. A rotary converter will carry its load full and a good deal more, uncomplainingly, but if its condition be too rudely disturbed, as in the case of a heavy short circuit, the machine simply bucks, gets instantaneously hot and bothered, gives vent to a flaming roar for a second or so, which is most startling and spectacular, and may in certain cases cause considerable damage to the machine. Indeed, one is tempted, after seeing one's first flashover, to peer over the gallery and see if any machine is left.

It is hoped to reduce the effect of external troubles considerably by the installation of high speed circuit breakers, of which we have already a number installed. These breakers operate in something like one-hundredth of a second.

While the larger machines in the manual sub-stations are more imposing, there is no doubt that the certain amount of mystery which surrounds the automatic sub-station renders it the more interesting. Besides, it is very much more complicated.

Let's peep into a rotary automatic. All is quiet, except for a hum in some of the watchful relays. We look at the voltmeter and see the needle pointing steadily to 1500 volts. Suddenly the needle quivers. Lower and lower it falls into a relay, which with its "electric eye" has been watching, says: "ha! a train is coming along; let's get busy and boost up the power." This relay then passes the word along to the various apparatus and lo! a click in one corner, a clack somewhere else, a booming noise, and the rotary has started up. One or two squeals from the disturbed machine, a few more clacks, a bang, and the machine is on the bus. The pressure jumps up to 1500 volts and the train gets good measure "juice." The first relay takes no further interest in the proceedings. After a while another relay says: "Why, there's no more load; I'm going to shut this show down." And it does so. Another series of clacks, the noise dies down and once more all is peaceful.

Even More Weird

The rectifier automatic sub-stations are even more weird and swifter in action. No moving parts, no sound except a dull hum from the transformer, but once given the impulse there are a few weird noises, and, in about 11 seconds, power is on. Then one sees red lights glow and the needles of the instruments indicating the load. The rectifier—"steel tubs full of vacuum"—are doing all the work unseen in their "innards."

Rectifiers may be described as immense wireless valves which rectify alternating current and give it out as direct current. The principle, briefly, is that an arc is maintained between an iron anode and a mercury cathode in an extremely high vacuum, filled with mercury vapor. Although rectifiers for small outputs have been in use for many years, in the shape of sealed glass bulbs, it is only recently that large outputs have been possible, and this owing to the use of special steel containers, the perfecting of special sealing arrangements, and the development of high vacuum pumps.

Enormous Suction Power

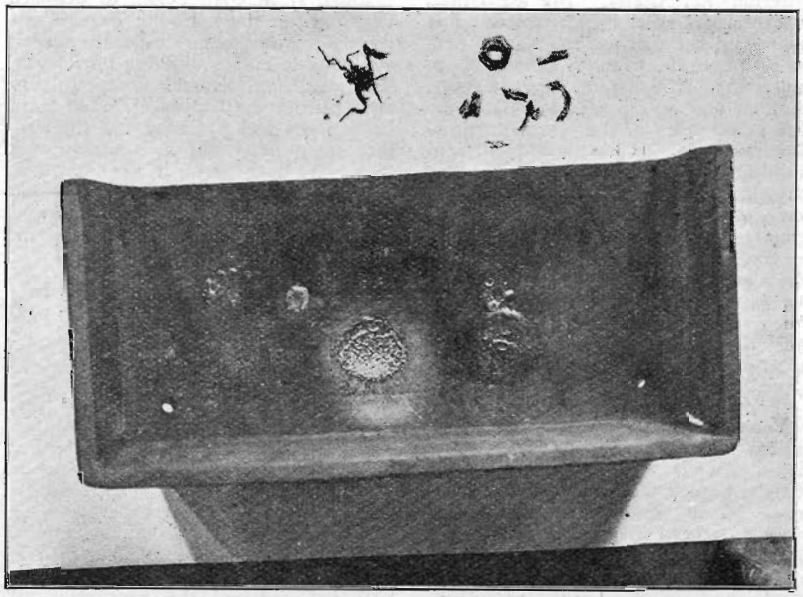
To give a popular conception of the degree of vacuum obtained, it might be stated that, although one of our rectifier cylinders has a capacity of approximately 618,000 cubic centimeters, only one-sixth of a cubic centimeter of air would be left when it is under vacuum.

In connection with the operation and maintenance of the electric system, it is essential that comprehensive but not unwieldy records be kept. Graphical records are maintained of all the operating troubles and maintenance work performed, an analysis of which, from time to time, gives a ready idea of the position of affairs.

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"A woman's work is never done," she said as dinner came on the table half an hour later.

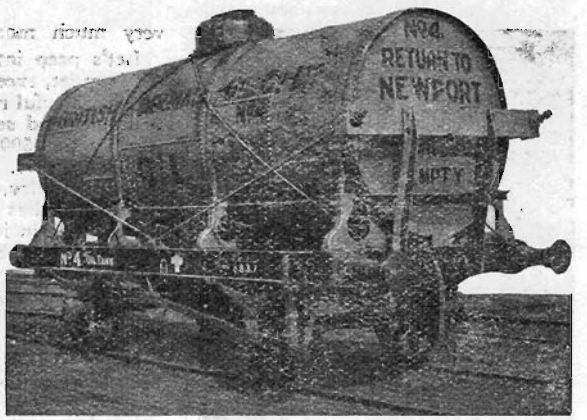
"So I observe," he answered gloomily as he pushed away the potatoes.



A Terminal Board Cover at Spring Vale Sub-station showing the results of a Short Circuit caused by a Spider

Where Competitors Co-operate

By J. D. MICHIE



A Victorian Railways oil truck

"A spirit lay imprisoned through the ages,
Deep in the caverned storehouse of the earth ;
Set free by man, it breathed upon his labors.
And, lo ! new dreams of Speed and Power had birth."

FUNDAMENTALLY the big oil interests are the real competitor of the world's rail transport organisations. It is they who provide driving power for the road motor services and private vehicles that eat into rail revenue. Yet the oil industry has found it necessary to seek the co-operation of the railway in the wide distribution of its products—a co-operation that spells revenue for both.

HOWEVER effective oil may be when poured on troubled waters, the old saying now has a new and different significance in economic and diplomatic affairs. The process when the troubled waters are not metaphoric, but literal, may easily produce stupendous conflagration. From the days when our imagination was first seized by oil through Maggie Moore, in "Struck Oil," it is a far cry to Admiral Sir Edmond Slade's recently expressed opinion that there is hardly a country, today, where there is not an oil question latent or active.

From the Admiral's article in the "Journal of the British Institute of International Affairs," we learn that, whereas fifty years ago petroleum was a drug in the market, the sale of petroleum products today amounts to more than 100,000,000 tons a year. Sudden and spectacular has been the rise in 60 years of the petroleum product business. It has developed from nothing into an industry which now both lubricates and turns the wheels of our motor cars, motor trucks, motor cycles, farm tractors, warships, passenger liners, submarines, motor launches, and aeroplanes. The time, perhaps, is within measurable distance when the internal combustion engine will displace the steam locomotive upon our railways.

The Evolution of Rock Oil

Yet rock oil, as petroleum once was called, is no new discovery. The flaming wells and springs of Baku, Russia, have borne witness to its existence since time immemorial. In various parts of the earth it has issued from the ground, or been found in wells or as scum over the surface of ponds and lakes. Crude petroleum belongs to the group of substances known as bitumens, the members of which may be gaseous, liquid, or solid (natural gas, petroleum, asphalt, and mineral wax or ozokerite), but are all of similar nature chemically.

In the '40's, kerosene, or coal-oil distilled from coal, began to displace whale-oil on the market. Experimenters soon found that a similar illuminant could be found by refining petroleum. The resulting demand for petroleum soon outran the supply obtained from brine wells and by skimming the surface of ponds, and a company was formed to bore for oil in Pennsylvania, U.S.A. In 1859, a well driven for this company struck oil. There followed the first and greatest of the many oil booms.

Where the Geologist Comes In

Whatever its origin, petroleum now exists in sedimentary rocks of practically all geological formations except the earliest and the latest. Not everywhere or in all formations, however, does it occur in commercial quantities. Obviously, the oil springs and other superficial indications which once served as clues to underlying oil are no longer sufficient. The oil prospector has therefore learned to listen with great respect to the advice of the geologist. The advice of these scientists has reduced the proportion of dry wells driven to about a third of what it was under the old practice of random drilling.

The most productive field in the United States has been the Appalachian, which extends along the western slopes of the Appalachian Mountains, through Pennsylvania into West Virginia, Kentucky, and Tennessee. In the United States, the chief oil producing country in the world, the sale of petroleum products is very large, but exports largely exceed the home consumption.

One of the most interesting features of the petroleum industry is found in the devices for transportation. The oil was at first carted in barrels over rough roads to the point of consumption. The plan was to sell oil retail, through local merchants. In this form it had to be carried, not only to the local retailer, but also across the seas.

A day came, however, when a revolution in handling methods was wrought. The late Lord Bearsted, Chairman of the Shell Company in England, evolved the idea of transporting oil in bulk by oil tankers, or steamers burning oil fuel in their boiler furnaces, some of which today have a carrying capacity of 18,000 or more tons of refined oil. The resultant conveniences, as regards the discharge of the cargo, are such that, from the vessel at her moorings to the wharf, it is merely a matter of connecting the conduit pipes to the hold of the ship, and either by the use of pumps or by gravitational lead, the oil is conveyed a considerable distance into huge iron storage tanks, conveniently grouped.

Efficiency in Handling

In these particulars, as far as Victoria is concerned, the organisation of the British Imperial Oil Company, as well as that of the Vacuum Oil Company at Spotswood and Yarraville leave nothing to be desired. Up-to-datedness in economy and efficiency in handling marks every phase of the operations in receiving the oils (motor

spirit and lubricants) into and out of the vast stores.

Some of the tanks have a storage capacity of one and one quarter million gallons. The operations generally at the B.I.O. are carried out by a staff of 400 workmen. The managing engineer and superintendent of the B.I.O. (Mr. Thorburn) will tell you that the establishment of the Company's Storage Depot at Spotswood was designed, not only to accommodate the ever increasing bulk of the cargoes arriving from overseas, but, as a distributing centre as well.

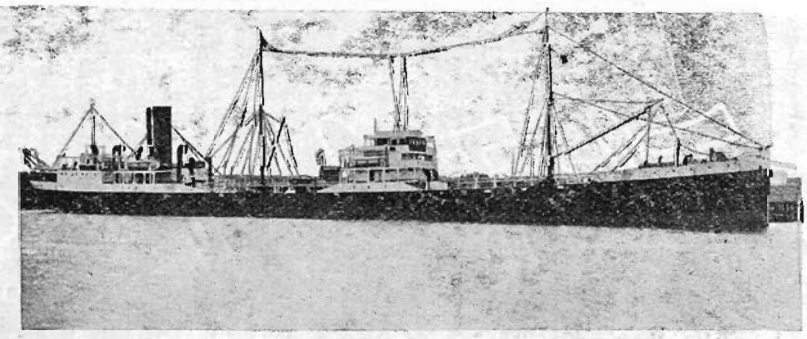
It was very evident, he said, that this economical method of bulk transportation had resulted in benefits only to overseas carrying. The next step of course was to convey the oil in bulk to inland towns.

This has been very widely accomplished by the introduction of railway oil tankers, the property of the Company. The Railways Commissioners supplied the chassis, or rather made the running gear and under-frame, while the Company furnished the cylinder-shaped iron tanks, the railway authorities passing the whole as fit for rail service.

Truck can carry 6,000 Gallons

These have a capacity ranging from 3000 to 8000 gallons, and by this means oil is railed to every district near and far to which there is railway communication. Similar organisation and equipment exists in every State in Australia, and, but for the railways, the operations of course would be greatly circumscribed.

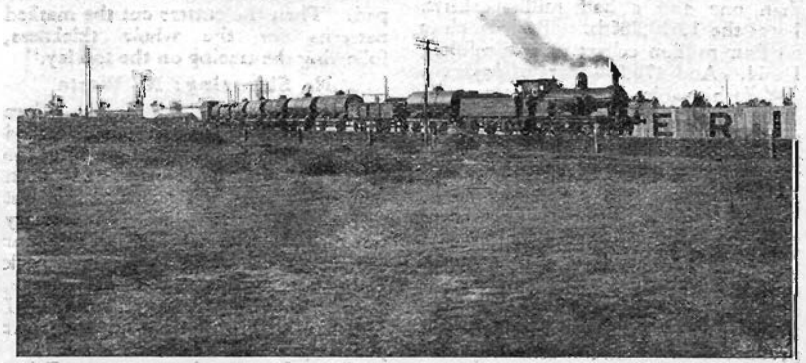
Here in Victoria it would be difficult to estimate the value of the service the railways render. No doubt it can be said that the oil companies in turn help the railways. Be this as it may, however, they get along very well co-operatively. Twice a day, as far as the B.I.O. is concerned, along comes the pilot engine, manned by the officials from the Newport Goods Yard, hauling its train of empty tankers into the works, after which the outwards loading is cleared, amounting to 27 vehicles per day. The yearly revenue to the railways, for handling oil is thus a fairly substantial figure.



A typical oil tanker

Bulk handling of motor fuel means economy in all directions. Every time a bulk rail tanker leaves the works on its up-country journey it means a saving of 625 cases and 1250 tins, and the economies thus effected are reflected in lower costs to the consumer. Today, the consumption of petrol throughout the Commonwealth is well over one hundred and twenty million gallons yearly.

Petrol, known as '680 spirit from its specific gravity, '680, motor spirit, motorine, and carburine, is a product by distillation, of petroleum, and is largely used in the internal combustion engines of automobile vehicles, and as fuel in the furnaces of steam boilers. It is also made with the specific gravity of '700, especially for motor cars. When petrol was first put on the market, lamp-oil was regarded as the chief and most valuable product. The naphthas were recognised as dangerous impurities and troublesome waste products. But when the motor industry came into existence it quickly used up all the petrol in sight, and called for more. Producers and inventors have been busy ever since trying to satisfy this insatiable appetite.



An oil train leaving Newport

LORNE

(For the Railway Magazine)

Lorne, beautiful Lorne; Nature with generous hand,
Surely has showered her treasures into this lovely land.
Sea and river and woodland, gullies and waterfalls,
Ferns in their lavish beauty, and the wattle's golden balls.

Lorne, beautiful Lorne, where the sky and the ocean meet,
Leaving a trail of glory at the Creator's feet,
Shining, foaming, tossing, as far as eye can see,
Then melting beyond our vision into infinity.

Lorne, beautiful Lorne, with the breakers rolling in,
Dashing their strength upon the rocks with a turbulent froth and din,
Into the caves and crevices, tossing aloft the spray,
Leaping, dancing, laughing, like a mischievous child at play.

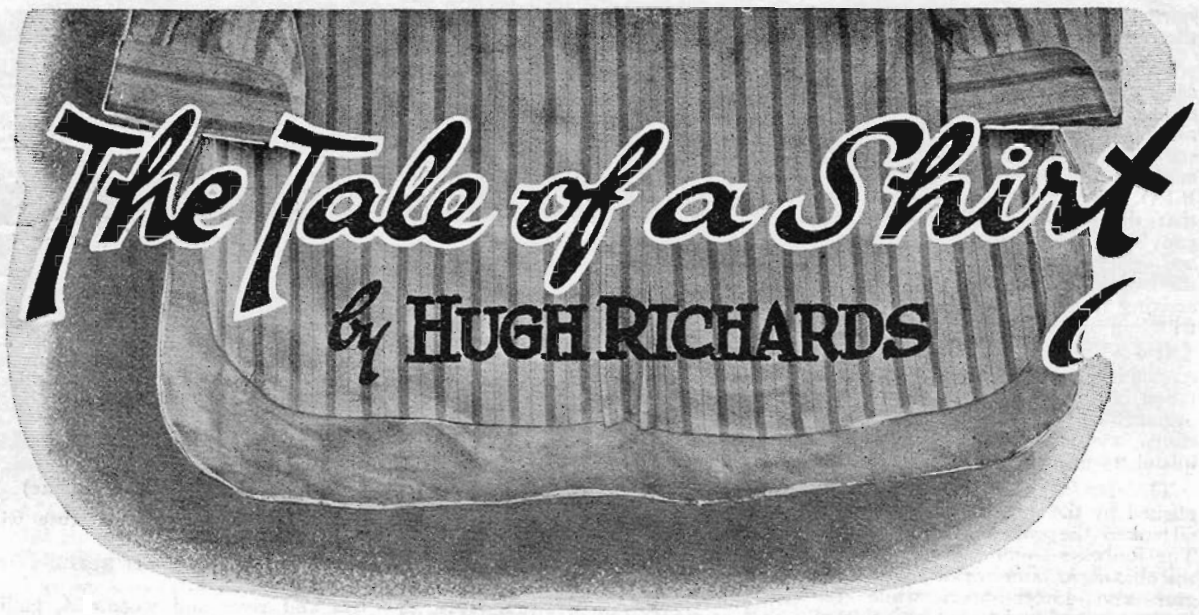
Lorne, beautiful Lorne, with the mountains towering high,
Stately gums in their beauty, lifting their heads to the sky.
Where the thrush spills his golden music and the wattle bird his joy,
While the noisy "Jack" makes the woods resound with the laugh of a happy boy.

Lorne, beautiful Lorne, may all who seek your nest
Find in your glorious beauty, a sense of quiet and rest,
Nearness to Him whose love designed, a heart from care set free,
In Lorne, beautiful Lorne, fair Pearl of the Southern Sea.

—*Annie Sandlant, Ringwood*

ooo

A locomotive whistle was recently heard by a balloon observer at a height of one and one-half miles.



The Tale of a Shirt

by HUGH RICHARDS

THE shirt welcomed me very cordially. It extended a stiff cuff and beamed down to its lowest button.

"I shall be happy," it assured me, "to show you round the place. One should be proud of one's birthplace. As a shirt, I am. Pray be good enough to step this way . . . .

"One moment." The shirt halted. Its voice trembled slightly. "One moment. Our patron saint!"

With shirtly dignity, my guide stood to attention. It gestured simply towards the big poster behind the door. Reverently I bared my head and lowered my eyes before the level gaze of Billy, as the big aboriginal grinned at me from the picture, the tails of his dress shirt flapping about his uncovered lower limbs. Clear as a bugle call rang forth his immortal message, "Mine tinkit they fit."

Silently we paid homage. Then the shirt touched me gently on the arm and we stole from the presence.

Alpha and Omega

We passed into the warehouse section. Immense stacks of neat cardboard boxes towered to the roof. Opposite, heavy bales squatted side by side.

"Alpha and Omega," said the shirt with ostentatious erudition. "Raw material over there, collars and shirts and pyjamas ready for the railway back there. All sizes, patterns and shapes.

"Pelaco make all shirt sizes from 13 to 17. I'm a 15½. There are out sizes too. In collars particularly. There are regular lines of size 19 in collars. And 21's too.

"Here, hold up! I say . . . . . ."

I pulled myself together.

WHEN Messrs. J. K. Pearson and J. L. G. Law started making shirts in Melbourne in 1908, they laid the foundation of an Australian industry which has grown and expanded until its products have earned a quality reputation from Cape York to Albany, and from Darwin to Wilson's Promontory.

Incidentally, the Pelaco concern has entered the front rank of those big secondary industries which help to keep Victorian railway truck wheels moving profitably.

"Lead me away," I said brokenly. "Size 21 in collars! *Twenty-one* . . ."

I tottered into the lift. We whisked up to the Cutting Room.

"Last year," continued the shirt chattily, draping itself against one side of the lift, "Pelaco made more than one and a half million shirts. I was the 1,540,386th. Besides close on four million collars. *Four* million, I said. And 476,250 pairs of pyjamas.

"Fashionable demand just now is in the direction of good pattern cambric shirts with two collars to match. In Melbourne, that is. Melbourne and Sydney don't wear the same style shirts, you know."

It was the first I had heard of it. Still there was no harm in nodding.

"Melbourne has English predilections." The shirt shot a glance at me to make sure I had appreciated the word. "Sydney has American predilections. Melbourne buys for value, Sydney for appearance. Brisbane and Adelaide and Perth are 12 months behind Melbourne and Sydney in shirt fashions."

The shirt shook its head despondently.

We went into the Cutting Room. It wasn't a room, and, at first, I couldn't see anyone cutting. Simply, it was a huge stretch of floor space. Running down the acreage of bare floor were tremendous tables, incredible tables, nightmares of tables, tables without beginning or end.

"Largest tables in the world," said the shirt complacently. "Two of them are each 178 feet long. Their total length is more than a quarter of a mile."

We had a closer look at them. White material was spread in endless white, flat rolls—"lays," the shirt called them. Their edges coincided perfectly.

"They've got to coincide," said the shirt. "The rolls must lie accurately on top of one another. You see, they mark the top one with a stencilled pattern and a blue chalk pad. Then the cutters cut the marked patterns for the whole thickness, following the tracing on the top lay."

No Skimping: No Waste

I looked at the faint blue markings on the fat pile of meticulously stacked material. Each shape fitted into the other. A standard size had been patterned, there was no skimping, but neither was there any unnecessary waste of material between the different shapes. Front body fitted into back body, sleeve jostled against sleeve, centre pleat ran close to neckband. "I was like that once," said the shirt pensively . . . . . .

Then I saw the cutters. Grim, purposeful men they were, cutting

quietly and unobtrusively. They ran an electric cutting knife through the thickness of shirt material, following the blue tracings with confident precision. Like a keen knife passing through soft cheese, the electric cutter pared off the patterns. Isolated shapes stood out in stark whiteness on the long table. Thin scraps of waste accumulated on the floor.

"Collars are cut by a hand knife," the shirt told me. "The cutters press a zinc shape on to the material and slice round it with the knife, stropping the blade every few seconds. The knife slips through three dozen thicknesses of material as easily as you could spread butter on a biscuit. That's if you know how to handle it. On an average," the shirt frowned impressively, "the cutters cut something like 12,000 collars a week.

Choir of Sewing Machines

"Neckbands and cuffs are sewn on the same floor as the collars. They are joined on to the shirt proper at a later stage."

On the Shirt Floor, a dense choir of double-needled sewing machines droned a monotonous funereal dirge. In the thick of the mournful, humming, buzzing refrain, shingled heads bent over active hands, bright eyes pursued tapered fingers. Double-stitching was marshalling the component portions of the shirt into the finished garment. The shirts were losing their semblance to a jig-saw puzzle in cambric. They were beginning to look like shirts.

My guide dissected the involved operations with the fluency of one who had personally passed through the process.

"First they hem the tail of the shirt. Secondly, they insert the gusset pieces. That safeguards the sides of the shirt from splitting. Men don't like to have their shirts splitting, you know.

"Thirdly," the shirt was checking up on its fingers, "they sew the yokes to the back body. Just where the rucking is done . . . . . ."

"Rucking?" I had lost the thread.

"Yes, rucking. You know. Wrinkling of the cloth. Gives the two ruffles on the shoulder blades. See?

"Well, after that's done, they jab the centre pleat on, box pleat the body, gouge out the buttonholes and sew on the buttons. All by machine. Then the front body is joined to the back. Joined across the yokes. The sleeves are put on, a stiff dressed neckband is inserted, the seaming is finished and the cuffs are attached.

"Finally, the shirt is examined, surplus cotton trimmed off, a glance given the seaming, the label affixed, and then the presser irons it and dumps it into its cardboard box."

The shirt laid a cuff on my sleeves and propelled me towards one of the pressers. The presser was a nice girl. She had more shirts around her—I do not speak literally—than a shop assistant in a men's mercery establishment. Billows of limp shirts washed down on her in a foam of tossing sleeves and flapping tails, broke in a flurry of cambric against her bench and subsided placidly on the other side in a gentle undulating swell.

Ironing

There are pressing irons *and* pressing irons. This girl had one of the other sort. It jetted steam from its base in a cloud, smoothing each shirt as effectively with a couple of superficial dabs as an ordinary iron would with a dozen long, heavy, leaning sweeps. In a twinkling the flabby shirts lost their flaccidity. Creases vanished. The iron dabbed once or twice and obediently the shirts folded their sleeves behind their backs, straightened their chests, squared their rounded shoulders, turned their tails up between their shoulder blades, submitted uncomplainingly to the inroads of some few bushels of pins, and went into their boxes neat, perfectly ironed bundles.



Stencilling a shirt pattern

"Absolutely painless," said the shirt beside me, reminiscently. "You don't know you're being ironed. You don't *know* . . . . . .

"How much material to an average shirt?" It repeated my question and squinted down its immaculate front. "I took three and a half yards myself. That's the average size. And, by the way, they tell me they get through 90 miles of cloth a week here. Not nine, nine-*ty*! In a week. That amount of cloth would make something like a shirt, wouldn't it? Let me see now."

With cuff propped under its chin and lips murmuring vaguely, the shirt descended laboriously into abstruse mathematics.

Size 63,360 Collar!

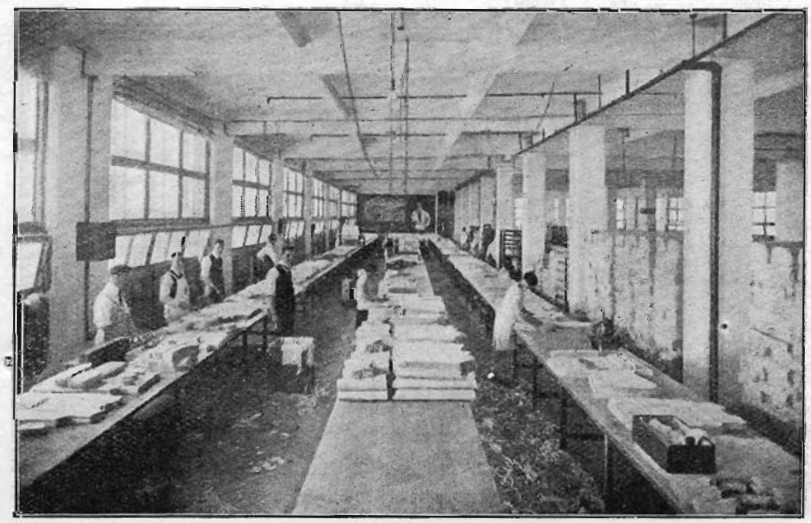
"Hundred and fifty-eight thousand yards . . . . . And four hundred . . . Then say four yards . . . . . Near enough . . . Four goes" . . . The shirt's buttons glistened excitedly. "That much cloth would make a shirt to fit a man 237,600 feet tall. Say 45 miles high! Picture a shirt for a man 45 miles tall, 20 miles around the waist, and a mile around the neck!

"Why, in a year Pelaco could put Mt. Buffalo in a shirt, dress the Grampians in pyjamas and have enough stuff left over to clothe every church spire and town hall in the suburbs."

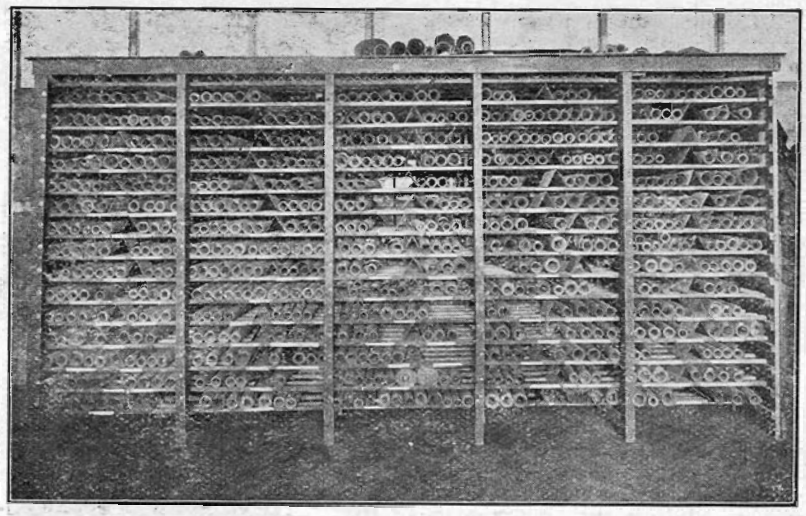
Intrigued with its calculations, the shirt wandered still further into the morass of statistics.

"Then the buttons. Pelaco uses two and three-quarter miles of buttons in a year. Imagine a line of buttons along St.Kilda-road, extending from Princes-bridge to the Esplanade.

"And the cotton. Fifty-eight thou-



Part of the cutting room



Pelaco's complete library of shirt pattern stencils

sand miles of cotton are unwound here in 12 months. String that cotton into one long thread and it would stretch round the globe two and a half times."

The shirt paused for breath. I squeezed in a word. Edgeways.

"Collars," I said. "How are they made?"

The shirt sniffed. "Of course, if you're interested in *collars* . . . . I'm telling you about shirts. Collars are useful, I daresay. But where'd they be without shirts. Anyway, if you want to hear I'll tell you.

Making the Collar

"I told you about the cutting of the shapes by hand, didn't I? Well, the next thing is the stamping of the name of the collar and its size on the shape. A single collar then has the edges overlocked. That prevents fraying in the wash. About a quarter-of-an-inch is turned up on three sides of the collar on a turning machine. Shapes the collar, if you see what I mean. Two rows of stitching hold the turn-up in position. A guillotine nips off the edge which goes into the band. The band itself has had its edges turned up all round and is ready to be stitched to the front. A double-headed button-holing machine puts a neatly sewn buttonhole into each end of the collar at the one operation, and another machine nips the back buttonhole. Dead in the centre.

"Last of all, the laundry glosses it off and another Pelaco collar is ready for the market."

"Why Pelaco?" I asked, irrelevantly.

"It's a coined name," the shirt told me. "Pearson and Law started the concern. The first two letters of each man's name were joined and "Co" for Company added. Pelaco."

We were on the ground floor again. Big muscled, red-blooded he-men were trolleying packing cases to a lorry at the door.

"Railwaymen don't have a chance of forgetting there's a Pelaco factory in Richmond," observed the shirt. "Big consignments are going out regularly. All over the State. Around the suburbs. And across the border to other states. A guard can generally bank on running against a box of Pelaco shirts, collars, or pyjamas in his van. And the checkers at the Goods Sheds know our cases as well as they know the wheels of their hand trolleys.

"Or as well as I know our battle-cry."

Dramatically the shirt pointed to the wording underneath the picture of Pelaco's patron saint. Once more I bared my head . . . . . .

"*Mine tinkit they fit.*"

BRIGHTER LOCOMOTIVES

WHATEVER be the economic value of applying decorative color schemes to locomotives, some companies expect a wholesome psychological effect to follow from seeing brightly painted and polished locomotives on the road.

Increasing attention is at the present time being given to this question in the United States. On some of the new Pacific type of locomotives recently turned out for the Baltimore and Ohio Railroad, the boiler, tender, cab and other fittings are painted in an attractive shade of green, with lining in red and gold. The lining-out includes the spokes of the wheels. Other Pacific types of engines have been painted in battleship grey, relieved by black and aluminium colors.

Colored monograms painted on the sides of the tender have also made their appearance on the Chicago and North-Western Railway, while other roads have equally elaborate color schemes in hand, such as the nickel plating of side rods and the use of aluminium paint for running boards and tyres. One of the most interesting innovations, however, is the painting of the enginedriver's name (if he have an excellent record) in red and gold, on the cab of his engine.

By decree of the Jugo-Slavian Ministry of Transport, all railroad coaches in international traffic are to be equipped with cautionary and informative notices in Esperanto.

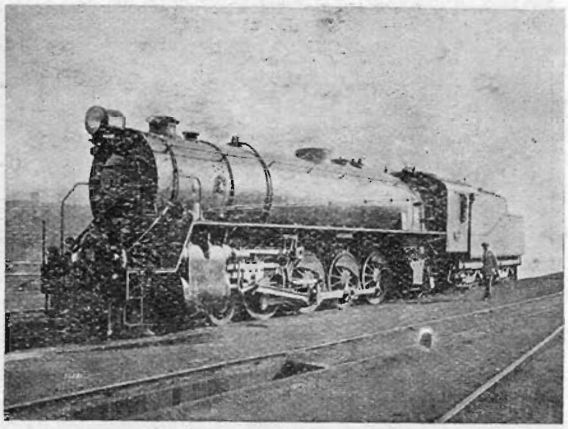
Successful experiments have recently been made in Germany with the so-called "flying train." This consists of an airplane to which a glider is attached by means of a long cable.



Shirts in embryo

Railroading in South Africa

By HENRY H. N. PRINCE



Mountain type engine, South African Railways

MR. PRINCE, a Victorian Railways telegraphist who recently spent ten months in South Africa, here writes interestingly of railway operation and practice in that country.

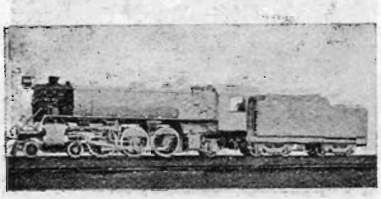
THE South African Railways and Harbors Administration consists of something like 15,000 route miles, serving the four provinces, that is to say the Cape, the Transvaal, the Orange Free State and Natal, together with late German South-West Africa.

South Africa has no break of gauge problem; all of its main line systems are 3 ft. 6 in. There are a few unimportant branch lines of 2 ft. gauge, where it would be impracticable to put down the larger gauge.

The South African Railways have much in common with American Railroad Systems; it could be said that the S.A.R. & H. has adopted, and in many cases improved on some of the American good points.

Administration

The administration of the South African Railways is arranged thus:—Minister of Railways, three Railway Commissioners, who constitute the staff board, General Manager, four Assistant General Managers, eight or nine Divisional Superintendents, Chief and Assistant Mechanical Engineers, Managers of Refreshment and other services. The administration has been laid out on very sound, business lines. The Refreshment Services are splendid. Dining Cars are absolutely necessary on account of the long distances, and the department endeavors to bring these services within the reach of everybody's means.



South African Pacific locomotive

South Africa has the second fastest train in the world, namely, "The Union Limited," which runs from Pretoria to Cape Town, a distance of 1,001 miles, in just under 30 hours. I mean, of course, the second fastest train over similar distances and under similar conditions. This route abounds in gradients. At one stage the line drops 775 feet in 20 miles.

Separate Systems Amalgamated

Prior to 1913, there were three different railways in South Africa, the Cape Government railways, the Central South African railways, and the Natal Government railways. When Union was brought into being, these were amalgamated. The different ports had their different trusts, and when the railways were brought together, the ports and harbors also came under the Administration's jurisdiction. This has resulted in great improvements to the ports. Although there were different railways, they were all of the one gauge. The Bura and Mashonaland and Rhodesian Railways are also 3 ft. 6 in., as well as the Uganda, the Nigerian, and the Portugese East African railways. The railways in late German South-West Africa were a fraction of an inch different on the "close" side, but not enough to necessitate any immediate alteration.

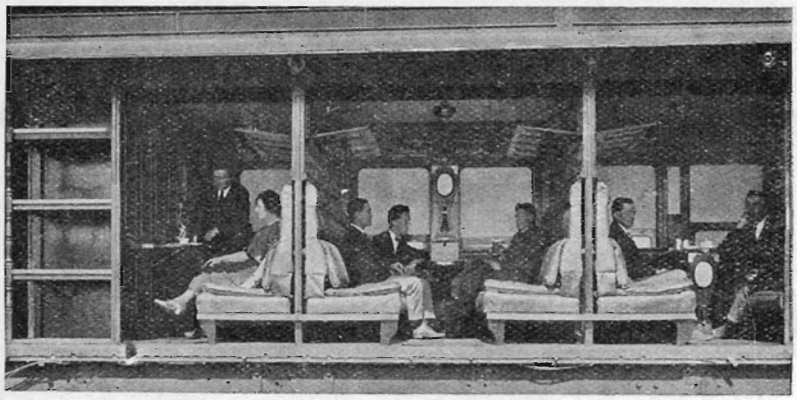
The service in the Dining Cars is splendid. The charge for individual meals is about the same as on the Victorian Railways Dining Cars. But if one is travelling over a day, one can purchase a book containing three coupons, covering breakfast, luncheon and dinner for the modest charge of 8s. 6d. This obviates the necessity of the traveller taking a supply of food with him, as the charge brings the service within reach of the average pocket. One-and-sixpenny one-course meals can also be obtained.

Every car is a sleeper; that is, the car is a day and night saloon. The first class cars have four berths to each compartment; the seconds have six. To avoid any chance of overbooking sleeping compartments, the administration has a system of compulsory reservation of seats in operation. Every passenger travelling more than 50 miles must reserve his seat. No charge for reservation is made, as the administration takes the view that it is as much to their benefit as to the travelling public's; it enables the Department to arrange its services to a nicety. This means that no more than four first class passengers and six second class passengers occupy a compartment day or night, so if a passenger is wearied with the journey, he can pull his bunk out and lie down.

Bedding Hired for Full Journey

Bedding is hired on the train. The charge is 3s. per bed for an unbroken journey. That means, that if one travels in a through coach over one, two or three nights, without changing, the same bed is retained by the passenger, and it only costs him the initial 3s. The bed is put down at night to suit the convenience of the passengers, and taken up and put away in the morning, each day, by the attendant.

The compartments are swept out thrice daily by the bedding attendant. All trains have been electrically lit, I understand, for the past 15 or more years. Switches are placed in con-



Section of car showing three compartments, including a coupe arranged for day use

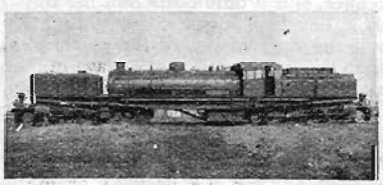
venient positions, and in the later first class cars reading lights are fixed, which enable a passenger to read without disturbing the other occupants of the compartment. All trains are steam-heated, and only on short runs are footwarmers used.

Every car has two, and in the later cars three, and even four "coupes," that is half compartments, the first class having two, and the second class three berths. This is a great convenience for married couples or invalids; no extra charge is made for their occupancy.

In addition to meals in the dining car, passengers can have them served in the compartments without extra charge. Morning and afternoon tea is also served, and when the dining car remains on a train over night, early morning tea or coffee and toast are served about seven o'clock. Mineral waters and liquors can also be obtained.

Why Railway is Narrow Gauge

South Africa is far more mountainous than Australia; and, inland, one reaches greater altitude. South Africa is, generally speaking, a series of plateaus. This has necessitated the building of heavy locomotives, on account of the steep gradients. It also explains the narrow gauge. A wider gauge would have been out of the question. For one reason among many, the average curve is so sharp, on account of the hilly nature of the country, that only narrow gauge locomotives could negotiate them with a sufficient margin of safety.



Fairlie locomotive, used for goods traffic

A glance, however, at some of the locomotives impresses one with their capacity and power, and they indicate what *can* be done on a 3 ft. 6 in. gauge. The S.A.R & H. has many types of locomotives, chief among them being the 12th to 16th class, which comprise Mallet, Mountain and Pacific, Garratt and Fairlie locomotives. The Mallet, Mountain and Pacific types are not used in the coastal areas where sharper curves and heavier gradients abound, but inland, where the country is flatter, and the tracks straighter.

Success of Garratts and Fairlies

The South African Railways Administration is ordering more and more Garratt and Fairlie locomotives every year, as they are a great success. In the hilly country where sharp curves abound, Garratts are also employed on 2-foot gauge branch lines; I have seen them in operation on both gauges: they certainly pull some loads!

All locomotives utilised on main line traffic are equipped with Pyle Electric Headlights.

In Natal, 185 miles of main line are electrified, from Maritzburg to Glencoe Junction. I had the good fortune to observe a fair amount of the scheme, which is in very successful operation. Electric locomotives, or units, as they are technically termed, are utilised; one, two or three, according to load, being placed at the head of the train. Only one driver, with his mate is required, even for three units. These locomotives have great tractive power, and pull enormous loads quite easily over some of the most difficult sections. One in 32 grades are plentiful, while one in 40 is common, with plenty of sharp curves. What has necessitated, and rendered electric traction practicable from a financial standpoint, is the heavy coal traffic in Natal, which province abounds with coal mines in the northern district.

The electrifying of this section has been a very successful undertaking, and the administration has effected huge savings, and attained a very much higher standard of efficiency thereby. To instance what electrification is saving, a small item is the abolition of the necessity for clearing the 185 miles of ashes. There are 22 maintenance sections on this stretch, and in the steam days it used to cost the department £1 per day per section to lift these ashes, without taking into consideration the replacing of burnt sleepers on the heavy gradients. The overhead method, similar to the Victorian Railways suburban system, is employed, with a voltage of 3,000 D.C. Several wayside towns and villages obtain their supply of electric current at very reasonable rates from the Administration. This all helps to make the scheme a paying proposition.

Electric Train Test

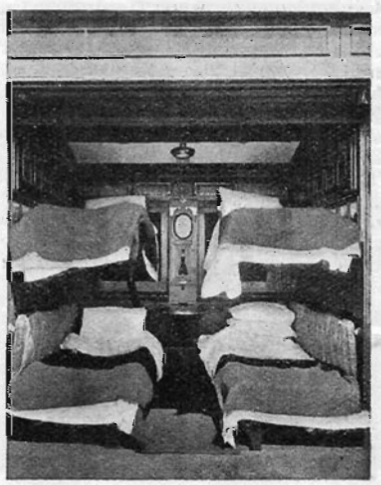
Recently the Administration ran a test train with four units, the load consisting of about 24 big steel bogies loaded with coal, 1 Dynamometer car and van, the load being about 1,600 tons. The test was entirely successful.

Special vans on the electric system are equipped with boilers for heating the trains in winter time. These vans are attached and detached to the through mail train at Maritzburg, Ladysmith or Glencoe.

I forgot to mention that the electric units regenerate current on down gradients, the power being returned to the power stations. This is, I believe, similar to the American system.

All staff employed in connection with train running are white. The colored employes comprise dining car kitchen boys and bedding attendants.

One of the big productions in South Africa is maize. In most of the big

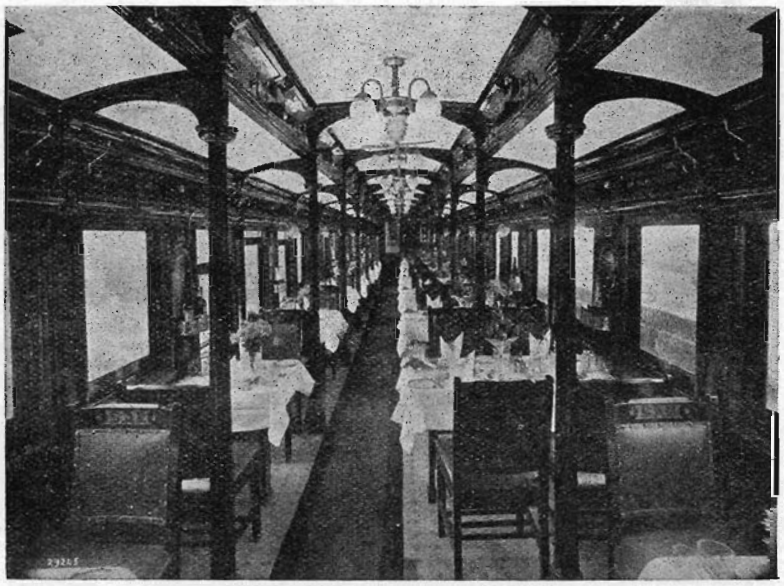


First-class sleeping compartment

maize districts the Administration has erected, or is erecting, grain elevators. If a farmer hands over say 2,000 bushels of maize to an elevator say at Bloemfontein, he can obtain a like quantity of similar grade, or its equivalent value, from any other grain elevator in the Union. This is a big advantage to a farmer, especially in shipping facilities. In connection with the elevator traffic, a special type of steel bogie truck, equipped with hatches in the roof, and special slotted doors at both ends, has been constructed. At Durban and Cape Town special stages have been constructed, on to which these trucks are run. They are then tipped up, the special doors are opened, and the contents emptied direct into a vessel's hold.

Motors Feed Railways

Road motor services are in operation all over the Union. South Africa is a sparsely populated country, and, although well supplied with railroads, there are great tracts of country untouched. To overcome this difficulty as much as possible, road motor services have been, and are still being inaugurated, their chief function being to act as feeders to the railroads, and incidentally providing a practicable cheap service to the community in general. The six-wheeled type of vehicle is in use to a very great extent, as most of these roads are very bad, especially in wet weather. In addition to passengers, parcels and goods traffic is also carried. The Administration has published a special tariff book containing system of calculating fares, parcels and goods charges. When you buy a South African Railways time-table, for the modest sum of 6d., all the road motor services are included.



Twin Dining Saloon, first and second class

I was rather amused with the method of identification employed by some of the staff in Natal, and I suppose it is done elsewhere as well. Of course a very large percentage of the native consignees call for their goods, and cannot produce any written proof to establish their identity; the clerk gets the stamp ink-pad, the native sticks his thumb over it and then makes a clear, indelible impression in the signature space of the delivery note!

At all large cities and towns, the Administration has its own cartage services, for collection and delivery of luggage, parcels and goods. In the case of parcels and goods, cartage charges are levied compulsorily on all goods to and from "Cartage" stations, the rate being 3d. per 100 lbs., minimum 6d. If a sending station does not raise the charge, the receiving "Cartage" station does, and treats it as an undercharge. The goods are collected and delivered at a cheaper rate than an ordinary carrier could possibly do it for.

THE COUNTRY TRAIN.

IN the bygone days, in the days of old,
When the stage coach crossed the plain;
And the miner trudged in his quest for gold
Over roads where the teamster's waggon rolled,
With its wealth of wool and grain.

Ah, those were the days when the echoes woke
The silence of hill and dell!
When down in the valley with measured stroke
On box tree and blackwood, and native oak,
The axe of the bushman fell.

No more does the stage coach driver race
His team o'er the lonely plain;
For times have changed, and in his place
Through forest and upland and far flung space,
Speeds onward the country train.

By ways where the creeks, and the gullies meet,
And over the teamster's track,
It flies through the meadow lands fast and fleet
To bring to the seaboard the golden wheat
From the scattered farms outback.

And settlements grow, by river, and stream,
Where quiet had reigned before;
Through farm and field goes the driving steam,
And the coach, and the slowly moving team
Are seen on the roads no more.

HARRY TUNNECLIFFE.

France is now testing roads constructed of cast-iron plates with a slightly corrugated surface.

No woman stenographer less than thirty years of age is now employed by the Canadian Parliament, because younger women have fickle minds and are not sure of their spelling.

"Liquid coal," a synthetic oil fuel obtained with the aid of hydrogen gas from the lowest grades of coal, is now used in a specially constructed locomotive completed in Germany.

A live French "75" shell was recently discovered by a porter on the luggage rack of a train arriving at the St. Lazare station, Paris.

Class 1 railroads in the United States now own and operate one freight car for every forty-five inhabitants.

During the past year the New Zealand Railways carried 20,000,000 passengers without a single fatality.

THIRTY-FIVE YEARS AGO

EXTRACTS from the Victorian Railways Gazette of January 1, 1893:—

Time in its unceasing flight has completed the 365 days of 1892—a year that will long be remembered by railway employes . . . . Commencing with the first day, the Railway Act Amendment Bill of 1891 came into force, transferring the construction branch to the Board of Land and Works.

At a special meeting of the Central Council of the Traffic Union, the Chairman said that a great deal of prominence had been given lately to the question of life assurance, and in consequence some of the officers of the Department had formulated a scheme which, if adopted, would include the whole of the Government service in its provisions. These gentlemen proposed to address the public servants at different times.

A letter was received from Mr. Willis of Footscray, asking the opinion of the Council respecting the position of a railwayman who accepted a paid office in a friendly society. After discussion, the Council advised him to apply to the Railways Commissioners for liberty to accept the office and thus do away with all risk in the matter.

We have received from the employes at Korumburra station a handsomely illuminated Christmas card, giving views of the railway station and town and of the adjacent coalfield, which is no doubt the most prominent one in Victoria. The Christmas greeting has been sent to all stations.

Messrs. R. H. Francis, acting chairman, and Messrs. Wm. Kibble and K. L. Murray, acting Commissioners, were appointed at the last meeting of Cabinet to the positions of Commissioners for a period of 12 months, at a salary of £1500 and £1000 each respectively.

The following are the provisions of the new by-law relating to free passes: Four passes per year, in addition to the annual leave pass, will be issued to each employe, but, in lieu of the other passes, tickets at one-fourth the ordinary rates may be obtained, two shillings first class and one shilling second class to be the minimum charges.

Speaking at the usual monthly meeting of the Bendigo branch, Mr. J. Matthews moved: "That signalmen, guards, shunters, and 8th class stationmasters be placed on the same footing in the service for promotion to the position of 7th class S.M.; and, in the event of any of the above employes receiving more than 8s. per day at the time of appointment, to be reduced to 8s. per day for three months on probation, and if found competent and entitled to the position by length of service to be then placed in the 7th class, promotion to follow as per classification." Mr. T. Houghten seconding, the motion was carried.

Advertisements: Messrs. Morgan and Picking, complete house furnishers of 35 Errol-street, North Melbourne, beg to call the attention of railwaymen to the fact that they are displaying every requisite for the home. Three rooms can be furnished for £10 and upwards. Price lists may be had on application. Trams pass the door. Cab fare from North Melbourne station is one penny.

Railwaymen who desire first class tailoring should go to Walter Dethridge, the People's Tailor, Nicholson-street, Footscray. Natty sac suits may be had from 45s., and well-fitting trousers from 12s. 6d. a pair.

Representative Railr

No. 5—Manager [illegible] of the V[illegible].

By R. H. JUNIOR
Caricature by Angus Mac

IF Clerk Reg. Jones had escaped a nervous breakdown in 1908, Lindsay McClelland would not have become manager of the Victorian Railways dining car depot 12 years later.

It happened this way: Reg. Jones, a son of former General Superintendent Sam Jones, pushed a pen for Alf. Cooper, late Inspector of the Refreshment Room Services. Poor health pushed him temporarily out of his job. He went on sick leave just as the Department placed its first dining car on the rails. Lindsay McClelland, a relieving clerk at the time, was sent along to fill the vacancy. He relieved at the new depot, grasped the elements of the railway dining car business, and went back to his transportation job when a robust Reg. Jones returned.

There are some people Lindsay Mac. hasn't impressed. They are the people he has never met. Inspector Cooper *was* impressed. He remembered McClelland when he wanted an additional clerk. McClelland gave a "special request" return appearance at the depot he was ultimately to manage. His performance was eminently satisfactory. Applause floated down from the official gallery. Chance and Alf. Cooper shook hands off stage . . . . .

Conjecture as to where McClelland would have finished had Reg. Jones been, remained and acted throughout as a ball of muscle, rests on mere guess work. But it can be followed to a specious conclusion on reliable facts and significant data.

Mac. had started as a junior with District Traffic Superintendent Urquhart of Oakleigh in 1900. He had telegraphic capacity and had laid firm hands on every available safe-working certificate. He was ready for examination as stationmaster. It is certain that he would have covered his broad Bonaparte forehead with an S.M's. cap. And being Lindsay McClelland he would have paced his way into a higher job.

. . . . District Superintendent McClelland?

Anyway, surmise and conjecture notwithstanding, Lindsay McClelland came, saw and conquered at the dining car depot. Meanwhile the railway refreshment business had discarded rompers for seven league boots. Leaps and bounds developed into a headlong whistling rush. From the Rolling Stock branch was projected that human oxy-acetylene ray, C. J. Harris, to weld the unit into an organised entity. C. J. H. was so keen that it was believed he shaved himself without a razor. He was keen enough to clutch McClelland eagerly by the shoulders and drag him bodily into his office. The two ardent spirits worked together for a spell.

And then the Department took over the refreshment rooms from the private lessees. And Lindsay Mac. went out as the first V.R. refreshment room inspector under the new regime.

His term as inspector gave McClelland a practical insight into the intricacies of the railway Eats line from pantry to oven and from cellar to counter. He travelled and relieved and inspected and managed. He managed the Kyneton refreshment rooms and he managed the Seymour rooms. He went to the latter place as inspector, discovered a singularly and enthusiastically incompetent manager, sacked him forthwith, stepped into the breach and ran the place on Lindsay McClelland lines until a new manager was found.

In November, 1920, manager Fraser retired from the control of the dining car depot. McClelland went back to his old love to occupy the empty lap.

An ample lap it is these days, more ample than in 1920. McClelland fills it comfortably and efficiently. He has a staff of more than a hundred: clerks, cooks, waiters, laundresses, storemen, stewards, seamstresses, motor drivers, butchers, bakers and pastrycooks. His activity affects five dining cars and 17 sleeping cars, besides parlor cars, special cars and State cars. One hundred and fifty thousand dining travellers call his name blessed every year.

Unruffled when things go wrong and retaining his hat with effortless composure when the winds of misfortune blow fiercest, McClelland pursues the even tenor of his way in a fashion that

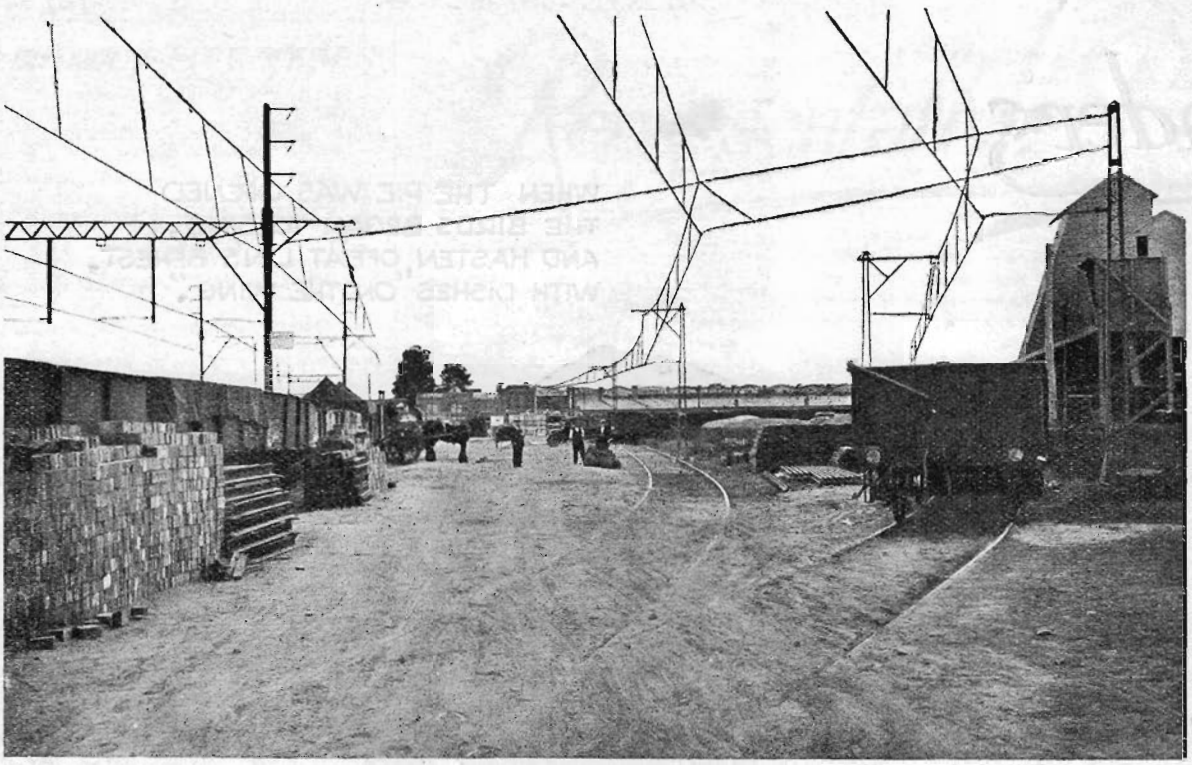
(Conc uded on page 61)

roaders

WHEN THE PIE WAS OPENED
THE BIRDS BEGAN TO SING,
AND HASTEN OFF, AT LIN'S BEHEST,
WITH DISHES "ON THE WING."

INDSAY McCLELLAND
R. Dining Car Depot





Glen Huntly Station Yard

The Growth of Glen Huntly

By HUGH RICHARDS

CERTAINLY the place could have had a happier baptism. It was christened in the '50's, following on the wreck of a sailing vessel just off Point Ormond, then known as the Red Bluff. The bodies of the crew were buried on the Bluff, but after remaining there for some years were removed to the St. Kilda cemetery.

The Glen Huntly was the name of the ill-fated vessel. And Glen Huntly became the name of the neighborhood.

This ill-omened christening, however, had no blighting influence on the progress of the district. Once a market-gardening area, it has definitely discarded cabbages for the suburban villas, and Celestial agriculturists for electric trains. In 1890, land within five minutes of the present Glen Huntly station was knocked down for the not very excessive price of 17s. 10d. an acre. To-day, shop sites near the station which were scrub-covered a decade ago are realising close on £50 a foot and building blocks are at a premium.

The advent of the railroad towards the end of 1881 discovered a forlorn quartette of houses where dense phalanxes of glittering shop fronts now close in on Glen Huntly's platforms.

ACCORDING to Webster—on the whole, a reliable authority—the word "growth" is spelt with an initial "G."

It is appropriate that Glen Huntly should have the same prefix. For no district has gone ahead more rapidly in recent years than Glen Huntly. Glen Huntly has, in fact, become synonymous with growth—and with growth of a remarkably consistent character.

Before electrification, Glen Huntly was 62 stations behind Flinders-street as the most important railway station in the suburbs. At the end of last financial year — 8 years afterwards— there were only 29 other stations between it and the leader. Its passenger journeys have increased at a rate which suggests some connection with H. G. Wells's Food of the Gods. Here is the record in detail:

To the middle of—		Passenger journeys
1917	...	591,000
1918	...	652,000
1919	...	694,000
1920	...	820,000
1921	...	847,000
1922	...	949,000
1923	...	1,323,000
1924	...	1,557,000
1925	...	1,613,000
1926	...	1,694,000
1927	...	1,817,000

Ormond and Bentleigh — Glen Huntly's two smaller neighbors— illustrate that the progressive district is not confined to a locality which finds Glen Huntly the nearest station. Bentleigh booked 112,000 passenger journeys in 1916-17, and had a record of 612,000 last year. Ormond registered 187,000 in 1916-17, but had climbed to 1,817,000 by the end of last June.

Altogether, Glen Huntly's yearly railway business for 1926-27 amounted to £42,030 11s. 2d. The million and three quarter passengers left £40,230 and a penny short of ten shillings behind them at the booking window,

and parcels and miscellaneous aggregated nearly £400.

But Stationmaster R. H. Southorn will tell you that it is the goods traffic which lends Glen Huntly added importance. "More than 93,000 tons of inwards goods arrived here, last 12 months," he points out. "Mostly metal, building material, timber, firewood and briquettes. Besides which, we earned locally something like £1,500 for our outwards goods tonnage. More than 1,300 tons it was. We have a heavy plant traffic. There's the Ormond plant farm. That gives us regular consignments. And there are several other up-to-date nurseries round about the station too. We send their plants all over the State and across the border into New South Wales."

An enthusiastic Glen Huntlyite, S.M. Southorn has been in charge of the station for five years. In that relatively short time he has witnessed remarkable stages in the growth of the flourishing residential and business suburb.

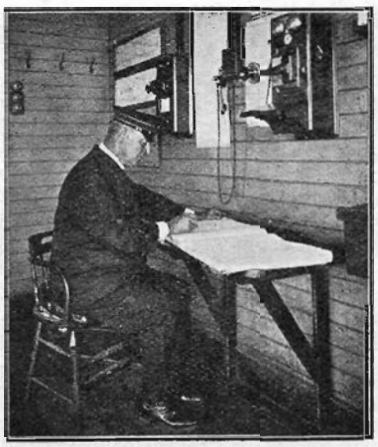
"Good class of home in the neighborhood," he says.

"Tommy Bent, you know, had land sub-divided close by the station for his Clerks' Home scheme. Simple yet well-built homes they all were. Plenty of land with them. The same high standard has been maintained in subsequent buildings in the locality. Several handsome churches have been erected, and we have a fine public hall and a recreation reserve with pavilion. And a picture theatre, of course."

Boosting Timetables

In addition to good buildings, they have good ideas down Glen Huntly way. One such was the boosting of timetable sales at the station. A small case, holding about a dozen timetables was exhibited prominently at the booking window, labelled "Price Three pence." The demand from travellers jumped and kept jumping. In October, immediately after the issue of the new timetable, five copies were sold at Glen Huntly for 1s. 3d. At the beginning of next month the display experiment was commenced, and a total of 126 was sold in four weeks, the money totalling £2 2s. Up to the first week of December, as many as 300 copies had been sold, compared with a grand total of nil for the same period last year. Indubitably advertising pays.

There is one particular aspect of Glen Huntly's growth which merits special mention. That is the matter of rail and tram transport. Melbourne's elbow-spreading expansion in recent years has pushed population north, south, east and west. A tendency to provide that population with double sets of railway and tramway lines, running parallel with one another and diverting traffic from one another, has become



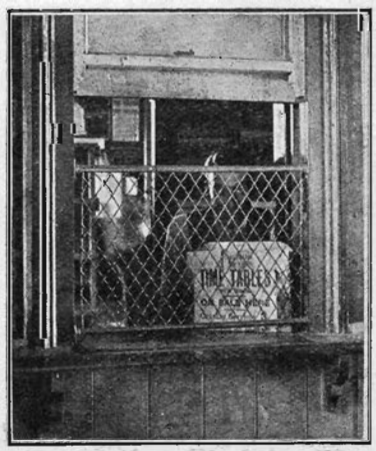
S.M. Southorn at work

manifest. Wasteful and unnecessary duplication of services has followed and competition between public utilities has developed as a matter of course.

No Competition

With Glen Huntly and district, however, a more logical state of affairs prevails. The transport needs of the district are fully met by the railway. Electric trains make a 19-minute run to Flinders-street. Electric trams speed between Point Ormond and Carnegie, crossing the railway line at Glen Huntly station, serving a railwayless district, feeding the railways and, in turn, receiving traffic from the railways.

In short, the two public services are working in unison, each giving good service on a paying basis. And that is one of the most gratifying features of Glen Huntly's growth.



How Timetables are sold at Glen Huntly

TRAINS THAT RAN ON AIR

AN interesting and little known feature of the development of railroads was what was termed "the atmospheric system" which was designed in the 1840's to replace the steam locomotives.

A cast-iron pipe line, about 20 inches in internal diameter, was laid between the rails. The pipes had a continuous longitudinal slot along the upper side to enable an arm connecting an internal piston with the vehicles to be moved to travel along it. This slot was closed by a continuous leather flap, hinged at one end. The piston was attached to the forward end of a long frame, the arm to the rear end. An arrangement of wheels on the frame pushed up the flap in advance of the arm. On air being exhausted from one end of the pipe, the piston was driven forward in that direction by atmospheric pressure hauling the attached vehicle or vehicles with it.

The pipe line required pumping stations at intervals of about three miles. When a train was due the engine exhausted the air, each ceasing to pump as soon as the train had passed.

This system was actually installed on a section of the Great Western Railway, England. The first trial took place in February, 1847. A speed of 70 miles per hour was attained with light trains, and 33 miles an hour with a 100 ton train.

It worked satisfactorily for a start, but defects soon became apparent. The cupped leathers used to render the piston air tight were quickly destroyed by contact with the inlet and outlet valves at the end of the pipe sections at stations. A much more serious trouble arose with the longitudinal leather valve in the piping on the tightness of which the whole system depended.

Under the influence of heat, wet and frost, the leather quickly deteriorated and became stiff and rotten in spite of the application of oil and soap. The tanning in the leather reacted on the iron with which the valve made contact, producing further deterioration and rendering the material tender and easily damaged by the piston arm. Leakage of air ran the cost of haulage up to nearly three times what it would have been with locomotive power, and on occasions brought trains to a standstill. Another source of waste was the absence of a reliable system of telegraphy between pumping stations, which resulted in pumping being done for an unnecessarily long time when a train happened to be late.

The system was finally abandoned 18 months after it was inaugurated.

A railroad tunnel building through the Cascade Range in Washington will be 7·78 miles long and will pass 2,000 feet under the mountains.

Where To Spend A Holiday

Queenscliff

By J. D. MICHIE

SEA-BATHING, boating, sailing, fishing shooting, tennis, golf, croquet, bowls, luxurious hotels, comfortable boarding-houses, brilliant sunshine and all the life and color of a popular holiday resort—that is Queenscliff, 68 miles from Melbourne at the entrance to Port Phillip Bay. No See Victoria First itinerary is complete without a visit to Queenscliff.

IN days of old which, in Australia, means about 70 years ago, the new chum after having been cooped up for ninety days or so in a sailing ship without sight of land, was fain to approach Port Phillip Heads with something like glowing anticipation of shady woods and dewy pastures.

To the right, long ridges of sand-hummocks stretching away to eastward greeted him. On the other side were the rugged cliffs of Queenscliff crowned by a lighthouse, some pilots' cottages, and clumps of tea-tree throwing their shadows on the yellowish sward.

Through The Rip

As his vessel swept through the swirling Rip a new vista presented itself. Northward the whole landscape was enveloped in a lavender colored haze, through which the distant mountains were faintly visible. Others fringing the eastern shores of Port Phillip, Arthur's Seat, Mount Martha and Mount Eliza were similarly veiled.

These general features remain unchanged. An inland sea, which is forty miles in diameter, spacious and picturesque, presents one of those charming sights to which distance lends enchantment; nearer to the shore line its attractive characteristics disclose themselves in a wealth of sylvan beauty.

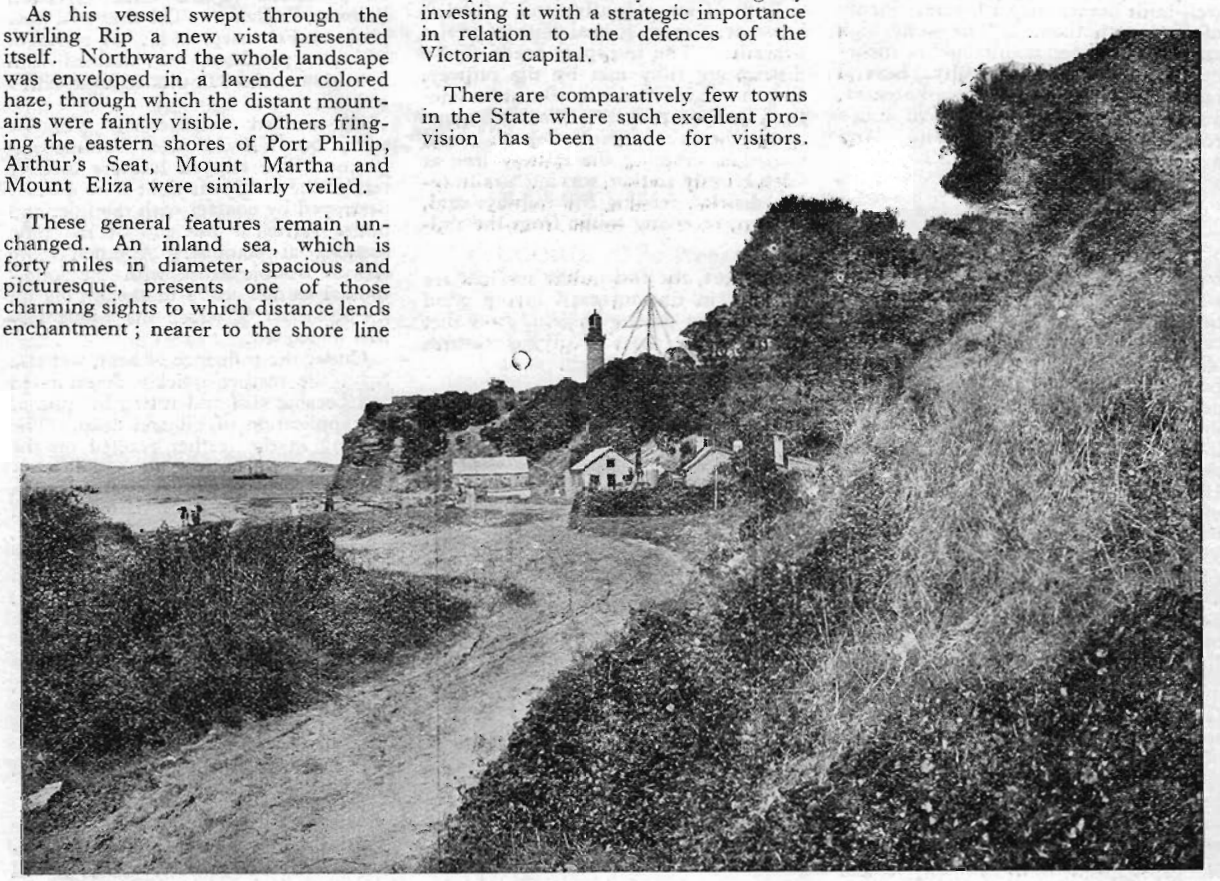
But Queenscliff itself has undergone a remarkable transformation. Its breezy heights are now surmounted by mansard roofs and the tall turrets of roomy and commodious hotels. A town well laid out and substantially built has an appearance of solid prosperity—a town that has taken the place of the scattered settlement which formerly straggled over Shortland's Bluff, as it was called in the early days. The fortifications, which have been constructed on the north side of the heads, as well as on the opposite point and upon certain nearby islands and shoals have rendered the place additionally interesting by investing it with a strategic importance in relation to the defences of the Victorian capital.

There are comparatively few towns in the State where such excellent provision has been made for visitors. Besides palatial hotels are several smaller ones and numerous boarding-houses, offering a wide choice to those in search of accommodation. There is also a number of furnished cottages available for hire.

Boon to Invalids

Immediately below the town are the sea baths, and that boon to invalids, the hot salt-water bath. Close by are the jetties, which, in addition to their practical uses, are availed of as promenades in the warmer weather.

Viewed from Queenscliff the western side of Port Phillip presents a long low line of sandy beach, with a broken ridge



Queenscliff

of tea-tree. The land in the rear is level, but the background is relieved by the picturesquely irregular outline of Station Peak and the isolated range to which it belongs. Sea and sky at times don a robe of color almost as intense in its lovely azure as that of its beautiful prototype, the Bay of Naples, while Mount Martha, and the more distant hills, in certain lights, are invested with the richest purple, chequered with shadows of burnt umber and dark grey.

Point Lonsdale 4 Miles Away

Point Lonsdale is but four miles distant, and forms a pleasant walk either along the shore or by the roadway upon the cliffs. Here is a lighthouse which is a guide by day and night to vessels steering a course through the troubled waters of the Rip, and in the cliffs just below the lighthouse is the famous Buckley's Cave.

A conveyance plies between Queenscliff and Point Lonsdale as often as the traffic offering warrants.

In addition to the lighthouse at Point Lonsdale, there are two at Queenscliff itself, and the view from any one of them overlooks an extensive panorama of sea and land.

A constant source of interest is the passing to and fro of shipping; so close to shore do vessels, both large and small, come in, that it is possible with the aid of a good marine glass to distinguish passengers and crews.

Among the many interesting drives usually taken are those to Ocean Grove, about 8 miles; Barwon Heads, a mile farther on; Portarlington, 17 miles; Drysdale, 12 miles; and St. Leonards, 12 miles. The roads throughout the district are in capital order.

Sorrento stands on the neck of the opposite promontory, which is but a mile distant from Queenscliff. The trip can be made either by sailing boat or by one of the Bay steamers.

Tumbling, Foaming Sea

Looking across from Queenscliff one can see two coves, resembling in outline one moiety of the figure eight vertically bisected. Each is environed by tall cliffs, in which limestone laminae thrust themselves out from between layers of sand and gravel.

Into these twin recesses the sea rushes, tumbling and foaming with restless energy, slowly eating into the land, and leaving here and there, in the midst of the gambolling "white horses," isolated masses of rock, grotesque of form and grim of aspect, as trophies of its invasion of the opposing shore. The great transparent breakers pursue one another in endless chase, and there is no pause in the unslumbering waves, the noise of which deepens into thunder when a gale is blowing from the south or south-west.

There is ample sport for the devotees of the gun. Quail, waterfowl, hares and rabbits abound. There is, too, an excellent variety of sea fishing, for which boats are on hire at moderate rates.

Facilities for Sport

Outdoor recreations include cricket, tennis, golf, and bowls. The public gardens and recreation reserve are a credit to the town.

Queenscliff is 68 miles from Melbourne, and has a regular daily service of two trains, leaving Spencer-street station in the early morning and again in the afternoon. There is also a frequent service of luxurious motor coaches, which connect at Geelong with the railways coach to Queenscliff.

There is a Springtime softness, an atmosphere half country and half suburban about Queenscliff, which, for a restful seaside holiday, cannot be surpassed in Australia.

CAN YOU BE BOTHERED?

By LATIMER-ESCH

TO make a complete, working train, there are five things that are absolutely necessary.

It must have a permanent way to run on, first. Secondly, it must have an engine to pull it.

Then, thirdly, it must have somewhere to go to, and fourthly, someone to go for.

Fifth, and last, it must have somebody to drive it.

NOW just as a train has to have these five things, before it is of any use, so you, also, must have them to carry you through the journey of life. You must have all five of them. Not just three of them, or four of them, but all of them.

Imagine a train without lines. What would be the use of it? No more use than a man without a job. Your job is your permanent way. See that it is a permanent way. Keep it in good order, and look after it.

YOUR health, and energy, are your engine. It supplies the initiative, and the force to take you where you want to get to.

But do you know where you want to get to? If you don't, how do you expect to get there? It is a curious thing—but it is true—that the men who are the least contented are always the men who don't know what they want.

Have you any ambition? Have you an end in view? If you haven't, get one, because otherwise you're as useless as a train without a destination. You're merely taking up room.

PERHAPS, if you haven't an end in view, it is because you are lacking in the fourth necessity. You have no one to go for besides yourself, but then we don't count yourself.

If this is the case, get someone! It may be your wife, your mother, your sister, or your brother, or it may be your girl friend, but for the love of Mike, get somebody to do things for, to work for, to live for, besides yourself.

You'll soon find, when you've done this, that some object of attainment will loom up on your horizon.

THE fifth, is the most important of the whole lot.

It is your soul. You can have all the other four, but they are no use to you, without the driver.

It is the spirit (if you have it) that tells you that this article is not so much a jumble of letters. It is a message. It is the spirit that will prompt you to read it through a second time. To cut it out. To pin it up, perhaps, where you can read it over and over again until you know it by heart and have worked it into your life.

That's what I mean. But can you be bothered?

Lines from Other Lines

Royal Scot Runs 300 miles Non-Stop—The Eternal Feminine In Railway Work—Railway Mileage the World Over—New Olympian is America's Latest Train De Luxe—Unique Head Offices for the London Underground.

RECORD NON-STOP RUN

RAILWAY history was recently made by the London, Midland and Scottish Railway Company with the non-stop running of The Royal Scot up and down expresses, between London and Carlisle, a distance of 299¼ miles, on regular schedules. For many years the Great Western Railway, with the 226½ miles run from Paddington to Plymouth, held the record for non-stop train journeys on a regular schedule, but this summer the London, Midland and Scottish, with a 236 mile non-stop run from Euston to Carnforth, and the London and North-Eastern Railway, with the 268 miles non-stop run from King's Cross to Newcastle, set up new records. Now the L.M.S.R's two new daily runs have established a record that will probably stand for a long time.

It is emphasised that the new non-stop runs have not been introduced merely for spectacular effect. The change realises certain operating economies, and at the same time gives the public the benefit of an improved service. No attempt has been made at breaking speed records—the average speed for the down journey is 52 miles per hour—the aim being to concentrate on punctual working.

The Royal Scot consists of 15 bogie vehicles, representing a weight of approximately 420 tons, and the locomotives used are of the new 4-6-0 class recently introduced by the L.M.S.R. for their Anglo-Scottish services.



The Royal Scot

NEW HEAD OFFICE FOR LONDON UNDERGROUND

WORK is now proceeding with the new Head Office building for the Underground Electric Railways Company of London and associated companies. This building, which is being erected on a site adjoining the St. James's Park station, will have 10 storeys, and a tower with a maximum height of 173 ft. It is due to be completed in 1929.

The design of the building has been entrusted to the architects who were responsible for the new stations on the City and South London extension. Commenting on these and the design of the new head offices, the English authority Building states: "Their distinctive and original design strikes an entirely new note, and marks each station as a building apart from every other building in the neighbourhood. The same strong original lines of design, free from the usual conventional trimmings and ornament, are to be found in the new central offices of the railway, which the same architects are erecting over and adjacent to St. James's Park station."



What London's Underground Head Office will look like

As will be seen from the picture on this page, the site is a most irregular one, but by clever axial planning a scheme has been evolved for a modern business organisation, and is, withal, better lighted and ventilated than most office structures in which the facades follow the lines of the containing streets and footways.

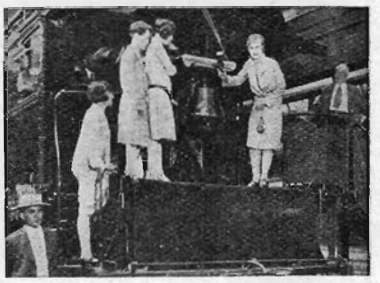
Briefly, one axis runs from the entrance to station opposite the approach to St. James's Park, and continues to the junction of Broadway and St. Ermin's Hill. The second axis runs at right angles to this from the angle at the corner of Broadway. At the intersection of the two axes is the main hall, flanked on one side by staircase and messengers' office, and on the other by a duplicate battery of lifts.

THE WORLD'S RAILWAY MILEAGE

SOME interesting statistics concerning the railway mileage of the various countries of the world are given in a recent Bulletin of the International Railway Congress Association. The figures are for the year 1924. At the end of that year the total railway mileage of the world is set down at 758,319 miles—an increase of about 7,000 miles over 1923. America (North and South) heads the list with 372,913 miles of track, whilst Europe comes second with 237,669 miles. Europe, however, has the highest ratio of railway per 100 square miles of area—6·9 miles. Asia, Africa, Australia and New Zealand combined, have 147,737 miles of track. Australia has the highest ratio per thousand inhabitants—22·4 miles. The British Empire possesses slightly less than a quarter of the world's total railway mileage, its quota being 165,401 miles, while the United States possesses almost one third of the total in its 250,971 miles. New Zealand's 3,164 miles of track open for traffic looks small in comparison.

MILWAUKEE ROAD'S CRACK TRAIN

FIRST of a fleet of 12 complete, all-steel trains for trans-continental passenger service, the New Olympian has been put in running between Chicago and the North Pacific coast by the Chicago, Milwaukee and St. Paul Company. On its first run the de luxe train comprised a Baldwin—Westinghouse electric locomotive, dynamo baggage car, smoking car coach, tourist, sleeping car, dining car, three drawing room—sleepers, and an observation club car. The actual

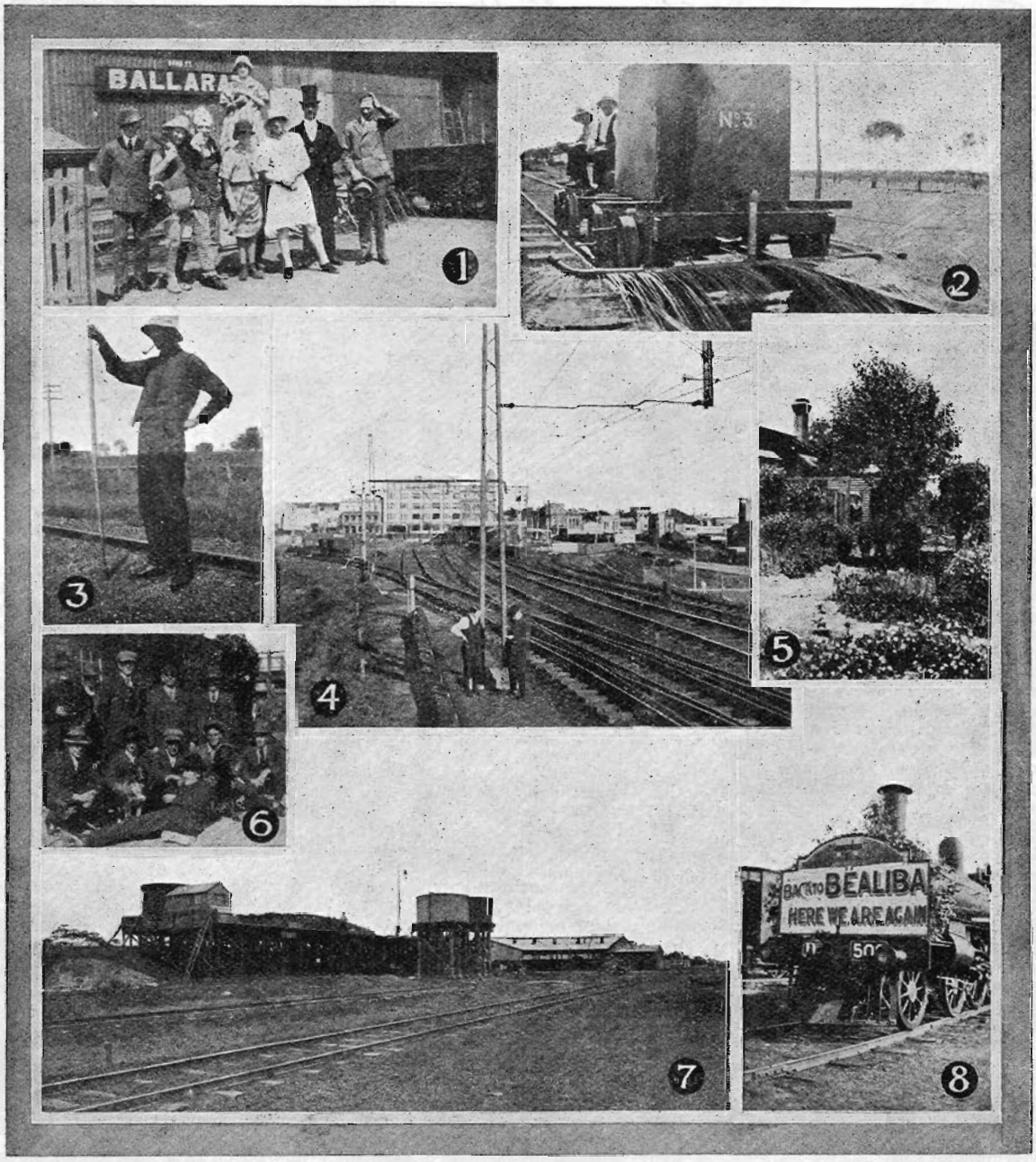


Christening the New Olympian

Concluded on page 61

Snaps Round The System

SENT IN BY CONTRIBUTORS



1. Members of the Ballarat Car Shed staff who helped in the recent Postal and Railway Carnival for local charities
2. Weed poisoning week, a Casey-Jones motor at Meatian
3. A 5 ft. 11 in. brown snake killed at Tongala recently by Repairer J. A. Sarre
4. A new snap of St. Kilda station
5. Driver F. S. Hobbs's Departmental Residence at Wodonga which won a recent first prize, and which has grown many prize flowers and vegetables
6. Staff at Korong Vale
7. The coal stage and engine shed at Woomelang
8. The engine of the Back to Bealiba special leaving Maryborough sheds



Another Good-bye to Tom Beary

YET another presentation came the way of genial Tom Beary, retired Safe Working Officer, the other day, when General Superintendent Canny, in the midst of an impressive muster of administrative talent, produced a wallet of notes and a gold watch for Mrs. Beary. The General Superintendent pointed out that Tom was obviously not in agreement with the estimate of the Commonwealth Statistician as to the value of an adult life. Six hundred pounds was the Wickens valuation, but it was evident from the way in which Tom guarded rail travellers in his Safety First rules that the Beary valuation was at least double that amount. Tom said that he hoped to meet all his old friends from time to time, while making enough to buy standard roses for his garden with a little bit over for pocket money. Besides rose growing, bowls will certainly occupy a large part of the Beary spare time. Tom has an interest also in several business activities.

Man of Note



OARSMAN, cyclist and amateur boxer, George Ashmore of the North Melbourne loco. sheds, has added a fourth hobby to his list. That is, if you can call song-composing a hobby. He has just written and composed the "Wimmera Lullaby," a soft Aussie melody—which does not include a solitary reference to Dixie, plantation darkies or Kentucky homesteads. The piece has been tried over by several of Melbourne's music critics, who have agreed that it is not in any way inferior to the most popular refrains now churning their canned music on Victorian gramophones. Ronald Brearley of 3AR intends broadcasting it with special orchestra.

A Light Affair



LIGHT refreshment, light entertainment and light speeches by lamp-makers and members of the Lighting Branch marked the send-off in Carlyon's Lounge to jovial George Moore, acting Light Overseer, who is leaving the job with close on two score years service behind him. Chairman Coe handed George a gold watch for himself and a silver cake dish for Mrs. Moore. George, in his response, agreed that there was regret and pleasure in his retirement: regret that he was leaving his old friends, but pleasure that he was taking their good wishes and handsome presents with him.

On Wheels

ENTANGLED with the recent Victorian Grand Prix wheel race (not in a literal sense, of course) was Jim Cross, one of the Railways Department's special inquiry officers. Jim helped the Dunlop people to select the competitors and followed the race from start to finish. For 20 years he has taken an active interest in cycling. He raced as an amateur with the Prahran and South Yarra Cycling Club, and has an attenuated list of track wins to his credit. When cycling as a sport had fallen on evil days before the war, Jim was one of the enthusiasts who dragged it on to its feet—or wheels—and supported it until it was able once more to pedal on unassisted. On his return from France, the cycling railwayman secretaried for the Victorian Amateur Cyclists' Union, and initiated the movement which brought the Federal controlling body—the Amateur Cyclists' Association of Australia—into being. Jim has been handicapper to the League of Victorian Wheelmen for some time past, and it was a foregone conclusion that he would be invited to act on the committee which is raising funds to send Hubert Opperman and a team of Aussie cyclists abroad to compete in the classic Tour de France.

Home Again

FOUR railway wanderers have just returned from abroad to seek their empty chairs at Head Office. Officer-in-Charge Tom Doyle, of the Rolling Stock drawing office, and Engineer Reg. Cannington landed back at the beginning of last month; and Chairman Don Cameron, of the Staff Board, returned with Bert Dickinson, of the Rolling Stock staff office, a fortnight or so later. The right hands of the quartette are being worn down in congratulatory hand shakes, and the atmosphere in their immediate vicinity is fairly reeking with "glad-to-see-you-back-agains!" The burden of the wanderers' song is the hospitality with which they were received at every place they called, and the willing help which was accorded them in their hurried investigations.

Tenacious



MOST tenacious railwayman of the month is young Arthur Marks, lad porter out Preston way. He was on barrier duty at Preston when three burly individuals shouldered past him, ignoring his request for their tickets. The boy jumped on to a bicycle and, pursuing the trio, again demanded their tickets. He received instead a punch in the mouth, but, disentangling himself from the bicycle, stubbornly continued the pursuit down a lane. Here he was assaulted, knocked down and kicked while on the ground. He staggered to his feet to see the three men dis-

persing in different directions. As determined as ever, he trotted after the ringleader and, persuading a passer-by to ring for the police, kept the man in sight until the law arrived on the scene. Young Marks's tenacity and his own violence cost the offender something like fifteen pounds in fines and costs.

Variety



RAILWAY district Superintendence carries some varied responsibilities these days. As witness the recent experiences of Mr. Tom Maddern, Ballarat's boss. First, he was elected to the committee of the Ballarat Female Homes. Attending his first joint committee meeting, he was promptly elected a third time to the sub-committee which visits the homes at different times during the month and reports on management and building alterations. Finally, at the last annual meeting of the V.A.A.A., he was elected a Vice-president of the Ballarat branch. At the very first Ballarat Athletic Carnival following his election as Vice-president, he was called upon to act as chairman of the boxing and wrestling championships for one night. He was ground manager, too, at the recent Ballarat Post and Rail Charity Carnival. Not for nothing has Tom Maddern earned a reputation for efficiency in other directions than railroading.

Poster Parent



WHETHER Gordon Stevens is holding his son and heir in the approved fashion, as pictured here, or whether he is unknowingly infringing some of the most elementary fundamentals of infant welfare is a profound question which takes the mere male miles out of his depth. The father seems to have a safe and comfortable grip, but there are complex technical matters involved in such situations which preclude any arbitrary statement by a non-member of the medical faculty. And Gordon admittedly hasn't studied the subject of baby-holding intensively. He is more accustomed to the spectacle of railway bill-stickers clutching huge buckets of foaming paste or nursing long rolls of posters. Gordon has been with the V.R. Advertising Division since its inception, and is the staff supervisor at the rail depot in the catacombs under the Flinders-street viaduct. Certain high officials in the Division aver that the proud father is counting the days until Gordon Stevens junior will be able to assist him in checking the advertising posters on the station hoardings. Others suggest that the stern male parent is more interested in the time when his son will be able to assist him in the garden during the football season. Gordon is a keen gardener, but weeds begin to sprout when Essendon takes the field. A fact which is more regrettable than surprising.

Another Perseus?



LAST month's Learn-to-Swim Campaign had a strong railway supporter in George Bloomfield, who does his daily job of work in the North Melbourne Car and Wagon Shops. George, to whose lot it fell to rescue a 13-stone young woman in difficulties off St. Kilda pier, a week or two back, has, or had, ample reason for his views. The lady in question had wandered off a sandbank into deep water, and unable to swim more than a couple of strokes or so, was soon struggling in an undertow. Her cries brought George alongside, but it took a pretty big effort on his part to avoid a tragedy, and very gratefully the lady acknowledged it. George, who served with the King's Liverpool Regiment during the war, came to Australia, eight years ago, and joined the Railways four years later.

THOUGHTS OF HOLIDAYS

It seems to me I'd like to go
Where bells don't ring nor whistles blow,
Nor clocks don't strike nor gongs don't sound,
But where there's stillness all around.

Not real still stillness; just the trees'
Low whisperings or the croon of bees:
The drowsy tinkling of the rill,
Or twilight song of whip-poor-will.

I'd like to find some quaint old boat,
And fold its oars, and with it float
Along the lazy, limpid stream
Where water lilies drowse and dream.

Sometimes it seems to me I must
Just quit the city's din and dust
For fields of green and skies of blue,
And, say! how does it seem to you?

When a man has a birthday he takes a day off. A woman takes a year off.

TEN COMMANDMENTS FOR FOREMEN—AND OTHERS

1. **Be fair.** Have no favorites and no scapegoats. A foreman has to act as judge many times a day; therefore, he must be just.

2. **Make few promises and keep them.** A foreman must be exact in this particular. Sometimes a foreman forgets that his job requires a high standard of truth and honor.

3. **Don't waste anger—use it.** Anger is valuable and should not be used carelessly. Keep your most forceful language for special occasions.

4. **Always hear the other side.** Never blame a worker until he has been given a chance to give his point of view.

5. **Don't hold spite—forgive.** When you have had to scold a worker, go to him later and show him his faults in a friendly way.

6. **Never show discouragement** Never let yourself be beaten. A foreman must have perseverance and the "never-say-die" spirit.

7. **Notice good work as well as bad.** Let the workers see that you can appreciate as well as condemn.

8. **Watch for special ability.** Take a keen human interest in your workers. Put each one where he can do his best.

9. **Take your full share of blame.** This is the most difficult of all. The foreman who can share both blame and praise with his workers has discovered the secret of managing men.

10. **Prevent accidents.** Educate or eliminate the careless man. The good foreman is known by his men.



POINTED

After the morning service the new minister found several buttons among the coins in the collection plate, and at the opening of the evening service he said: "I wish to remind you that there will be a collection at the close of the service. The text I have chosen for this evening's sermon may be found in the thirteenth verse of the second chapter of Joel, 'Rend your heart, and not your garments.'"

HE DID IT

Teacher: "Norman, give me a sentence using the word 'diadem.'"

Pupil: "People who drive on to the railroad crossing diadem sight quicker than those who stop, look and listen."

PROVERBIAL

Tramp: "You know the sayin', mum: 'He that giveth to the poor lendeth to the Lord.'"

Mrs. Subbubs: "Very true. And since you speak in proverbs, I'll refer you to another old saw."

Tramp: "What one is dat, mum?"

Mrs. S.: "The one back in the woodshed."

"Billy, do you know what happens to little boys who tell lies?"

"Sure, they ride for half-fare."

She: "Darling, how could you live without me?"

He: "Much cheaper!"

Builders' Foreman—"Excuse me, but are you the lady wot's singing?"

Lady—"Yes, I was singing. Why?"

"Well, may I ask you not to hang on that top note so long. The men have knocked off twice already, mistakin' it for the dinner whistle."

"Daddy, why is that man running up and down the smoking-car with his mouth open?"

"My son, that is a Scotchman getting a free smoke."

Billy: "Daddy, a boy in my class said I looked like you."

Daddy: "And what did you say?"

Billy: "Nothin'. He's a lot bigger than me."

MORE HOWLERS

Here are some of the best "howlers" recent examination papers have given me, writes a schoolmaster:—

Posters are sheets of paper pasted on blackguards.

Alibi means away when the crime was committed.

Gray wrote "Energy in a Country Churchyard."

Queue is Latin for two by two.

Raleigh invented potatoes, tobacco and also the bicycle.

The Old Hundredth is the name of an inn.

A molecule is a girlish boy.

Pompeii was overwhelmed by a great eruption of saliva.

A little goose is called a goblin.

Saul was anointed by Samuel, who poured petrol on his head.

Lystra was where Paul healed a hypocrite.

Habeas Corpus was a phrase used during the great plague of London, and means "Bring out your dead."

An aristocrat is a man who performs tricks on the stage.

"I would like to give my uncle a hundred of these cigars. Can you think of how I can give him even greater pleasure?"

"Yes. Only give him fifty."

There was a young lady of Diss,
Who said, "Now I think skating bliss!"
This no more will she state,
For a wheel off her skate
Made her finish up something like this!

"Why did you hand the boy in the cloak room such a big tip when he gave you your coat?"

"Just look at the coat he gave me."

The sad looking man at the corner table had been waiting a very long time for his order. At last a waiter approached him and said:

"Your fish will be coming almost any minute now, sir."

"Oh, yes," said the sad man, looking interest.ed "And what bait are you using?"

It requires the narrowest mind to contain the biggest prejudice.

Famous Last Words—"Let's change places and I'll paddle."

SUCCESSFUL VENTURE

"My wife explored my pockets last night."

"What did she get?"

"About the same as any other explorer—enough material for a lecture."

HE MADE THE SALE

"What!" exclaimed the lady, "you charge me half a crown for that writing paper."

"Yes, ma'am," replied the polite stationer, "that is the very lowest price we can sell it for."

"How is it that I can get one just like it at Brown's for two shillings?"

"I cannot say, madam. Perhaps Mr. Brown has taken a fancy to you. He is a widower and you are very beautiful and—yes, ma'am, half a crown. Thank you."

Doctor: I'm sorry, but I can't cure your husband's talking in his sleep.

Wife: Can't you give him something to make him talk more distinctly?

Two Scotchmen took dinner together in a restaurant. After dinner, the waiter brought the check. The two sat and talked for a couple of hours, after which conversation failed, and they merely smoked in silence. At one a.m. one of them got up and telephoned to his wife.

"Dinna wait up any longer for me, lass," he said, "it looks like a deadlock."

Wife (with newspaper): It says here that men grow bald because of the intense activity of their brains.

Hubby: Exactly. And women have no whiskers because of the intense activity of their chins.

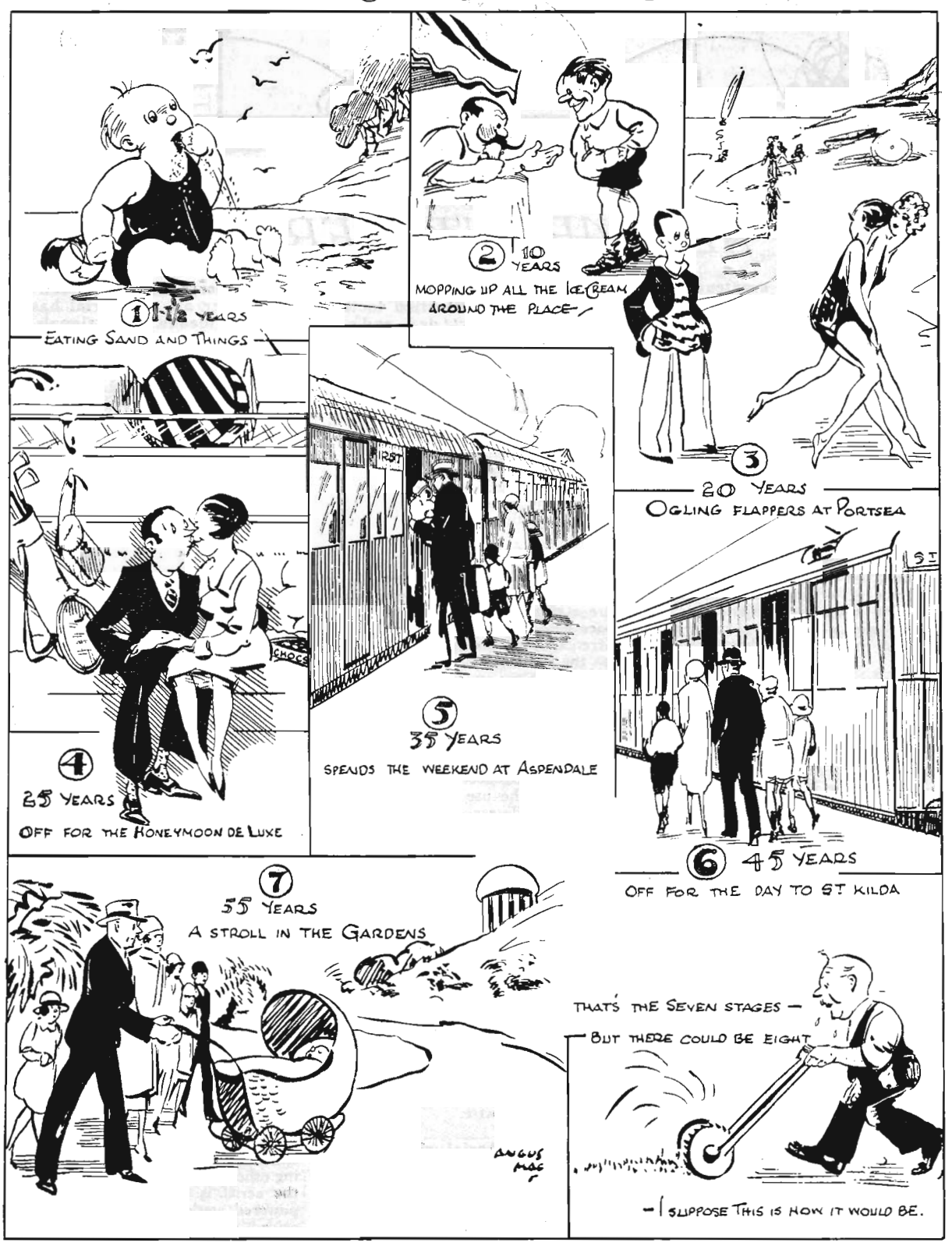
Edith: "Do you think my hands show any signs of toil?"

Marie: "The one with the engagement ring on it shows that you've been working."

A supreme instance of absentmindedness is the case of a man who, while hurrying to catch a train, thought he had forgotten his watch, and took it out to see if he had time to go home and get it!

The Seven Ages of Holidays

By ANGUS MAC





By AERIO

ALL ABOUT AERIALS

THE average amateur, although he pay great attention to his coils and condensers, insulation, connections and so on might do well to pay more attention to the aerial. After all, the aerial has to collect all the energy with which the other parts deal, and aerial efficiency means louder signals, sharper tuning and less local interference.

GUGLIELMO Marconi's invention of the elevated aerial and buried earth dates back to June, 1896. However obvious and simple this idea may now appear, it proved to be the starting point of wireless communication.

Previously Hertzian waves, produced by Heinrich Rudolph Hertz, a young German scientist, in 1887, in the form of sparks between two brass balls mounted on rods connected to the terminals of a spark-coil and reproduced on a spark-gap connected to a loop of wire a few feet distant, were regarded merely as a laboratory curiosity.

By using an elevated aerial—first suspended from a kite (with which he communicated over a distance of two miles), and afterwards erected on mast structures—as a means of access to the ether, Marconi first made it possible to radiate these waves across considerable distances.

The modern idea, however, seems to be that a hundred feet of wire hung up anywhere and anyhow, and a piece of bell-wire tied on to the nearest water-pipe, is all that is necessary to obtain a good aerial-earth system.

It is true that almost any aerial will serve, and that sets are made with none at all, or with a frame aerial in the lid of a box. It is also true that a series of valves properly arranged can work up the least trace of energy so collected. But surely it is more rational to collect more energy and magnify it less, thereby saving battery expenditure, running cost, and the almost inevitable distortion accompanying high magnification of weak signals.

The considerations to be taken into account in the erection of an aerial are twofold : they are, first, the interception of as large an amount of energy from one particular station at a time, and, second, the transmission of it to the set with the minimum loss.

The first is chiefly a matter of the arrangement, height, length, etc., of the aerial ; the second depends on good insulation, the elimination of leakage by capacity (involving thick as well as high resistance insulators, lead-in tubes, etc , and a long path to earth through the aerial insulators) and low resistance of the wire itself.

Design of the Aerial

Owing to the back pressure of the induced currents in the interior of the wire a theoretical discussion of which space here forbids, the high frequency currents travel along a very thin skin on the surface of the conductor. Therefore if we are to provide an easy path, offering low resistance to the minute high frequency currents to be picked up by the aerial, our material must be arranged so as to present the largest possible surface area rather than the largest cross-section. This can be attained by the use of stranded wire, as in the ordinary 7/22 so generally employed. But there is a pitfall here, for a large part of the effect is lost if the strands are not insulated from one another. The slight film of oxide always present on a bare copper wire is of value in this respect, but beyond doubt enamelled wire is more efficient. The tinning of stranded copper wire, on the other hand, is to be deprecated, as it has the opposite effect to that of the oxide film. There is a good deal to be said for a single wire, provided it has a good conducting surface, and if a single wire is used it may be tinned with advantage. Summed up, probably the best material to put into an ordinary receiving aerial is 7/22 enamelled copper wire.

Choosing the Aerial-wire

The only useful type of aerial for broadcast reception is the " inverted L " shown in Fig. 1, but too often in the past the amateur has been advised to obtain a hundred feet of wire and erect it in such a way that as much as possible came into the down-lead, and the rest came into the horizontal portion ; i.e., in such a way that the height of the aerial was as great as possible. This advice with an aerial not under forty feet in height and not less than 50 miles from the A Class stations, is permissible ; but where the maximum height is limited to twenty feet or so, the result can be better described as abominable.

The result will be a long, low aerial, having about twenty feet of down lead and eighty feet of horizontal span. There are two very serious faults with such an aerial.

In the first place, as the horizontal portion is long and only a small height above the ground, the capacity of the aerial to earth will be great and will result in the efficiency of the aerial tuner being decreased, because the value of the inductance used will be low in proportion to the value of capacity used. Besides this, there is, of course, the well known fact that a low aerial is a poor collector of energy as compared with a high aerial ; but this is a fault which cannot be remedied by the design of the aerial.

The second serious fault which a long, low aerial possesses lies in its marked directive properties. With an aerial of this type it will be found that signals are very much louder when the lead-in end of the aerial (and to a lesser extent the " free " end of the aerial) points in the direction whence the transmission is coming. This effect may, with such an aerial, become so pronounced that the responsiveness of the system may become nil to signals from any direction other than that in which the aerial points, thereby preventing other stations being received, or, if the aerial is in line with two high-powered stations, neither will be received without interference from the other.

Effective Height Important

Thus it will be seen, from these two illustrations, that a long, low aerial is of very little use for long range reception except from one definite direction, and even then interference from a second station in the same direction will very likely result. If the maximum height of the aerial is restricted to twenty feet or so, the amateur cannot do better than use only sixty feet of wire altogether, and in the event of the lead-in end pointing to either or both of the A class stations, the length may with advantage be reduced to forty feet over all, including down lead and lead-in. If at all practicable, however, the suburban aerial should be erected at right angles to the direction of the nearest A class station. It should slope up from the lead-in and not down, should consist of a single length of 7/22 enamelled copper wire, and should be a maximum length of sixty feet including lead-in, all in one piece and without joints, soldered or otherwise. Height, however, is the most valuable feature, receptivity depending on the square of the height (other things being equal) and sixty feet of vertical aerial without any horizontal portion would be the ideal. Indeed, the writer's most cherished ambition is to erect a vertical sixty-foot copper tube one inch in diameter.

Of course, if it were desired to make the aerial purposely directional to receive one particular station over a considerable distance, and provided such aerial be located 50 miles or more from any other broadcast station, then it should be erected as high as possible (forty-feet at least) with the lead-in towards the desired station, and with the horizontal limb at least three or four times the length of the vertical limb. This aerial will, however, collect a considerable amount of static.

Insulation

Three or four—preferably four—insulators should be inserted at each end of the horizontal span. Highly glazed porcelain insulators are good, and the best shape is that known as the "small-shell." At each end of the aerial allow at least four feet of halyard of some sort, so that the aerial wire does not come nearer than about three to any mast, guy wire, tree or building. The same precaution must be observed with the down-lead; a very useful method of keeping it out from the wall is to hold it out by a stay at the bottom end as illustrated in Fig. 1. This stay must have three insulators inserted in it. This down-lead, as well as the lead-in, should be a continuation of the horizontal portion of the aerial, and not a wire soldered on. Fig. 2 shows a handy method of eliminating aerial sway where the aerial is attached to a tree.

The Lead-in

We now come to a consideration of the actual lead-in to the set. Loss of energy by capacity is unavoidable here, but great care must be exercised to keep this loss at a minimum. Don't cut the wire and join up to an ordinary lead-in tube. By far the most effective way is to drill a hole through the top of the window frame, half-an-inch or so in diameter, and push through this a piece of ebonite tube which fits it tightly and projects at least six inches on either side. The outside end should be bent downwards slightly to prevent rain running into the room through the tube. This bending can be done by immersing the end of the tube in boiling water, when it will become pliable.

The horizontal portion of the aerial must be pulled taut; so must the down-lead by means of the stays (see Fig. 1). Insert the free end of the down-lead (A Fig. 1) through the tube T and pull it through to the inside of the room so that it is reasonably tight. To hold it in position, a cork or rubber stopper, having a portion cut away from one side to allow the wire to pass, can be inserted in the inside end of the tube.

Indoor Aerials

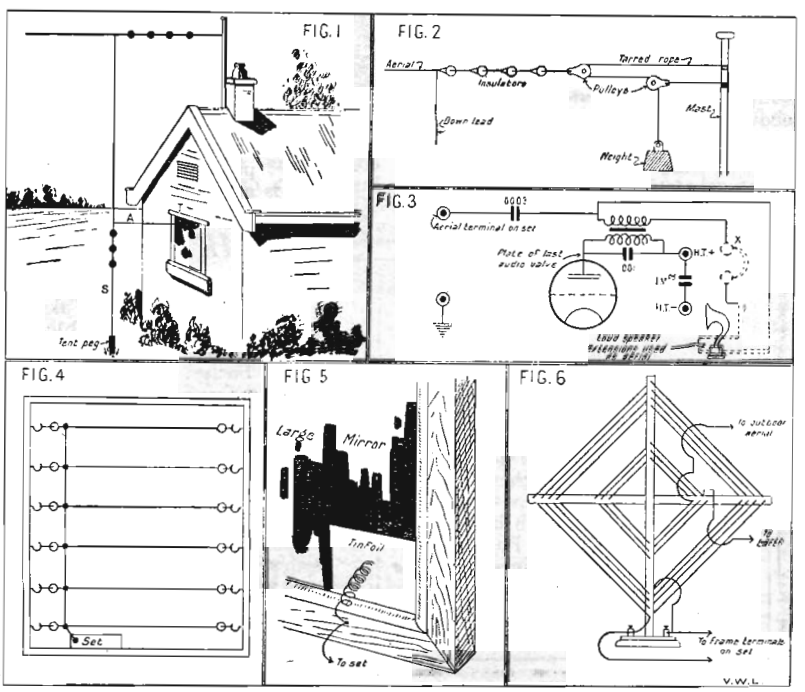
Despite what has been said regarding the inefficiency of low aerials, there are many suburban dwellers who are unable to erect outdoor aerials or who may desire to have a second aerial suitable for local work on crystal sets or even interstate reception on more powerful sets far enough removed from the locals, and for these the arrangement shown at Fig. 4 is the best of the indoor installations.

The erection of this aerial is a simple matter. Twelve hooks are inserted in the walls, spaced sixteen inches apart and about ten inches beneath the ceiling. Six separate wires with an insulator at each end are fixed across the room and at one end, close to the insulators, these lengths are joined by a cross wire knotted at each joint. This cross wire leads down to the set. The best wire for this purpose is that known as phosphor bronze aerial wire, consisting of a large number of stranded wires. Owing to its flexibility it is easy to handle. Small "egg" insulators are best for this aerial.

In Fig. 5 is shown an unusual indoor aerial of some interest. It is not generally known that the silvered or mercury backing of a large mirror forms an indoor aerial of comparatively high efficiency. If a lead be fixed to the backing and connected to the aerial terminal of the set, good results can be obtained. There is no need, however, to make an actual connection to the backing and the diagram shows a more simple method of connecting up. A small sheet of tinfoil, six inches or so square, if pasted on the front of the glass, will pick up the energy by capacity and a fine wire may be connected between tinfoil and set.

A very efficient spring-aerial which readily adapts itself to the size of any

(*Concluded on page 55*)





Conducted by EILEEN, to whom all communications for this feature must be sent

SMARTNESS AT THE SEASIDE

THE bathing season is now in full swing, and every girl is looking to her beach attire. The girl of today spends almost as much care and thought upon her bathing costume and wrap as she does upon her frocks.

AT many of our fashionable seaside resorts, you will see the same girl appear in two or three different bathing rigs during the course of her holiday.

There are wonderful rubber cloaks this season, and rubber ornaments, but as a rule, our girls go in for sport and fun in the water, and cannot be bothered with ornaments, although they like their bathing suit to be as smart and becoming as possible.

Many smart costumes appear in the shops this season, and bright and varied are the colors and designs. I have noticed in some of the shop windows brightly colored gowns with stencil paintings on the jumper. These paintings usually take the form of flying fish, sea birds, seaweed, etc. On one particularly smart gown was noticed the inevitable black cat. However, for the girl who spends much of her time on the beach—the real bathing girl—a plain gown is much more suitable. Most girls prefer a black woollen gown, and these worn with a surf belt are very becoming. They are usually tight fitting with no superfluous material, and are much more comfortable in the water than the more showy gowns. As it is generally believed that a plain black gown tends to make a girl look slimmer, the very slight girl should wear a colored gown.



The cap should match one of the colors when a two color suit is worn, but with a one color suit, the cap is often in vivid contrast, in which case it generally matches the cloak.

Wraps may be of any material, but they should be of something that will wash and will not stain with salt water.

One of the smartest wraps I have seen was made by a young girl, of a straight length of ordinary white Turkish towelling. It is edged all round with a deep fringe of vivid blue wool; and a bold applique design, cut from cretonne, makes huge motifs at intervals round the cloak, which is smartness itself.

Then there are the cretonne wraps, for which a special kind of cretonne is used. The most popular material, and the most suitable for wearing over a wet bathing suit, is turkish towelling. Striped Turkish towelling is very popular, and this may be obtained in many pretty shades. Then there is the towelling with many becoming designs in all colors. This material may be obtained in 54-inch width, and 1½ yards of this would make a cloak, but if single width material is used, 3 yards would be required, and this should be joined down the back and the two widths used.

These are but a few ideas; they may, perhaps, suggest others.

Surf shoes of all colors and designs are on sale at present, and these are very handy for beach wear.

HOME HINTS

Bananas in Jelly.—Take ¾ oz. powdered gelatine, 1½ pints of water, 3 lemons, one cup sugar, eight bananas. Place water and gelatine in a saucepan and bring to boiling point. Add juice of three lemons and finely grated rind of one, then add the sugar. Boil for one minute. Wet a mould and line with bananas cut into fine rings. Pour over them the well-strained jelly. When set, serve very cold with custard.

Almond Biscuits.—Take 5 tablespoons flour, 3 tablespoons sugar, and 3 tablespoons butter. Rub all together, moisten with a beaten egg. Roll out thinly, brush with beaten egg, and sprinkle with chopped almonds.

To Clean Glazed Tiles.—Constant washing with water and strong soap has a tendency to spoil the glaze of tiles. A cloth soaked in turpentine will clean the tiles effectively, and improve their surface.

For Burns and Scalds.—Common whiting mixed with cold water to the consistency of thick cream will relieve the pain caused by burns or scalds if the skin is not broken.

A Plate Wrinkle.—The quickest and most effective method of keeping plated articles, such as spoons and forks, in good condition, is to wring out a tea towel in very thin whiting, let it dry, and use it to dry the silver, etc., after washing it.

LITTLE THINGS

Little things, a nod, a smile,
A kindly word once in a while,
If everybody only knew
The wonders that these three can do—
They'd use them!

A single smile of true intent
Can start a crowd to merriment;
Can whisk away your troubles, too,
And make the whole world smile for you—
Just try it!

Or nod, or words, what they impart,
Could lighten many a heavy heart,
Footsteps of peace, more felt than heard:
A smile, a nod, or some kind word—
How we need them

—Mary Morey



In the accompanying sketch, the figure on the left shows a neat holiday or beach frock. Plain white fuji with colored belt makes this design very attractive.

The figure on the right shows a smart afternoon frock which looks very becoming in black marocain with floral georgette sleeves.

WHEN WOMAN WILLS

SO different we are told we are, one from another; so very different in ourselves today, tomorrow! Poets, some quite normal, enthuse about our attributes, others in subtle rhyme bemoan our inconsistency, our turn of mind.

But when My Lady really makes up her mind, the sex is equalised—we are the same—for neither wild horses, nor jazz, nor motor cars, could then dissuade us from our purpose. True, not often do we take life so very very seriously, except perhaps, at Christmas time, when resolutions are not whims, nor fancies.

But seriously, we can improve ourselves, our friends, if only we stand back just once a year and look, not at our neighbours, but ourselves. Then quietly decide just how we can be more worthy of our womanhood which would make us nicer to ourselves and others!

The value of women in the scheme of things, the respect they gain in this workaday world, rests with themselves. What happier New Year Resolution than that we shall set our value high!

Wine Stains— Wine stains can be removed by holding the stained portion of the cloth in boiling milk. Mildew stains will disappear quickly if soaked in sour milk.

IT STANDS TO REASON

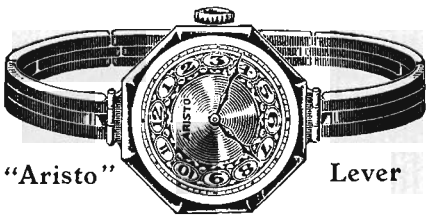
that we can supply highest quality goods, at lowest prices in the State, because we import direct, manufacture on the premises, and sell direct from upstairs showrooms, eliminating middlemen's profits and heavy shop rents - - - A written guarantee is given; the money is refunded if not satisfied - - - Orders by mail receive prompt and efficient attention.



Five diamond Crossover Ring, set in 18ct. gold and pure platinum, £10
Others £6-10 to £15



A dainty diamond set Cluster Ring, in 18ct. gold and pure platinum, £10
Others from £11

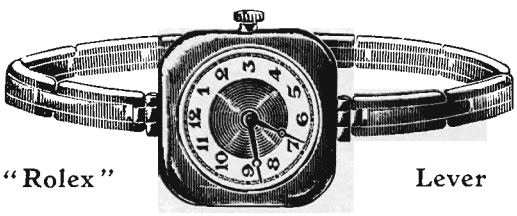


"Aristo" Lever

The "Aristo" Lever is the aristocrat of all lever wristlet watches. It has 15 ruby jewels, brequet hairspring, and all the latest constructional improvements. Solid 9ct. gold case on a strong gold expanding bracelet. Five years' written guarantee - - - - - **£8-0-0**
(Other makes £3 to £7-10)



Fashionable Real Onyx Ring, set with a white stone. 9ct. gold mounting, **10/6**
Set with a diamond, 15ct. gold, £3



"Rolex" Lever

A genuine jewelled "Rolex" Lever, fitted to a solid 9ct. gold case on a strong gold expanding bracelet. Five years' written guarantee. Our price - - **£5-5-0**
(Other makes on moire silk wristlets from £2 upwards)
INITIALS ENGRAVED FREE

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Heavy 9ct. gold Signet Ring, 8/6
Larger size, 12/6

The Direct Supply Jewellery Co.

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9ct. gold Signet Ring, 6/6. Many other designs in stock



V.R. CRICKET COMPETITION

Interest in the V.R. Cricket Association competition is becoming keen, and some exciting finishes were witnessed in the round of matches just completed. Full results were :—

Coburg 103 (Wilmot 42, Montgomery 3 for 16) defeated Telegraph 95 (Powell 46 and 3 for 30, Ryder 3 for 38). Signalmen 175 (Waters 82 not out, Ferguson 66 not out, Berry 5 for 22) defeated Flinders-street 109 (Clark 38). Melbourne Yard 140 (Williams 35, Hower 24 not out, Patterson 4 for 31) defeated Jolimont Yard 109, (Wheelahan 44, Tunne 3 for 23). Way and Works 123, (Williams 36, Morrisey 32, Todd 6 for 30) defeated Signalmen 108. Melbourne Yard 197 (Patterson 40 and 3 for 3) defeated Flinders-street 85 (Hickey 31, Buttons 38).

SIGNALS DEFEAT SECRETARY'S BRANCH

The fourth annual cricket match between the Secretary's Branch and the Signal and Telegraph Branch Head Office staff, was played at South Melbourne Cricket Ground a few weeks back.

The Signallers, captained by that popular sportsman, Jack Ford, batted first, and the outstanding feature of the innings was the brilliant efforts by Alec Hosking, whose score of 102 included three sixes and eleven fours.

Jack Way (34, including two sixes) and Jim Butterfield (21) helped to bring the total score to 200, and the last wicket fell just as lunch was announced.

The Secretary's Branch representatives, captained by A. W. Keown, could only reply, however, with 85 runs.

Linden (26) appeared set for a good score when he was caught by Jack Williams. One of the brightest exhibitions of play during the afternoon was given by Bert Stenning, who immediately attacked the bowling and knocked up 24 (not out).

Arrangements for the match were in the hands of Messrs. Lewis (Secretary's) and Farrell (Signals).

HARRIERS GETTING BUSY

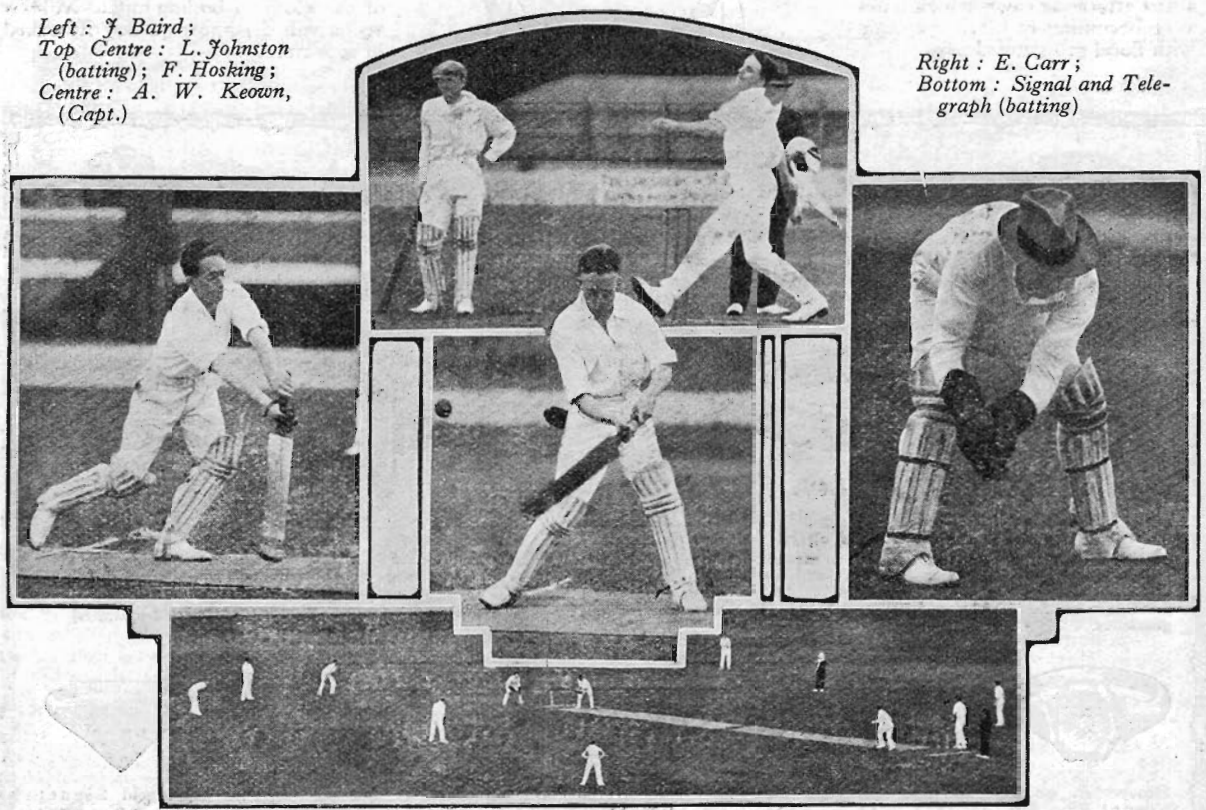
The Harriers have so far failed to break the ice in the inter-club contests, but have performed creditably against some of the leading teams.

Under the capable direction of Messrs. White and Bristow, a number of the lads are rapidly improving, and give promise of developing into first class performers.

The first club social was held at the

Left : J. Baird ;
Top Centre : L. Johnston (batting) ; F. Hosking ;
Centre : A. W. Keown, (Capt.)

Right : E. Carr ;
Bottom : Signal and Telegraph (batting)



Signals v. Secretary's Branch cricket at South Melbourne

Institute on Tuesday evening, December 6, and the enthusiasm of those present augurs well for the future of the Club.

INTER-BRANCH TENNIS

Railway tennis was awakened from its winter hibernation recently by the Betterment and Publicity Board and the Advertising Division, who tried conclusions at St. Kilda. The latter scored a decisive victory, but in a return match a week or two later, the games were 65 all. The rubber match is due this month. Meanwhile challenges are coming thick and fast, and as the result of a meeting of budding Head Office Pattersons, a series of inter-branch matches at which the H.O. singles and doubles championships will be decided, has been fixed to begin at the Methodist courts, Glen Iris, on January 23.

Entries close on January 14.

BOXING NOTES

"Sid" Sherrin, well-known referee and keen supporter of amateur sport, has shown his practical interest in the Institute Gymnasium by donating a medal each year for competition among boxing students.

The trophy for 1927 was won by Jim Delaney, Suburban Booking Office, Spencer-street, who richly deserved the honor. Starting "green" in the first term of this year, he progressed rapidly, and after performing creditably in the Institute open competitions, won the welter weight championship of the Australian Railways in October last. Larry Copeland is naturally pleased at his latest success, but this is not the first time he has produced a champion in a year, and is hopeful of unearthing another find next season.

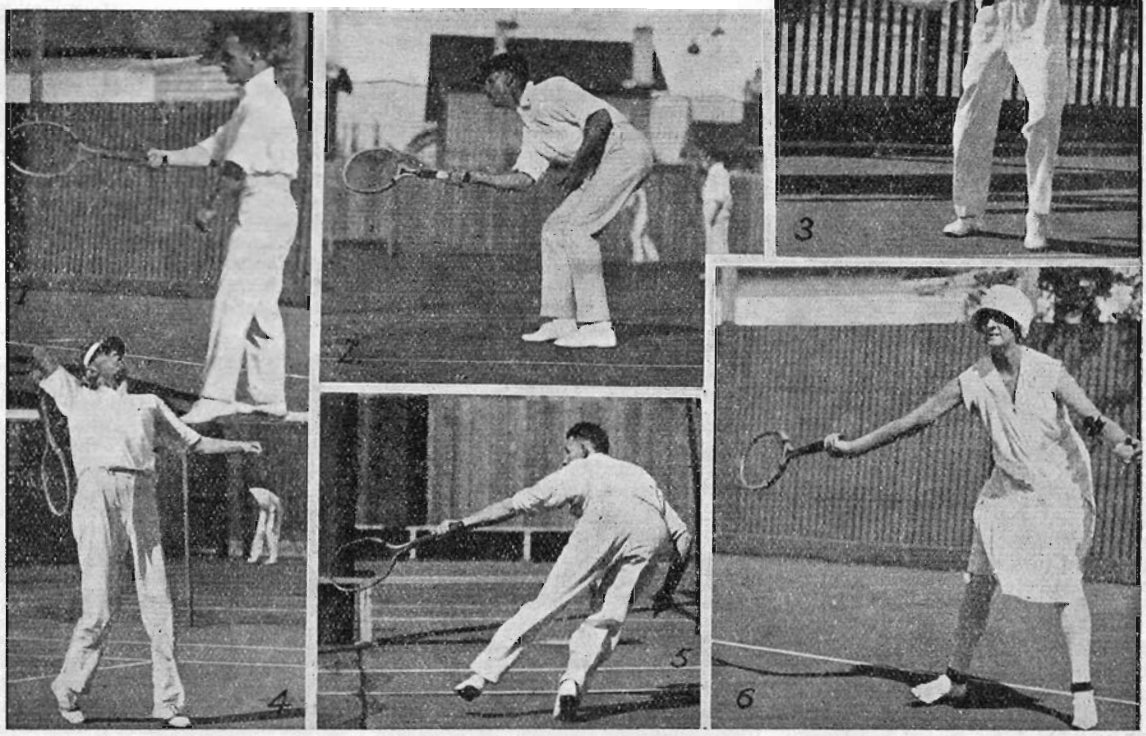
The keenest boxer in the Gymnasium they strike their best form look like having a great chance of representing Australia.

WITH THE BOWLERS

The Victorian Railways Bowlers opened their electric light season on November 9, when they played Toorak on the Toorak green.

An interesting game resulted in a win for the Railways.

The second game was played at Hawthorn City on November 30, when, owing to various causes, a fully representative Railway team could not



Betterment and Publicity Board and Advertising Division try conclusions at tennis. 1. J. Fowler (B. Bd.) 2. A. V. Stenning (B. Bd.) 3. Angus Macdonald (Ad.) 4. C. Cheong (Ad.) 5. J. Hemming (Ad.) 6. Miss Macdonald (Ad.)

BLANCH CUP COMPETITIONS

The next contest for the Blanch Cup will be held in Melbourne about the end of February or early in March, and those desirous of being included in the Victorian team against New South Wales are asked to submit their names to J. F. Hennessy, Secretary's Branch, Railway Offices, Spencer-street, not later than January 9, 1928. An entrance fee of 10s. must accompany application.

It is proposed to commence the try-outs about the middle of January.

is George Pavilach. Although he missed the Brisbane trip by inches, he is still hard at work and rarely misses a day at the punching ball.

J. H. McGrath and Reg. O'Haire are others who are sticking to their work after their trip north, while George Goudy shows promise of developing into a top notcher.

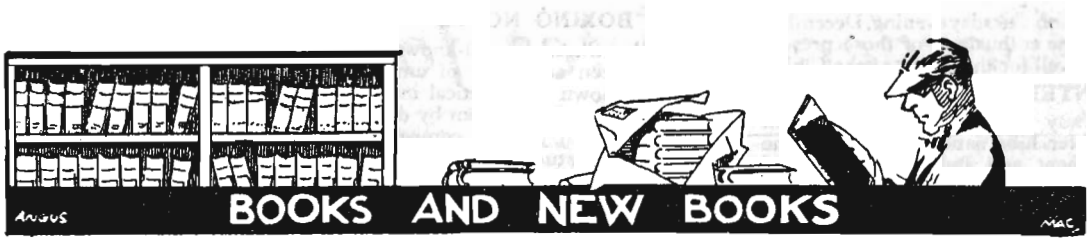
Claude Angelo and Tom Bolger are both hard at work in preparation for the Olympic trials to be held at Sydney early in the New Year. Both are wrestlers of distinction, and should be placed in the field, and they were defeated.

The Queensland Railroaders are making preparations for a visit to Victoria in March next with a view of wresting the ashes from Victoria.

BALLARAT SPORTSMEN

Mr. Maddern and Mr. S. J. O'Haire, Vice-Presidents of the V.A.A.A., Ballarat Branch, were recently elected to that position out of five nominees. The latter has filled several honorary posi-

(*Concluded on page 55*)



Reviewed by J. D. MICHIE

"How to Own and Equip a House."—A reliable and most useful book.
"Frozen Inlet Post."—A story with a thrill to every page.
"The Quest of Youth."—Jeffery Farnol's latest book and one of his best.
"The Padlocked Plateau."—Is a tale of love and adventure—a book for lovers of the open air.
"An Unofficial Rose."—By Mary Marlow, is thrillingly absorbing and of charm and distinction.
"But Yesterday."—Maud Diver's latest novel, is a delightful book, interesting and impressive.

"HOW to Own and Equip a House," by R. A. Bateman; through Robertson and Mullens. This is a comprehensive work, written with the object of being of interest and value to every person who owns or desires to own a house, and wishes to improve and beautify it, whether it be a small mansion or a small cottage.

The first object of the book is to encourage the reader to become the owner of his house and to describe the various ways in which this can be accomplished.

Consisting of 350 p.p. 8vo., divided into 16 chapters, which deal concisely with important phases of the subject, such as how to find the money, choosing the site, building a new house, buying a house already built, types of new houses, with plans and photographs, furnishing the house, furnishing out of income and hire purchase, on making a garden, etc., etc.

A careful study of this book should be most helpful to those who may be seeking advice upon such an important matter as that of building or purchasing a house. Price 2s. 6d. of all booksellers.

"FROZEN Inlet Post," by James B. Hendryx (Hutchinson and Co.), is the story of a young man who failed, of one who made good, and of a girl for whom these two strained their utmost, each in his particular way in the frozen North. It is a tale of villainy and heroism, love and hate, in a place where men's passions run high, and where law is as much a question of might as right. It is a book that brings home to the reader the reality of those great white spaces for which such immense numbers of the dwellers in cities yearn.

James B. Hendryx is equally at home in the North as in the West, and his stories of both areas bear the unmistakable stamp of first-hand knowledge. "Frozen Inlet Post" holds the reader's interest from start to finish both by the vividness of the writing and the excitement of its incident.

"THE Quest of Youth," by Jeffery Farnol (Samson Low). This is the best Farnol book since "The Broad Highway." Of course it is written to the unfailing Farnol formula—the maiden in distress, the plot, the murderer, Bow-street runners, the noble lord who is weary of life, and so on.

The maiden in distress in this case is a beautiful young Quakeress who attracts the attention of Sir Marmaduke. Circumstances bring them together and they travel along by-paths through rural England, tasting the delights of the countryside. Their donkey 'Orace, provides the humor. Some fine fist fights, which you would expect to meet in a Farnol story, occur. The villians are extremely villainous, the hero as heroic as any reader could wish.

The whole book is a piece of pure romance which carries one right away from mundane affairs. (Our copy through Robertson and Mullens).

"THE Padlocked Plateau," by Arthur P. Hankins (Jarrolds', London), is a lively, workmanlike story of love and adventure in America. A famous detective is engaged to hunt down cattle stealers, and the tale of the hairbreadth escapes and skilful avoidance of his enemies makes splendid reading.

It is alive, and the theme is boldly treated, while as a background is the rolling windswept prairie that treats friends and enemies with remorseless cruelty. A book for all lovers of the open air.

"AN Unofficial Rose," by Mary Marlow (Collins). Through Robertson and Mullens, is a story in which the scene shifts rapidly from Australia to England where most of the action takes place, and returns for the final chapters to Australia. It is the love story of a little low-born girl adopted by a family among which she is brought up to regard herself as the heiress and one of the true line.

By accident the revelation comes and she finds that she is, in sooth, an unofficial Rose. Holding her head high, undaunted, she returns to Australia and finds there a haven in the arms of the man who has always loved her. Through the story Miss Marlow uses effectively a personal knowledge of the stage and circus life.

"BUT Yesterday," by Maud Diver (John Murray).

That even the most dominant, man, once dead, lies at the mercy of the living, is the opening theme of this book which goes on to show that the living do not necessarily have it all their own way.

On the death of Sir Henry Arden, a distinguished public man, there follows the gradual revealing of the true Henry Arden. The clash of characters and the sequence of events springing from the curious link between the dead father and the living son form the main drama of the book that works up to an unexpected climax.

It is not only a thrilling story, but has all the elements which go to make up the success of the novel which is lifted above the ordinary by its air of charming romanticism.

Garden Notes for January

WHAT TO SOW AND PLANT

Beet Red (Turnip-shaped sorts only, after the first week). Borecole. Carrot. Cauliflower (late eclipse and other main crop sorts.) Celery. Cress. Kohl Rabi. Lettuce (Iceberg, New York, Neapolitan). Mushroom Spawn. Mustard. Potato (Early Manistee, Carman, Scottish Triumph). Radish. Savoy Cabbage. Spinach (Round and New Zealand). Swede (Laing's Garden). Turnip (Orange Jelly and White Stone).

FLOWER GARDEN

THIS season of the year as a rule is very disastrous to the garden, and the losses sustained are often disheartening.

As dry weather is to be expected, the better way to show that we have taken past lessons to heart is to prepare to meet it by adopting measures to prevent, or at least to mitigate the ill effects of a possible dry spell. A good way to do this is by mulching. The operation consists of covering the surface of the beds with various materials preferably well-decayed cow or stable manure, to a depth of five or six inches ; this prevents a too rapid evaporation of moisture from the soil, and at the same time intercepts the direct rays of the sun.

It has long been thought that one has to put up with periods of dullness that take place between the last fading flower of the Dahlia and the first of the bulbs of the early spring. Such is not the case, and this can be overcome by making a sowing of nice stocks, primula malacoides, pansies and Iceland poppies, so as to have a good supply of seedlings to be ready to plant as weather permits.

Seed Raising

The results obtained by amateurs in seed raising are sometimes very disappointing. To obtain the best results it is essential to use seed pans and boxes. By this method you hold more control over them than if sown in the open. As drainage plays an important part, place about one inch of charcoal in the bottom of these, fill up with a light or sandy soil, then thoroughly soak, and allow to drain.

It is important that seeds be not sown too deep. They should be thinly spread over the surface, and covered with a very thin layer of soil, and firmly pressed down. After the seed is sown, the boxes should be placed in a cool situation, and never allowed to become dry. Great care should be taken when watering not to apply water with too great a force ; all watering should be done with a garden syringe. When seedlings are large enough to handle, they should be picked out and planted in shallow pans, giving each plant sufficient room to make a strong root system.

The budding of roses should be finished this month, wherever the bark will run ; support should be given those previously budded. Prepare beds for early flowering bulbs, corns and tubers. Put in cuttings of verbena, shrubbery calceolaria, ageratum, iresine, and other budding plants towards the end of the month.

Layer Carnations This Month

Carnations should be layered this month, and those who desire to increase the varieties already in their garden should carry out this work either this or, at latest, next month. The best method to adopt is to prepare a compost of leaf mould, loam and sand, and spread this around the plant to be layered, to the depth of about three inches. Denude the shoots selected of some of the leaves at their base round a joint that can easily be placed under ground. Through this joint make with a sharp knife a slit in an upward direction, and extending to the next joint, so that a tongue is formed. Press the slit portion into the compost, and pin it down below the tongue. The young shoot should then be made to stand straight up so that the slit portion is kept well open. Then add another layer of the compost, press the whole well in, and water should dry weather ensue. It is necessary that layers be watered daily.

Those desiring a display of winter variety sweet peas should not delay in planting. The best method to adopt is to lime the ground where they are to be sown, and after watering well for a short period the ground should be trenched thoroughly, and some good well-rotted cow or stable manure worked into the soil. A good plan is to trench from 2½ to 3 feet, putting in a layer of manure, then a layer of soil every six inches, and allowing at least 18 inches of good loamy soil between the topmost layer of the manure and the surface. Before sowing the seed give the ground a good soaking, and when well-rotted cow or stable manure is not available, use a mixture of bone dust and superphosphate.

The best results and the maximum of bloom are obtained by allowing from 18 to 24 inches between plants, but in order to be certain that you will have no misses, it is advisable to sow the seed much closer and transplant seedlings not required in bed.

VEGETABLE GARDEN

There is little respite to the grower in this department. Timing is so important when the thermometer mounts to 90 odd in the shade. Then the early cauliflowers, cabbages and potatoes must be planted ; given good cultivation, they will mature in three months. In the home garden weather conditions may be chosen. Cauliflower, early eclipse, is usually first, although if well rooted seedlings of this or other early varieties cannot be obtained, and it is desired to raise plants from seed, late Metropole or late Eclipse are preferable. The principal essential to success in cauliflower growing is to keep the plants on the go from the time the seeds germinate until the heads are formed ; any severe check is fatal to rich production of well-developed heads. Cauliflowers require a deeply-worked, good, rich soil.

Strong seedlings or Brussels sprouts and Savoy should be planted without delay, as they are so serviceable for summer use.

French beans, runner, butter and lima beans should still be sown for last crops. Water and mulch is indispensable to these.

Onion Growing

As an ingredient of salads, for flavoring soups, stews, etc., boiled or fried as a vegetable, or pickled, the onion is largely used in every household, and an onion patch is at all times a profitable investment for the home gardener.

Onions will succeed well on almost any ground, but the ideal soil is one that is slightly moist, well drained, rich with manure, deeply dug and thoroughly broken up. Onions will grow well and quickly on sandy soil, but the bulbs do not keep as well as those grown on stronger or heavier land. Ground that has been utilised and heavily manured the previous year for celery will generally produce good onions. "Cicada" manurial compost added to light sandy loam will make good onion ground ; although onions may be grown on the same ground year after year, and will stand repetition better than any other vegetable.



Conducted by UNCLE BEN

A HAPPY NEW YEAR!

DEAR Nieces and Nephews.—Nineteen hundred and twenty eight! Remember that! I wonder how many times you will make a mistake and put 1927. It will be only for a day or two, though. You will soon recollect; and you'll never think of poor old 1927 any more. Well, here's A Happy New Year to you all! May you have many of 'em, and may each one be better than the last. And I'll tell you how you can make it better.

If a fairy had come to you on Christmas Eve and had said to you, "What would you like me to bring you for a Christmas present?" What would you have said. "Oh, I don't know; I want such a lot of things!" Such a lot of things, do you? And so you would not have been satisfied with just one gift? Well, my experience of life has taught me to be satisfied with just *one thing*; and that is *perseverance*. I know it is a very prosaic virtue; but have you ever thought how very much it means?

What does it mean for *you*, personally? Let me get close to you and ask your heart. It means—does it not?—trying, and keeping on trying, to be kinder than ever—at home, at school, at play. It means trying, and keeping on trying, to be more diligent at lessons, even at those you hate most. It means trying, and keeping on trying, to be more thoughtful of others, especially my parents, my family, my friends. I might go on like this for ever so long; but I think I have said enough to indicate the vast importance of this homely virtue of perseverance.

What do you want to do this year? There is nothing I can think of, not a single thing, that you may not accomplish if you only try hard enough and often enough. Do you want good health? Persevere. Do you want success at an examination? Persevere. Do you want—really and truly—to become more thoughtful of others? Persevere. So that it all comes to this—everything in the world can be accomplished by perseverance.

I want you all to make up your minds to aim high. Nothing was accomplished in this world without that resolve. Make it in your own hearts. Say it over and over again to yourself. I will aim high. First make up your mind what you want to do, for this year only, and then set about it at once and keep on at it.

Shall I give you a motto for the New Year? Well, I will; and it shall be in Latin. It is this—

HOC AGO

or, "*this one thing I do.*" I *do*, you notice! Not "I *dream.*" Not "I *discuss.*" Not "I *design.*" Plain, hard, solid, action; that is it. And this you will notice, means perseverance. "I keep on doing," it might be put. Now, we will make this our motto for the New Year; and let us all determine to live up to it.

If you do that you will be happy. And to be happy is, for you, children, the greatest thing in the world. Be content, and keep on doing and keep on smiling.

I do hope you had plenty of fun, and got lots of presents, from Father Christmas. Isn't the Christmas and New Year time just splendid? You've holidays still and must make the most of them; you must tell me all about them, what you did and what you saw and where you went.

I have received charming letters from Emily Bird, Hazel Carroll, Thelma Stevens, Ivy Hulett, Linda Cooke, Mirie Russell, Joan Anderson, Mavis Madder, Linda Harris, Hedley W. Swift, Raymond G. Swift. And Bernie Simmonds of Meredith, nine years of age, writes asking whether he may become a nephew.

Certainly, Bernie, you are very welcome. I shall have pleasure next month, in commenting on each letter.

Yours Cheerily,

UNCLE BEN.



This is Niece Hazel Carroll, of Jeparit, reading the book she won as first prize in our Short Story Competition. Her story appeared in the November Magazine. Hazel has also won a first prize of £3 3s., together with a small scholarship, awarded by the Wimmera Motors Company, for the best essay on "Why we should buy from Britain."

AUSTRALIA'S EMBLEM

By HAZEL CARROLL

Mother Nature has four daughters, by name Summer, Autumn, Winter and Spring. They are sent in turn to visit different parts of the earth. When Winter visits a place, as she is inclined to be of gloomy disposition, most of the flowers sleep during her stay with them. She returned to the north one time and told of a land in the south; a land where her sway was weakened by the sun's power. Spring followed in Winter's footsteps, and, being of a bright, happy nature, she proceeded to deck all the trees and flowers in bright garb; everything seemed to have a new lease of life.

One morning she noticed that some trees, which usually wore a sombre green gown, were clothed in dewdrops, which the rising sun turned to balls of gold. Spring was so delighted with their beautiful appearance, that she issued a command that, every year at her visit, they should deck themselves in the fairy balls of gold.

Many years later white men came to live in this land, which they called Australia. When they saw the Wattle trees in their Spring garb, it seemed to them that they were a fitting emblem of this land of sunshine.

V.R. Institute Syllabus

CLASSES FOR 1928

Classes commence January 30, and are open to all Financial Members of the Institute who have paid one year's subscription in advance, or who have given authority to collect subscription per Pay Rolls.

REGISTRATION FEE.—1/- for each class. Enrolment Form must be produced to Instructor upon joining a class.

Each Member attending classes may obtain a Free Card Pass (First or Second Class, according to Departmental status) available from the station nearest to his home, to Flinders-street and return. Applications to be made by the Member to the Head of his Branch.

THE CLASS WORK is divided into FOUR TERMS of 10 Weeks each as follows :—

1st TERM—January 30 to April 7
2nd Term—April 16 to June 23
3rd TERM—July 2 to September 8
4th TERM—September 17 to November 24

CLASS	DAY	TIME
BUILDING CONSTRUCTION	Tuesday	7.30 p.m.
ELECTRICITY AND MAGNETISM		
Grade I. (First Year)	Monday	7.30 p.m.
Grade II. (Second Year)	Tuesday	7.30 p.m.
Grade III. (Demonstration)	Friday	7 30 p.m.
ENGINE WORKING AND WESTINGHOUSE BRAKE	Wednesday	7.0 p.m.
	Thursday	10.0 a.m.
ENGLISH COURSE (including Arithmetic, Geography and Grammar)—		
1st Grade	Wednesday	7.30 p.m.
2nd Grade	Thursday	7.30 p.m.
ALGEBRA—		
1st Grade 2nd Grade	Tuesday	7.30 p.m.
MECHANICAL DRAWING—		
1st Grade	Monday	7.30 p.m.
2nd Grade	Wednesday	7.30 p.m.
3rd Grade	Wednesday	7.30 p.m.
SAFE WORKING—Train Running—Guard's and Enginemen's Duties, etc.,	Monday	10.0 a.m., 7.30 p.m.
Signalling	Tuesday	10.0 a.m., 7.30 p.m.
	Thursday	10.0 a.m., 3.0 p.m.
SHORTHAND—		
Theory Elementry	Tuesday	7.30 p.m.
Theory Advanced	Thursday	5.0 p.m.
Speed Course	Tuesday	5.0 p.m.
Speed Course	Thursday	7.30 p.m.
STATION ACCOUNTS AND MANAGEMENT	Wednesday	10.0 a.m., 7.30 p.m.
TELEGRAPHY—Practice and Theory	Monday and Thursday	9.15 a.m. till 5.0 p.m., and 7.0 p.m.
	Tuesday, Wednesday and Friday	9.15 a.m. till 5.0 p.m.
TYPEWRITING—	Wednesday	5.0 p.m.
ACCOUNTANCY—		7.30 p.m.
Intermediate Course	Monday and Friday	7.0 p.m.
Final Course	Monday	6.0 p.m.
BOOKKEEPING—Commercial Course	Friday	6.0 p.m.
Economics, History, Psychology, Literature, etc., (subjects selected by students)	Classes commence in April. Lecturer appointed by University Extension Board	—

Students are advised that at the close of the Educational Classes each year, examinations are held in all subjects for those who have enrolled and attended not less than 45 per cent. of the possible attendances. The prizes available to Institute Students are :—

" Harold W. Clapp " Prize, under three divisions, viz.—Division (a)—Prize £7 ; Division (b)—Prize £7 ; Division (c)—Prize, £7. "Arthur E. Hyland " Prize, £5 5s. ; " J. C. M. Rolland " Prize, £5 5s.

The abovementioned are special prizes. The following are awarded as First Prizes in all subjects :—" T. H. Woodroffe " Prize, presented by the late Chief Mechanical Engineer, Mr. T. H. Woodroffe. " Peter Alexander Memorial " and the " W. R. Brown Memorial " Prizes, and Council First Prizes ; in addition to which the Council awards a Second Prize for each subject (in each grade of the examinations).

Enrol Obtain knowledge ! The first element of success is the determination to succeed.



What the Institute Has Done for Me

No. 7.

FROM MESSENGER TO S.M.

IT was 1920 when I joined the railway service. I was 17, and I started as a messenger in the Melbourne Goods Sheds. After six months I got out as a daily paid goods and parcels clerk, later drifting into the job of cloakroom porter.

Fortunately, I also drifted into the Victorian Railways Institute. I can't claim much credit for personal initiative in joining the Institute. My father happened to be an instructor there at the time. And I am a dutiful son. So the enrolment was inevitable.

Anyway the results were surprising. First of all, I qualified in telegraphy and ambulance work. Then in October, 1925, I was officially certified O.K. in electric staff operation, and two months later I celebrated my 22nd birthday by passing my A.S.M.'s exam. The certificate was a very welcome birthday present.

My indefatigable instructors—I mention particularly Mr. Larkins and Mr. Clarke—continued their good work, and in August, 1926, I passed in double line block work, and in the same month of 1927 I was successful in qualifying for the position of Station-master.

A messenger in 1920, I am now an Assistant Station-master and potential S.M. I take off my hat to the Institute. The credit for that hat being an A.S.M.'s cap and not a cloakroom porter's rests with the Institute Instructors.

J. HALLY,
Assistant Station-master.

LIBRARY FOR NEWPORT

A library bookcase has been established at the Newport Electric Power House containing in the first instance 50 new volumes of popular fiction, to which further volumes will be added, for the benefit of members of the Victorian Railways Institute who are located there. The Institute hopes that all employes will become members and avail themselves of these facilities.

Extra charges are assessed passengers on English railroads who carry typewriters as part of their luggage.



The newly-elected Committee of the Retired Railwaymen's Club

Back (left to right): J. Baker, M. Quinn, G. Phillips, J. Saunders. Front (left to right): J. Cotter, J. Ward, A. Anderson

M.C.C.

Mather's Commercial College

Opens Monday, 16th January, 1928

ALL COMMERCIAL SUBJECTS TAUGHT:

Book-keeping, Commercial Arithmetic, Office Practice, Commercial Correspondence, Commercial English, Shorthand and Typewriting. Special Classes for students who work shifts. Correspondence Tuition for Country Employes.

The Principal has had 16 years' experience in various branches of the Service and knows exactly the requirements of candidates for employment.

Write for Prospectus Post free-No obligation

Consult the Principal in regard to the vocational future of your family. Advice is free

PRINCIPAL: T. W. Mather, P.C.T., F.C.T.S. (Inc.), F.I.P.S. (Eng.), L.S.W. (Vic.), Gold Medallist 200 words a minute, Certificated Book-keeper, 10 years' practical experience as a teacher and shorthand writer.

5th Floor, Nicholas Building, 29 Swanston Street, Melbourne

(The Commercial College nearest to Flinders Street Railway Station)

'Phone F5757

Wireless (*Continued from page 45*)

room, is on the market, and may be purchased for half-a-crown including insulators.

A special adapter for plugging into the electric light whereby the lighting circuit in the house may be used as an aerial is also available. Home made adapters are extremely dangerous and should be avoided.

Makeshift Aerials

Makeshift aerials may consist of a wire clothes line, a wire mattress, a large wire bird-cage, a meat safe or wash tub suspended from the ceiling, the electric bell wiring in the house, one terminal of the telephone, the iron frame of a piano, metal ceiling, and so on.

Frame Aerials

Frame aerials are poor collectors of energy compared with even the worst of indoor aerials, and for this reason are quite useless for crystal sets unless situated very close to a broadcasting station.

The usefulness of the frame aerial depends entirely on its directional qualities which may be varied at will, enabling extreme selectivity to be obtained at the expense of volume. For reliable reception the minute amount of energy picked up has to be highly magnified by the use of one or more high frequency valves, according to the range to be covered ; or alternatively by one or other of the single valve super circuits specially designed for use with the frame, and suitable only for experimenters.

Space will not permit of a description of the various types of frame designed for special circuits, but about 16 turns, spaced ¼-inch apart on a 2-ft. frame is standard, although when used with the super circuits employing grid-coils fewer turns are required, i.e., 8 to 12. The " Porta " portable set employs 19 turns wound close together inside the lid, which measures 14 in. x 16 in.

The illustration in Fig. 6 shows how the pick-up may be considerably augmented by winding a few turns of flex in the centre of the frame, and connecting to an ordinary outdoor or indoor aerial. In the case of a portable set, these turns may be wound around the outside of the lid, in which the frame aerial is usually wound.

Experimental Aerials

There are numerous other types of aerial suitable only for the experimenter. One of these is shown in Fig. 3 which utilises long loud-speaker extension leads to pick up the energy instead of the usual aerial. The output is connected to the speaker through a transformer which, for best results, should be in a one-to-one ratio, although an ordinary 5 to 1 or 3 to 1 audio transformer will give quite good results. A pair of phones are connected at X close to the set, for tuning purposes. The writer has also experimented with some success with a tall tree as an aerial, the energy being tapped out by driving a long nail right into the sap about 10 feet above the ground and connected to the set through a short lead-in, and .001 fixed condenser. An ordinary earth may be used, or a second nail driven into the same tree close to earth. Full loud-speaker volume was obtained in daylight on 3LO at 35 miles using a 4-valve set (1-V-2) with this arrangement.

Railwaymen in Sport (*Continued from page 49*)

tions such as ring manager to the Boxing and Wrestling Championships, and Assistant Ground Manager Post and Rail Carnival. He is a recognised asset on the various sporting and charitable committees in Ballarat.

" Bob " McClelland is also another hard worker for sport in Ballarat, and nothing is considered properly organised unless he lends a hand, either with his brushes, his personality or his enthusiasm. The job has yet to be found on any association which he cannot fill with satisfaction. He is also a Vice-President of the South Ballarat Football Club.

C. E. Williams of the District Superintendent's Office also fills several prominent positions, chief of which is the Presidency of the Ballarat Harriers Club, a club of 37 years standing. He has occupied all the executive positions of the club. A leading Ballarat publication describes him as " one of the live wires of Ballarat athletics."

It reflects credit on the railwaymen as a whole that the services of these four are frequently called upon to assist in the management of various functions, sporting and otherwise, in Ballarat.

On Foundation Day, 1928, a monster Amateur Athletic Carnival is being held, and already they are busily engaged in preparing schedules and in getting their house in order. This meeting promises to be a red letter day for Ballarat as far as amateur athletics is concerned. It will be the last meeting prior to the selection of the Olympic team. Consequently, the cream of Victoria's athletes should be in action. This combined with the fact that Dr. Peltzer, the noted German athlete will land in Australia a few days prior to the meeting, and may possibly attend at the Carnival, will be the means of attracting many visitors to Ballarat.

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Railway Users Say—

"NO BETTER SERVICE"

HAVING had the experience of bringing household furniture, including glassware, crockery, etc., from Melbourne, last week, I wish to express my appreciation for the treatment received from your staff.

The furniture left store at East Melbourne on Tuesday morning, September 27, and arrived here on Wednesday, September 28, and as it was neither scratched nor in any way broken, I consider that no better service could be given.

I might add that this furniture has now travelled by rail from Melbourne to Shepparton in 1923, from Shepparton to Melbourne in 1924, and from Melbourne to Moulamein in 1927, altogether a distance of 466 miles, and has been handled in and out of trucks five times. This, I consider, speaks for itself and should need no further recommendation.

—Mr. W. J. Brown, Moulamein, N.S.W., writing to the Railways Commissioners.

CONSIDERATION AND COURTESY

IT is with pleasure that I write you in connection with the Conference which this organisation held in Hamilton last week, and to say how very much the office bearers and delegates attending the Conference appreciated the kindly consideration and courtesy which was extended to us by the Railways Department, and also for the courtesy which we received from the Stationmasters at Ararat and Hamilton; also Mr. Russell, of the Railways Offices, who arranged for the reserved cars. Their consideration to one and all helped to make for the smooth running of our Conference and for the contentment of those who travelled by train. I would like you to know how very grateful we are to your officials, and tender them our thanks.

—Mrs. C. E. Bolitho, General Organising Secretary, Australian Women's National League, 349 Collins-street, Melbourne, writing to the Chairman of Commissioners.

INGLEWOOD'S THANKS

PERMIT us, on behalf of the Melbourne and Inglewood executives of the "Back to Inglewood" celebration, to convey to you the deep appreciation entertained of the courtesies extended in connection with the function. The comfort of the special train provided on October 1, the fact that you permitted it to be staffed by old Inglewood "boys" in Driver Hugh Watson and Guard Percy Roff, the assistance given by Bendigo officials in decorating the engine, and the action of your staff at Inglewood in making the station and its precincts so attractive, were all valuable factors in an effort which will go down into history as one of the most successful with which Inglewood has been associated.

Assistance of such a practical nature in undertakings of the kind cannot do other than strengthen the bond existing between your Department and the public, and we are grateful for your kindly and complete concurrence in all requests made.

—Messrs. A. R. Taysom (president) and A. R. Leitch (secretary) Back to Inglewood Celebration, Inglewood, writing to the Commissioners.

COURTESY APPRECIATED

TO-DAY, we took delivery of a case of goods from Adelaide, and when they arrived at our warehouse, the contents of the crate had apparently been interfered with. We immediately returned the package to the Inward Goods Shed and the matter was taken up by Mr. Corbett.

The object of this letter is to draw attention to the courtesy of this gentleman in handling the matter, and we desire to express appreciation for the manner in which he handled the case. Happily, it was proved that no shortage had taken place.

—Payne's Bon Marche, Pty. Ltd., Bourke-street, Melbourne, writing to the Secretary for Railways.

EDUCATIONAL TOUR HELP

DURING Show Week vacation, 45 boys from this school had an educational tour to Melbourne. I desire to say how much we appreciated the efforts of the staff, both here and in Melbourne, to make our journey comfortable. Also, I wish to express thanks for the opportunity of viewing pictures of the Department's activities at the Railway Institute during one morning. The pictures were enjoyed very much.

—Mr. C. T. Scarff, Headmaster, High School, Mildura, writing to the Secretary for Railways.

AT a meeting of the school staff, held last week, it was decided to place on record our keen appreciation of the very fine hospitality extended by you and your staff to our Mildura High School guests during their September holiday in this city.

—Mr. R. McIntosh, Sports Master, Melbourne Technical Preparatory School, Latrobe-street, Melbourne, writing to the Railways Commissioners.

EXCELLENT REFRESHMENT SERVICE

BEING a constant traveller between Albury and Melbourne and Albury and Sydney, I wish to congratulate you on the beautiful refreshment rooms recently finished at Seymour Railway Station. They are the best between Melbourne and Sydney, being well laid out, plenty of room for the travelling public, well lighted, appointments good, and conducted by an excellent and efficient staff. I also wish to say that your dining car on the Sydney express is excellent, the menu provided is first class, the tariff exceedingly low for service rendered; also the staff are always most courteous and obliging.

—Mr. T. A. Horan, Olive-street, Albury, writing to the Chairman of Commissioners.

PROMPT HANDLING OF STOCK

WE wish to thank you for the prompt manner in which our stock was carried to and from the Melbourne Royal Show, and greatly appreciate the courteous attention extended to us by the officials at Somerville and Show Siding stations.

—J. Hutchinson and Sons "Hillside," Somerville, Victoria, writing to the Live Stock Agent Victorian Railways.

DOOKIE PRINCIPAL'S THANKS

I DESIRE to place on record my appreciation of the efficient services rendered this College and its clients by Mr. Dunlea, the Stationmaster at Dookie, in connection with the transport over the Railways of numerous consignments of day-old chickens and poultry stud stock during the season just closed. Further, I would recognise that Mr. Dunlea has handled all College business expeditiously and with courtesy at all times.

My reason for writing you is to express appreciation of the valuable work done by one of your officers; and Mr. Dunlea has certainly greatly assisted in the smooth working of all Railways transport to and from this institution, which is considerable.



BY APPOINTMENT TO HIS MAJESTY KING GEORGE V.

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Melbourne Depot 270 City Road, South Melb.

—Mr. A. C. Drevermann, Principal, Dookie Agricultural College, writing to the General Passenger and Freight Agent.

"A KINDLY ACT"

I FEEL I must express my sincere thanks to you and also the train staff for bringing our sheep to Neerim by the Special yesterday. I was very anxious to get the sheep as soon as possible, as they had been in the truck a considerable time before the sales at Newmarket. It was a kindly act on your part for which I am extremely grateful. Kindly convey my appreciation to Mr. Walsh and the driver and fireman of the train.

—Mr. H. A. Rowe, "Rosemont," Neerim, writing to the Stationmaster, Warragul.

PROMPT HELP IN SICKNESS

WE wish to express our deepest appreciation for the excellent treatment afforded one of our employes, J. Marshall, by the Stationmaster and staff of Toorak station.

On Wednesday morning last, Marshall was removed from a city bound train at Toorak, in the throes of a seizure, and we have no doubt that, but for the prompt and skilled attention of the Stationmaster, his recovery, which is now fortunately almost complete, would have been considerably retarded.

—D. Reddan and Co., Tobacco Merchants, 330-2 Flinders-lane, Melbourne, writing to the Chairman of Railways Commissioners.

LOST WALLET FOUND

I DESIRE to commend your Department for prompt action recently. On August 10 I was a passenger from Eaglehawk to Mologa and mislaid my wallet at Eaglehawk station. The Stationmaster at Raywood 'phoned to Eaglehawk to enquire concerning it, and I was informed at Dingee that Mr. Rawlins of Eaglehawk station had found my wallet and desired to know would I like it forwarded to Mologa. I did so, and I am pleased to state that the wallet and all contents arrived safely at Mologa that night.

—Mrs. N. Christian, California Gully, via Bendigo, writing to the General Superintendent of Transportation.

FOOTBALLERS' THANKS

I WISH to bring under your notice the excellent and efficient train service which our Wimmera patrons enjoyed for the football season just closed. The carriages always were comfortable and clean, and all trains ran to time, etc., which made it a pleasure for people to travel.

I wish to thank Mr. Maddern, D.S., Mr. Game and Mr. O'Hare, of Ballarat. Mr. Bieske, S.M., and Mr. Melrose, Chief Clerk of Stawell, and the staff in general, throughout the Wimmera, for their courtesy at all times, and who were always only too willing to do anything to further the comforts of our patrons, and interests of this League. I also wish to thank Mr. Cooke, Chief Time Tables Officer, and his staff, for the courteous and prompt manner in which they always attended to our business in Melbourne Office.

—Mr. S. Freeland, Secretary, Wimmera District Football League, writing to the Commissioners.

TOURIST BUREAU CONGRATULATED

AS one who participated in the trip to Yallourn, yesterday, I wish to congratulate the Tourist Bureau and those connected with the trip on the excellent way in which the trip was carried out. To my mind it was very educational, and the courtesy extended by those in charge of the train was most marked.

—Mr. F. Condron, Keep Bros. and Wood Pty. Ltd., Batman-street, West Melbourne, writing to the Manager, Government Tourist Bureau.

YALLOURN TRIPS APPRECIATED

I desire to express to you and your staff my high appreciation of the arrangements made yesterday for those who made the trip to Yallourn. We had a delightful day. Nothing better has been experienced by me in any part of the world, and I think I can safely say that this was the feeling of the whole of the company.

—Mr. F. A. Brown, care Brown, Prior and Co. Pty. Ltd., 430 Little Bourke-street, writing to the Chairman of Railways Commissioners.

OUR trip on Tuesday last was pronounced a huge success by all of us, and Browne and I both feel that we should thank you personally for your contribution to our enjoyment. The organisation of the affair was faultless, and the meals provided were excellent. Several people I have since recognised as members of the party have been most enthusiastic about it. We shall certainly "Eat More Educational Tours" at the first opportunity.

—Mr. J. Westfold-Scott, National Mutual Buildings, 395 Collins-street, Melbourne, writing to the Manager, Government Tourist Bureau.

RAILWAYS HELP SHOW SUCCESS

I WISH to thank the Railways for all they have done to assist in making the Tongala Show such a success. I know you will consider the thanks unnecessary, as you at all times try to do your best in this respect; but I feel that I cannot let this year go past without expressing our thanks, more especially to the local staff—the S.M., Mr. Gullick, and his assistants. They did yeoman service in assisting us in every way we required, and got everything despatched to schedule time, thus making everything pleasant for all concerned.

—Mr. H. G. Fuller, Secretary, Tongala Agricultural Society, writing to the Secretary for Railways.

SAFE FURNITURE REMOVAL

WHEN, some time ago, I removed from Melbourne to Swan Hill, I had my household furniture sent by rail, and it arrived in perfect order. On my recent removal from Swan Hill to Warracknabeal, I again had my furniture, etc., conveyed by rail, and am pleased to say that it reached here without the slightest damage.

Kindly convey my grateful appreciation of their interest and care to Mr. Anderson and his staff at Swan Hill and to the staff generally for careful handling during the lengthy transit.

Mr. G. J. Andrews, Anderson-street, Warracknabeal, writing to the District Supt., Bendigo.

CARRIED UNANIMOUSLY

AT the Annual Conference of this Association, a resolution in the following terms was carried unanimously: "That a hearty vote of thanks be accorded to the Railways Department for the excellent arrangements specially made and carried out for the conveyance of delegates to and from the Conference."

—Mr. John Carroll, Hon Sec. Technical Schools Association of Victoria, 6 Ormond-road, Ascot Vale, writing to the Secretary for Railways.

KIND AND THOUGHTFUL HELP

ON behalf of the officials of the Australian Baptist Sunday School, I am writing to the Stationmasters, Guards and Porters, especially at the Richmond Station, for all their kind and thoughtful help on the occasion of our picnic held at Aspendale on Cup Day. It was the little drops of oil needed to make the wheels run smoothly, and it was very thankfully received by the officers of the above school.

—Mr. G. P. Giles, Assistant Secretary and Treasurer, Auburn Baptist Sunday School, writing to the Secretary for Railways.

PICNIC SUCCESS.

AGAIN, I have pleasure in advising you that our annual picnic was a success both socially and financially. On behalf of the committee I wish to thank you for the interest you take in our affairs, also for granting us the last interview at such short notice.

—Mr. N. Watkinson, Hon. Sec., Newport and North Melbourne Workshops Picnic Committee, writing to the Chairman of Commissioners.

RESO APPRECIATION

MAY I be permitted to write and say how delighted I was to have been one of the fortunate members of the No. 16 Reso train, and to congratulate you on the staff which you have to manage the trip. In my opinion you are doing a very great benefit to the producers by bringing them personally in contact with those who may be in a position to forward the country interests, and further, by widening the city man's conception of the wonderful country which is our heritage. Everything was done for our comfort by your Mr. Bromilow, and we should thank him for the personal interest he took in each of us. I hope another pen than mine will express to you the good which we consider will come from these trips, and also our thanks for making the train available.

—Mr. D. W. Boyne, Burnewang, Elmore, writing to the Chairman of Railways Commissioners.

IT gives me great pleasure to let you know how thoroughly I enjoyed the Reso Tour to North-eastern Victoria. I was very much impressed with the educational value of the trip and the variety of resources and beauties of the State that were disclosed to us in such a relatively short period of time. It is my sincere opinion that these tours must be of considerable value and importance to the nation, as they provide a unique means of instruction and understanding of the country's assets and possibilities.

The arrangements for the carrying out of the tour were, of course, excellent; throughout the whole trip, I did not hear one single grumble, and there certainly was not cause for any. I wonder, however, how many of the members gave a thought to the tremendous amount of preparatory detail that had been undertaken beforhand to ensure such smooth running.

I hope you will not think me out of place in expressing the opinion that the success of the tour was, to a great extent, due to the cheery conductorship of Mr. Bromilow. It was really interesting to see the way in which everybody unconsciously succumbed to his control and leadership, and yet he was never conspicuously in the limelight.

The table and service throughout the tour were excellent and you have every reason to be proud of your catering department.

There is one other point I would mention, and that is the hospitality of the local people in every place visited. I very much appreciated their interest and sincerity in showing us their districts and "mere words of thanks" seem to

RAILWAY MEN!
AND LADIES TOO!

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287 HIGH STREET, NORTHCOTE
627 HIGH STREET, CROXTON
210 VICTORIA ST., NORTH MELB.

be a very inadequate response to their kindness. —Mr. R. J. Anwyl, General Manager for Australia and N.Z. Thos. Cook and Son, Collins-street, Melbourne, writing to the Chairman of Railways Commissioners.

I DESIRE to express my great appreciation of the kind and courteous attention again received by me from the Reso train officials during the recent North-Eastern Victorian tour, and of the admirable arrangements made to meet the interests of myself and fellow travellers.

I also wish to express my thanks for the valuable services willingly given by the station-masters at the stopping places in meeting me and in collecting and furnishing me with the available data respecting floods and flood risks. I would mention particularly the Stationmasters at Yarrawonga (Mr. M. F. Higgins), Rutherglen (Mr. J. F. Horsbrugh), Beechworth (Mr. T. F. Flanagan), Tallangatta (Mr. A. G. Brown), and at Albury.

I am writing to these stationmasters personally thanking them for their assistance so kindly rendered me.

—Mr. H. W. Hunt, Commonwealth Meteorologist Department of Home and Territories, writing to the Chairman of Railways Commissioners.

HUMAN SYMPATHY

I BEG leave of your valuable time to address you in a word of appreciation and thanks for the attention and courtesy received by us at the hands of your staff some weeks ago.

Our father, who has since passed away, was very ill in Melbourne, and as there appeared to be very little hope for his recovery, an effort was made at his own request, to get him to his home in Minyip. Arrangements were made for a bed in the van of the Adelaide 5.30 p.m. express from Spencer-street through the kindness of your Mr. T. Sullivan who had everything possible done for the party's comfort. The officials on the express, especially those of the dining car, were most considerate in their attention, and we are most grateful and wish to express our heartfelt thanks to them. Mr. Sullivan and the S.M. at Murtoa for their kindness which will be long remembered by us. —Mr. Ignatius Webb, "Stone Hall," Minyip, writing to the Chairman of Railways Commissioners.

Where They Would Go

(*Cont. from page 20*)

said the Voice Heard Off. "But aren't you on the wrong number? This is—"

I rushed in with glittering eyes and clenched teeth. "Suppose you were on Spencer-street station, Mr. Stigant, and a railwayman offered you a pass to wherever you wanted to go, what holiday resort would you choose?"

"I beg your pardon?" said Arthur Stigant.

"Look, I'm *sure* you're on the wrong number . . . . . ."

". . . . . I garden, you know, in my spare time and . . . . . ."

". . . . . if you told Central, they'd give you the number you wanted . . . . . ."

Unseen hands whisked Arthur Stigant and the persistent lady away from my ears, choked both of them just as Stigant was in the middle of a remark about "a round trip." Impenetrable silence descended. I thundered a score of "Hellos" into a 'phone as impassive and unresponsive as a turned off tap. I ran trembling fingers around my collar.

I don't know where Arthur Stigant would go for *his* holidays

Bourdic's Skin Lotion.
For the relief of all kinds of Skin troubles :— such as Eczema (dry and moist), Hives, Herpes, Itch, Prickly Heat, Pimples, Acne, Freckles, &c. **Price: 2/6 per Bottle.**
B. G. LEWIS, Chemist,
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(6d. a nobbler, with squash 7d.)
For a Hot Day Reviver
Preston's Gin and Squash
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VICTORIAN RAILWAYS HONOR ROLL

RECENT RETIREMENTS

As long as men shall live and build; as long as they shall strive for worth-while achievement, there shall be honor and glory in work well done.

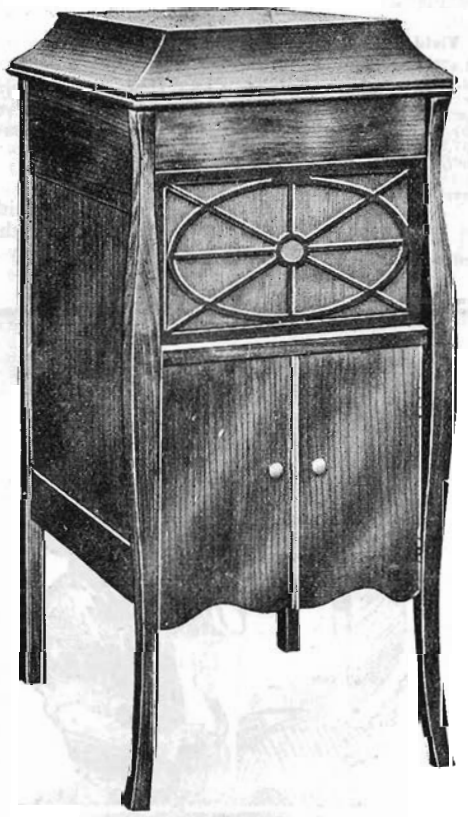
	Date of Appointment	Years of Service
A. J. Higgins, Fitter, North Melbourne Loco.	1881	46 years
J. Scullin, Electric Train Driver, Jolimont	1881	46 years
J. Keane, Repairer, Tallarook	1883	44 years
A. G. Davies, Fitter, Spotswood	1883	44 years
F. Blake, Chargeman, Ballarat Loco.	1884	43 years
T. C. Robinson, Driver, North Melbourne Loco.	1884	43 years
J. Fitch, Driver, Geelong Loco.	1886	41 years
T. G. Gamble, Assistant Stationmaster, Macedon	1887	40 years
J. Beddoe, Signalman, Ararat	1887	40 years
G. Wall, Leading Lighter Up, North Melbourne Loco.	1887	40 years
H. L. Walsh, Head Porter, Ballarat	1887	40 years
T. S. Hart. Road Foreman, Ararat	1888	39 years
T. Smales, Hall Officer, Spencer-street	1888	39 years
W. J. Horne, Parcels Porter, Spencer-street	1888	39 years
G. Allan, Clerk, Spencer-street	1888	39 years
W. Ferguson, Assistant Stationmaster, Ripponlea	1888	39 years
G. Crocker, Ganger, Hattah	1888	39 years
J. Taylor, Repairer, Kirkstall	1888	39 years
R. K. Morrison, Electric Train Driver, Jolimont	1888	39 years
G. Ackers, Signalman, Elsternwick	1888	39 years
G. A. Hill, Stationmaster, Bealiba	1889	38 years
J. A. Curry, Goods Guard, Geelong	1889	38 years
Mrs. L. Grace, Office Cleaner, Spencer-street	1889	38 years
M. Matthews, Goods Foreman, Newmarket	1889	38 years
H. S. Davy, Stationmaster, Yarra Glen	1889	38 years
J. Morden, Packer and Trimmer, Ballarat Loco.	1889	38 yea s
E. Ridding, Ganger, Golden Square	1889	38 years
F. Tonkin, Foreman Car and Wagon Builder, Newport	1890	37 years
R. Clarke, Laborer, Coburg	1890	37 years
P. Sharpley, Goods Checker, Melbourne Goods	1890	37 years
Charles Barnett, Leading Laborer, Loco., Newport	1892	35 years
D. Moloney, Gateman, Mont Albert	1898	29 years
J. A. Temple, Carpenter, Workshops, Spotswood	1900	27 years
P. B. Murphy, Ganger, Grassdale	1901	26 years
G. G. Taylor, Guard, Lilydale	1901	26 years
W. Williams, Skilled Laborer, Way and Works, Ballarat	1902	25 years
R. W. H. Austin, Leading Hand Fitter, Ballarat North	1904	23 years
P. J. Ward, Yard Foreman, Melbourne Yard	1907	20 years
G. J. Bain, Engine Driver, Korong Vale	1911	16 years
G. H. Scott, Repairer, Maryborough	1911	16 years
H. S. Lee, Clerk, Melbourne Goods	1911	16 years
G. Wardhough, Car Cleaner, Jolimont	1912	15 years
H. G. West, Skilled Laborer, Oakleigh	1912	15 years
H. Smith, Fitter, Newport Shops	1918	9 years
W. J. Treloar, Skilled Laborer, Newport Shops	1918	9 years
W. J. Ahern, Car Cleaner, C. and W., Metro. Shops	1919	8 years
E. O'Connor, Skilled Laborer, West Preston	1920	7 years
H. Jackson, Laborer, Jolimont Shops	1920	7 years
A. Walker, Skilled Laborer, Oakleigh	1920	7 years
M. S. Foley, Shunter, Melbourne Yard	1920	7 years
J. T. Palmer, Skilled Laborer, Echuca	1920	7 years
G. Tatt, Shunter, Castlemaine	1920	7 years
J. C. Basemore, Padmaker, Newport Shop	1920	7 years
C. W. Sheers, Shunter, Melbourne Yard	1921	6 years
J. J. H. Smith, Porter, Flinders-street	1924	3 years

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THE illustrated Cabinet is made in selected Blackwood and if desired can be supplied in Rosewood finish; it is fitted with a Double Spring Motor, 12-inch plush-covered turn table, latest type, tone arm and speaker. It has a tone controller similar to the most expensive machines, and as a final achievement is fitted with an automatic stop or a brake.

Cash Price, £10/10/-
Terms Price, £11/15/-

Deposit 20/-, Weekly Payment 3/6

Price includes 6 Selections and 200 Needles, and if desired 12 extra Records will be supplied and charged to the account without extra Deposit or r payments.

All transactions completed in three months are treated as Cash.

Letters received from our Country Clients express satisfaction with the Goods we supply.

Catalogues of Table Models and Portable machines will be gladly sent on application.

In addition to Gramophone we supply every household need in modern and up-to-date furnishings.

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Unpopulated Queensland

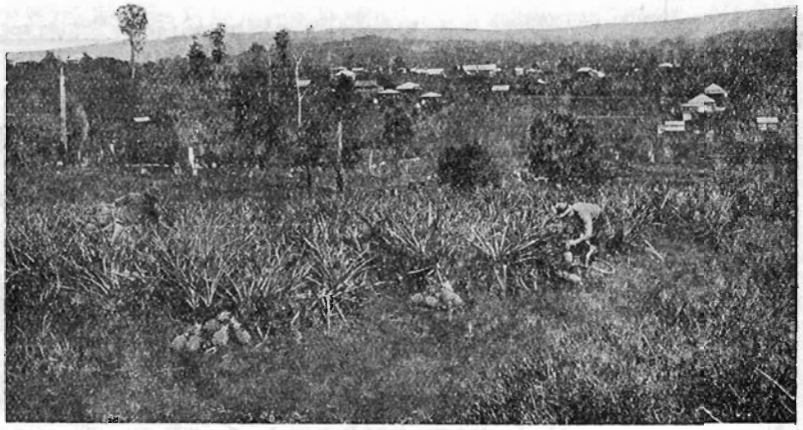
(*Continued from page 14*)

stations en route serve good meals. The mail trains on which I travelled several thousand miles all ran to time. The sleeping cars were clean and comfortable and the staff courtesy itself. One unusual feature for a railway system was the splendid bathrooms provided at Townsville station. Here, too, a rest room is available for ladies and a toilet room for men. At a counter adjoining, both sexes may purchase anything desired in toilet requisites. This special facility is a great boon to travellers from western Queensland who may leave the train in their pajamas and go straight to the bathrooms.

Queensland is waiting development and closer settlement as never a State or Country waited before, and it will apparently continue to wait until its population increases not by hundreds but by hundreds of thousands. If millions of people in the Old World were moved out to settle here as they have done in Canada, what an alluring State this would prove with its infinite wealth and riches which, without vastly increased settlement, cannot be fully availed of!

Queensland in Tabloid

The following includes the latest figures available, although they are not up to date so far as stock is concerned :—



A Queensland pineapple plantation

Cattle ... 6,436,645
Sheep ... 20,663,323
Wool ... 158,744,544 lbs.
Dairying—Butter 63,001,073 lbs.
—Cheese 12,580,942 lbs.

Principal Crops			Yield
Wheat	...	165,999 acres	1,973,477 bushels
Maize	...	154,252 ,,	3,384,172 ,,
Cane	...	300,000 ,,	Cane 3,668,252 tons
			Sugar 485,585 ,,
Cotton	...	40,062 ,,	(1925) 19,537,274 lbs.
Orchards		33,520 ,,	Value £1,458,399

The total area under crop is over one million acres.

Minerals

The aggregate value of all minerals to date is £144,266 668.

A new turbine locomotive that consumes its own smoke and condenses its used steam, for employment again and again in the boiler, is undergoing tests in England.

Candidates for responsible positions on the Austrian Government railways must undergo severe tests, including one for temper.

Of the 3,068 counties within the United States, only 109, or three and one-half per cent. are entirely without railroad service.

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THOROUGH satisfaction or a new shirt free



Pelaco Guaranteed WORK SHIRTS

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KAPTAIN KHAKI 7/6
GREY GEM - - 6/6

Lines from Other Lines

(*Continued from page 38*)

revenue service, the New Olympian will carry additional sleepers.

From the Rolling Stock man's point of view, the most interesting feature of the new train is the fitting of Timken roller bearings on every car. Not only has the friction of ordinary journal bearings been eliminated by the application of roller bearings, but friction buffers have been installed to take up the slack between cars. It is said that only one-seventh the tractive effort is required to start these new roller bearing trains, as compared with ordinary friction bearings, and that "rough start is impossible."

WOMEN AND RAILWAY WORK

INVESTIGATIONS carried out recently by the Women's Bureau of the Department of Labor of the United States, show that of the total staff of some 1,800,000 employes on the American railroads, approximately one-thirtieth are women workers. In 1926, on the Class 1 steam railways, there were 61,302 women employed as compared with 40,052 in 1920. Clerical and semi-clerical positions naturally absorbed the largest number of women workers, no less than 51,127 being engaged in such occupations. In addition to these, there were two engaged in train operation, 290 in shop work, 3,332 in cleaning work, whilst those engaged as waitresses, laundresses, and the like, and as telegraph and telephone operators, number 1,814 and 1,427 respectively.

Great Britain's proportion of women workers to the total railway staff is somewhat similar—23,334 women being employed out of a total staff of 690,000. Of the women employed on British railways, 9,350 fill positions on the electrical and technical staffs, 4,000 are engaged in cleaning work of various kinds, 6,540 in hotels, refreshment rooms, dining rooms and waiting rooms, 1,531 as crossing-keepers, and 1,320 as shop and artisan employes.

Maxim silencers eliminate the exhaust noise of oil-electric locomotives on eight American railroads.

In accordance with an old Turkish custom, a hundred sheep were sacrificed at a recent dedication of the 240-mile Angora-Kaisariyeh railway.

Construction at a cost of about £4,000,000 of a fifty-mile electric line from Reykjavik, capital of Iceland, to a fertile section in the south, takes from that island the rare distinction of being without a railway.

Aluminium is largely used in the construction of experimental German railroad cars.

Representative Railroaders

(*Continued from page 32*)

can only be described as calm and assured. Perhaps placid is a better word. He is a family doctor who has strayed from a solid and respectable practice, clinging tenaciously to his best bedside manner, but dropping his stethoscope for a saucepan . . . .

Of course, absence of flurry doesn't mean absence of hurry. A hoarse voice dripping with perspiration told McClelland over the 'phone one afternoon that the official special train set aside for the opening of the Cohuna line would require a fully equipped dining car. The hands of the office clock pointed to 10 minutes to five. The special train was leaving Melbourne that same evening. The only substitute for chef, cook, steward and crew of waiters at the depot was a small boy who had been promoted the day before from sweeping to dish-washing. McClelland was putting his coat on as the office door slammed behind him. He was studying the list of addresses of his permanent staff as he whizzed rocket-like into the street on his motor-bike.

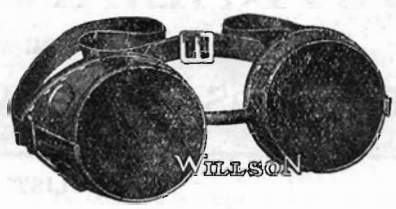
A fully equipped and fully staffed diner was ready in good time for the special.

On Lindsay Mac's. tombstone they'll put the inscription, "He got things done."

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Beams	Ring Bars	Ingots	Crushed Slag	Creosote Oil
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STEEL WIRE—All classes and grades for manufacturing purposes, including Galvanised, Bright and Coppered Spring, Nail, Welding, etc.	"*Waratah*" *Brand*
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BARBED WIRES—"Iowa" or "Waukegan"	"*Waratah*" *Brand*
NAILS	"*Waratah*" *Brand*
CLOTHES & GUY LINES	"*Waratah*" *Brand*
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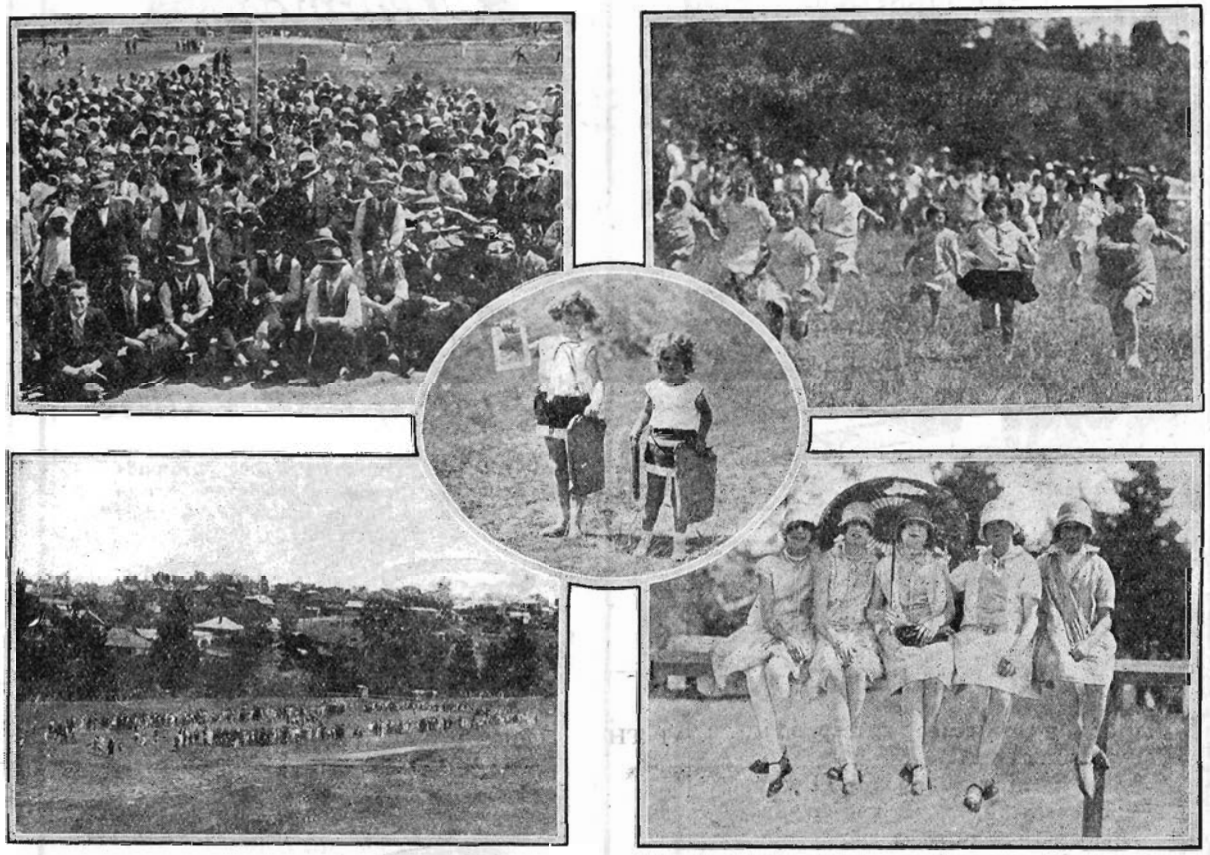
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STANHOPE CYCLES

FLINDERS STREET GOES A-PICNICKING



More than 800 railwaymen and their wives, children, cousins, aunts, sisters and sweethearts travelled to Greensborough on Sunday, November 27, and a similar number ventured out on the following Sunday, December 4. The double event was necessary to give both morning and late shifts an opportunity of joining in the function—the fourth annual picnic of the Flinders-street Railway Social Committee. The genial sunshiny weather contributed largely to the success of the function, as well as to the cheerfulness of the picnickers on both days.

Joint Honorary Secretaries, Guards Ferdinand Salvana and Bill Hugo with their big committee had arrangements complete in every detail, and everything went with a swing.

Beaming-eyed boys and girls received prizes as winners in the Sports Competitions, which were of a varied nature. Grown-ups also participated in the fun, and numerous good contests were witnessed in such events as old buffers' race, acting Guards' race, Porters' race, suburban Guards' race, married and single ladies' races.

Christmas stockings, lollies, balloons, caps and picture books were distributed among the children.

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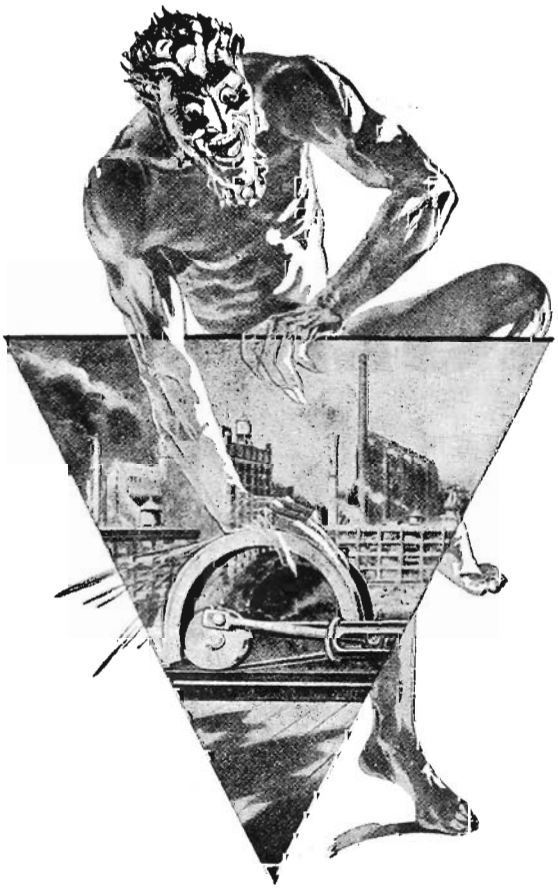
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Although lubrication costs average less than 1-10th of 1% of total operation costs, big losses may result from failure to secure efficient lubrication of your machinery.

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Improvements are occurring daily in mechanical equipment — many accompanied by lubrication changes which overturn established methods.

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The VICTORIAN RAILWAYS MAGAZINE

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VOL. 5
No 2

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1928

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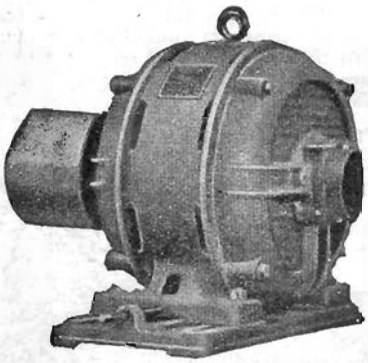
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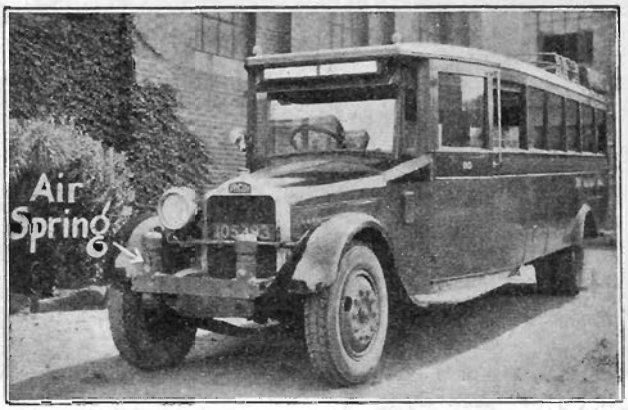
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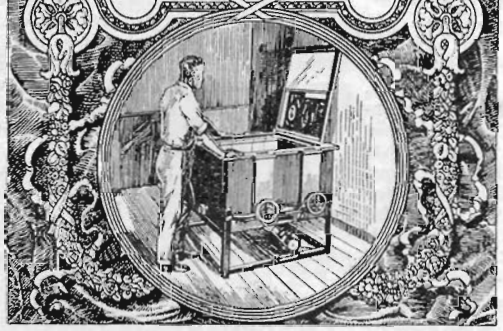
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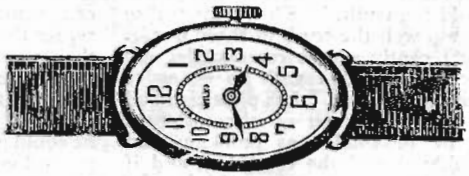
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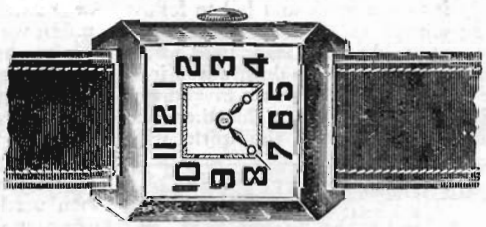
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SAFETY-HEALTH-BETTERMENT

SAFETY FIRST IN HEALTH

By Dr. A. STENNING, M.B., B.S.

THIS is the first of a series of health talks specially written for the Safety, Health, Betterment page of the Victorian Railways Magazine by Dr. Stenning of Onslow, Western Australia.

PASCAL, one of the most fascinating of French authors, once wrote: "man does not wish to be told the truth." Physicians realise only too well the truth of those words. Only recently a case came under my notice of a patient with an extensive ulcer of the throat. His physician had told him that under no circumstances was he to smoke, as smoking had probably caused the condition, and if he persisted, a cancer would be the inevitable result. Yesterday I just dropped in and found the patient lighting his pipe. When remonstrated with, he said: "Oh, I thought a quiet smoke wouldn't do it any harm." In that statement we get the crux of the whole position—man does not like to be told the truth about himself—because it may interfere with his pleasures, curtail for a moment some of the joys of life.

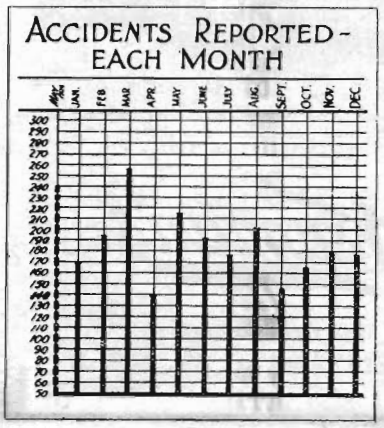
Now, our slogan "Safety First" is a motto or war cry to be acted on in our life as well as in our work. Health is the thing that matters most in life. We would show little sincerity towards our slogan were we only to apply it to our work and fail to follow those simple rules of life, the non-observance of which has caused many young lives to plunge downwards into the dark valley of chronic invalidism.

It is curious to reflect that there are millions of people in the world who would shrink from the attempt to keep the machinery of our railways in order, and yet who fondly imagine that they can continue to drive and keep in repair the complicated vital engines of their own bodies to the best advantage. Sir Walter Raleigh used to ask questions of ploughmen and other people in humble walks of life, so that he could profit by their knowledge; and yet individuals with only a crude idea of their bodies will not follow the advice of experts in connection with ordinary rules of health.

At the present time the State guards the health of its citizens by Acts enforcing sanitation and making punishable the adulteration of food, but wholly neglects the most direct method of securing and maintaining health, namely, systematic exercise. It is just as necessary that we should exercise as have proper food. We have cells to be fed by fluids circulating throughout the body, and waste materials to be thrown off, and the only means of feeding the cells of the body and getting rid of the waste product is by exercise. At the same time it must be remembered that it is not **how much** we exercise, but **how** it is done. Most manual work is exercise of a mechanical kind, and does not give us the necessary life-giving exercise. To illustrate my meaning: I was on part of the Trans-Australian line during constructional work, and after hard manual toil all day, some of the men used to relax in the evening by gymnastic exercise and other games, and those were the men who stood the severe test of the work best. Modern exercise is essentially based on the employment of mental concentration on the muscles exercised. My old Professor used to say that the best exercise of all was that of the chase. Here, perhaps with his next meal dependent on the hunt, the hunter stalks his prey with all the mental and physical powers alert, and when eventually he secures it and takes it to his camp, he is ready to eat it with that healthy appetite which should characterise all our meals.

Unfortunately at the present time we show signs of a physical deterioration that in our over-competitive age is incident to the jar and fact of business life and our hurry-scurry after pleasure. The antidote for this, as well as overwork, excitement, weary brains, jaded bodies and unstrung nerves is to be found only in proper physical exercise.

It is not my purpose to give you a series of exercises, those can be found in many books—but I want to impress upon you the first fundamental of health—regular systematic exercise.



FEBRUARY SUGGESTIONS DRIVE

The subject chosen for the sixth suggestions Drive, which will be held during February is:—

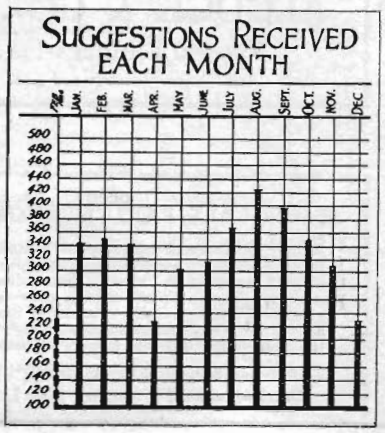
How can we improve the distribution of empty trucks during the grain season?

Suggestions should be submitted to the Betterment and Publicity Board in the usual way.

BENEFIT BY YOUR IDEAS

The following awards were made during December for adopted suggestions:—

Total amount	...	**£52**
Highest award	...	**£10**





Have You Chosen?

Rent Receipts or a Home of Your Own

Which Shall it Be?—You Have to Choose!

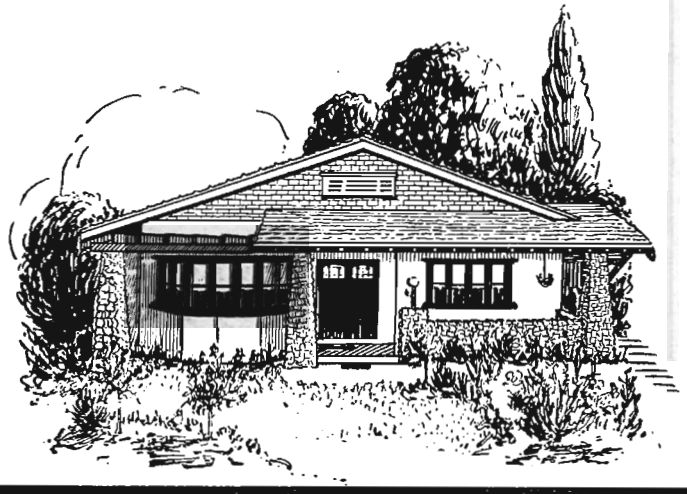
SURELY you would not choose to pay out 30/-, or more, weekly, for the rest of your life and get no return for your outlay? Surely not.

Why, for LESS than 30/- weekly you can actually BUILD a home of your own, designed and constructed by us, just the way you want it. To start at once, all that is necessary is a block of land or a nominal deposit. Let us show you the way to financial independence through home ownership.

Designing & Construction Corp'n (Aust.) Pty. Ltd.

Nicholas Building (opp. St. Paul's), Swanston Street. 'Phone F4976

CALL in any day or Friday night after 7.30 and let us explain how you may start to build at once. If you can't call just post the coupon



Please Send fuller particulars without obligation

Name.....

Street.....

Town.....

R.M., Feb.

All Aboard for Cowes



The Saturday day return trips to Cowes, arranged by the Railways Department, have proved very popular. This is a typical scene at the Cowes jetty on arrival of the boat from Stony Point

Photo W. Howieson

The VICTORIAN RAILWAYS MAGAZINE



FLINDERS STREET STATION — MELBOURNE.

For 7s. per annum, this Magazine will be sent, post free, to any address.

A copy is issued free to all permanent Victorian railwaymen, and to all temporary and casual employes with six months service.

Contributed articles, paragraphs, verse, and photographic prints (negatives are not required) must reach the Editor, care Betterment and Publicity Board, Railways Department, Spencer-street ('Phone Railways 393) not later than the 12th of each month. Correspondence relating thereto is carried free over the Railways.

Communications in regard to advertising should be addressed to the Manager, Railways Advertising Division, Savings Bank Buildings, corner of Spencer and Collins-streets, Melbourne ('Phone C. 6414 or Railways 139).

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The Friendly Railroad

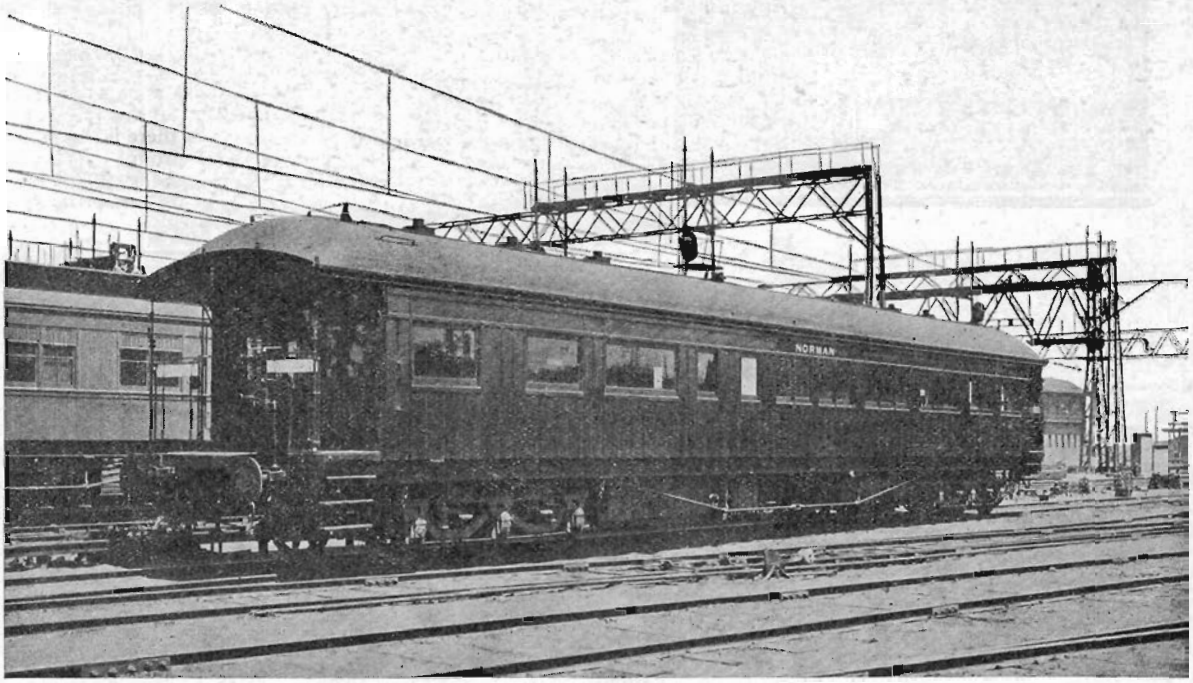
A RAILROAD worthy of its name is something more than a carrying concern, now-a-days. True, its primary job is to move traffic quickly and efficiently, and to give its passengers comfortable, reasonably-priced travelling service; but that, in itself implies the aloofness of a mere utility without a soul.

BEHIND the engines and cars and miles of gleaming steel, and all the other railway paraphernalia, are the men who make them and work them, men who had and have the vision of a country's full development, men who had and have a sense of team work directed towards collective and not individual profit.

THE railways of Victoria are run by the people for the people. They do not comprise an entity bureaucratically removed from the man in the street or the paddock. They are his friend, and a very real friend at that. And they want him to realise that.

NORMAN HISTORY

By RICHARD HUGHES



The Norman Car

THE one fixed unchanging star on the railway rolling stock horizon in Victoria is the Norman car. Engines may come and engines may go, but it goes on forever. Age cannot wither it, nor custom stale its infinite —aristocracy.

For it is the aristocrat of the service. It has supported—in a transportation sense—more public notabilities, more prominent personalities and more railway chiefs than any other car, truck, ballast wagon, horse box, powder van or wheeled framework which has ever trundled, or is trundling its way around the State's rail track. Intimate acquaintance with royalty on numerous occasions has curled the end of its nose into an habitual superciliousness.

Originally a Sleeper

Born at Newport a sleeping car, it was christened—with what seems to have been admirable foresight—the Perseverance. It was designed to accommodate the recumbent bodies of two dozen (or four half-dozen) passengers. With its brother, the Enterprise, it lulled passengers to sleep on the Ararat–Portland run.

FORTY years of yeoman service the Norman car has rendered the Victorian Railways—two-score years of unremitting travel to the north, the south, the east and the west of the State.

And still, like Oliver Twist, the Norman car asks for more.

Later came a term between Melbourne and Albury, still as a wheeled dormitory; and then, in 1900, remodelling and internal rearrangement pushed out the sleeping berths and installed chairs for touring Commissioners. The Perseverance became the Inspection car and was set aside for the chauffeuring of Commissioners on visits of inspection. Definitely the car's wheels were headed in the direction of rolling stock class consciousness.

The car's third and final baptism occurred in 1921, when Chief Commissioner Norman was counting the days to his retirement. Norman it was christened, Norman it still is, and Norman it will remain until its demise. Which, it seems, may synchronise with the crack of doom and the reveille of Michael.

Not one solitary inch of railway broad gauge track has escaped the weight of its wheels. Every year it traverses the whole State on annual tours of inspection. It runs on special trips. It figures on Reso tours. It carried the Duke and Duchess of Cornwall and York (the present King and Queen) in 1900, the Prince of Wales in 1921, and the Duke and Duchess of York in 1927

The Norman's Conquest

That last trip was surely a tribute to the Norman's haughty conquest of the ravages of time. The "A" class engine, which was the locomotive par excellence placed at the disposal of the 1900 regal couple, had shrunk to the mechanical status of a shunting engine by 1927, and shamefacedly made way for a pair of powerful A2's. The ultra-modern all-steel diner disdainfully jostled aside the decidedly less pretentious dining car which graced the former royal caravan. Resplendently painted gubernatorial State cars rolled forward with massive conceit. But the same old

Norman, displaying its school-girl complexion of 20 years before, took its place on the 1927 train with as much assurance as when coupled on to the 1900 train.

Precise rather than picturesque, the official description of the much-travelled Peter Pan of the rolling stock world spreads itself in austere phraseology over a leaf in the C.M.E.'s register records :

" Norman car is arranged internally into two saloons and a kitchen. . . . Its length is 64 feet over corner pillars and 70 feet 1 inch over end platforms. There are no side doors, entrance being by end doors.

" The large saloon, which is used for dining and accommodation of officers, is 24 feet long and 8 feet 9¾ inches wide, and is furnished with extension table, long couches and upholstered tub chairs. The smaller saloon, which is used by the Commissioners and staff, is 18 feet long and 8 feet 9¾ inches wide, is fitted with a sleeping berth for the Commissioners' guard and with upholstered tub chairs. The kitchen is 14 feet 3 inches long and 6 feet 2 inches wide, and is equipped with a 4 feet 6 inches fuel stove, ice chest, buffet and sink.

" The car's body is of wood, mounted on a steel underframe and supported on 6-wheel bogies, having a wheel base of 10 feet. Bogie centres are 48 feet apart."

What the Register Doesn't Say

Widespread general interest in the subject, however, would be more likely were space available in the register for a judicious collection of some of the scenes which the Norman's four walls have witnessed, of some of the incidents in its colorful and attenuated history.

It was in the Norman car, for instance, that the very first report by a Commissioner on the electrification of the Victorian suburban railways was dictated. Commissioner Tait (now a bank-managing baronet in Canada) declaimed five or six pagefuls to his secretary, now the General Superintendent of Transportation. The year was 1907, the train was roaring north to Mildura, and the temperature was some 102 degrees in the shade.

Then there was the incident of Sir George Turner's hat. The one-time State Treasurer and Premier was an earnest-minded Parliamentarian and a hard worker in the public interest. It could not be said, however, that he closely followed the dictates of masculine fashions. By no stretch of the imagination could he be termed a dandy. An aesthetic salesman in a Melbourne hat and mercery establishment has been known to grow ashen pale and stagger back with arm raised defensively when he first glimpsed the baronet's remarkably dilapidated brown hat.

Anyhow, travelling to Albury by special on one occasion, Sir George hung his hat on a hook in the Norman car before wending his way farther along the train. A little while later, old Guard Carey bustled into the car and goggled indignantly at the disreputable article. Evidently some damned cleaner had left his working hat behind him after polishing the interior of the car. The guard opened a window and heaved the offending tile out into the cold world.

Then Sir George meandered back, looking for his hat. Guard Carey crawled under the chairs and the table, looked under the carpet, vainly ransacked the saloon from corner to corner. Finally, on his hands and knees, he despairingly asked Sir George for a more detailed description of the missing hat.

Explanations

" A brown hat." The baronet made vague gestures. "A soft hat. Brown. A brown hat."

An icy hand gripped the guard's heart. He shambled to his feet and coughed apologetically. " Pardon, Sir George, but—ahem—I'm afraid that must have been the hat I—er—threw out of the window twenty miles or so along the line . . . . ."

It was not often that Guard Carey made mistakes, though. General Superintendent Canny remembers working in the Norman one hot afternoon at Wangaratta while the Commissioners were away inspecting the Whitfield line. He was surprised to observe the guard leading three or four ladies towards the inspection train, obviously with the amiable intention of showing them around. The guard had scant leisure on tours, and the reason for his self-inflicted task was disclosed only when the visitors arrived in the kitchen of the Norman car. The young secretary smiled as he heard the guard's hearty remark, "And this, ladies, is the kitchen where all the cooking is done for the Commissioners' meals. That pile of crockery over there is the tableful of dishes left from lunch and waiting for me to find time to wash them. I feel sure, though, that, as I have shown you ladies over the train, you will be too kind-hearted to go away leaving me with such a feminine task on my hands."

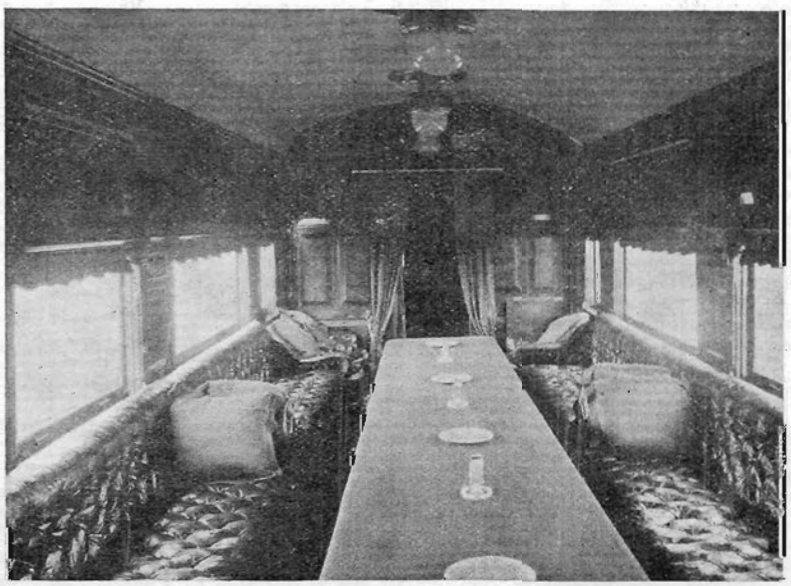
They took the Hint

Good-natured laughter and the clatter of crockery indicated that the astute guard's confidence had not been misplaced.

Incidentally, Guard Carey was the man who dropped the solitary inksplodge on the Norman's immaculate Safety First sheet. He gave a practical demonstration of the truth of Newton's theory of gravitation while standing near the edge of the rear platform. The fall did him no serious harm.

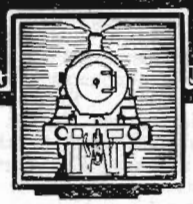
Neither was there anything serious about the car's single mechanical mishap. One leaf of an overworked

(*Concluded on Page 38*)



Interior of one section of the Norman Car

Things we are talking about



THE holiday rush is over and normality has supervened. Railwaymen can mop their foreheads and look back on another big job splendidly carried out. As far as we can gather, there was neither hitch nor grumble of any consequence. Unfortunately, it took less time, this holiday period, to count the heads of rail travellers and to check the revenue into the departmental money-bags. The early birds who started off between December 8 and 17 totalled 35,503, including 835 cheap excursionists In the previous corresponding period 40,600 travelled, 1,745 of whom held cheap excursion tickets. All told, the railway traffic from December 8, 1927, to January 3, 1928, numbered 151,463 passengers (145,819 holiday excursion and ordinary, and 5,644 cheap excursion bookings) compared with 180,546 passengers (171,759 and 8,787 respectively) for the same days of the previous season. Cash for the 1927–28 holiday traffic aggregated £146,265, or more than £13,000 less than that for the 1926–27 period which totalled £159,734. The ubiquitous motor-car, of course, was largely responsible for the falling-off; according to the Automobile Club, 50,000 cars carried away 150,000 Melbourne people over the Christmas week-end alone. But the traffic falling-off is just another reflex of the general financial and economic depression which, at the present time, is causing us all furiously to think.

HOLIDAYS TRAFFIC

NOBODY denies the existence of that depression, although some people are making a tremendous mouthful of it. And the trouble is, as we have said before, that the Jeremiahs who are preaching the imminence of financial wreck are undermining the confidence of others in this splendid land of ours and in its potentialities. The partial failure of the wheat crop is blamed. Admittedly it is a contributory cause; so, no doubt, are heavy overseas borrowing, the resultant flood of imports—particularly luxury imports—and the rising costs of production. But the main reason for the trouble is sheer "wind up" as we used to say in 1916—a most dangerous thing where progressive enterprise is concerned. Surely, a succession of good seasons has built up sufficient reserves to tide Australia Unlimited over a comparatively lean year, other economic conditions notwithstanding!

THE ECONOMIC DEPRESSION

AND it's not going to be so lean after all. Wool prices are still rising, and the fruit crop is a bumper one, just at the time when there is a serious decline in Californian production. We were recently told that America's commercial apple crop of 24,000,000 barrels is more than 15,000,000 barrels less than last season's, while other fruit crops, except dried fruits, are also light. Against this, Victoria alone is estimated to produce 3,000,000 cases of apples this season, compared with a mere 500,000 cases last year. Apart from the immediate benefit of increased revenue from fruit, the heavier output should give us a chance to dig deeper into the overseas markets than severe American competition has permitted us to do in the past—provided, of course, we keep a high standard of grading and packing.

NOT SO BAD AFTER ALL

INCIDENTALLY, the partial failure of the wheat crop, this season, serves as a forcible object-lesson on the relation of production to economic stability. Low production in a staple industry invariably contributes to depression; high production to prosperity, high wages, and a high standard of living. Our job as a nation is now to make up the deficit from a poor grain harvest as quickly as possible by increasing the output in other commodities, if we can. It's no time for sitting back and deploring things—and losing confidence.

PRODUCTION AND PROSPERITY

THE Sunday-morning-train-to-the-seaside season, inaugurated last year, or rather in December, 1926, has been successfully revived. The service meets a very real need, notwithstanding the objections of a few people who would revive the dour and intolerant hypocrisies of an early-Victorian Sabbath. And the non-possessors of motor cars who week in, week out, are tied to their suburban homes north of the Yarra, are duly appreciative of the service. The first trains which ran on January 8, from Heidelberg to Frankston and from Reservoir and Fawkner to Sandringham carried 945 passengers—350 to Frankston and 595 to Sandringham. The two trains which started the Sunday service on December 5, 1926, took only 320 to Frankston and 336 to Sandringham. Officially, the Department expresses itself as very satisfied with the January showing. Economic depression or no economic depression, people are going to the bayside, these hot Sundays.

SUNDAY SEASIDE TRAINS

"THE Americanisation of Our Railways" has almost reached the dignity of a slogan with some critics, despite incontrovertible facts and figures which show that of £3,379,546 worth of railway material bought last year, only £588,094 worth, or 17 per cent., was imported and that of this 17 per cent. 10 per cent. was British material, a mere 5.8 per cent. American, and the remaining 1.2 per cent. came from other foreigh countries. Time after time, the Commissioners have replied along these lines to allegations of wholesale American importations, but the facts have either been discreetly ignored or have failed to pierce the intelligence of those who continue to chant the Americanisation parrot cry.

"AMERICANISATION"

WHAT ABOUT CARS AND MOVIES?

THE *Bendigo Advertiser* had something very pertinent to say, the other day, about the co-called Americanising of the railways, and we make no apology for quoting some of it. "The trouble is," remarks that journal, "that 'Americanising' makes for efficiency and a discarding of the old happy-go-lucky methods that, many years ago, made the railway service a byword. Why are the critics so anxious to protect the railways from American influences and yet have nothing to say against the wide Americanising of the country that is going on through American motor cars, American moving pictures and the accompanying slang, and most serious of all, the borrowing of American money? Last year about £14,000,000 worth of motor cars and accessories was imported, which indicates a local market extensive enough to warrant local car factories; and pictures should also be made here. It is because 'Americanising' on the railways was not begun years ago that the position is so different now." We may not agree entirely with these sentiments, but we do agree with their implication that the railways are less "Americanised" than some other aspects and things of community life.

THE LATEST CHAIN

QUITE the latest thing in chain letters or snowballs was received the other day by the Victorian Railways Assistant General Superintendent, Mr. Thomas, from an agent of the Southern Pacific Company in America. Much as one dislikes the snowball and the silly superstition that clings to it, one can still commend the enterprise which brings a most important railway problem—that of rough shunting—and its solution to thousands of railwaymen throughout the world.

ROUGH SHUNTING

GIVING it English railway idioms and terms the letter says: "One of the greatest problems facing the railroads of to-day is that of rough handling, which causes thousands of pounds to be expended in the payment of claims and the repairing of equipment. This is an expense that all yardmen and trainmen are largely responsible for, and it is one that can be almost entirely eliminated if proper interest in one's work and one's loyalty to one's railroad are displayed. I have resolved to give this matter my undivided and personal attention, and to see that all vehicles coming under my supervision, or entrusted to my care, are handled in such a way as not to prevent any damage to car or contents by reason of rough handling. If you are interested in the prevention of rough handling and damage to freight and equipment, copy this and send it to seven other persons connected with some railroad. This chain is being started by a railroad yardman and should go to every yard on every railroad in the world. In the interest of preventing rough handling, do not break the chain, but pass it on to seven others within seven days."

THE BEST SAFETY DEVICE—

EVERYBODY knows the slogan, "The best safety device is a careful man," but judging by a letter we received the other day, from a Dudley-street signalman, its meaning is fraught with complexities. "What do your readers think of it?" he asks. "I have spoken to quite a number and cannot get a satisfactory reply." On the face of it, carefulness is a better safety device than mechanical contrivances. But there may be a catch somewhere that we haven't spotted. Perhaps somebody can enlighten us. Meantime, it is obvious that the slogan has done its work by creating discussion.



LET'S ALL BE BOSSES!

By LATIMER-ESCH (For the V.R. Magazine)



HERE'S a train with nothing but drivers on it. Come and have a look. Watch them all crowding in the little control box. See them all squabbling as to who will pull the levers.

Now they've got her going. Hullo! Signals against them! Oh! I see . . they have all become drivers. There are no signalmen left.

There's going to be a smash here yet. They are going against the signal now. Ha! What's happened? . . . . . A Hot Box. No greasers to attend to it. They have all turned drivers, too.

* * *

IT would'nt work, would it? Everybody could not drive the engine. Somebody has got to do the greasing, just as somebody has got to superintend the traffic.

In the same way, everybody cannot be boss. But everybody can be a boss.

True you may never live to boss others, but if you learn to boss yourself, you will have accomplished something which a great number of men never succeed in doing.

Being your own boss doesn't necessarily mean that you wear a stiff collar and keep your hands nice.

A cleaner can be just as much his own boss as a Commissioner.

ALL it means is this, to take a simple example. Instead of being on time in the morning because the foreman has told you to, come on time, because you have told yourself to.

In other words, you do nothing at all simply because you have to. Instead you do everything because you will to.

This is the big difference which is supposed to exist between a man, and a mule. The mule works because it has to.

* * *

BEING your own boss means working conscientiously because you want to. Not because you are afraid you might lose your job if you don't.

But, maybe, you find you don't want to work. If this is the case, and you are a normal healthy man, then for your own sake get out! Get out and look for some work you do want to do.

Being your own boss means telling yourself what to do. It means doing that little odd job, you see wants doing. Never mind waiting until you are ordered to do it.

It means saying to yourself "You are going to keep working till knock off time because I want you to, and I am master here!"

* * *

IT means earning your wages every week. Not merely being paid them. It means having an opinion of your own. The days of the Reformation are over. You don't get burnt for thinking what you want to, any more. You have eyes, ears, and a tongue of your own. And I suppose you'd be the last man to let anybody tell you you hadn't a brain of your own. Then, why not thoughts of your own too? Must you believe every rumour you hear? Must you have other men do your thinking for you? To a certain extent this is necessary . . . . but when it comes to making decisions which affect your private home, and your innermost life, then you, and you alone, are the only man to decide. Don't be afraid to do so either. If you are a good man, your own decision will be the best.

* * *

THIS then, is a brief idea of what it means to be your own Boss. And you cannot expect to boss others before you can boss yourself.

Now then, how do we stand?

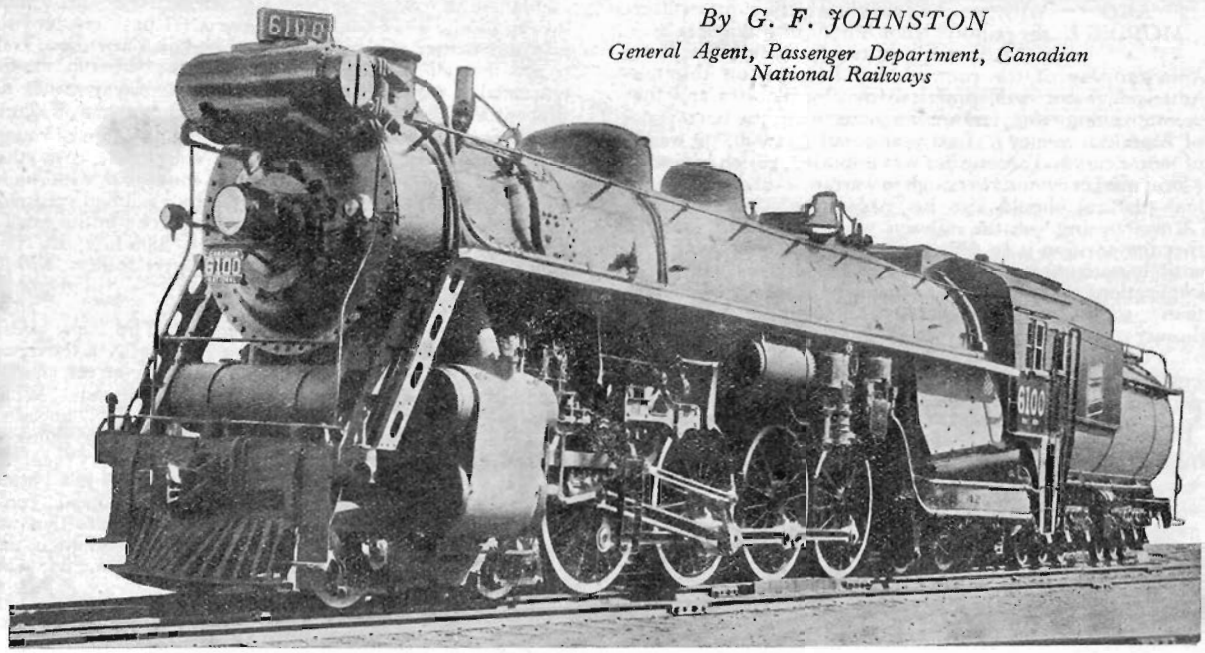
Do you work because you want to? Or because you have to?

Do you estimate your earning value by the work you do? Or the time you take to do it?

Have you got opinions of your own? Or are you swayed by every rumour you hear? Eh!

The Empire's Biggest Locomotive

By G. F. JOHNSTON
General Agent, Passenger Department, Canadian National Railways



THE Canadian National Railways have placed orders in Canada for 40 new locomotives of the 4–8–4 type. Twenty of these are being built by the Canadian Locomotive Company, Kingston, and twenty by the Montreal Locomotive Works, and both orders are identical with the exception of a few details. These engines are designed for either passenger or fast freight service, and it is intended to use them on extended runs over two or more divisions.

The leading dimensions and weights are :—

Gauge	4 ft. 8½ in.
Cylinders	25½ in. by 30 in.
Driving wheels, diameter	73 in.
Boiler, inside diameter, First Course	80⅞ in.
Boiler, outside diameter, Largest Course	90 in.
Working pressure	250 lbs.
Firebox	126⅛ in. by 96¼ in.
Tubes, No. of 3½ in.	15
Tubes, No. of 2¼ in.	27
Flues, No. of 3½ in.	162
Length of tubes and flues	21 ft. 6 in.
Combustion chamber, length	48½ in.
Wheel base, driving	19 ft. 6 in.
Wheel base, engine	43 ft. 10 in.
Wheel base, engine & tender	82 ft. 0 in.
Heating surface, tubes and flues	3,814 sq. ft.
Heating surface, firebox	315 sq. ft.
Heating surface, syphons and arch tubes	117 sq. ft.
Heating surface, total	4,256 sq. ft.
Heating surface, superheating surface	1,700 sq. ft.

WEIGHING nearly 300 tons with its tender and booster, with a total length of 82 feet, a working pressure of 250 lbs. to the square inch, a heating surface of 4256 square feet, and a tractive effort of 69,700, the largest locomotive in the British Empire is now running on the Canadian National Railways.

In this article Mr. Johnston supplies figures and facts about this engine, the forerunner of 40 others of the same type.

Grate area	84.4 sq. ft.
Max. tractive power of engines only	56,800 lbs.
Max. tractive power of engines with booster	69,700 lbs.
Factor of adhesion, engine	4.05
Factor of adhesion, booster	4.5
Capacity of tender, water	11,300 Imp. Gals
Capacity of tender, coal	20 tons
Limiting height	15 ft. 3 in.
Limiting width	10 ft. 9 in.
Max. degree of curvature engines will take	18

With Booster	
Weight in working order, engine truck	65,000 lbs.
Weight in working order, driving	232,000 lbs.
Weight in working order, trailing truck	91,000 lbs.
Weight in working order, Total engine	388,000 lbs.
Weight in working order, tender	260,000 lbs.
Weight in working order, tota engine and tender	648,000 lbs.

Without Booster	
Weight in working order, engine truck	65,000 lbs.
Weight in working order, driving	230,000 lbs.
Weight in working order, trailing truck	83,000 lbs.
Weight in working order, total engine	378,000 lbs.
Weight in working order, tender	260,000 lbs.
Weight in working order, total engine and tender	638,000 lbs.

All the engines will be equipped with Duplex type D-1 stokers, Elesco K-39 feed water heaters with C.F. pumps, type " E " superheaters, American multiple throttles, Precision reverse gear and Thermic syphons (2 in firebox and 1 in combustion chamber). The Montreal engines have Shoemaker firedoors, hand grate shakers, cast steel grates, Alco lateral motion device on front drivers, Miner draft gear and Sherwin-Williams paints, while the Kingston built engines have Franklin firedoors, Franklin power grate shakers, cast iron grates, Franklin lateral motion device on the front drivers, Cardwell draft gear and Thorpe-Hambrook paints.

Other special equipment on all engines includes Huron arch tube and washout plugs, two 3½ in. Consolidated safety valves, Hancock H.N.L.

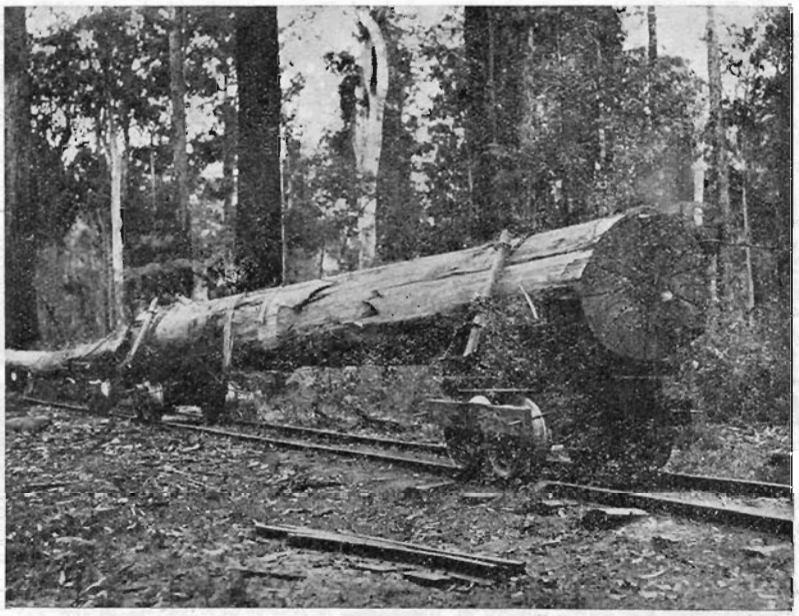
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FROM FOREST TO MILL

By
HUGH RICHARDS

TIMBER spells national wealth and railway revenue. The industry is one of Victoria's big assets.

At Powelltown—out from the Warburton line—the Victorian Hardwood Company operates a well-equipped saw mill which is linked with Yarra Junction railway station by 12 miles of light steam tramway. The Company's private line also runs into the heart of virgin timber country nine to ten miles east of the town.



Ready for the Mill

POWELLTOWN swelters under a blazing summer sun. The gums on the slopes of the surrounding ranges are masses of bright, dry green, streaked with the slim, straight whitenesses of the trunks. The big tin roof of the sawmill shimmers with reflected heat. Black smoke ascends sluggishly from the tall chimney stack. Dust—hot dust—lifts from your feet as you walk.

And eternally the drone of the sawmill rises and falls, monotonous and persistent as the heat.

Shunting trucks of timber from the sawmill platform, the squat little engine with the enormous stack whistles with the assurance of an A2. You disturb the swarm of flies enveloping you and study your watch. The young foreman beside you answers your thoughts.

"She'll be leaving inside half an hour," he says. "I suppose there'll be ten logs for her to bring in. About nine to ten miles out she goes. Climbs all the way there."

"Will it be any cooler?" You jerk a thumb towards the ranges, flick some of the flies irritably from your face and wave them on to the foreman.

The foreman waves them back to you. "When you get in amongst the trees and over the creeks, it will. That is," he grins, "if you don't run into a bush fire."

You moisten your lips and survey the sprawling ranges anxiously. Not the slightest sign of fire, not even a solitary wisp of blue smoke anywhere. All the same, this heat . . . . .

"We make three trips for logs every day," continues the foreman casually. "That gives us, say, 30 logs to slice and stack daily—30,000 superficial feet of timber. Our tram line takes it to Yarra Junction, and from there it's railed to Melbourne."

The shade of the mill roof is not much cooler than the glare of the sun, but it looks cooler. Under the hot tin shelter, you watch the flashing, revolving saws slicing through the slabs of hard wood, and listen to the drone of their unchanging dirge.

All Mountain Ash

"Hard wood and good wood," the foreman shouts. "Mountain ash we handle here. It's used for interior building structures, motor bodies and the like. When it is seasoned and polished, they call it Australian oak. It makes fine furniture. We season about 10 to 15 per cent.

Machinery does most of the lifting and handling in the Powelltown sawmill. Lanky iron arms roll the logs into proper position under the big saws. Mechanical conveyors trundle the flitches under the smaller saws and slide the scantlings to the stackers. Sawdust travels in thick masses along ascending runways to the furnaces. Underneath the false flooring, huge machinery throbs and pounds.

At the roaring furnaces by the three boilers, a stoker juggles huge pieces of firewood. Even the merciless rays of the sun are preferable to the overpowering burst of heat from the furnaces. The very air is on fire.

And, under the sun-drenched tin roof, the saws drone and drone . . . . .

But the log train is ready for its climb into the heart of the hills. The engine is drawn up at the head of a long row of low, open trolleys—each merely a bare framework on eight sturdy wheels. You perch yourself on the front of the leading trolley, shift your feet clear of the uncovered wheels and wave farewell to the foreman. Immediately in front of you is the stolid rear of the engine, topped by an immense stack of firewood.

The whistle shrieks. The train shakes itself into movement. The wheels beneath you bump forward. Couplings clank the whole length of the train. Grinding and jolting on the light, narrow-gauge rails, the train climbs and winds out of the yards, whistles as it labors across Powelltown's main street, and determinedly sets its snorting nose at the steep ranges.

Fainter and fainter sounds the omnipresent whining drone of the sawmill . . . . . Fainter and fainter . . . . .

Rusty rail, wooden sleepers and rough tracks slither under the wheels of the engine and slide beneath your

feet. Pungent smoke whisks around the blackened roof of the cab. It is a stiff climb and a hard pull for the little locomotive.

On either hand, the steep slopes of the ranges sweep to the blue, unclouded sky. Thousands of bare tree trunks stand like soldiers on parade. Foliage has not yet freshened all the ravages of the bushfires which, a year or so ago, ringed Powelltown in a circle of raging flames. But a young generation of green saplings is springing up.

Onward and Upward

Twisting across a high trestle bridge, the train turns to the left. A hundred feet or so below in the valley lie ugly-looking rocks. The line disappears between high, narrow banks, which almost brush the sides of the swaying engine.

Onward and upward .... Clanking of piston rods .... Grinding and bumping of wheels ....

A bronzed giant in a flannel shirt, belted trousers and two days' growth of whiskers backs off the engine and swings himself on to the front of the trolley beside you.

"Slow enough, isn't it?" he says. "We'll show you some speed coming back, though. You see, we leave these trolleys with the other engine at the top, and pick up the logs which are waiting for us on the trolleys we left there the other day. Follow me?"

"Now, it's a run downhill all the way after we've topped the range coming back, so this engine just pushes the logs in front of it until we're on the slope and then gives us a shove off. My cobber and I—there's only two of us travel on the logs—hang on to the moving trolleys and brake them as they gather speed. We get up to thirty miles an hour coming down. Coast right into the mill almost.

"Dangerous?" He laughs. "Safe as houses. They might get away from us, of course. But then we'd just jump off. We *did* lose four heavy logs a week or so ago. They came round one turn hell-for-leather, beat the brakes, and we had to let 'em go. Sixty miles an hour or more they must have been travelling when they jumped the rails and crashed into the valley. Some row they made, too. Bad as France again.

Through the Tunnel

"And here we are at the tunnel."

Cold air swirls out of a black, square opening in the mountainside, right ahead. Plunging into the gloom and coolness, the engine squeezes past the entrance to the tunnel, seeming to scrape the roof and sides. There is noise and tumult. Echoes are flung from rails to roof. Light dims and grows dimmer. Behind, the square which engulfed the train has changed to an eye of blinding sunshine glaring into the blackness. Further and further into the bowels of the mountain. . . . .

"Thousand feet long!" screams a voice in your ear.

Faintly the invisible engine begins to take shape once more. Light struggles round it and filters through the smoke beating against the low roof of the tunnel. Then abruptly the engine has burst into the open and the heat again.

There is a dip and a slope outside the tunnel. With increased speed, the train rumbles around a curve and ventures over a gurgling creek which splashes between green ferns.

"Looks cooler here," says the timber man, "but we want a fall of rain to make things quite safe from bush fires. Anyhow, I'd rather have summer conditions than winter. Coming home hot and drenched with perspiration is a damn sight better than coming home cold to the bone and drenched with rain."

He shakes his head decisively and, with a sudden "We're here!" leaps to the ground to overhaul and pass the engine in half-a-dozen long easy strides.

In a cool, wooded glade, the train halts, hesitatingly, doubtfully. You jump down and stretch your legs in the shade of the silent, towering gums. The sound of an axe meeting hard wood somewhere to the left is the only sound that issues from the dense jungle. There is a siding on the right of the log train, a siding loaded with ten huge logs on low trolleys and strung together heavily behind another locomotive.

The Return Journey

Seven or eight timber-fellers materialise from the trees. Axes are dropped as the engine-driver cheerfully flourishes a packet of letters and a bundle of newspapers.

"Got a good load for you to-day, Jim," says a bare-shouldered axeman, whose rippling muscles threaten to split the dark skin of his upper arms. "Ten snifters! Eh? No, no fires yet. Still, they'll come if it doesn't rain. And of course it won't. One shower 'd be enough, too. Just one."

He squints up at the hot sky and glaring sun, shrugs his shoulders resignedly and fills his pipe.

With a minimum of effort the empty trolleys are kicked behind the local engine, ready for to-morrow's trees. The Powelltown locomotive shoulders its way behind the ten patient logs. Two men pass slowly along the line of trolleys and their tremendous burdens, adjusting the wooden brake blocks, tugging, pushing and testing.

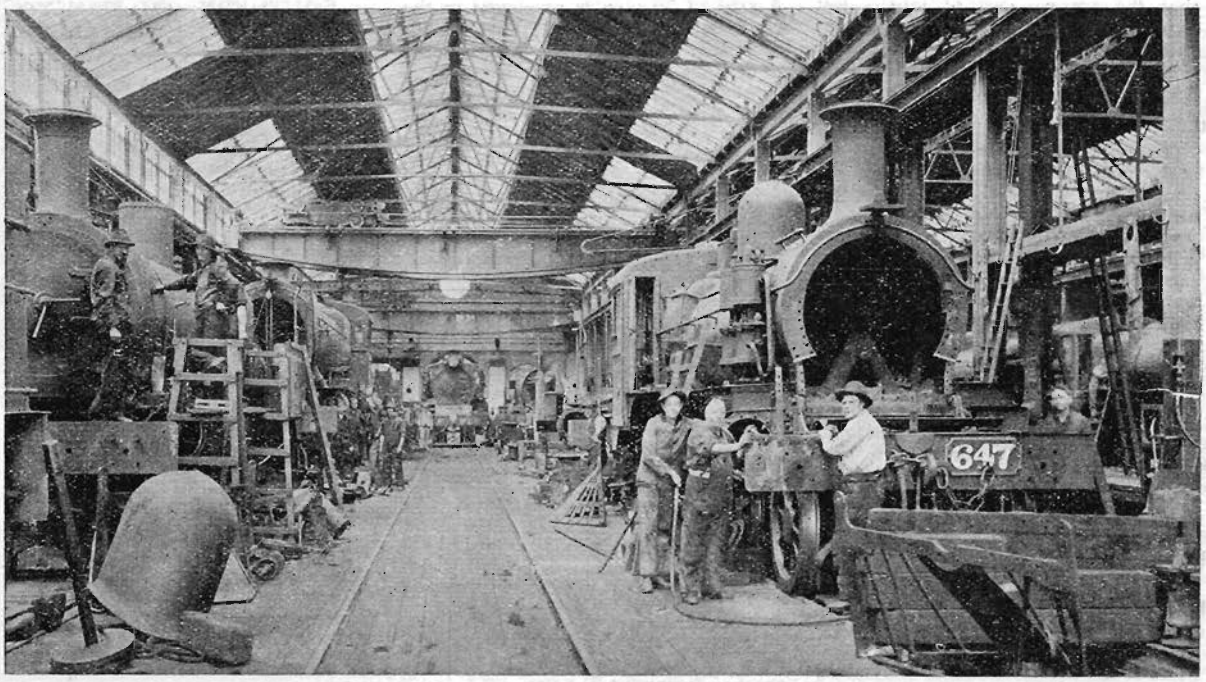
"Better sit on the end of this last log," your recent friend advises. "Make yourself comfortable, but hang on when we start in earnest. And mind the roll; there's three or four inches of play allowed for each log."

You seat yourself on the smooth rounded trunk, dangling your legs over

(*Concluded on page 40*)



A Typical Train



A bay of the engine repair shop at Newport

Hospitals for Trains

By J. D. MICHIE

IT is axiomatic that few railway travellers concern themselves with the inner working of the vast mechanism that makes the wheels go round, and enables them to travel in ease and comfort from centre to circumference of the State, and with a speed undreamed of by our grandfathers.

Yet the railway system, almost perfect as it appears, does not function automatically. Constant attention to detail, regular overhauling and repair work, are necessary to ensure the smooth running of a system which works so well, and with such precision and regularity that most people doubtless decide that they have nothing to trouble about.

This in itself is a testimony to the thoroughness with which our railroading is conducted; just as the perfect health of the countryman was expressed in his declaration: "For my part, I have no system." To be unconscious of his inner workings made his state the more gracious; and in a similar manner the Victorian public for the most part, blissfully unconscious of the intricate detail, constant inspection of the great railway machine in all its parts, and the overhauling of the system day by day which maintains it in a high state of efficiency, enjoys that sense of ease and security which made the countryman boast of his want of system.

JUST as the human system needs surgical treatment, so engines, cars and trucks—vital organs of a railway system—occasionally require a spell in hospital for the same purpose.

Last year, the Victorian Railway surgeon's bill and the hospital fees at Newport, Ballarat, Bendigo, North Melbourne and Jolimont, aggregated £1,365,000.

Apart from defects due to accidents, which fortunately are rare, ordinary wear causes the need for repair and renovation. Within definite periods locomotives are closely inspected for defects, and if necessary new boilers, cylinders and tyres may be installed. Repairs to frames, axle boxes, springs and minor repairs may be required also. The job of overhaul is made as thorough as possible.

A visit to that section of the Newport Workshops where engine repairs are effected gives some idea of the magnitude of the work, in this respect, which is carried out. Here are to be seen rows of engines differing from one another in appearance. Some may just have been moved into the shop, and their normal appearance as yet has not been much changed. Others have been lodged for varying periods of time, and they present a varied aspect. One may be seen with the door of the smoke-box open, exposing to view the ends of the numerous boiler tubes; the boiler stripped of its dome and lagging, revealing a multiplicity of bare-headed rivets; pistons and drivers may have been removed, the cylinders stripped of their outside covering, and their ends gaping wide.

Here is another minus its funnel and smoke-box; the driving wheels have already been removed and placed in the turning lathe to smooth the tread of the tyres. And so one could go on, but the story would fill many pages before a detailed description of the nature of the repair and renovation work on all classes of rolling stock could be given. The extent of the work may be gauged from the fact

that the average cost of repairs last year was £959 for each engine repaired. In the case of cars and vans, the repairs averaged £132, and for trucks £23. The total amount expended under this head was £1,365,000.

The heavier repairs are carried out at Newport Workshops. Lighter repairs to carriages and trucks are done at the car and wagon shops, North Melbourne. Something like 100 trucks a day pass through these shops for the purpose of receiving various kinds of repairs, such as to damaged springs and horn plates, axle boxes, the fitting of new brake blocks, the fixing up of draw-gear and other necessary adjustments. Carriages, horse boxes, cattle and sheep trucks, and other vehicles are also similarly dealt with.

What Ballarat Did

The Ballarat North Workshops, last year, effected repairs as follows :—26 engines thoroughly overhauled, 22 general repairs, 28 slight repairs. There are 86 carriages, 144 vans and 1246 trucks similarly treated. Bendigo North Workshops also effected repairs to more or less similar numbers of engines, carriages and vans ; trucks however, totalled only 1039.

General and slight repairs to engines are also carried out at the North Melbourne locomotive running sheds, as well as at the various depots in the country.

A considerable volume of repairs to the electric rolling stock is done at the Jolimont Repair Shops, which have to maintain 115 electric trains in a state of efficiency. Here the inspection shop is filled daily with service trains that have completed 3,000 miles of running. A staff of 70 men is employed in the work of inspecting and doing minor repairs. Every working part of the train, electrical and mechanical, is overhauled. The importance of this work may be gauged from the fact that every electric train of three units fully equipped for service costs £37,000.

In the construction shop, all new suburban stock made at Newport is electrically equipped, and all repairs are executed. Wheels, motors, brake gear, electrical equipment, are all overhauled and the necessary renewals made before the car is sent into service again to complete a 120,000 miles journey before it is due for another overhaul. This work keeps a staff of 230 men employed. The painting and upholstering shop does all the leather and painting work, putting through 30 cars each month, and employing 105 hands.

170 men Keep Trains Clean

A staff of 170 men is employed in the yards, whose duty it is to clean all trains thoroughly, while about 100 men do running repairs and maintenance during the 24 hours.

The growing importance of the work of keeping the rolling stock in a state of efficiency may be gleaned from the figures following. In 1862 there were 12 goods engines and 32 passenger engines, 140 carriages, 768 trucks and other vehicles. The cost of repairs was £15,600 a year. In 1927 the figures were :—Engines, 651 ; rail motor vehicles, 63 ; electric coaching stock, 866 ; steam coaching stock, 1,747 ; goods stock, 20,000 ; vehicles such as casualty and breakdown vans, etc. 808. Total, 24,135.

SOUTHERN RAILWAY TO ADOPT LIGHT SIGNALLING

THE English Southern Railway is spending £150,000 on the substitution of color light signals for the existing semaphore type. The new system, which will involve powerful electric beams, will make the operation of the congested lines leading into the Charing Cross–Cannon-street and London Bridge termini practically fog-proof. Experience already gained with electric light signalling on sections of line between Charing Cross and Cannon-street has shown engineers that drivers of trains can see signals against them for an extra 200 yards, even in foggy weather. A three-color system is to be used.

HIC—YPRES

The old soldier was relating his experiences in the Ypres Salient ; the precise old lady was an attentive listener.

" Well, one night, just as we was getting into Wipers——"

" Ypres," corrected the old lady.

" We was 'alf a mile from about Wipers——"

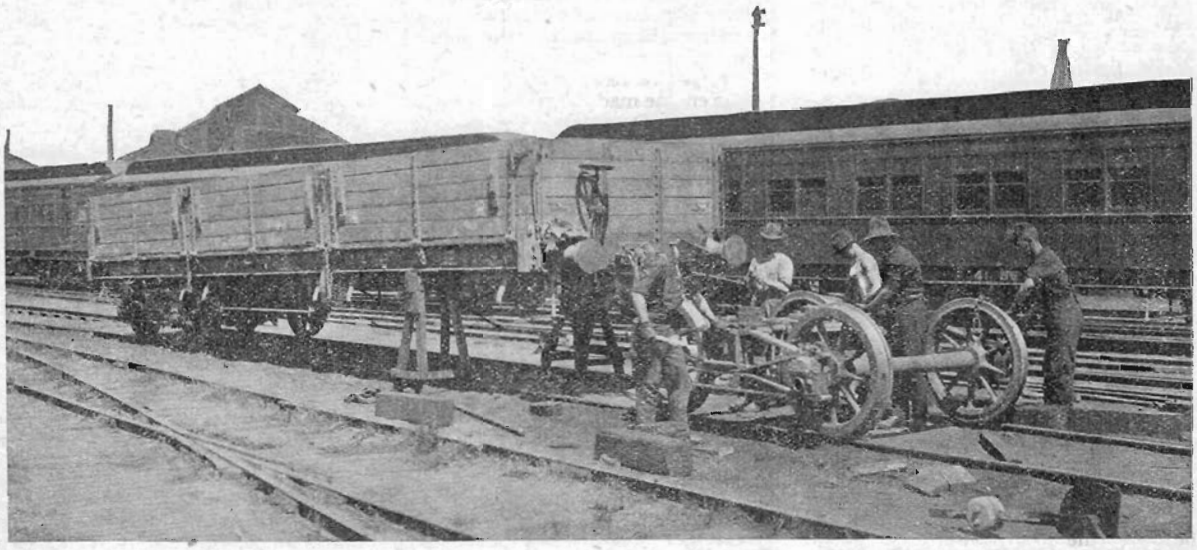
" Ypres," said the listener.

"—When a whacking great Jack Johnson landed in the middle of the town. Golly ! I thought the 'ole of Wipers——"

" Ypres," put in the old lady, gently.

The soldier looked at her for a moment and then :

" Lumme, mum," he said, " you ought to take somethin' for them 'iccups."



A bogie truck being overhauled for slight repairs

Lines from Other Lines

America Admires "King George V." Engine—New Mallet Locomotive for Germany–Bargain Travel in England–New American Dining Cars—"Royal Scot" Makes Another World Record

BRITISH ENGINE IN AMERICA

IN refreshing contrast to newspaper reports of the anti-British wave of "Big Bill Thompsonism" in America are the account and comments on Britain's exhibit of the G.W.R. company's "King George V" locomotive at the recent Baltimore and Ohio Railroad's Centenary celebrations, which appear in the latest *B. and O. Magazine* to hand.

"With the band playing 'Hail Britannia' the float symbolical of England as the mother of railways, came down the track," says that journal. "It bore an attractive model of the famous locomotive 'Rocket,' built by George Stephenson, with its tender, and crew, Britannia herself



The B. and O. Centenary Exhibition

was standing on a raised dais at the rear of the float. She was holding a trident, symbolical of sea power, in her right hand, and in her left, a British shield. She wore a flowing white robe with a red cape, bodice of spangled gold and a gilded helmet. Following this symbolical float came the product of the finest and most modern English locomotive workmanship, the 'King George V,' first of a new type of high speed passenger locomotive built for the Great Western Railway of England. Of all the exhibits in the Pageant, this got more comment and was the subject of more newspaper stories than any other. It had been no easy task to go through the intricate procedure necessitated by customs' rules to bring this wonderful locomotive into the United States. But the management of the Great Western Railway were ready co-operators

"It is impossible to describe the beauty of the 'King George V.' Built for a different type of service than that in which our locomotives are engaged, and being the last word in the classic development of line and curve, as practised by the English locomotive builders, it created a world of favorable comment from railroad officers at The Fair, mechanical experts and visitors in general. All in all our English friends had every reason to be proud of the handsome greyhound in their charge at The Fair, and we were all proud of having had them, and it, with us, too."

HENRY FORD AND "KING GEORGE V."

DRIVER William Young who accompanied the English Great Western Company's "King George V." to the Baltimore and Ohio Railroad's Centenary Exhibition was a proud man when Mr. Henry Ford came up to the engine and afterwards rode on the footplate for some miles. "He has a keen, alert face," Driver Young told the London *Daily Express* on his return to England, "and though he is an old man, he would beat most of the youngsters. I did not have to tell him the points of the engine. He grasped them all at once and discussed them in a scientific way. He said to me: "This must be as near perfection as anything in the way of rolling stock. I envy you your beautiful engines with their astounding speeds. We cannot touch them in America. I'm going to have a model made of the 'King George V.' for future reference."

The engine made a splendid run over the B. and O. tracks. At three-quarters throttle it attained a speed of 75 or 76 miles an hour. "And then," said Driver Young, "we were told to reduce to 65, the limit of the line. For all their hustle, the Americans don't seem to like too much pace for their trains."

NEW TANK LOCOS. FOR GERMAN RAILWAYS

A VERY large and powerful compound superheated Mallet engine has recently been built for the German Railways. The low-pressure cylinders driving the forward group of 8-coupled wheels have a diameter of 31½ in., these cylinders being attached to the front frame which is pivoted to the rear frame. The latter carries the boiler and the high pressure cylinders, these cylinders being 23⅝ in. diameter. A part of the weight of the boiler is transferred to the forward framing.

The boiler is equipped with Schmidt superheating apparatus and a Maffei feed-water heater is fitted transversely in the smoke-box. By means of a simple device, utilising compressed air and springs, the reversing gear is operated with practically no effort on the part of the driver

The locomotive is designed to deal with passenger and goods trains on the steep gradients Mittelgebirge sections, where, on inclines of 1 in 40, speeds of from 12½ to 25 m.p.h. are reached. The total combined heating surface is 2,860 sq. ft., of which 704 sq. ft. is provided by the superheater. The grate area is 45.75 sq. ft. The locomotive measures 57½ ft. long overall,



Germany's New Tank Engine

and weighs about 104 tons empty, and 130 tons in working order. The water capacity of the tank is 2,750 gallons, and 4½ tons of coal are conveyed in the bunkers.

This is claimed to be the largest and heaviest tank locomotive in Europe.

WINTER BARGAINS IN CHEAP TRAVEL

THIS winter, the four big English railway groups are making a concerted and determined reply to 'bus transport rivalry. Following the lead of big department stores, they have started a "Winter Bargains in Cheap Travel" campaign. "Special Lines in Half-day Excursions," "Cut Rates between Town and Town," and "The Seaside makes the Return Call on London" are extensively advertised slogans. One example of the cut rates is the 800 miles return journey from London to Glasgow for 24s., which is described as the New Year's bargain for Scotchmen. The campaign is the outcome of increased and increasing motor competition; road fares have

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The Importance of a Time Sheet



By RICHARD HUGHES

EVERY workman, both inside and outside the railway service, knows that his time sheet gets him his pay. Perhaps some dimly suspect that the sheet has further uses. But it is not likely that many realise the all-important part which each time docket plays in cost accounting.

WHEN Fitter Bartholomew Brown bends furrowed brow over his time sheet, moistens his pencil with thoughtful lips, and decides that those groggy piston rods on that ailing A2 yesterday kept him busy for three-quarters of an hour, he has thrown a pebble into the placid waters of the railway costing system, and has spread rippling waves in an ever-widening circle which splashes eventually over the pages on the Annual Report.

At the same time, of course, he has lightened the pay office money bags of a couple of shillings.

Naturally, Bartholomew Brown is more interested in the couple of shillings than the pebble. There is a glamor about coin of the realm which is lacking somehow in figurative circles on a hypothetical financial pond.

But, anyhow, does Bartholomew Brown really *know* that that daily time sheet of his is put to any use other than pay disbursement? And do many of his hundreds of cobbers in the Rolling Stock Branch? And the Electrical Engineering Branch? And the Way and Works Branch? And the Signal and Telegraph Branch?

Beyond the Pay Office

Actually, the pay office is only one of several units which unleash trained staffs of tight-lipped mathematicians on the familiar yellow and white time dockets. Time clerks and costing clerks, accountants and engineers, chief clerks and financial committees all combine pencils to pick up particulars which the pay officials have, from the nature of their jobs, only skimmed across.

Fitter Bartholomew Brown finds a blank time sheet waiting on his bench when he comes on duty in the morning. He scribbles some lucid comments, such as "repairs to piston rods; pad frames; repairs to machinery and bogies and screw couplings," in one column, spatters a handful of figures relating to truck numerals or "production order" numbers down another, apportions the different times which he spent on the various jobs in a third, flourishes his rate of pay in a fourth, exudes a few additional helpful facts in adjacent perpendicular rows, flutters the informative statement in the direction of the Leading Hand, and forthwith terminates his association with the time sheet, and incidentally his knowledge of most of its future peregrinations.

The Course of the Time Sheet

If he clutched it any longer, he would have to follow it through the Newport Time Office, to watch while remorseless statisticians dissected it and analyzed it, extended it and totalled it, determined total pay due and checked the full working hours. Itemising and sorting here, he would observe, concentrate the several varieties of work into separate sections. Time sheet dealing with "production order" work go together. So do sheets featuring repair work on engines or cars. So do sheets touching machinery supervision, tool maintenance and other overhead charges.

Next, assuming that Mr. Brown's curiosity was still unallayed, there would need to be the trip to Head Office to see the bushels of time sheets pass beneath the eagle eyes of the Rolling Stock accountants. Statements are prepared and comparisons are made. Percentages and decimal points blow before the time sheets like chaff before the wind.

A slightly dazed and possibly embarrassed Bartholomew Brown would then find himself among the shingled, silk-stockinged, bright-eyed damsels in the Powers Machine division. Here amid the din and bustle of the whirring, buzzing, pounding, thumping, crashing mass of computating machinery which has supplanted the humble abacus in ultra-modern railroad accounting, he could watch the individual time sheets being pulped into one comprehensive aggregate of time and money charges for monthly branch costs.

Finally, if he wished, the persistent fitter could carry his investigations through to the bitter end by thrusting his head into the departmental vaults at North Melbourne and surveying the hundredweights of bundled time sheets which accumulate there over a period of 18 months. Records are retained for that length of time, as certain tidy little jobs at Newport often comprise a dozen locomotives or so, or 50 or 100 trucks. Safety First dictates retention of the time sheets until the job is completed and costs assessed satisfactorily.

What a Mistake Does

With Newport time sheets, the most common error is a tendency to transpose numbers in the quotation of "production order" identifications. The rendition of "P.O. 7845" as "P.O. 7485" seems a trivial enough

mistake, but when it removes a day's costs from an order for wheel-barrows and dumps it with hearty irrelevance on to an inoffensive order for screw couplings, a certain amount of inconvenience and inaccuracy is inescapable.

Approximately 3,700 time sheets are compiled daily at the Newport workshops alone. That makes more than 1,000,000 a year. Or, putting it another way, Newport writes on 48 solid cubic feet of time sheets every month, the whole year through. On an average, each man at Newport does two separate jobs per day. Some, of course, perform eight or ten in the eight hours, while others again carry on at the same job for as long as a week.

But Electrical branch men have a harder row to hoe—or a more detailed time sheet to submit—than the majority of their Rolling Stock cousins. The average electrical fitter will have perhaps six or seven different jobs daily, involving travelling time and covering work for all branches of the service. He needs an exceptionally good memory, or, better still, a rough personal diary, to ensure that the varying times of individual jobs are correctly shown, and that the cost of one job is not inflated at the expense of another.

Costs Were Inflated

As a case in point, there was the installation some little time ago of temperature recorders at the Newport Power House. So much was the estimate exceeded that inquiries were made, disclosing that confusion of two separate reference numbers on time sheets had bloated the charges with costs from another job.

The same thing applies to the allotment of correct time proportions between the different branches. Supposing one day's electrical installations for the Transportation branch occupies six hours of an electrician's time, while the remaining two hours are put in on Way and Works branch work. Obviously there will be distortion of branch costs if that electrician's time sheet shows his day as having been split evenly between the two branches, or even divided on a five-and-three hour basis.

Yet another function of the time sheet is to facilitate comparison of different methods of manufacture in the workshops. When one method has been followed for some time, and then an alternative is given a trial, it is the ubiquitous time sheet which tells the story of improvement or retrogression.

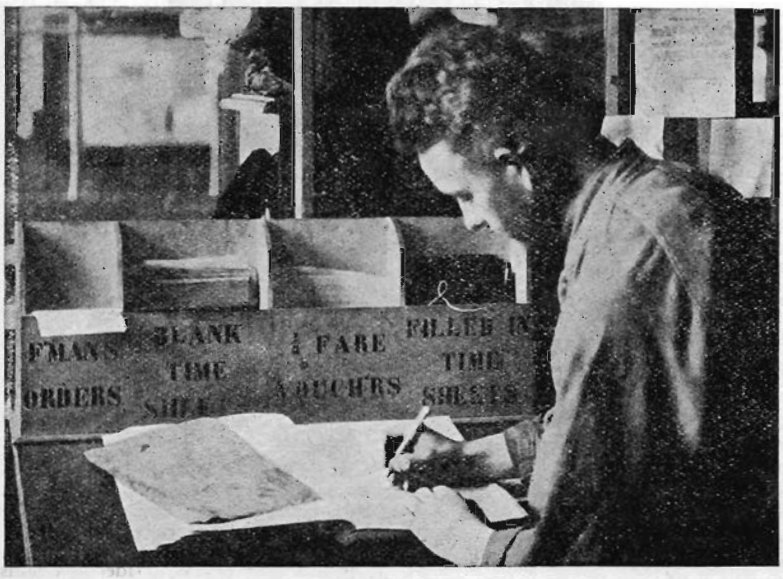
Repair v. Replacement

Similarly, the time sheet's impassive evidence always sways the verdict in that perennial rail case, Repair v. Replacement—will it be cheaper in the long run to scrap the old article in favor of a brand new one, instead of indulging in expensive repairs? Many, too, are the retrospective arbitration awards which have brought old, wellnigh forgotten time dockets home, dragging their back pay behind them.

Engine and truck construction policy is dictated in many cases by the time sheet, also. Comparison of the varying maintenance costs of different types of vehicles indicates the most serviceable type for future construction.

Of wide scope, therefore, is the influence of the humble time sheet. It is not too much to say that the little yellow and white dockets constitute the foundation of the department's entire costing system.

And it is the man who fills in the time docket who establishes the stability of that foundation.



Making up a time sheet

THIRTY-FIVE YEARS AGO

Extracts from the *Victorian Railways Gazette* of February, 1, 1893 :—

The Earl of Hopetoun and Lord Kintore, who witnessed the test of the automatic door-closing appliance on the Port Melbourne train last month, have forwarded to the patentees, Messrs. Thunderbolt and Fulton, letters expressing their high approval of the invention.

From inquiries made we learn that the departmental telegraph class for free instruction has been discontinued for the present, but Mr. H. L. Hall, instructor, is conducting a class for which a fee of one guinea per quarter is charged.

Experiments are now being conducted under the supervision of an officer from the Mines Department and Loco. Inspector Lewis as to the utility of brown coal, in its natural and briquette forms, as a fuel for locomotives. The briquettes used are those made in Europe from the brown coal taken from the Morwell mine. Should the experiments result successfully, practically a mine of wealth will be opened for another Victorian industry.

Addressing the annual meeting of the Traffic Union in the Rialto, vice-president P. Barr announced that a start had been made to federate all the railway societies in Victoria, and for some months past the nucleus of the federation had existed in the shape of a Railway Vigilance Committee, consisting of 24 delegates from six societies. A draft scheme for establishment on a permanent basis was now being prepared, and it was quite probable that within the next three months the first Federal Senate would be appointed.

We publish the two following clauses from Bylaw 106, which came into force on January 1, 1892, and relates to passes issued to employes :—

Clause 8.—When compatible with railway requirements, officers and employes may be allowed passes to vote at Parliamentary elections.

Clause 9.—Any workshop employe may be allowed two passes in a year—one available for all lines for himself, wife and children (not exceeding three), the other for a specified return for himself and wife only. Such passes, however, are only to be issued when the workshops are closed, generally at Christmas and Easter.

A new method of joining steel rails so that they are practically in one piece, yet can move longitudinally with change in temperature, has been developed in Sweden.

More than 1,000 locomotives on United States railways carry boiler pressure of 250 pounds.

It is reported that special trains, containing printing presses, living quarters for lecturers, etc., are being run on several Chinese railroads, to spread propaganda among the natives of the interior.

Representative Railroaders

No. 6—Senior Stationmaster H. McCULLOCH of Spencer Street

By R. H. JUNIOR

Caricature by Angus Mac



A SUGGESTION of severity clings to the word "senior." There is something cold and chilling about the term. A touch of the austere, even of the forbidding In the shadow of seniority, cheeriness should always be putting up a losing fight with glumness.

On etymological grounds, therefore, Stationmaster H. McCulloch of Spencer-street, stands revealed as an unsuitable person for the position of Senior S.M. of the service The man smiles too much. He is too affable—as affable as an Irish Mac would be expected to be. His eyes twinkle too much. At the corner of each, patterns of mirth-chiselled creases lie in confident wait for the opportunity to become deeper. Even the official peak of old Mac's uniform cap struggles vainly to clothe him in some semblance of sternness.

Fortunately, however, etymology had no say in the appointment of McCulloch as head—as *Senior* Stationmaster at Spencer-street. Merit and experience did all the saying. The veteran has a Transportation Branch career of 35 years to his credit. Placed in charge of his first station in 1900, he has steadily climbed the ladder of Stationmaster promotion, effortlessly taking every rung in his stride. Now, perched giddily on the top, he swings his legs in midair and peers down at the bottom. With a twinkle and a smile. . . .

Most successful men in retrospective mood can conjure up some youthful memory which they allege more or less veraciously influenced their life career. Perhaps this is a favorite one, it was the piercing-eyed old gentleman who stopped to watch the boy at play in the street, to pat him on the head and to tell him to mark his words and he'd be a rich man one day. Or perhaps it was that visit of Uncle Henry in luxurious limousine and opulent atmosphere, and his talk of how he made his tens of thousands in the real estate business Or perhaps it was. .

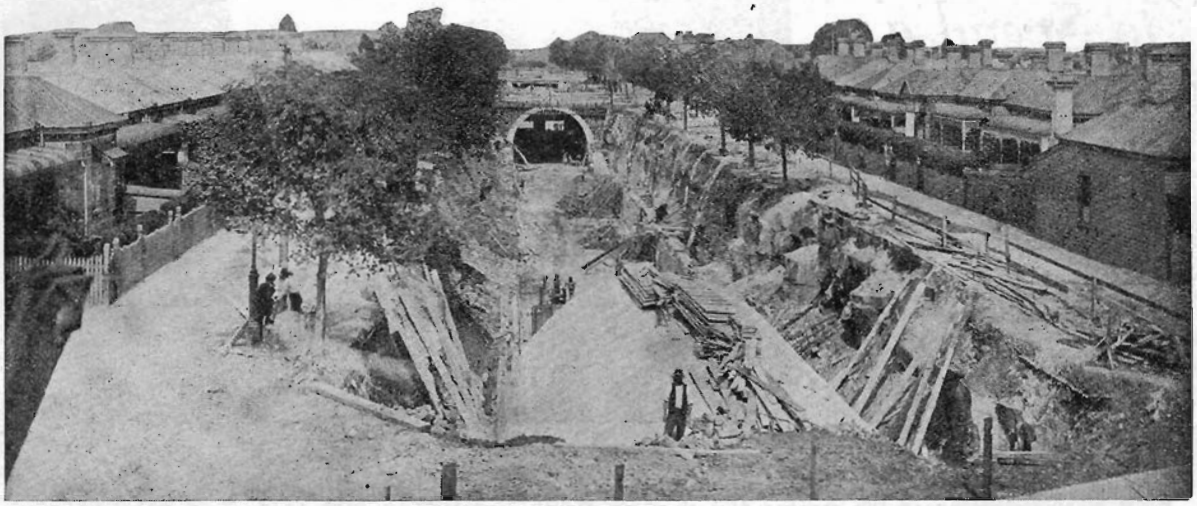
Anyhow, in S.M. McCulloch's case, it was the juvenile recollection of Stationmaster J. Parker, lean, long and temperamental, emerging hastily from his office at Gordon one sunny morning in 1882 and dealing young McCulloch a shrewd and sudden kick in the rear.

Fresh to railroading, the boy had just witnessed his very first derailment in the running yards opposite the platform. The unusual spectacle of sprawling truck and excited railwaymen, the confusion and the trenchant comment

(*Concluded on page 40*)

Railways Are Still Being Built

By J. D. MICHIE



Work in progress on the new South Kensington—Footscray line

THE Victorian Railways Annual Report for last year gave Victoria a total of 5,887 miles of railways with which was included all sidings open for traffic.

Mr. Chas. H. Perrin, Chief Engineer for Railway Construction, and his staff have in hand this year a lengthy programme of railway construction. From Yarrawonga on the Murray River, to Oaklands in New South Wales a border railway 37 miles in length is being pushed forward. This involves the building of a huge bridge 1,400 feet long to carry the line over the Murray. Some of the spans are 100 ft. It will yet occupy a considerable time to complete, so that the opening of this line, it is anticipated, will not take place earlier than some time in 1930.

Another border line of 30 miles which is in course of construction is that from Euston to Lette. Here the bridging of the Murray River at Robinvale is in itself a big undertaking. The structure including the approaches will be one mile and a half long. Four of the spans will each be 100 feet; and in the centre of the bridge a section will be so constructed as to permit of its being raised vertically to provide a clear passage for steamboat traffic. The total cost of this bridge is estimated at £150,000. The opening will take place during March.

From Gonn Crossing to Stony Crossing is another border railway, 38 miles long, just nearing completion,

SINCE the opening of Victoria's first railway from Flinders-street to Port Melbourne, in 1854, the average yearly additional mileage has been 80. That rate of increase will probably be maintained for some years to come.

At present, 112 miles of new line are under construction, while a further 50 miles have been authorised.

and which probably will be opened for traffic during the month of March.

Constructional work, which has been in progress for some considerable time in building the lines in connection with the Tottenham goods marshalling yard, will, it is anticipated, be completed in August, 1929. Two illustrated articles in this Magazine, one in March the other in September last year, fully described the great magnitude of these operations.

A Complete Job

Portion of the work, namely, the 2½ miles of new double track between West Footscray and South Kensington will be finished in September, this year. The complex variety of the constructional work involved is prodigious —to mention only the tunnelling at Bunbury-street, Footscray, and the bridging of the Saltwater River.

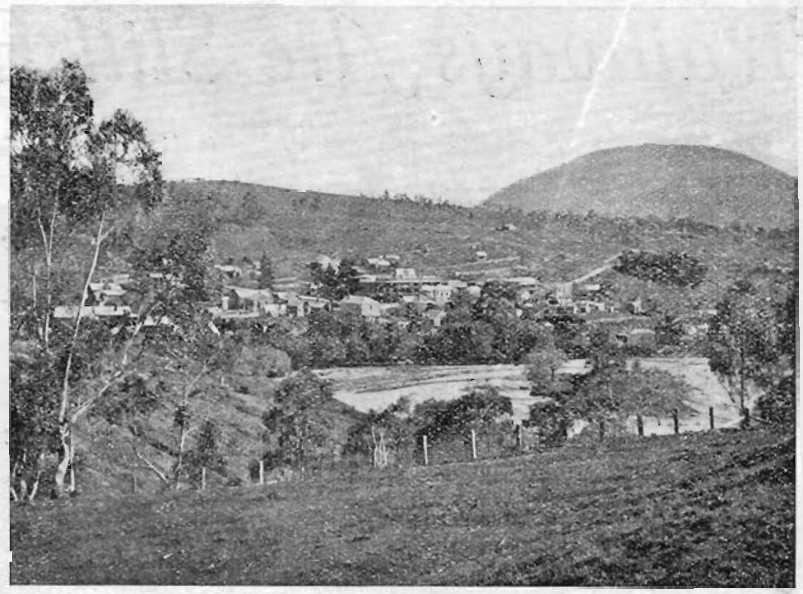
The building of an independent goods line of double tracks from the north-eastern line at Broadmeadows to the Tottenham yards by way of Albion, which is portion of the same general scheme, involves the building of a huge viaduct over the Maribyrnong River the details of which were described in the Magazine issue for September last. This will be opened for traffic in August, 1929.

Other new lines authorised for construction, but upon which work has not been commenced, except that from Darling to Glen Waverly a distance of 6 miles where preliminary work has been started, are: Orbost to Brodribb 6 miles for timber traffic; Casterton to Nangeela, 9 miles; and Nowingi to Millewa South, 35 miles. The last-named will open up a considerable area of uninhabitated Mallee land.

Facility of communication begets community of interests "which is the only treaty that is not a scrap of paper." Apart however, from consideration of the magnificent system of railroad transport which has characterised progressive stages in more than 70 years of the history of Victoria's railroads, nowhere has this been more clearly exemplified than in what has been done in recent years, by providing considerable extensions of railway communication between Victoria, and New South Wales, and South Australia, where certain border districts today are now reaping benefits, which a far-flung railway-transport system has given them, thus making possible profitable cultivation and settlement of vast areas of virgin soil eminently suitable for tillage.

Where to Spend a Holiday

OMEO



ONE of the most delightful trips in Victoria is that across the Australian Alps via Bright and Harrietville, or. in the reverse direction, via Bruthen and Omeo. Omeo, once a flourishing mining township, is still a principal centre on the Alpine route.

LIKE most mining townships Omeo originated with a few canvas tents which dotted the banks of the Livingstone Creek in the days when the Omeo diggings were famous for their richness. Through the falling off of gold production it is now but a shadow of its former self, although it still retains its attractions for the tourist.

The population is about 400, and there are council chambers, a memorial hall, branches of three banks, a public library, a hospital, a newspaper office, a couple of hotels and all the accessories of every day life. It is the converging point of the main highways which lead into it from Bruthen in the south, and Bright and Tallangatta to the northward, and is a healthful resting place for tourists who make that most interesting tour, the passage across the Australian Alps.

A number of short but charming walks, which give the visitor relief from car travelling, are available round the town, and although they are very hilly they are on easy gradients, and once the hilltops are attained delightful views are obtained of the surrounding country.

The district is the centre of a fine cattle grazing area and is popular with anglers, there being several trout streams where excellent sport is assured.

A delightful trip is that to the Limestone Caves and Marble Quarries, situated amid ideally beautiful mountain and bush scenery. The caves are of great beauty, and a pleasurable day can be spent in rambling over the mountains of marble, some of which are 1200 feet in height.

Fourteen miles out is Lake Omeo, a large sheet of water past the shores of which runs the well made roadway to Benambra, and the ascent of Mt. Bogong (6,508 feet), the monarch of Victorian mountains, can be easily made from this centre. It is also a good starting point for the more adventurous tourists who delight to scale the dizzy heights of the mountain peaks, which are a feature of this Alpine region, reliable guides being available for this purpose.

The tour across the Australian Alps from Bright to Bruthen, passing through Omeo is, in the opinion of many, the most beautiful mountain trip in Victoria. It is made over what is claimed to be the highest mountain road in Australia. Between Bright and Omeo the altitude attained is 6,100 feet, and the road passes through some of the most picturesque and impressive mountain scenery in the State.

It is possible to traverse the road for about six months of the year only, as for fifteen miles the highway is 5,000 feet above sea level and thirty miles of it is above the snow line.

From Omeo to Bruthen the scenery is in striking contrast to that previously passed. After crossing the Dividing Range, the beautiful valley of the Tambo River is entered, and its course is followed until Bruthen, a thriving little town and the outlet for the agricultural and pastoral production of a rich and fertile district, is reached.

Parties are now being organised by the Government Tourist Bureau to make the complete round tour over the Australian Alps during January and February. In addition to making the tour by car between the rail towns of Bruthen and Bright, a little time will be devoted to sightseeing around Omeo, and a few days will be spent at Mount Buffalo National Park.

A REGULAR PATRON

A pretty girl who was collecting contributions for a hospital approached a man sitting at the wheel of an expensive car. "No," was his surly answer. "I contribute regularly to that hospital."

"No doubt," said the pretty girl, "but we're collecting money today, not pedestrians."

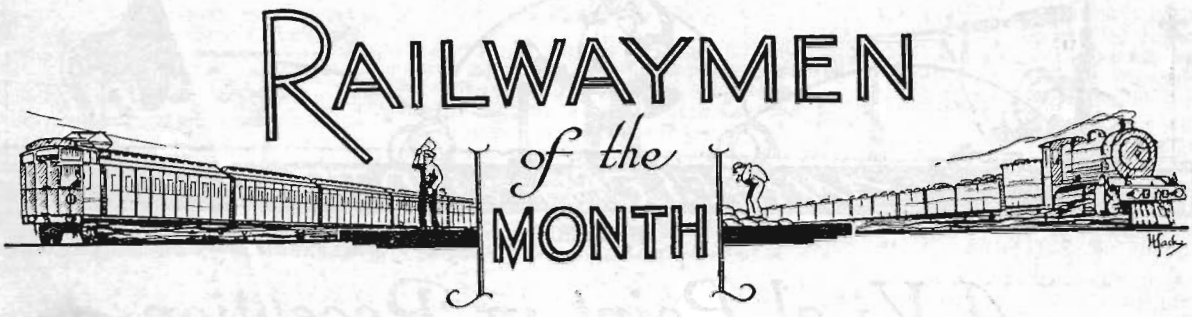
WILLIE'S FAITH

It was the week before little Willie's birthday and he was on his knees at his bedside petitioning Divine Providence for presents in a very loud voice

"Please send me," he shouted, "a bicycle, a tool chest, a——"

"What are you praying so loud for?" his brother interrupted. "God ain't deaf."

"I know He ain't," said little Willie, winking towards the next room, "but Grandma is."



Victoria's Loss—London's Gain



EVIDENTLY the London railway companies know a good man when they see one. Spending a holiday abroad on extended leave of absence, Francis Raynar Wilson, who has been associated for 13 years with the installation of power signalling apparatus in Victoria, incautiously thrust his head into the main office of the British Power Railway Signal Company. He was immediately seized by the shoulders and run into the managing director's sanctum, where such an attractive position was offered him, with such excellent prospects for advancement that he has reluctantly forwarded his resignation to Victoria instead of himself. Although his official headquarters will henceforth be in London, his new job involves considerable foreign travel.

Railway Editor

THIRTY-THREE years a Victorian railwayman. Jim Drew has just become editor of the *Maryborough and Dunolly Advertiser*, one of Victoria's provincial newspapers. He went to school with Bill Thomas, General Superintendent Canny's right-hand man, at the old St. James' Grammar School in Bourke-street, and joined the Bookkeeper's division of the Accountancy Branch when he was 16 years old. He had the unique experience of serving continuously in the same division from that time until he became second-in-charge of the section. Then his health broke down and he was granted permission to transfer to Maryborough, where he remained as chief clerk in the Worksmaster's office until 1921. The Inky Way had always attracted him, and he had free-lanced for most of the Melbourne papers since he was 15. In 1921, however, he definitely dropped railwayman's for the journalist's pen and joined the staff on the local *Advertiser*.

Long Service Man

REPUTED longest service man in the Way and Works Branch, Fitter Alf. Davies, has called it a fair thing after 44 years on the job. He started as a boy in the Spencer-street Ironwork Shop and finished up at Spotswood. As a weighbridge fitter, he travelled round the State, and out Goulburn Valley way, especially, he was as well known in a line repairer's hut as a S.M's d.r. He still plays a good game of tennis, and a racquet was always packed with his departmental kit. Foreman W. Turner preceded a vociferous outburst of cheering when he handed Alf. a gold watch from his cobbers in the service.

Original

GUID Mayor Jack Roberts of Maryborough town, who is also chief clerk in the District Superintendent's office, struck on a happy method of ushering in the New Year. The minute after the town clock had sounded the knell of 1927, the railway mayor stepped on to the front balcony of the hotel in the centre of the town and wished the crowd of burgesses assembled beneath a very happy and prosperous New Year. This was the first time in 12 years at least that the local mayor had thus paid his respects to the populace. But Jack is nothing if not original.

Generous



CHEERFUL old Arthur Russell, the electrical fitter who has just retired after 30-odd years at the Newport Signal and Telegraph Workshops, was a good friend to the young railway apprentice. Every year he set aside a certain amount from his wages to provide prizes for apprentices in the educational classes at the Newport Technical College. Even now that he has left the job, his generous interest survives. His will allocates a liberal sum for the encouragement of juvenile talent in the ranks of the department's budding engineers and C.M.E's.

HE SWORE

Village Constable (to villager who has been knocked down by passing motorist—"You didn't see the number, but could you swear to the man?"

Villager—"I did, but I don't think 'e 'eard me."

A STATION GARDEN

By HARRY TUNNECLIFFE

NOW chain follows chain, o'er wastes o plain
And the landscape is dead and drear,
And the fitful throb of the morning train
With monotony jarrs the ear.
But out of the desert, in bright relief,
From a background of dreary miles,
In a tangle of blossom, and spray, and leaf
On a siding, a garden smiles.

O'ER the platform rails, the creeper trails
And the rose in its beauty blows,
And the glorious broad-leafed lily veils
The soft grass, that behind it grows.
An oasis sweet, in that sand swept waste,
It was watched and watered with care
By the station staff who, with noble taste,
Had thoughtfully planted it there.

AND the garden grew, as the morning dew
Fed its buds. And the weeks went by—
And every day, as the train passed through,
It gladdened some traveller's eye,
Who felt a new hope in his being spring,
And his soul found rest for a while;
For life was a brighter and fairer thing
As it basked in that garden's smile.



By AERIO

A Vital Point in Reception

MANY amateurs today fail to realise the fact that on the efficiency of their Earthing System depends the Selectivity and Range of their Radio Receivers. In this connection the necessity for eliminating resistance and induction from the earth-lead cannot be over-emphasised.

THE function of the connection between the earth and a wireless receiving set is to make electrical connection between the tuning apparatus and the condenser formed by the aerial and the ground. It, therefore, makes this condenser part of the tuning apparatus; in fact, as is well known, a tapped coil without any condenser can be used for tuning, the necessary capacity to make the circuit oscillatory being provided by the aerial capacity to earth.

The earth connection is, therefore, not made to enable the electric current to escape to earth, as imagined by some people who are apt to make unjustifiable analogies between wireless circuits and ordinary electric power circuits, but to make the system an oscillatory one.

The Earth Lead

When considering the merits of a particular earth-lead, it must be remembered that, while the efficiency of the earthing system depends almost entirely on its resistance which at all costs should be cut down to a minimum, the oscillating impulses will follow, if allowed, not the path of least resistance (as with ordinary electrical currents) but that of least inductance, which means in ordinary practice the shortest path to earth, independent of the resistance.

In other words, if bare wire s employed and stapled on to a wall or attached to a water pipe which makes a circuitous route to earth, partial or inefficient earths are made along its length, part of the oscillatory impulse finding its way to earth down the outside of a wall or through other "foreign" material, and possibly leaving the earth lead altogether if such is allowed to lie along the ground before reaching the intended earth.

This is illustrated at Fig. 1, in which the impulse, which should flow direct to the earth plate, first makes contact with the wall at X, then with the surface of the ground at Y, then again with a layer of earth of poor conductivity through the pipe at Z (which is really a continuation of the earth-lead), before reaching the earth-plate P, consisting of the main water-pipe, which is buried in clay — the best of all earth conductors.

In this case it would be safe to say that, even though a heavy gauge wire were used, very little of the oscillatory impulse would reach the earth plate at all, and the earth-lead might even be cut off at K without affecting the result which in either case would be an inefficient and broadly tuned receiving system.

On the other hand, if the same earth is used, with a straight, heavy gauge wire taken in the shortest route, and with heavy insulation, from the earth terminal on the set to the plate P (Fig. 2), a very definite improvement in volume and selectivity will result, and tuning will become surprisingly sharp.

From the foregoing it will be seen that the earth lead should be a short, straight, stout wire, or wires (preferably 7/22 enamelled), and well insulated right to the point of contact with the earth plate. It should be brought through an ebonite tube inserted in the window frame and projecting on both sides in the same way as the lead-in; (A Fig. 2) thence directly into the earth, being kept clear of walls, etc. (B Fig. 2). If circumstances are such that a greater length than 8 to 10 feet of earth lead is required, then it must be properly supported on reel or similar insulators, and kept away from "foreign" material. However, should it become necessary to choose between a short earth-lead with a fair earth, and a long lead with a good earth, the best solution will be found by experiment, and in all probability the former method will be preferable.

There should be no right-angle turns after passing through the window frame, otherwise the earth-lead will not carry a lightning discharge thereby nullifying the protection afforded by a lightning arrester and constituting a positive danger during electrical storms. This question will, however, be dealt with in a subsequent article.

A piece of rubber garden-hose (C) should be slipped over the earth-lead to insulate it from the surrounding earth until it reaches the plate P

A wire (L) of the same gauge as the earth-lead, should be well soldered to the earth-lead where it enters the window frame, and this wire is carried in a vertical direction to the lightning arrester, fixed near the lead-in tube, and held suspended six inches or so from wall between the lead-in and earth-lead.

The Water-Pipe Earth.

Probably the best all round earth-plate is a water-pipe, provided it can be reached with an earth line already described, and is a reasonable distance, say 2 feet, underground. This pipe should be the main water-pipe leading out of the house, and the earth-lead should be connected to it under the ground and not at the kitchen sink.

The best way of attaching the wire to the pipe, which, of course, must be sandpapered clean and bright, is to solder it on. Before doing this, the water must be turned off and the pipe emptied, the taps being left turned on to allow steam to escape when the pipe is heated. A good deal of heat is required, and it will be found rather a difficult job for the novice The enamel must, of course, be scraped from the wire at this joint. Three

copper earth-clips may be used as a substitute for the soldering, the strands of the 7/22 wire being separated, and the connections bound over with insulation tape, and afterwards coated with pitch as a protection against moisture which is not required just at this point. If an unsuccessful attempt has been made at soldering, all traces of flux must be removed from both pipe and earth-lead with boiling water and washing soda, before attaching the clips.

If the pipe is not buried in clay, or is near the surface, it should be laid bare for 6 feet on either side of the earth connection, and packed with wood-ashes (E, Fig. 2), the excavation being filled up with clay or good heavy soil (F, Fig. 2).

Plenty of water should be added when filling in, and a piece of rubber or metal pipe just long enough to reach from the junction to the surface should be placed in position (D, Fig 2) so that water may be poured down in dry weather.

About two gallons of strong copper sulphate solution poured in close to the earth connection will ensure excellent conductivity in the surrounding earth, and will, incidentally, prevent plants growing in the near vicinity of the earth connection.

The Petrol-tin Earth

Next in efficiency to the main water-pipe comes the petrol-tin earth.

If a petrol-tin is used, this must be thoroughly cleaned inside and out with hot water and washing soda. A few small holes are made in the bottom with a nail, and the tin is half-filled with wood ashes. A hole is also punched in the top through which to insert a piece of hose-pipe (D, Fig. 2) so that water poured down at intervals will filter through and keep the surrounding earth moist.

The tin should be buried not less than 2 feet at the inside limit. The earth-lead should be carefully soldered on. If 7/22 enamelled wire is used, the strands should be separated 6 inches from the tin, and each strand soldered separately, all being kept exactly the same length The soldered joints only are then painted over with tar or pitch.

If a bucketful or two of cinders are available, these can be put in the hole around the tin, and the hole then filled with clay or heavy soil. As recommended with the water-pipe earth, the earth-lead should be insulated with rubber hose (C, Fig 2) and a couple of gallons of strong copper sulphate should be poured into the filling (G, Fig. 2) to complete the job.

The disadvantage of the petrol-tin is that it will require replacing in 12 months.

An Earth Screen

If it is not possible to obtain a good earth connection to either a water-pipe or other buried earth without a long earth-lead, the amateur may use an earth screen, or "capacity earth" as it is sometimes called, as a very good substitute.

Essentially, an earth screen consists of a number of wires insulated from the

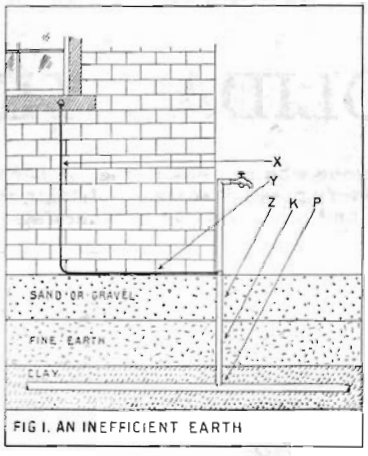


FIG 1. AN INEFFICIENT EARTH

earth, but spread out at a convenient height above its surface under the aerial.

Although for the highest efficiency the earth-screen should consist of from 4 to 10 wires, really good results can be obtained from steel-wire clothes lines, insulated from their supports and provided with a lead-in similar to

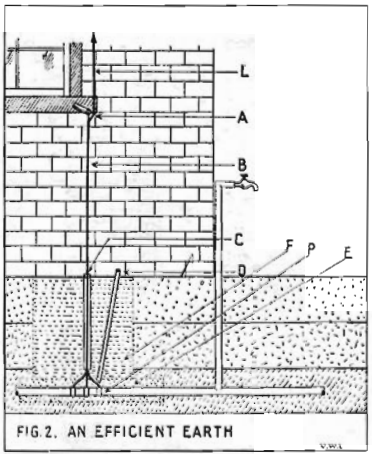


FIG.2. AN EFFICIENT EARTH

the aerial lead-in. If clothes-props are used these should be removed when receiving over any great distance, or, if this procedure allows the lines to come too low for convenience, the props may be insulated from the ground by burying beer-bottles bottom upwards into which the ends of the props may be placed.

A better arrangement would be to run a length of 7/22 enamelled copper wire down each side of the garden, say 30 ft. in width, over which the aerial is erected. These wires should be supported on insulators, six to twelve inches from the fence (Swan neck insulators are ideal for the purpose), and at the house end should be joined together to form the connection to the earth terminal of the receiver. This screen should be 5 to 8 feet above the earth.

These wires, with the aerial proper, form the two plates of a condenser, the screen thus serving the same function as a good earth connection, save that it has no direct connection with the transmitting station. There actually is a connection, however, through the capacity which the screen has to earth.

Tuning will be found to be exceptionally sharp with this arrangement.

It should be borne in mind that the earth screen is well insulated from the earth, and, therefore, the connection from the lightning arrester must still be taken to a buried earth and a second lightning arrester connected between the screen and earth.

In conclusion, if the one or two points emphasised in this article are put into practice, more particularly those dealing with the earth lead, an improvement in reception will be found to take place, and stations previously just beyond the range of the receiver will now be heard.

TOO LATE

Country Policeman (at scene of murder): "You can't come in here."

Reporter: "But I've been sent to do the murder."

C.P.: "Well, you're too late; the murder's been done.

Sandy (who has won on a 50 to 1 chance): "D'ye mean t' say I've won a' this mony just for puttin' doon five shillings?"

Friend: "Yes, of course."

Sandy: "Ma conscience! Tell me, mon—how long has this sort of thing been goin' on?"

An Edinburgh guide was showing an American round the Scottish capital, but without arousing any enthusiasm in the visitor.

They stopped before a large and imposing building.

"What do you think of that?" asked the guide.

"Waal," replied the American, "it's not a bad-sized building, but there's only one. I guess there are hundreds like that in New York."

"I won't argue the point," said the guide. "That's our Asylum."



Conducted by EILEEN, to whom all communications for this feature must be sent

HOLIDAY TIME

HOLIDAY time is here. Everyone who can possibly do so is endeavoring to get away at this time of the year. The seaside is very popular at this particular season, and crowds of boys and girls are enjoying the swimming and other holiday pastimes at our tourist resorts.

FOR the average girl there are many precautions to be taken during the holidays, so that she may return to her usual employment having gained the full benefit of the holiday, and without any misgivings about her appearance.

Plenty of healthy exercise is necessary for the girl who is used to being indoors, and if she desires to keep that fresh look of youth she must indulge in plenty of good healthy sport. Swimming is excellent for keeping one fit, and this season is particularly suited to it. Tennis is also very good ; so are golf, croquet, and walking.

The continual round of swimming, tennis and dancing will probably leave the holiday girl with painful feet if proper care is not taken. After drying your feet when you come out of the water, wipe them well with a rag on which is olive or castor oil ; dust with good talc before putting on your stockings. This saves your feet much tiredness. A little methylated spirit rubbed on the feet and ankles before dancing will prevent them from getting tired and sore.

Air Must Be Pure

In taking exercise, air is inhaled, and this air should be as pure as possible. Walking in the country is better than any amount of medicine. Fresh air is good for the body, and especially for the hair. However, in going out in strong wind or sun, the delicate skin of most of our girls is likely to get rough, red, or tanned, and while this is not noticeable so much in holiday garb, these beauty defects will seem quite out of place back in the office.

A good face cream is a good preventive of burnt skin. At bedtime the face must be bathed with hot water and dried. Then apply the face cream and leave on all night. The dust of the day must be removed from the pores of the skin or your complexion will have that muddy look about it.

Pretty parasols are very popular at seaside and country resorts at present, and these are an excellent idea for protecting the face.



Two smart holiday frocks are here illustrated, suitable for making up in almost any material. There are many dainty fabrics showing in the shops at present, at reasonable prices, which help the holiday girl to obtain several nice frocks for her vacation.

EAST TO WEST

Suggesting that the entire staff of the Warragul refreshment rooms should accompany her when she went to take charge of the Warrnambool refreshment rooms, Miss B. Meuller laughingly countered the recent vehement "Oh's!" of regret which greeted the news of her transfer and promotion. Manager Colb said that the staff welcomed her rise but deplored her departure. They wanted her to accept the xylonite set which they were presenting to her, and demanded assurances that she would keep in touch with them from her location at Warrnambool. The flowers and plants in Warragul's "Cottage Garden" were going to miss her as much as the refreshment girls.

FORTUNES SPENT ON CLOTHES

The modern woman, though she wears less, is spending more money than ever on dress.

The vastness of the clothing industry today shows how women have revolutionised it. One-seventh of the working population of Great Britain are now employed in the clothing trade. There are more than 280,000 tailors in the country, dressmakers and milliners number nearly 200,000, the silk and artificial silk trade employs about 40,000, and there are 24,000 lace workers.

The total boot and shoe bill for Britain's women is about £25,000,000. Expenditure on dress materials runs into fabulous figures. Something like £14,000,000 is spent in a year on hats, and millions more on miscellaneous items.

The silk trade is five times larger than before the war. Nearly every woman and girl now wears silk stock-

ings, and requires many more pairs than when she wore cotton or wool.



Congratulations to Miss N. Stephens, here pictured, who gained third place in the "Herald's" recent typing speed test for business girls in Victoria. Miss Stephens is a typist in the office of the Railways Chief Engineer of Signals and Telegraphs.

The Useful Lemon.—Before applying polish to a grate or stove that has been burned red on top through overheating, rub well with a cut lemon. Pencil marks on paint or woodwork can be removed by rubbing them with freshly cut lemon and afterwards with whitening and a soft cloth.

Wine Stains.—Wine stains can be removed by holding the stained portion of the cloth in boiling milk. Mildew stains will disappear quickly if soaked in sour milk.

HOME HINTS

Rub plates, tables, stoves or anything greasy with newspaper before washing or polishing them.

Sponges can be easily cleaned by squeezing them in water to which the juice of a lemon has been added.

Cotton is better than silk for mending gloves, as it soon soils to the color of the gloves and becomes unnoticeable.

To clean very tarnished silver, mix a few drops of ammonia, instead of water, with the plate powder.

Pencil marks on paint or woodwork can be removed by rubbing with a freshly cut lemon and afterwards with whitening and a soft cloth.

Linoleum will not crack if cleaned with oil and vinegar in equal parts.

POISE

POISE is balance, a nice equilibrium of all our powers—harmonious adjustment to environment—that manifests itself as self-control.

Shining from within, outward, we instinctively accord to this attribute of character a respect not always given to position or fame.

The Bible, in the Proverbs, says: "He that is slow to anger is better than the mighty; and he that ruleth his spirit than he that taketh a city."

To possess poise is to be in command of our lives, to stand at the helm directing our own, not taking orders from a peppery temper, a too-ready tongue or an ill-regulated mind. No quality more richly rewards cultivation. Lack of poise has defeated as many as lack of ability.

Whether found in a person of education or in one of little schooling who is yet full of native good sense, poise inevitably denotes sound judgment and a sense of proportion that refuses to be perturbed by trifles.

Poise is the result of that inward peace which flows from real self-knowledge—a just estimate of our own abilities, a firm control over thoughts, words and actions, and a fine consideration for the regard and rights of our neighbors. The man of poise, knowing the truth, can yet be lenient to the opinions of others.

Writing in the first century A. D., Seneca, the Roman Stoic philosopher, said: "Oh, the tranquility, liberty and greatness of mind which is a spy upon itself, and a private censor upon its own manners."

Poise, like panic, is contagious. If the atmosphere of an office be hurried, vehement, easily agitated, the organization cannot function efficiently. If this spirit be calm, deliberate, poised, the whole organization will react to its influence.

Responsibility naturally gravitates to those whose poise, with all it implies, never deserts them, least of all in crises—who, disdaining to be disturbed by little troubles, save their strength for battle with the great ones.—Metro Surance in the Commonwealther.

IT STANDS TO REASON

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Five diamond Crossover Ring, set in 18ct. gold and pure platinum, £10
Others £6-10 to £15

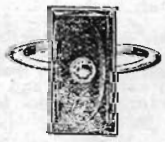


A dainty diamond set Cluster Ring, in 18ct. gold and pure platinum, £10
Others from £11

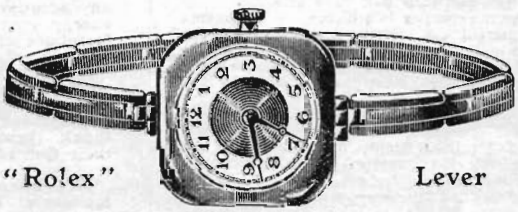


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The "Aristo" Lever is the aristocrat of all lever wristlet watches. It has 15 ruby jewels, brequet hairspring, and all the latest constructional improvements. Solid 9ct. gold case on a strong gold expanding bracelet. Five years' written guarantee - - - - - £8-0-0
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Fashionable Real Onyx Ring, set with a white stone. 9ct. gold mounting, 10/6
Set with a diamond, 15ct. gold, £3



"Rolex" Lever

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Railway Users Say—

WHEN LORD SOMERS WAS ENTERTAINED

AS President of the Shire of Seymour I take this opportunity of conveying to you my sincere and grateful thanks for the splendid assistance and co-operation afforded by your Department in connection with the civic entertainment of His Excellency the Governor, Lord Somers, on the occasion of his visit to unveil the Soldiers' Memorial Entrance Gates.

On behalf of the Council I have also to express keen appreciation of the splendid manner in which Mr. A. E. Moore, your Refreshment Rooms Manager at Seymour, his wife and the whole of the staff carried out the civic luncheon arrangements. Mr. Moore nobly rose to the occasion, and we are deeply conscious of our great obligation for his kindness in undertaking this function, and the great amount of extra work necessarily entailed.

The general excellence of the viands provided, the lay out of the tables and the smooth and efficient service evoked unstinted praise. Indeed in this connection I cannot do better than to quote His Excellency the Governor himself, who in the course of conversation with me, remarked that throughout his extensive travels in the country districts he had never had a better repast. He expressed surprise that in a small country centre like Seymour there should be such magnificent catering facilities, and added that even in the city such general excellence was rarely exceeded. It is worthy of mention also that almost identical remarks were made to me by General Sir John Monash at the Soldiers' Banquet held on the previous evening.

Assuring you of my goodwill to your staff at Seymour and the service in general.

—Mr. Thomas Tehan, Seymour Shire President, writing to the Chairman of the Railways Commissioners.

"BACK TO BEALIBA"

I AM instructed by the committee of the "Back to Bealiba" celebrations to express to you and your staff their great appreciation for the manner in which all arrangements were carried out. Your decorations on the railway station and grounds and on the engine went a long way to make the function a great success and were greatly appreciated by the residents and visitors.

—Mr. A. M. Chalmers, secretary "Back to Bealiba" Reunion, Bealiba, writing to the District Superintendent, Maryborough. A similar letter was forwarded to the Chairman of Commissioners.

SPRING CLEANING AT EAST CAMBERWELL

THE Railways Commissioners would probably be quite elated were they to hear the complimentary remarks made recently, about the clean and bright appearance of the East Camberwell station by countless travellers who use it. Since it had a good spring cleaning and painting from end to end, it leaves no doubt in the sojourner's mind, that the painters did their job faithfully and well, as can be seen at a glance.

This picturesque little spot, with its pretty and well kept bowling and croquet greens adjacent, is the envy of many passengers in trains going to and fro.

Travellers from and to East Camberwell station are not only lucky in having a spick and span station, but also in having a staff there of Stationmaster, Assistant Stationmasters and porters, who are most civil, obliging and courteous to one and all, rich or poor, thereby carrying out the railway slogan "help us to help you."

The old overhead bridge is, however, a grievance with old folk, cripples and women with prams. Why not a subway like Canterbury they say?

—"A New Zealander," writing to the Editor, V.R. Magazine.

A CAPITAL JOB

(To the Secretary for Railways.)

IN view of the close of the year's operations in connection with the transfer of the first wave of the Federal Public Service to Canberra, I desire to place on record the extraordinary efficiency which the personnel of your service has shown throughout this period.

Thousands of tons of furniture and goods have been transported to Canberra, and without exception the schedule has been adhered to in such a manner as to permit this Branch to carry out its timings and activities in Canberra as previously arranged many weeks and in some cases, months before. Many congratulatory messages have been received by this Branch from Ministers of the Crown, in addition to senior and junior Public Servants in connection with the transfer, and it is desired to inform you that I feel your staff, which has been responsible for the handling of the personnel, furniture and goods should know this, and are themselves deserving of the major portion of these congratulations on account of their untiring energy, courtesy and helpful performance of duty throughout.

I cannot close without begging your permission to mention the undermentioned officers of your Department in particular, and to thank them, through you, for their fine service.

Mr. Canny, General Superintendent of Transportation, whose staff work, efficiency and rapid decisions have made the success attained possible. Nothing is too much trouble to him. Mr. Sexton and Mr. Burns have been splendid the whole time and always ready to assist in any emergency.

In conclusion I would like you to express to the Chief Commissioner and his colleagues the thanks of—

Yours faithfully,

W. P. FARR,
Director, Federal Capital Transportation Branch.
31 King-street, Melbourne.

CREDIT WHERE CREDIT IS DUE

WE are always only too ready to complain when things go wrong and do not always give just thanks when it is due. I had occasion recently to bring a cow from Merbein to Redcliffs by rail. I wish to compliment your Merbein staff and train crew of the 3.30 for the attention paid during the carrying out of their work. Had each member had an interest in the welfare of the cow, they could not have given greater consideration, care and attention to assist me in getting my consignment to its destination. Nothing was too much trouble for any of them, from the Stationmaster down. I believe in credit where due, and wish to bring before your notice this occasion as no praise is too high for the courtesy shown me.

—Mr. A. W. Robinson, Box 129, Redcliffs writing to the Secretary for Railways.

HELP IN URGENCY

ALLOW me to sincerely thank you and the staff of your station for your kindness and consideration. You will remember the Bush Nurse from Murrabit catching the train by those bare two moments. Everyone was so kind to me that day, and the railway people did their best for me, as it was urgent for me to get home as my father died a few days after, and I was there to see him conscious. Again thanking you and all concerned in helping me.

—Nurse Jean E. Jaylor, 14 Green-street, Ivanhoe, writing to the Stationmaster, Mitiamo.

APIARIST'S THANKS

RE two trucks of bees on my account ex Nowa Nowa to Newstead, I have to advise that, in spite of running into hot weather, these arrived in good order, and thanks to the rapid transit arranged by your good self, I (having travelled with the bees) was able to cart these to the site at once and release them immediately.

The successful transport of a large apiary so rapidly is a commendable achievement, and I write to thank you for your co-operation and to express my appreciation of the help and consideration of every member of your staff with whom I came in contact from Nowa Nowa to Newstead inclusive.

—Mr. C. E. Cottman, Lake Tyers Apiaries, Nowa Nowa, writing to the Live Stock Agent.

"BACK TO KERANG" SUCCESS

AS secretary to the "Back to Kerang" Celebrations, I desire to thank you for so readily and cheerfully assisting to make the eventful day such a success by having the station dressed, the engine of the special so tastefully decorated and the general interest you so evidently took to make our visitors comfortable on the journey and impressed on arrival.

Your S.M., Mr. Harley, has been courteousness personified. It has been my privilege to consult him on many occasions lately, and he was always ready to listen to my requests, helped in many ways to make my work go smoothly and relieved me of much that otherwise might have been a worry. The Department is to be congratulated, and we are fortunate in having so efficient and courteous an officer in charge.

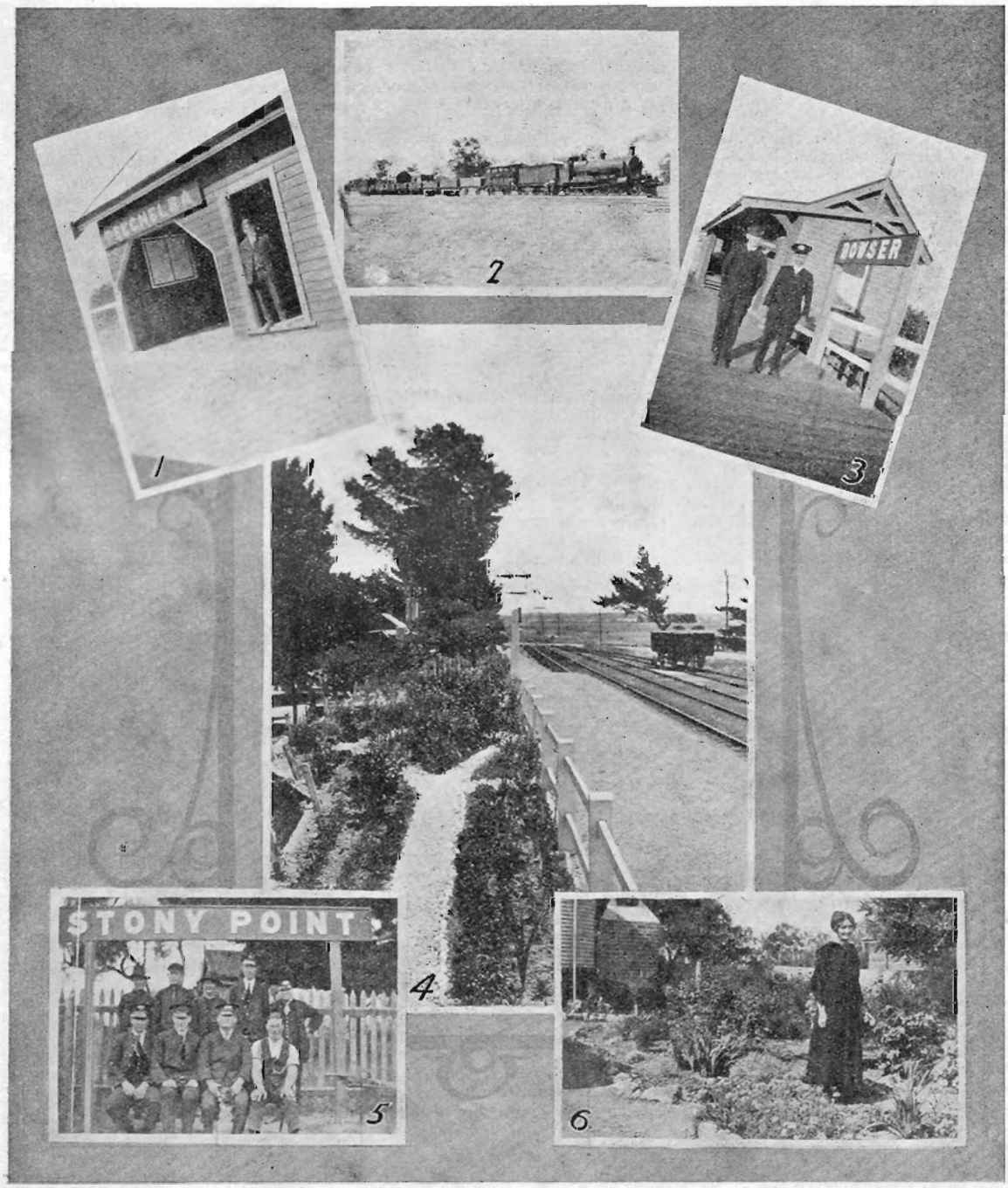
The staff are also worthy of a meed of praise for their hearty co-operation during the festivities.

—Mr. W. J. Trevan, Secretary, "Back to Kerang" celebration, writing to the District Superintendent, Bendigo.

(Continued on Page 38)

Snaps Round The System

SENT IN BY CONTRIBUTORS



1 and 3.—The new stations at Bowser and Peechelba. 2.—The first loaded train to leave Peechelba after the official opening of line in November. 4.—A picturesque corner of Trawalla station. 5.—Staff and relieving men at Stony Point. 6.—Ganger Sullivan's departmental residence garden at Dartmoor which has won several prizes.

Books and New Books

Thumbnail Reviews by J. D. MICHIE

THE IVORY COAST, by Aloysius Horn, is a book, more full of sheer thrills than any you are likely to come across in a day's browse among the bookshops wherever you may be.

THE LIFE OF TIM HEALY, by Liam O'Flaherty. Here is a biography of an Irishman whose life, until the evening of his days, was ever turbulent, written by an Irishman who, like the majority of Irishmen, is no respecter of persons.

THE TIME OF MAN, by Elizabeth M. Roberts, is a real epic of the soil, and the writer has lent the simple annals of the poor an enduring dignity and poignancy by her understanding and sympathy.

RED SKY AT MORNING, by Margaret Kennedy. The writing of this book is as near faultless as makes no matter, the character drawing is convincing, and some scenes recall the exquisite and touching piquancy of scenes in "The Constant Nymph."

THE ARROW, by Christopher Morley. We have come to expect a touch of the fantastic, a graceful, puckish strain in Mr. Morley's work, and his latest book shows once more his individual touch.

FLAMINGO, by Mary Borden; author of "Jane, Our Stranger." Miss Borden has drawn her people very delicately and clearly, and she has reproduced vitally and rather terribly American society in New York city.

THE RIDDLE OF HELENA, by Claude Houghton. This is Mr. Houghton's second novel. His first, "Neighbours," was called by Robert Nichols the best English novel since Romer Wilson's "Death of Society." The "Riddle of Helena" is a worthy successor.

MOON OF MADNESS, by Sax Rohmer. Nanette outwits a group of Communists, and after many perilous adventures succeeds in finding happiness with the man she loves.

THE SECRET OF FATHER BROWN, by G. K. Chesterton. Lovers of detective stories will find the little priest's most thrilling and remarkable experiences related in true Chestertonian style. An entertaining story.

GALLIONS REACH, by H. M. Tomlinson. Tomlinson's eyes see what other eyes have seen, but his descriptive manner is all his own. The style is unique, cogent, and yet brilliantly colored.

MELILOT, by Norman Anglin. The author's aim has been to write about the relationship of mother and daughter and to show that the conspiracy of silence persists today exactly as it did before Ibsen or Bernard Shaw wrote a word.

THE BARBURY WITCH, by Anthony Richardson. A powerful novel, written with great sensitiveness. The plot is dramatic, and there are many moments of intense feeling; the characters are alive, and grip the reader from the first introduction.

M.C.C.

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THE CHILDREN'S CORNER

Conducted by UNCLE BEN

DEAR Nieces and Nephews.—I expected a heavy mail bagful of your letters this month, but have only received one; so have just concluded that you all have been holiday jaunting and are reserving your interesting news until the school holidays are over. I hope that each of you will return greatly refreshed with many happy and cherished memories.

Mirie Russell, 11 Rice-street, Ballarat East, writes: "I have been too busy to write until now, but mother will say too busy playing. I have been spending a grand time at picnics and evening parties at which I have had lots of fun. I have received my qualifying certificate so that I go to a high school this year." Am pleased to hear from you Mirie, and to learn of your advancement at school. May success come to you this year again.

In the last Magazine I mentioned the names of several Nieces and Nephews from whom I had received letters, which much pleased me. I am sorry not to have space to print them. You will write to me again, won't you? The two stories on this page were written by nieces.

Yours cheerily,
UNCLE BEN.

TWO LITTLE STORIES BY UNCLE BEN'S NIECES

ONE GOOD TURN DESERVES ANOTHER

(By LINDA HARRIS)

TIM DANVERS sat gazing thoughtfully into the fire. It was not an uncommon occurrence as he was always thoughtful and so was called "Thoughtful Tim."

The book he had been reading lay on the floor beside him and it was one of the stories in this book that had made him so thoughtful. After gazing for five minutes into the fire he turned to his uncle, who was in the room and said, "Uncle do you think it is true that if you do a person a good turn that person generally finds the chance to repay you."

"Yes," said his uncle, "I do." "Then," said Tim, "I don't think it will be so in my case." "Why not?" asked his uncle.

Then Tim told his uncle how he had helped a paper boy, whom he had never seen before, by selling his papers when he (the paper boy) had hurt his leg and could not do it himself. "And," finished Tim, "I might never see him again."

Just then he was called to go to bed and so he gave no more thought to the subject.

Next morning he had to go to school and was warned by his aunt not to slip as the streets were wet.

While crossing the street he caught sight of a familiar figure—the paper boy—he had so kindly helped; Tim turned to wave, he slipped on the wet street and fell. Just then a big car came tearing along, but Bob (that was the paper boy's name) saw it and ran to the rescue. It was lucky for Tim he reached him in time and was able to drag him out of the way.

Of course he was taken to Tim's home and made repeat the story over and over again. He had no parents but worked for a cruel man, so Tim's uncle decided to adopt him and now he and Tim often read the story of One Good Turn Deserves Another, and think how true it is.

MOLLIE'S LESSON

(By MAVIS MADDER)

MOLLIE Peterson was an only child. She was spoilt and very fond of having her own way. One day, her mother said, "Mollie dear, your godmother, Mrs. Smith, is coming to visit us to-morrow afternoon, and I want you to be on your best behavior. She—"

"But I am going to the pictures," cried Mollie. "I don't wish to see any old godmother."

Mrs. Peterson sighed. "I wish you did. But if you must go, I suppose you must," she said.

So, the next afternoon, Mollie went to the pictures, and enjoyed herself very much. When going home, she met a friend.

"Where are you going for the holidays?" asked Jean.

"No-where," said Molly sadly.

"Hard luck! I am going to the sea-side." said Jean. "Oh, there is mum calling me. Ta-ta."

When Mollie got home, her mother said, "What a pity you did not stay home, dear. Mrs. Smith wanted to take you back with her to the sea. But, because you were not here, she could not."

"Oh, if only I had known," cried Mollie.

Her mother smiled. "Wanting your own way does not pay always, dear."

"No," sobbed Mollie. "But, mother I—I shall do as you want me in future?"

And she did.

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PRECIOUS metals bear a hall mark. Not a piece is genuine without it. Pelaco shirts bear the Pelaco label. No shirt is a genuine Pelaco without it. So look for the Pelaco label when you buy a shirt. For a genuine Pelaco shirt is a tailored shirt—the shirt you forget you're wearing but feel its style—the shirt that lives long and looks smart to the last—the shirt that fits.

SMART styles and becomingly fashionable, are the two stiff collars to match in high-class cambrics, poplins and woven repps.

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HARRIERS FIRST WIN

The V.R.I. Harriers Club gained their first victory, last month, at the expense of the Essendon Club by two points—a very creditable performance.

In the first event, the mile walk, V.R.I. had two representatives in Lehman and Allan. Essendon also were fully represented, but were subsequently both disqualified for breaches of the rules. Even so Lehman was fully 300 yards in the lead at the stage when they were disqualified; consequently V.R.I. gained a walkover, and annexed the 7 points.

The next event was the 220 yards. V.R.I. was represented by Read, Gilchrist and Young. Read had the inside running, and turning into the straight, had no difficulty in winning by a yard in 25 3-5 seconds. Gilchrist finished 5th, and lost a point in consequence. It was Young's first experience in facing the starter, but he did well. At this stage Essendon had only 9 points to V.R.I's. 14.

In the hop, step and jump, R. Reid the V.R.I. representative, gained first place with 37 ft. 2½ in., to Essendon's 36 ft. 8 in. This gave V.R.I 3 more points.

Roy Reid was also the V.R.I representative in the high jump, and once more he demonstrated his prowess in annexing this event and incidentally 3 additional points, by jumping 4 ft. 11 in., Essendon doing 4 ft. 9 in.

The last event as far as the grade was concerned was the half-mile, and in the absence of J. Williams, V.R.I's. regular half miler, Guyot, Leamon and McKean were included in the event. In an exciting finish, young Leamon gained third place, with Guyot fifth, McKean, who had made most of the running, whipping in the field. The event gave Essendon 12 points and V.R.I. 4, making the totals, Essendon 21, and V.R.I. 24.

GYMNASIUM CLASS

V.R.I. class terms for 1928, and the times allotted the various classes are :—First, 9th January to 30th March; second, 2nd April to 22nd June; third, 25th June to 14th September; fourth, 17th September to 7th Dec.

Boxing.—Personal tuition, 5 p.m. Mondays and Wednesdays; class tuition, 7.30 p.m. Mondays and Wednesdays.

Wrestling.—Tuition, 7.30 p.m. Tuesdays and Thursdays.

Physical Culture.—Tuition, 7.30 p.m. Fridays.

Business Men's Physical Culture.—4.45 p.m. Tuesdays and Thursdays.

Use of Gymnasium.—When classes are not working.

BOXING

Larry Copeland's Boxing Classes are filling rapidly, and another successful year seems assured. It is a little early to prophesy success for any of the beginners, but several of them are likely looking customers, and the instructor expects some of the old brigade will have to work hard to maintain their supremacy.

Great things are expected of Welterweight Jim Delaney, last year's winner of the Sid. Sherrin trophy, but there is plenty of scope for a good heavyweight. It is in this division the Institute has been weak for some time.

Frank Perry and George Sullivan have been appointed honorary assistants to Larry Copeland, and are doing their best to unearth talent amongst the newcomers.

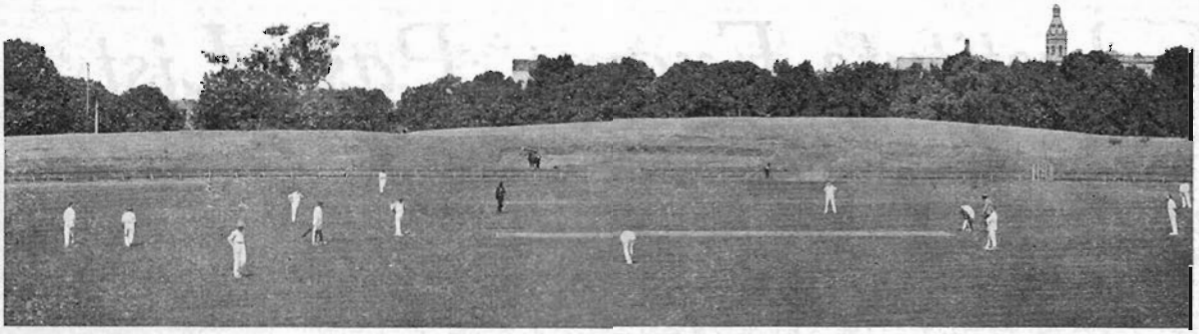
WRESTLING

Last year's tournament results conclusively proved the supremacy of the Institute's Wrestling School in Victoria. Beside numerous successes in local competitions, Institute students won all the Australian Railways Championships, and decisively proved their supremacy over all opponents.

Tom Bolger, who won the middle weight championship at Brisbane is at present seeking fresh laurels in the Olympic trials in Sydney, and if he is

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The Head Office v. Relieving Staff match at St. Kilda

able to reach his top form, should stand a great chance of selection in the Olympic Team.

HEAD OFFICE DEFEATS RELIEVING STAFF AT CRICKET

An 8-wickets victory was secured by the Head Office team in the annual match against the Railway Staff at the St. Kilda Cricket ground on January 4. Biehl and Allen were the top scorers for the winners.

The H.O thus annex the Molomby Challenge Shield. The Relieving staff are still one match to the good. This yearly function has been a most popular event for the past 30 years. Messrs. J. L. McArthur and W. J. Smyth were the joint hon. secretaries. Scores :—

FIRST INNINGS

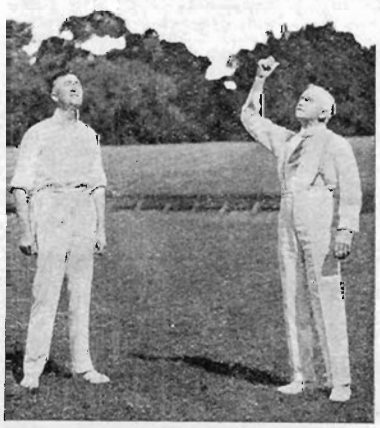
Head Office Staff.—McClelland, b. Page, 0 ; Fancett, b. Page, 0 ; Devine, c.b. Jacobs, 14 ; Phelan, st. Raines, 24 ; Henderson, b. Jacobs, 0 ; Hoatson, c. Ryan, 8 ; Biehl, b. Jacobs, 30 ; Donald, c. Ryan, 1 ; Henderson, c. Biddington, — ; Barrett, 6 ; Allen, r.o. 20 ; Hunt, b. Page, 4 ; Spencer, n.o. 10. Total, 117.

Relieving Staff.—Coutts, b. Biehl, 14 ; Jacobs, b. Devine, 0 ; Raines, b. Devine, 4 ; Page, b. Phelan, 6 ; O'Brien, b. Biehl, 0 ; Murphy, c. Henderson, 6 ; Taylor, b. Hoatson, 0 ; Anderson, b. Hoatson, 0 ; Biddington, b. Henderson, 6 ; Ryan, n.o. 10 ; Langan, b. Hoatson, 0 ; Barrett, b. Henderson, 5. Total, 51.

SECOND INNINGS

Head Office Staff.—Fancett, b. Page, 3 ; Donald, n.o. 23 ; Hoatson, c. Page, 0 ; Devine, n.o. 16. Total, 42. Wins by 8 wickets.

Relieving Staff.—Raines, b. Fancett, 0 ; Murphy, c. Hoatson b. Donald ; Biddington, b. Fancett, 4 ; Langan, c. Biehl b. Donald, 8 ; Barrett, c. Hoatson b. Donald, 0 ; Jacobs, b. Hoatson, 3 ; Anderson, b. Fancett, 1 ; O'Brien, c. McClelland b. Biehl, 45 ; Ryan, b. Donald, 4 ; Page c. and b. Devine, 15 ; Morley, b. McClelland, 7 ; Harley, n.o. Total, 90. The top scorers for the Relieving men were O'Brien and Coutts, with 45 and 24 respectively.



Rival captains toss. Left: J. Ryan. Right: R. H. McClelland

Lines from Other Lines

(*Continued from page 17*)

been cut to surprising figures and new routes are being opened up almost daily. Comfort and even luxury are being offered to passengers, and vehicles are being improved in every way as was demonstrated at the recent motor Transport Exhibition at which were shown coaches with electrically heated saloons, saddlebag seats and even kitchens, and coaches that could attain a speed of 60 miles an hour The railways are also making another counter move to 'bus competition by seeking parliamentary powers to enable them to operate road services much more extensively.

NEW DINERS FOR PACIFIC LINES

RECENTLY six new diners for the Pacific lines moved west over the rails. These cars are 77 ft. long, cost approximately 60,000 dol (£12,000) each and are unique in that they are the first diners to be used on any of the American western lines equipped with roller bearings. Two were outfitted with Timken bearings, two with Hyatt and the other two with SKF bearings. Cars are finished throughout in Cuban mahogany, and the interior decorations are typically western in spirit, the golden poppy of California furnishing the motif.

ANOTHER WORLD RECORD

A WORLD train record was set up recently by Driver William Ward of Crewe, England, who drove the L.M.S.R's. famous "Royal Scot" express from London to Carlisle, a distance of 300 miles in 338 minutes without an assistant driver. This is the first time the non-stop journey, which is the longest in the world, has been accomplished by a single driver. The engine used was one of the new class Six Type. The weight of the train, including the engine, was 544 tons. The express reached Carlisle seven minutes ahead of schedule time.

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SPENCER ST. RAILWAY STATION
287 HIGH STREET, NORTHCOTE
627 HIGH STREET, CROXTON
210 VICTORIA ST., NORTH MELB.

Institute Exams. Pass List

THE following railwaymen were successful in passing the Institute Examinations held in November, in the subjects indicated. The percentage of marks obtained is given in each case . . .

Algebra, Grade 1—

A. W. Ferguson, App. F. and T., Newport, 87; C. Sach, App. Moulder, Newport, 76; G. W. Godbehear, App. F. and T., Newport, 71; C. H. Borch, Sup. Laborer, Newport, 60.

Algebra, Grade 2—

J. Robinson, App. Blacksmith, Newport, 76; A. R. Newell, App. F. and T., Newport, 59; J. Young, App. Blacksmith, Newport, 50.

Building Construction, Grade 1—

F. Preacher, App. C. and W. Builder, Newport, 66.6.

Building Construction, Grade 3—

W. J. Robertson, App. Carpenter, Signal Shops, Newport, 55.

Electricity and Magnetism, Grade 1—

V. L. Harrison, Crane Driver, Shops, Newport, 75; A. E. Horsey, Fitter, Workshops, Newport, 75; W. G. Waycott, Lad Laborer, S. and T. Branch, Newport, 67; T. Henderson, Fitter, S. and T. Branch, Newport, 57; S. Parker, Fitter, Jolimont Shops, 53; T. J. Moore, Sub. Station Junior, S.S. Newmarket, 50.

Electricity and Magnetism, Grade 2—

M. S. Kimber, App. F. and T., Newport, 91; I. S. Priddle, Electric Mechanic, Elec. Depot, Spencer-street, 88; A. E. Williams, Actg. Test Electrician, E.E.B., Spencer-street, 88; E. J Kearney, App. Elect. Fitter, Signal Shops, Newport, 75; R. W. Treloar, Lad Laborer, S. and T. Branch, Spencer-street, 73; V. V. Zaremba, App. Elect. Fitter, S and T. Branch, Newport, 50; W. Kerr, Elect. Fitter, R.S. Branch, Newport, 50; C. J. B. Walker, Lad Laborer, S. and T. Branch, Newport, 50.

Electricity and Magnetism. Practical Technology, Grade 3—

T. Bennett, Elect. Fitter, S and T. Branch, Newport, 77; R. D. Horne, Asst. Shift Electn., E.E. Branch, Newmarket, 77; P. Delmenico, Elect. Fitter S. and T. Branch, Newport, 50.

English, Grade 1—

V. R. Holwell, Lad Laborer, R.S. Branch, Newport, 78.6; J. F. McDonnell, Lad Laborer, W. and W. Branch, North Melbourne, 75.6; L. A. Russell, Acting Junior Clerk, E. E. Branch, Spencer-street, 71.6; H. B. Robertson, Lad Laborer, S and T. Branch, Flinders-street, 68.3; D. A. Hawkins, Messenger, E.E. Branch, Spencer-street, 64.6; N. Gordon, Lad Laborer, R.S. Branch, Newport, 64.6; F. W. Harvey, Repairer, Redcliffs, 63; P. Scott, Lad Laborer, R.S. Branch, Newport, 61.9; L. G. Edward, Lad Laborer, R.S. Branch, Newport, 61; B. E. Casey, Lad Laborer, W. and W. Branch, North Melbourne, 57; J. D. Sarsfield, Lad Laborer, S. and T. Branch, Spencer-street, 51.6.

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English, Grade 2—

C. H. Borch, Laborer, R. S. Branch, Newport, 93.3; G. S. J. Edsall, Junior Clerk, Const. Branch, Spencer-street, 89; K. V. Whitby, Junior Clerk, Audit Branch, Flinders-street, 86; C. McCready, Lad Laborer, R.S. Branch, Shops, Newport, 82; G. Maconachie, Lad Laborer, R.S. Branch, Shops, Newport, 81.3; S. C. E. De Silva, Junior Clerk, Refresh. Branch, Flinders-street, 80.3; F. H. Berry, Messenger, Goods, Spencer-street, 78.3; H. H. Rice, Lad Laborer, R.S. Branch, Garage, Batman Avenue, 77.6; H. Humphreys, Messenger, Melbourne Goods, Spencer-street, 77.3; G. M. Crennan, Junior Clerk, Trans. Branch, West Footscray, 73.3; W. E. Paterson, Messenger, Secretary's Branch, Spencer-street, 73.3; W. G. Humphreys, Junior Clerk, Audit, Flinders-street, 69.3; A. S. Emery, Lad Laborer, S. and T Branch, Newport, 68.6; K. Mooney, Junior Clerk, Secretary's Branch, Spencer-street, 68.3; J. W. Mulqueeny, Junior Clerk, Audit Branch, Flinders-street, 65.6; M. A. Hanrahan, Messenger, Metro. Supt's. Office, Flinders-street, 65; V. A. Edwards, Junior Clerk, Audit Branch, Flinders-street, 64.3; S. Whitefield, Junior Clerk, Loco., North Melbourne, 63.3; W. Fry, Junior Clerk, Constr. Branch, Spencer-street, 63.3; E. J. Bryce, Messenger, V.R. Institute, 61.6; J. H. Page, Messenger V.R. Institute, 60; J. W. Moore, Messenger, Secretary's Branch, Spencer-street, 59.6; L. E. Guy, Lad Laborer, Workshops, Newport, 56.6; W. J. Cliff, Junior Clerk, Audit, Flinders-street, 56.3; L. Blackburn, Lad Laborer, Shops, Newport, 53.3.

Engine Working, Grade 1 (Junior)—

G. A. Heffernan, Cleaner, North Melbourne, 94; G. Harding, Cleaner, Colac, 88; D. Cairns, Cleaner, North Melbourne, 87; J. Hynes, Cleaner, Woodend, 83; W. Booth, Cleaner, Wonthaggi, 81; L. T. Johnson, Cleaner, Numurkah, 81; T. V. Weir, Cleaner, Wodonga, 81; R. W. Carlile, Sup. Cleaner, Benalla, 80; H. W. Stone, Sup. Cleaner, Woomelang, 78; H. L. Hare, Cleaner, Traralgon, 77; W. J. Siggins, Cleaner, North Melbourne, 77; J. G. Murphy, Fireman, Upper Ferntree Gully, 76; W. C. Hughes, Cleaner, Wodonga, 76; W. J. Skurrie, Rail Motor Driver, Echuca, 74; A. S. W. Yaylor, Cleaner, Echuca, 74; G. Tweddle, Cleaner, Wonthaggi, 73; T. A. Harris, Sup. Cleaner, Castlemaine, 74; T. S. B. Smee. Cleaner, Wodonga, 74; O. V. Lewin, Sup, Cleaner, Hamilton, 72; P. E. Lewin, Cleaner, Ararat, 72; R. J. O'Donnell, Sup. Cleaner, Woomelang, 68; H. Russell, Cleaner, Geelong; 68; E. C. Coverdale, Cleaner, Seymour, 67; G. W. Waterman, Cleaner, Kerang, 66; C. M. Goudy, Cleaner, Colac, 66; F. Henderson, Cleaner, North Melbourne, 66; J. P. Flavell, Sup. Cleaner, Dimboola, 65; P. Kraft, Sup. Cleaner, Dimboola, 64; W. H. Prime, Sup. Cleaner, Woomelang, 64; J. Haride, Cleaner, Wonthaggi, 63; J. Bernard, Cleaner, Dimboola, 63; G. S. Coe, Sup. Cleaner, Geelong, 63; E. T. Muir, Cleaner, North Melbourne, 61; Norman Grant, Cleaner, Donald, 60.

Engine Working, Grade 2 (Senior)—

J. L. Clancy, Fireman, Bendigo, 87; J. F. Perry, Fireman, Stawell, 86; B. Sadlier, Fireman, Dimboola, 84; J. W. Palmer, Fireman, Navarre, 82; P. Schulz, Fireman, North Melbourne, 81; F. Ritchie, Fireman, Ararat, 80; J. J. Grace, Hostler, North Melbourne, 79; L. T. Johnson, Cleaner, Numurkah, 79; A. Hinchcliffe, Fireman, Seymour, 79; S. Cox, Fireman, Stawell, 78; T. A. Chandler, Fireman, Stawell, 78; J. G. Murphy, Fireman, Upper Ferntree Gully, 78; H. J. Hallawell, Fireman, Wodonga, 77; P. H. Cowling, Fireman, North Melbourne, 77; C. R. N. McKissack, Fireman, Benalla, 73; J. E. Chapman, Fireman, Geelong, 73; G. Mitchell, Fireman, Bendigo, 71; J. Morrell, Fireman, Geelong, 71; C. G. Kemmis, Fireman, Colac, 70; N. Avard, Fireman, Echuca, 70; T. J. Neal, Fireman, Seymour, 70; W. L. Wolstoncroft, Fireman, North Melbourne, 70; V. D. Jones, Fireman, Wonthaggi, 70.

Mechanical Drawing, Grade 1—

C. W. Lamb, App. F. and T., Shops, Newport, 90; J. Steel, App. F. and T. Newport, 87; C. A. Davies, App. F. and T., Workshops, Newport, 85; L. Green, App. F. and T., R.S. Branch, Newport, 84; H. Dudley, App. F. and T., R.S. Branch, Newport, 83; E. J. Barlow, App. F. and T., R.S. Branch, Newport, 82; K. Helmond, App. F. and T., R.S. Branch, Newport, 80; N. F. Coutts, App. F. and T., R.S. Branch, Newport, 78; R. G. Feltscheer, App, F. and T, Workshops, Newport, 75; J. Neil; App. F. and T., R.S. Branch, Newport, 73; L. S. Whitford, Sheet Metal Worker, Spotswood, 71; C. V. Cerini, App. F. and T., Workshops, Newport, 70; W. Coppinger, App. F. and T., R.S. Branch, Newport, 70; D. Buckley, App. F. and T., R.S. Branch, Newport, 65; V. H. Phillips, App. Blacksmith, R.S. Branch, Newport, 63; A. C. Mills, Junior Clerk, Workshops, Newport, 57; J. H. Barnes, App. Elect. Fitter, E.E. Branch, Main Depot, 56; C. W. Fisher, App. F. and T. R.S. Branch, Newport, 56; J. Charlesworth, App. F. and T., R.S. Branch, Newport, 55; H. Schmidt, App. F. and T. R.S. Branch, Newport, 55; E. H. Scovell, App. F. and T., R.S. Branch, Newport, 55; C. Biggs, App. F. and T., R.S. Branch, Newport, 54; T. H. Garnham, App. Boilermaker, R.S. Branch, Newport, 50; W. E. Ewin, App. F. and T., R.S. Branch, Newport, 50; M. C. Johnson, App. F. and T., Workshops, Newport, 50.

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WHAT THE INSTITUTE HAS DONE FOR ME

No. 8—Where a Lad Laborer's Path Led

ON the morning of the first day in October, 1926, I became a Victorian railwayman. On the evening of that same day I became a member of the Victorian Railways Institute and a pupil in the Telegraphy class.

Of course, a flying start doesn't always ensure success. A competitor must be a stayer. My flying start in the race for rail education qualifications and promotion wouldn't have got me far by itself if I hadn't fallen into the capable hands of those astute trainers who act as instructors at the Institute.

The first prize I secured, early in 1927, was the official diploma of Telegraphy. Then, in three Safe Working events, I won the Electric Staff, the Staff and Ticket and the Double Line Block briefs. That made a total of four certificates in 12 months.



Later on, I was fortunate enough to secure yet another certificate at the usual end-of-the-year exams. at the Institute.

To me, the most interesting feature of this progress is the fact that, although I was officially a lad laborer in the Rolling Stock Branch, the existence of the Institute enabled me to gain an insight into the abstruse technical side of Transportation work and train running generally. Inside 14 months I had laid the foundations of a career in station work, with A.S.M. and S.M. honors looming on the horizon.

For the life of me, I can't understand why I foolishly lost that eight or ten hours before I joined the Institute after becoming a V.R. man.

H. L. JOHNSON,
Boilermaker's Help

Mechanical Drawing, Grade 2—

E. D. F. Brown, App. F. and T., Newport, 85; H. A. Dudley, App. F. and T., R.S. Branch, Newport, 80; J. Steel, App. F. and T. R.S. Branch, Newport, 78; J. A. Lennox, App. F. and T., Newport, 77; E. J. Barlow, App. F. and T., R.S. Branch, Newport, 76; F. S. Preacher, App. C. and W. Builder, Newport, 76; J. S. Watson, Boilermaker, R.S. Branch, Newport, 75; S. H. Bates, Car Builder, R.S. Branch, Newport, 72; E. Scovell, App. F. and T., Newport, 70; D. Buckley, App. F. and T., Newport, 67; A. G. Davey, App. F. and T., Newport, 66; C. Biggs, App. F. and T., Newport, 65; G. Croft, App. Car Builder, Newport, 60; G. McG. Kaluza, App. F. and T., Newport, 55; G. L. Goldsmith, App. Elect. Fitter, E.E.B., Jolimont, 53; C. T. Ryder, Lad Laborer, R.S. Branch, Newport, 52; A. W. Ferguson, App. F. and T., Newport, 50; J. Boldarini, App. F. and T., Newport, 50.

Mechanical Drawing, Grade 3—

S. A. Twist, Car Builder, R.S. Branch, Newport, 80; J. M. Kiely, C. and W. Builder, R.S. Branch, Newport, 75; F. T. Johnson Fitter, W. and W. Branch, Spotswood, 70.

Station Accounts and Management—

J. L. Lyons, Operating Porter, Warragul, 90.8; A. S. Lee, Lad Porter, Welshpool, 88; A. J. Capper, Operating Porter, Balranald, 85.6; A. E. McGaffin, Clerk, Donald, 84.4; C. R. L. Dosser, A.S.M., Tynong, 83.2; E. L. Storer, Operating Porter, Bruthen, 80; A. J. Barnard, Clerk, Mordialloc, 77.6; H. G. L. Williams, Lad Porter, North Carlton, 76.8; A. Neal, Parcels Porter, Flinders-street, 76; M. E. Larkins, Porter, Spencer-street, 74.8; H. A. Goudie, Lad Porter, Ouyen, 74.4; B. Boreham, A.S.M., Guildford, 74; L. J. Gale, Clerk, Hamilton, 73.2; G. W. Powell, Operating Porter, Strathmerton, 70.8; W. C. McConnell, Junior Clerk, Mildura, 66.8; J. A. R. Goudie, Clerk, Glenhuntly, 61.2; G. E. Sharry, Clerk, Melbourne Goods, 52.4.

Safeworking—

E. A. Lethlean, Clerk, Trans., Spencer-street, 79; J. D. Cahill, Block Recorder, Melbourne Yards, 67; A. J. Houston, Porter, Sandringham, 66; Z. P. P. Jones, Block Recorder, Melbourne Yard, 65; H. L. Johnson, Laborer, Newport, 64; G. T. G. Griffiths, Porter, Bairnsdale, 63; A. G. Dynes, Porter, Flinders-street, 63.

Technical Telephony and Telegraphy—

E. B. Leonard, Elect. Mechanic, Spencer-street, 98; J. J. Craigie, Elect. Mechanic, Auto Exchange, 95; R. Tandy, App. Elect. Mechanic, Spencer-street, 90; K. J. Millar, App. Elect. Mechanic, Spencer-street, 86; R. W. Treloar, Lad Laborer, Spencer-street, 86; H. W. Hine, Elect. Mechanic, Spencer-street, 86; S. L. Bishop, Elect. Mechanic, Spencer-street, 81; R. M. Curlett, Skilled Laborer, Flinders-street, 75; F. W. Leber, Linesman, S. and T. Branch, Spencer-street, 73.

Westinghouse Brake, Grade 1 (Junior)—

H. L. Hare, Cleaner, Traralgon, 96; J. Smith, Fitter, Bendigo, 88; G. Harding, Cleaner, Colac, 80; E. Burgess, Engine Brake Blocker, North Melbourne, 75; J. Bernard, Cleaner, Dimboola, 74; J. G. Murphy, Fireman, Upper Ferntree Gully, 71.

Westinghouse Brake, Grade 2 (Senior)—

J. L. Clancy, Fireman, Bendigo, 95; J. J. Grace, Hostler, North Melbourne, 92; F. A. Croucher, Fireman, Benalla, 89; A. Hinchcliffe, Fireman, Seymour, 85; N. Avard, Fireman, Echuca, 85; B. Sadlier, Fireman, Dimboola, 84; E. D. Walker, Fireman, Donald, 84; J. F. Perry, Fireman, Stawell, 83; J. E. Chapman, Fireman, Geelong, 81; S. R. Evans, Fireman, Seymour, 81; G. Mitchell, Fireman, Bendigo, 80; W. L. Wolstencroft, Fireman, North Melbourne, 79; F. Ritchie, Fireman Ararat, 78; F. J. Walters, Fireman, Benalla, 78; G. T. Fary, Fitter, Ararat, 77; H. J. Hallawell, Fireman, Wodonga, 77; J. Morrell, Fireman, Geelong, 77; S. Cox, Fireman, Stawell, 76; J. W. Palmer, Fireman, Navarre, 71; J. M. Drummond, Fireman, Wonthaggi, 71; F. Russell, Fitter, Newport, 70.

TELEGRAPHY PASSES

The following students qualified and passed the Examination in Telegraphy, for the quarter ended December 21st, 1927:—

N. L. Fartch, Lad Porter, Yarraville; J. T. Gibbins, Porter, Timekeeper's Office; W. J. Dawson, Junior Clerk, Melbourne Goods; R. T. Hill, Junior Clerk, Melbourne Goods; M. J. Hogan, Porter, Flinders-street; J. P. Lane, Junior Clerk, Melbourne Goods; T. Jordan, Lad Porter, Timekeeper's Office;

(Concluded on page 38)

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Consult Expert Opticians
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TRAMWAYS

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Agents :

FOR COUPLERS
Gilbert Lodge & Co., Ltd.

FOR ALL OTHER PRODUCTS
Howard Smith, Ltd.
Market St., Melb.

The Empire's Biggest Locomotive (*Continued from page 12*)

inspirator on right-hand side, Hancock side checks, Improved type Ashcroft cut-off control gauge, air operated cylinder cocks, C.N. standard cast steel water column and mountings, Ashcroft steam gauges, nickel steel main axles, main crank pins, side and main rods, also piston rods, carvon steel springs except in engine trucks which are Silico Manganese, Laird type of crosshead with removable shoe, C.N. standard steel pilot and cast steel bumper beam, World Leslie steam heat reducing valve and World C. C. Tank valves.

The boiler is of the straight top type with radially stayed firebox and carries 250 lbs. pressure. The inside diameter of front course is 80⅞ in. and the outside diameter of largest course is 90 in. In order to save weight, the Shell courses have been made of high tensile Silicon steel developed by the Carnegie Steel Company and having a tensile strength of 70,000 to 83,000 lbs. and a minimum yield point of 38,000 lbs. Steel staybolts are used throughout and the flexibles are of the F.B.C. welded telltale type. Security arch brick are carried on three 3 in. arch tubes and two syphons in firebox.

There are 162 3½ in. flues, 15 3½ in. tubes and 27 2¼ in. tubes, all 21 ft. 6 in. long and none of which are welded to back tube sheet.

The boiler is lagged with 85 per cent. magnesia and jacketed with Keystone locomotive jacket steel painted a dark grey.

The Cab

The cab is a short vestibule type, all steel, wood lined, with C.N. standard turrets located ahead of the cab. The left-hand turret is supplied with superheated steam by a 3 in. pipe leading from a connection on the superheater header, while the right-hand turret is supplied with saturated steam from a direct connection to the boiler. Superheated steam is supplied to the air pump, the feed water heater pump and the stoker and head-light generator, while saturated steam is supplied to the steam heat line, inspirator, lubricator and other small auxiliaries.

The whistle, C.N. standard 4-chime, is located on the left hand side of smokebox near stack, with a 1 in. connection from superheated steam line from header and is operated by wire cable carried through handrail on left-hand side. Two World locomotive blow-off valves are located on right-hand side of firebox and can be operated in unison from the cab. Both blow-off cocks are connected to an L. and C. sludge remover. One has an internal pipe connection along the bottom of the barrel extending to within 2 ft. of the front tube sheet, while the other has a pipe connection across the throat with an opening opposite the side water legs. The side checks carry the feed water through troughs on the inside of the barrel down near the bottom of the tubes so as to prevent deposits gathering on top of the tubes.

The front end is fitted with C.N. standard barrel netting, and the exhaust tip is a steel insert in end of the exhaust stand. The smokebox front is of pressed steel with a cast iron door. A barco blower connection is applied on the left-hand side of the smokebox.

The main frames for both orders are half nickel steel and half vanadium steel, while the cradle castings are Commonwealth. Shoes and wedges are of cast iron.

The cylinders are of cast iron with Hunt-Spiller bushings in both cylinders and valve chests. The pistons are C.N. standard built-up type with Hunt-spiller bull rings.

Baker Valve Gear

The valve gear is Baker with a maximum travel in forward motion of 9 in. and set to give 1 5-16 in. lap, and 1 5-16 in. lead, and 3-16 in. exhaust clearance. The main driving journals are 12 in. by 13 in. and all others are 10 in. by 13 in. All journals throughout are finished by grinding.

The main driving boxes are equipped with the floating bushing type of bearings, developed on the Canadian National and described elsewhere. All other driving boxes have the standard bearings with Franklin grease cellars and driving box spreaders.

The big end of the main rod and the intermediate side rod connection are equipped with floating bushing bearings of C.N. design.

Cylinders and valves are lubricated by a Nathan mechanical lubricator type D.V. 3, of 16 pints capacity, suitable for long runs. Auxiliaries are lubricated by a three feed Detroit hydrostatic lubricator located in the cab. Where boosters are applied the hydrostatic lubricator is a four feed Detroit.

The engine truck is a four wheel outside bearing truck with floating bushing bearings, grease lubricated, and steel tired wheels of 34¼ in. diameter with cast steel spoked centers. These trucks have shown remarkable freedom from hot-box troubles and have reduced maintenance costs.

The truck frame with the bolster and lateral resistance device is Commonwealth design. The boxes are Vanadium cast steel with high grade

(*Concluded on next page*)

VICTORIAN RAILWAYS HONOR ROLL

RECENT RETIREMENTS

As long as men shall live and build ; as long as they shall strive for worth-while achievement, there shall be honor and glory in work well done.

	Date of Appointment	Years of Service
L. L. Stevens, Block and Signal Inspector, Spencer-street	1884	44 *year*
W. T. Dawson, Signalman, Melbourne Yard	1886	42 *years*
T. Christie, Ticket Checker, Spencer-street	1887	41 *years*
D. Shaw, Ticket Checker, Flinders-street	1887	41 *years*
E. Price, E.S. Guard, Flinders-street	1886	41 *years*
H. Raverty, Signalman, Melbourne Yard	1886	41 *years*
T. Brain, Ganger, Loch	1888	40 *years*
J. Quinn, Goods Checker, Melbourne Goods	1889	39 *years*
D. Sullivan, Ticket Checker, Flinders-street	1889	39 *years*
H. Tassell, Signalman, South Kensington	1888	39 *years*
T. E. Macdonald, Coal Distributor, Victoria Dock ...	1888	39 *years*
J. McLaughlin, E.S. Guard, St. Kilda	1890	37 *years*
W. Woods, Ganger, Kensington	1900	28 *years*
W. H. Gurney, Yard Sub-Foreman, Stores Spotswood ...	1900	27 *years*
W. Lambert, Skilled Laborer, Burnley	1900	27 *years*
G. Russell, Repairer, Warragul	1912	16 *years*
W. Melbourne, Motorman, Elwood	1911	16 *years*
A. J. Jones, Laborer, Maryborough	1912	15 *years*
W. H. Blum, Platelayer, Works Branch	1920	7 *years*

The Empire's Biggest Locomotive (*Continued from previous page*)

hard iron bushings pressed in, and a 7 in. by 10 in. hard bronze bearing revolving between the journal and the iron bush. The bushings may be either solid or in two or three pieces. A removable collar on the end of the axle holds the bearing in place, and at the same time by its lateral movement pumps the grease into the bearing. The cover contains a removable plug for applying grease. A ⅜ in. bronze liner is applied on the inside face of the box, and between this bronze liner and the inner end of the floating bushing a felt ring in a brass container is applied to hold the grease in the box. The spring arrangement on this truck is novel, there being three semi-elliptic springs on each side the centre one acting as an equaliser while the other two are each under a box with the spring seat cast integral with the box. The grease used is similar to rod cup grease but with a lower melting point. The wear on the bronze bearings is very slight, and a set of these should run 100,000 miles.

The trailing truck is the Commonwealth four wheel design with steel tired wheels 34¼ in. diameter on front axle and 48 in. diameter on rear axle. The journals are 7 in. by 12 in. and 9 in. by 14 in. respectively, and the boxes are of the floating bushing type, grease lubricated. The front axle floats with a total lateral of 1¼ in., while on the rear axle the total lateral is ⅜ in. Franklin boosters will be applied to ten engines at Kingston, but all trailing trucks are arranged so that boosters may be applied later.

The tender frame is Commonwealth design, while the tank is the Vanderbilt type. Tender trucks are Commonwealth 6 wheel with 6 in. by 11 in. journals 34¼ in. steel tired wheels with semi-steel centres, McCord journal boxes, Chaton fibre dust guards and clasp brakes.

The air brake is Westinghouse with one 8½ in. cross compound air pump and E.T. 6 equipment.

A novel feature has been introduced on these engines by the use of a common exhaust pipe on the left hand side for the air pump, feed water heat pump and stoker, and this pipe is carried forward and tees into the exhaust steam pipe leading from the exhaust passage in the cylinder saddle to the feed water heater located on top of the smoke box. On booster engines the exhaust from booster is carried along the right hand side of the engine and tees into the exhaust pipe on the right hand side leading from the cylinder to the feed water heater and a special Crane check valve is applied to the booster exhaust line.

IN THE END

A rich man died, leaving his total fortune to three friends—an Englishman, an Irishman and a Jew—on condition that they each deposit £50 in his coffin. At the funeral the Englishman placed £50 in cash inside the casket, the Irishman put his £50 in notes, while the Jew deposited his check for £150, taking out the £100 cash for his change.

The check was cashed the next day. The undertaker was a Scotchman.

You must Like to be Poor

if you earn money and spend it.

DON'T !

EARNING money is NOT easy, but saving is, if you've any strength of mind at all.

Ensure against the future by opening a Savings Account.

The money you save will earn interest as long as you do not urgently need it for any other purpose — It will be immediately available to you when you do.

Every Post Office is a Savings Agency of the

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Guaranteed by the Commonwealth Government

Norman History (*Continued from page 9*)

spring gave up the ghost. Back in 1915.

The onward march of science has not found the 38-year-old veteran lagging. Once upon a time, a code of bell signals directed the engine-driver from the Norman. One bell meant "stop"; two, "go ahead" and three, "go back." Now the guard calls the man on the footplate on the car's private 'phone. Perhaps, one day, he'll wireless him. Already, a wireless aerial is attached to the car.

Formerly, moreover, the interior walls of the saloons were panelled with mirrors. Where the severe prosaic maps of the rail systems of the Commonwealth now hang, hundreds of glittering, different-angled reflections were cast eternally from mirror to mirror.

One thing in this car which hasn't changed through all the years is the seat which each Chief Commissioner has selected as his favorite while travelling. Commissioner Tait reclined in the right-hand end seat facing the track, and brooded over the long steel rails as they stretched away into the distance. Commissioner Fitzpatrick and Commissioner Norman in turn sought the same chair. And now Chief Commissioner Clapp stretches his legs in like fashion from the historic seat which supported his predecessors.

And the Norman car itself rolls as smoothly to-day as it did in 1890. And as —apparently—it will in 1990.

Institute Exam. Passes

(*Continued from page 35*)

F. Fincher, Lad Porter, Graham; J. M. Coles, Messenger, Telegraph Office.

The following students qualified and passed the examination in Telegraphy for the quarter ended December 21st, 1927 :—

L. Rowe, Junior Clerk, Goods; J. C. Robertson, Newport; A. S. Spalding, Mitcham; W. H. Garlick, Lad Porter, South Yarra; R. J. Butler, Newport; R. J. Butler, Telephone and Telegraph Office, Spencer-street; A. Harry, Junior Clerk, Newport; J. Darcy, Junior Clerk, Garden Vale; J. C. Baker, Junior Clerk, Goods; M. Walsh, Junior Clerk, Spring Vale; J. J. Egan, Junior Clerk, Goods; J. H. O'Meara, Junior Clerk, Goods; S. Dando, Lad Porter, Bell; J. Campbell, Junior Clerk, Goods; W. E. Coombe, Junior Clerk, Room 67; T. J. Jones, Junior Clerk, Hampton; G. D. Coates, Lad Porter, Middle Footscray; H. J. Clarke, Junior Clerk, Footscray Goods; Z. E. Clarke, Lad Porter, Croxton; G. E. Spencer, Porter, Flinders-street; W. M. Walsh, Junior Clerk, Alphington; W. White, Junior Clerk, Melbourne Goods; R. G. Walsh, Junior Clerk, Inwards P.O.; E. J. Willert, Block Recorder, Franklin-street; N. Hocking, Junior Clerk, Melbourne Goods; H. Johnstone, Junior Clerk, Crown Solicitor's Office; A. Coster, Junior Clerk, Newport; K. Long, Junior Clerk, Melbourne Goods; J. May, Junior Clerk, Melbourne Goods; R. Dungan, Junior Clerk, Elsternwick; R. T. O'Shea, Clerk, North Melbourne; J. Crawford, Lad Porter, Canterbury.

Rail Users Say—

(*Continued from page 28*)

SENTIMENT AND DUTY

ON yesterday's 6.30 a.m. train I had occasion to move my father, Samuel Paul, who was a stretcher case from the Melbourne Hospital to Wangaratta. Arrangements were made by the Melbourne Hospital authorities with your Department for his transportation, and the object of this letter is to express my sincere appreciation to all railway officials with whom I came in contact on the journey, and particularly to the conductor on the train. They were kindness personified.

It is indeed gratifying to experience that even in Victoria's biggest business concern its employes can mix sentiment in the carrying out of their duties.

Very gratefully yours.

—Mr. F. W. Paul, Walter Whitbourn Pty. Ltd., 8-16 Leicester-street, Melbourne, writing to the Chairman of Railways Commissioners.

LOST OVERCOAT RECOVERED

I HAVE to thank you and your officers for the recovery of my overcoat which inadvertently I left in the Hopetoun-Murtoa train and which was returned to the lost property office.

I received it last Saturday and am very thankful. It speaks volumes for the honesty and obedience to the regulations of the Victorian railwaymen.

—Mr. Herbert Ashman, 52 Collins-street, Melbourne, writing to the Claims Agent.

COURTESY AND EFFICIENCY

THE courtesy and efficiency of the staff at the local railway station has been fully recognised and appreciated by the committee of the A. and P. Society. Mr. Paynter,

(*Concluded on next page*)

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Rail Users Say—

(*Continued from Previous Page*)

the popular and highly respected stationmaster, has received the following letter from the Society: "At its meeting on Friday, the committee of the Elmore Agricultural Society passed a vote of thanks to the staff for the courteous and efficient manner in which the exhibits and extra passenger traffic was handled."

—Extract from *Elmore Standard* Saturday 26th November, 1927.

EXCELLENT RAILWAY SERVICE

WE desire to express our appreciation of the excellent railway service which we have had during the past 12 months . . . also to place on record the very efficient manner in which our goods, both inwards and outwards, have been handled by the staff at the local railway station.

—Mr. J. W. Bennett, Managing Director North-Western Woollen Mills, Pty. Ltd., Stawell, writing to the Chairman of Railways Commissioners.

VERY KINDLY ATTENTION

I AM glad to report to you the courtesy of one of your staff. I was bringing my wife home from Hospital after a serious operation, by the 4.30 which picked me up at Caulfield. The Guard on the train (forward end) gave us very kindly attention in finding suitable accommodation for us, where she was able to rest full length, and so made easy a journey which otherwise would have been very trying.

—Mr. B. W. Hooton, Orchardist, Garfield, writing to the Chairman of Railways Commissioners.

WALKING TOUR SUCCESS

On behalf of all the members of the walking party conducted by the Tourist Bureau over Mt. Wellington, I am authorised to express to you their great appreciation of the completeness and efficiency of the organisation, the unsparing kindness and invariable courtesy of the railway officials, and the uniform excellence of all the arrangements made for the comfort and safety of the party. We feel that we owe a great deal of our pleasure to the cheery nature and tact of Mr. Gollan, to the untiring hard work and attention to all camp details given by him and Mr. Harkins, and to the valuable and unobtrusive help of Mr. Anglim. We congratulate the Commissioners and their officers on their enterprise and its success.

—Mr. A. Hart, 44 Rockley-road, South Yarra, writing to the Chairman of the Railways Commissioners.

GREEN SPOTS IN ONE'S MEMORY

WE take this opportunity of expressing our sincere appreciation of your kindness in locating the wrestling mats which were reported missing some little time ago, and for having sent them along so promptly. . . . . These actions remain green spots in one's memory which can never be eradicated.

—Mr. R. Harkin, Trafalgar Milk Supply, Pty. Ltd., Trafalgar, writing to the Train Running Officer, Dandenong.

UNIQUE EXAMPLE

IT would indeed be ungracious were we not to mention the splendid record of placements of consignments of cement ex Fyansford throughout 1927. Day by day cement leaves for us and each morning it is placed ready for clearance. We consider this a unique example of efficient service. We desire to refer also to the generous and enthusiastic co-operation displayed by H. W. Clark, Esq., Superintendent Goods Train Service, and T. R. L. Sexton, Esq., Goods Superintendent, and officers associated with them. The smooth working experienced during 1927 is undoubtedly due to their thoughtful and earnest consideration and also their keen interest.

In other ways the Investigation Branch has played an important part. It is only by association with the Investigation Branch that the least conception of the enormous amount of hard work entailed in dealing with apparently trivial matters can be acquired, and your Department is to be congratulated upon having Mr. Clugston in charge of this important work.

—Mr. S. Clarke, Director, J. McCann and Son, Pty Ltd., 12 Moray-street, South Melbourne, writing to the Chairman of Railways Commissioners.

UNTIRING EFFORTS

Kindly permit me to express my thanks to Miss Knight, caretaker of Illabarook, Mr. W. Shearer, Supervising S.M., for the attention they have given me at all times during the gravel contracts that I have had at Corindhap. I loaded between 5000 and 6000 tons of gravel, which took between 200 and 300 trucks, and the whole of the operations were carried out without a hitch. The officials named were untiring in their efforts to keep the supply of trucks up. I would also like to mention Ganger Knight who is one of the best advertisements the Railway Department has got. Nothing is too much for him to do . . . . and all this after he has done his day's work.

—Mr. T. R. Cahill, "Narrawong," Corindhap, writing to the Editor, V.R. Magazine.

LOST KEYS RECOVERED

YESTERDAY afternoon, in response to a telephone message from your Claims Branch, I called at the Lost Property Office at Spencer-street and recovered the missing articles. I desire now to thank you for the trouble you have taken for me in this matter, and shall be glad if you will kindly convey, to the members of your staff concerned, my very grateful thanks for the trouble they have taken in investigating and recovering the keys for me.

—Mr. F. G. Richardson, 34 Queen-street, Melbourne, writing to the Railways Commissioners.



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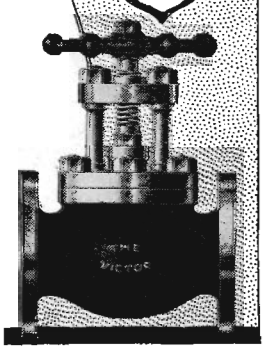
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Representative Railroaders

(*Continued from page 20*)

of the hoarse, red-faced shunter all struck young Mac as rather comical. So he laughed. And S.M. Parker, missing the humor of the occurrence, paused in his hurried descent on the scene of disaster to present his frivolous assistant with some tangible expression of his disapproval of such ill-timed levity.

Whether it was the direct influence of that adolescent correction, or whether the kick merely stirred Mac's native caution into early wakefulness, the fact remains that McCulloch has not been embroiled personally in a derailment during the whole of his career. And his hand still strays with involuntary tenderness behind him when he recalls his encounter with the irate Parker.

Old Mac. also has the distinction of having worked his first year on the job without earning a penny of pay. Railway administration of the early '80's offered low-grade positions *sans* wages to boys anxious for experience which would fit them for a permanent rail billet. Mac. started in this fashion at Gordon, and in 1883 became a fully-fledged junior clerk at Kyneton under S.M. Henderson. Later on, he went to South Yarra and, following terms at other suburban stations, settled down to a strenuous six-years' period at Seymour. For 14 years he was an R.S.M. Into that time he crammed well over 150 different moves, involving more than 100 separate stations. There is not an important station in Victoria which has not known him as S.M. at one time or another. For 18 months he split shifts between Flinders-street and Spencer-street, finally taking up permanent residence at the latter station when Harry Oliphant faded into retirement. He likes Spencer-street the better. McCulloch's official methods have been modelled on the broad methods of former Commissioner Fitzpatrick and one-time Goods Superintendent Cauty. Mac. worked with Cauty when that redoubtable member of the old school was a Relieving District Superintendent, and with the late Commissioner when Fitzpatrick was S.M. at Richmond. Combine the one's extraordinary exactness and meticulous attention to detail with the other's simple axiom that "the only way to do a thing is the right way," and you have H. McCulloch. Plus the smile and the twinkle, of course.

Harold: "Is that a particular friend of yours you just spoke to?"

Vera: "Why, yes."

Harold: "Why didn't you ask him to join us, then?"

Vera: "Oh, Harold, that is so sudden. He's the new minister."

From Forest to Mill

(*Continued from Page 14*)

one side. There is nothing which you can grasp for security except one of the links of the stout chain which shackles the log to the low trolley. And you can only jamb one finger through that. However. . . . .

The two brakemen have clambered on to the leading logs. One of them waves his hand. The engine whistles and pushes forward. The heavy logs are thrust into motion.

Things are quite comfortable at first.

True, the log shakes and strains and trembles and slips and groans and gives every promise of breaking at any moment from its chains. And certainly it has a disconcerting habit of slithering backward and forward as it negotiates curves at the rear of its nine brothers. But, with the reliable old engine puffing confidently behind you, and the speed of the swaying logs, a mere fifteen miles an hour or so, there is no cause for alarm or even apprehension.

Why, there is one of the brakemen walking along the logs as they lumber through the thick scrub and thread their way ponderously between the trees, passing from one moving log to the next as casually as though he were walking down Collins-street.

Through the tunnel once more, however, and the engine uncouples and falls back to follow at its restricted speed limit.

"Hang on!" bawls the nearer brakeman.

You refrain from the obvious reply and sit more rigidly. Dipping, the logs pitch clumsily down the grade. Staggering, they rock with gathering speed around a curve. They plunge awkwardly down hill swayed by their weight and rolling under their chains. Perched on the end, with your legs braced firmly against the side of the huge, trembling log, one hand flattened firmly along the surface, and one finger of the other twisted through the imprisoning chain, you endure the jarring and shaking with an assumption of calmness.

Another curve jerks the length of each log in turn and sways your seat back three or four inches. It seems like three or four feet. The chain is forced back and jambs your finger. Painfully you readjust the crushed digit and slip it into the next link. Playfully the log straightens and, slithering back, nips your finger a second time.

One of those trestle bridges—much narrower than when you climbed it an hour ago — trembles under the clamorous passage of the great logs. Your legs are swinging a hundred feet or more above some very solid-looking ground and rocks. Extremely solid-looking. You lean back a trifle. And you recollect that if you had eyes in the back of your head they would witness the same inspiring spectacle, the same lofty drop and the same solid-looking rocks behind you. So you sit bolt upright.

Those trees are flashing past pretty quickly. Thirty miles an hour or thirty-five? That fellow said they had once gone as fast as sixty miles. That time, though, they had to jump off because the logs had got away from the brakes.

Mechanically you measure the distance between your helpless feet and the rough track whisking along beneath. Of course, it *could* be done. But suppose they shouted to you to jump off when they were in the middle of another trestle bridge?

Your disturbed reflections are rudely interrupted by a gust of wind which plucks suddenly at your hat. You effect a smart rescue, and blink at the blue clouds of thick smoke which rise from the tortured wooden brake blocks to envelop the log from end to end. Dimly, as in a fog, you glimpse one of the brakemen hauling desperately at a brake lever in front of him. You can't see the other man. No doubt he has fallen off. . . . .

The influence of those sturdy brakes is being felt now, however. Speed slackens. The acrid smoke abates. Gingerly you shift your position. There is nothing soft about a fresh-felled log.

Another trestle bridge rumbles sonorously. You avert your gaze and glance along the logs. No sense in looking down at the drop below. You are relieved to observe that the front brakeman has not fallen off. He's—yes, he has just taken his hat off to scratch the back of his head.

Swinging to the right, the logs sweep through a cutting, curve round a sandy embankment, brush past overhanging bushes and stagger to a standstill within sight of the nearest houses of Powelltown. The brakemen walk leisurely back to where you are sitting, assessing bruises and nursing a black finger-nail.

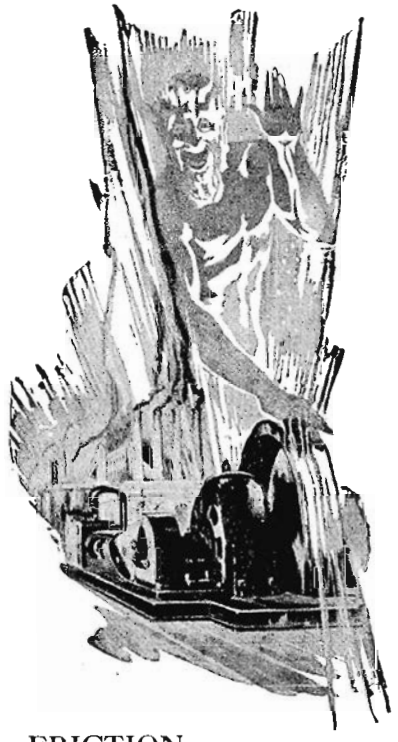
"Good run, eh?" says one. "We've got to wait now for the engine to catch up. There's a bit of a rise just here. Only a quarter of a mile or so to go and we'll be back at the mill.

"Why, listen."

Like the distant buzz of angry wasps, the eternal drone of the Powelltown sawmill floats towards us. And a red sun is sinking behind the tips of the tallest gum trees.

Wholly set up and printed in Australia at the Victorian Railways Printing Office, Spencer Street, Melbourne, for the Publishers—The Victorian Railways Commissioners. 158-28

Two Specific Causes of Industrial Waste



FRICTION
—the unseen enemy of production in your plant

NO executive wilfully permits waste in his plant. But he thinks waste is inevitable and he cannot put his finger on specific causes. Here are two:—

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2. Congestion of production at one point which compels idleness at other points.

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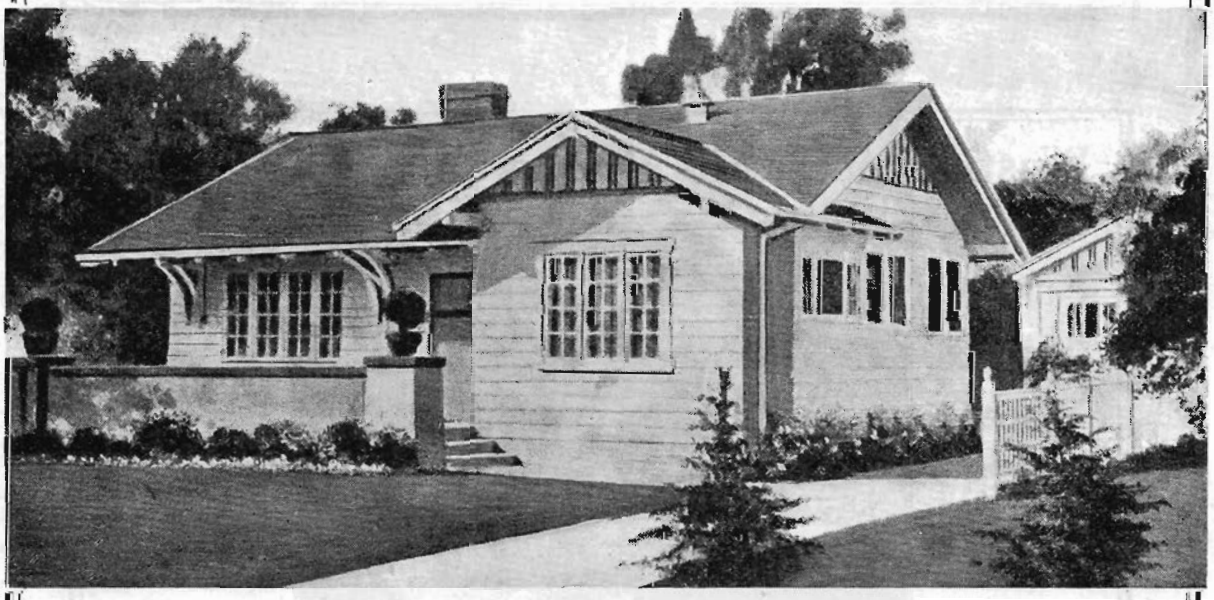
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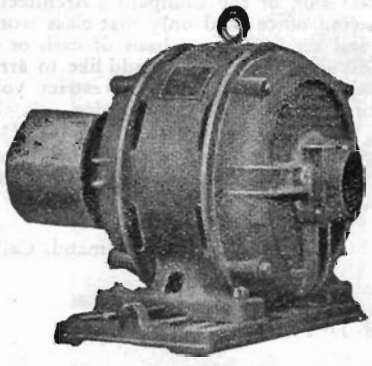
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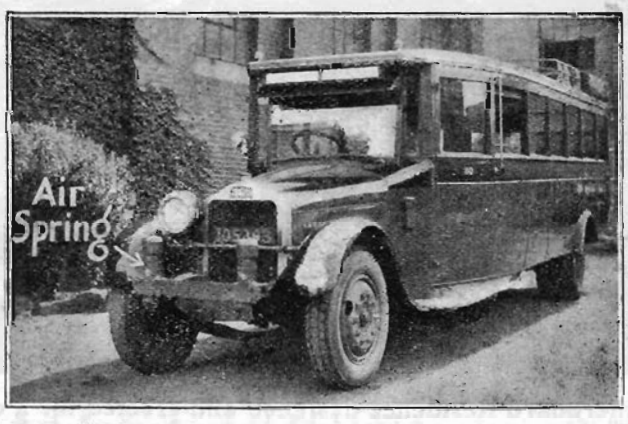
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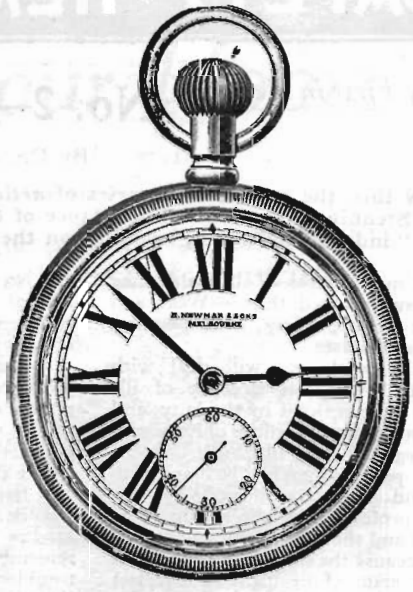
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SAFETY-HEALTH-BETTERMENT

Safety First in Health

No. 2—DON'T WORRY

By Dr. A. E. STENNING, M.B., B.S.

IN this, the second of a series of articles, specially written for this page of the V.R. Magazine, Dr. Stenning stresses the importance of freedom from worry. "A state of mental fatigue," he says, "induced by worry, reacts upon the physical body and creates ill-health."

THE main causes of ill-health may be summarised thus :—Wear and tear of life, worry, intemperance, accidents, diseases.

In this article we will deal with WORRY. Worry as a cause of ill-health is little realised by the laity, and yet it is one of the calamities of humanity most pregnant with ill-health.

Now psycho-therapy is becoming more and more recognised by the medical profession as one of our most potential and therapeutic measures, and it is so because the mind enters so much into our state of health. In our last article, we saw that the best exercise of all was that appertaining to the chase, and it is so because our mental faculties are so alert. Similarly a state of mental fatigue, induced by worry, reacts upon the physical body and creates ill-health.

I want, therefore, to stress the importance of freedom from worry. No matter what your circumstance in life, worry will not improve it. Even if you are sinking beneath loads of care, forget them. Look on the bright side and remember the old marching song, "Pack up your troubles in your old kit-bag and smile, smile, smile." Just remember that time will dissipate most troubles. Over my desk I have a motto, "In my life I had many troubles, 95 per cent. of which never happened." If you have financial troubles, worry will not settle them ; if you have other troubles, worry will only make them worse. My advice to you is to smile through your troubles and you will be surprised how soon they will be dissipated. "A merry heart goes all the way, a sad one tires in a mile-o."

The following little anecdote may help you.

Smith was not only an optimist, he was also a very lazy man. One day his friend Jones, a confirmed pessimist, hailed him. "How is it, Smith," he said, "that you look so well and happy ?"

"Every time I sit down to worry," replied Smith, "I fall asleep."

JACK OF CLUBS V. LAW OF AVERAGES

Get out your pack of cards and cut for the Jack of Clubs. You may get it the first cut, or you may have to cut a hundred times before you turn up that card. That's true, isn't it ?

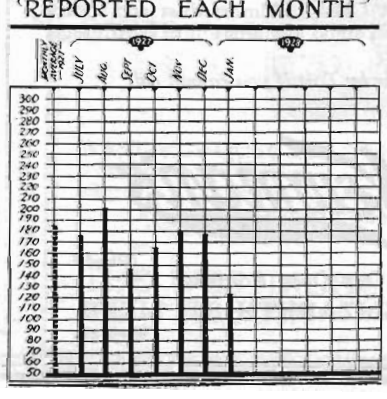
But if you keep on cutting, you will turn up that card on an average of once every fifty-two times. That's true, isn't it ? It is the law of averages.

Work in an unsafe way. Take a chance. You may take a hundred chances and get away with them, but if you keep on, you will get yours sooner or later. That's true, isn't it ?

Your injury may turn up the first time, or it may not turn up for one hundred times, but it WILL turn up sooner or later, because that is the law of averages.

Don't take a chance. The law of averages is against you !

SIREN OF SAFETY.



A SAFETY PLEDGE

To think always of my own safety and of the safety of my fellow men.

To keep my eyes open for unsafe conditions, and to take proper measures for their remedy.

To keep the machinery I work with and the tools I work with in good order.

To wear goggles whenever there is the slightest danger of an eye injury.

To attend at once to the most trivial injuries that I may sustain, whether in the plant or in the home.

To be helpful to my fellow men, especially to the new man ; to show him how his work can be done properly and safely.

To be orderly in my habits.

To lead a clean life, physically and morally, and to keep my temper.

To make allowances for the other man's weaknesses.

To consider that day lost in which I failed to improve either myself, my home or my work.

To be cheerful, helpful, useful and careful.

To be a loyal citizen of the Commonwealth.

MARCH SUGGESTIONS DRIVE

The subject chosen for the seventh suggestions drive, which will be held during March is—

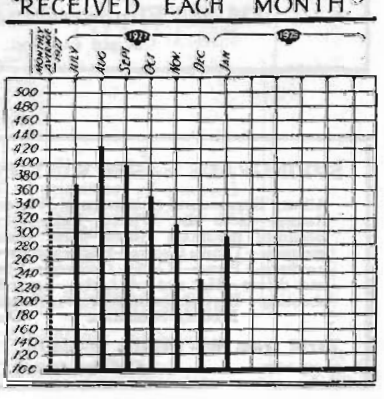
"What suggestions occur to you as being likely to improve general track equipment, tools, etc., material and supplies."

Suggestions should be submitted to the Betterment and Publicity Board in the usual way.

BENEFIT BY YOUR IDEAS

The following awards were made during January for adopted suggestions :—

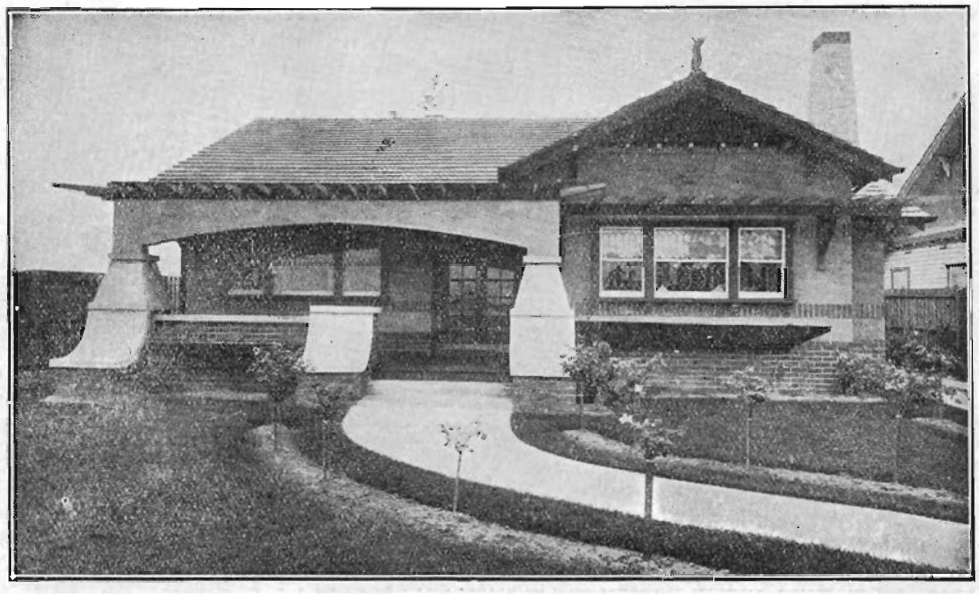
Total amount ...£126
Highest award ... £20.



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IN designing, every consideration must be given to the site on which the building is to be erected, in order that the full benefit of the natural light and outlook be obtained.

YOUR requirements are not identical with your neighbours, therefore when you decide to build, place the matter in the hands of those whose training enables them to mould your ideas into the PERFECT plan, which means a PERFECT HOME.

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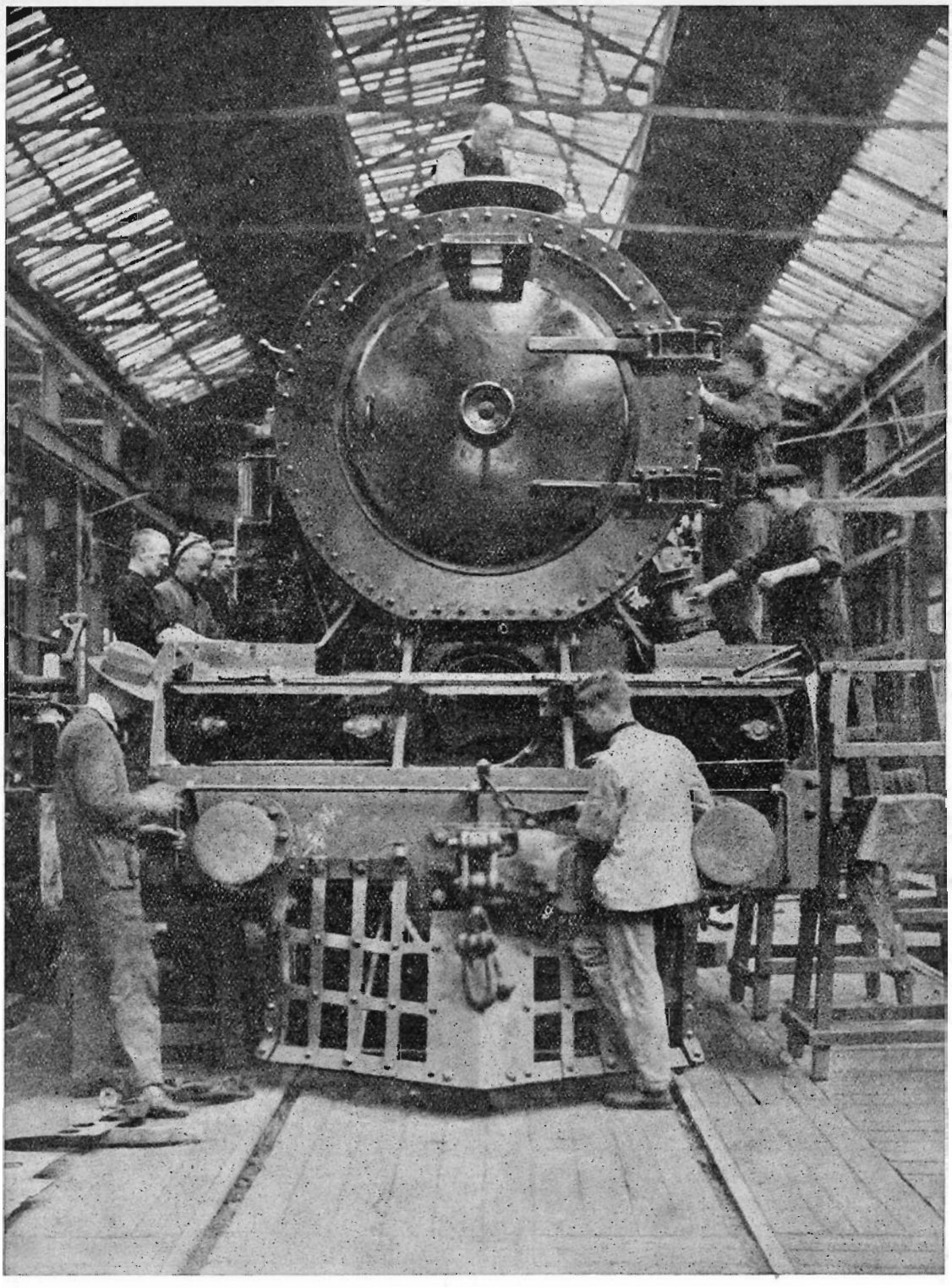
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NEARING COMPLETION

Victoria's new Pacific locomotive as it appeared when this magazine went to press

—Photo A. L. Reid

The VICTORIAN RAILWAYS MAGAZINE



FLINDERS STREET STATION — MELBOURNE.

For 7s. per annum, this Magazine will be sent, post free, to any address.

A copy is issued free to all permanent Victorian railwaymen, and to all temporary and casual employes with six months' service.

Contributed articles, paragraphs, verse, and photographic prints (negatives are not required) must reach the Editor, care Betterment and Publicity Board, Railways Department, Spencer-street ('Phone Railways 393) not later than the 12th of each month. Correspondence relating thereto is carried free over the Railways.

Communications in regard to advertising should be addressed to the Manager, Railways Advertising Division, Savings Bank Buildings, corner of Spencer and Collins-streets, Melbourne ('Phone C. 6414 or Railways 139).

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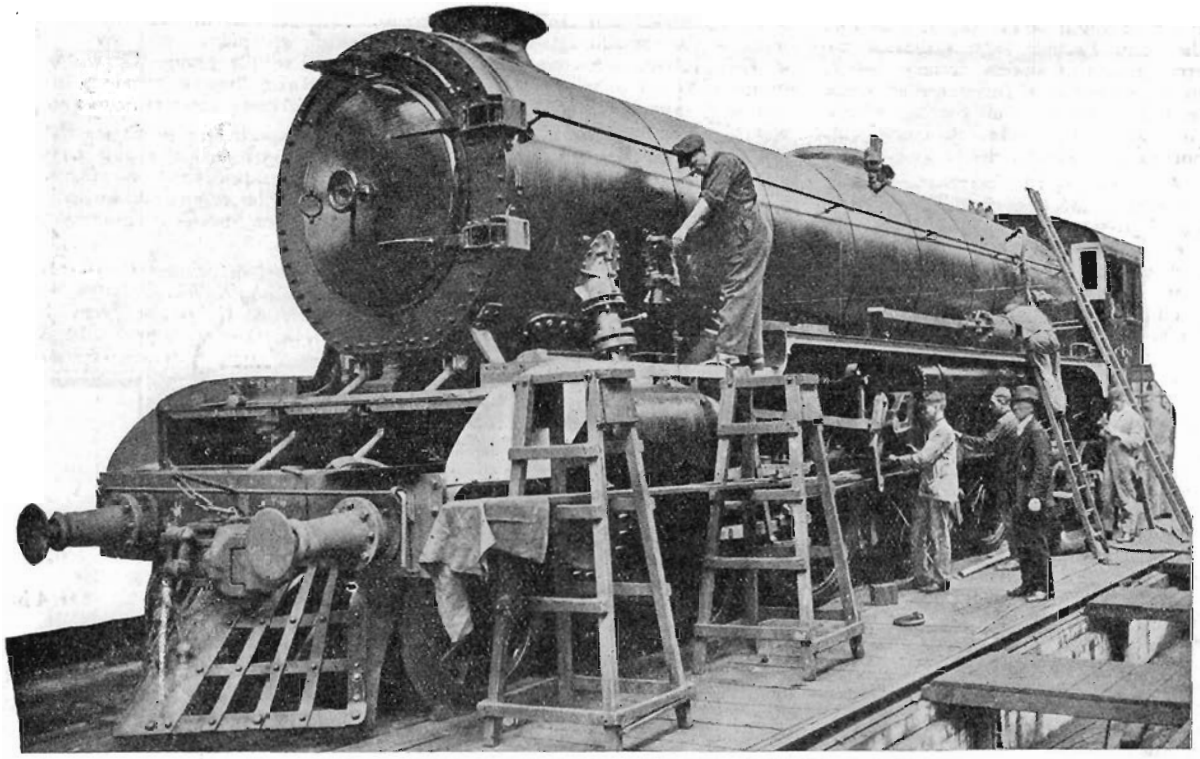
An Expression of Service

ONCE more the Victorian Railways have demonstrated the will to serve. Fresh from the hands of an army of engineers, mechanics, artisans and laborers, a new power unit, the biggest, finest, and most up-to-date thing of its kind ever built south of the equator, stands to-day at Newport workshops awaiting its trials and its subsequent use by the people of the State who own it.

OFFICIALLY, it is known as S. 300, the new Pacific locomotive; actually it is a tangible expression of better service. For months men have lavished brain and muscle on it, and they have produced the best that the scientific knowledge of the age can boast.

IT will haul the State's most important train from Melbourne to Albury, without a stop, or at most, only one—and that for the convenience of passengers. The train may be weightier and longer, but S. 300 will do its work quicker than it can be done now, and without fuel replenishment.

IT is dedicated to the service of the people. Do they appreciate it and all that it stands for? We believe so.



The new Pacific locomotive in the final stages of construction

S. 300

By A. E. SMITH, Chief Mechanical Engineer, Victorian Railways

COMPLETED to the last nut, S. 300, the largest and most powerful locomotive ever built in Australia, stands to-day in the Victorian Railways Workshops at Newport, a monument to the skill of its designers and builders.

It is ready for its trials out on the track, trials that will be recorded with interest, not only by the Victorian Railways Department, but by mechanical engineers of other States, other countries.

Nobody knows what speed it can attain, but 80 miles an hour is probably not its maximum. Tremendous capabilities are suggested by its sweeping, greyhound lines, unbroken by the unsightly humps and bulges that distinguish some locomotives in other parts of the world, by its gleaming, business-like cranks and rods, and even by its squat elegantly-curved funnel set well back on an aggressive-looking smoke box.

But let Mr. Smith describe the new Pacific, and the reasons for its construction.

CONSTANTLY increasing train loads, faster schedules, the steadily growing necessity for double-heading on the more important passenger trains, and the economies to be derived from long running of locomotives have for a long time impressed the Victorian Railways Commissioners with the desirability of placing in service a larger and more powerful type of passenger locomotive capable of hauling the heaviest passenger train permitted under existing and probable future conditions.

At the outset, it was decided that the type of locomotive required was one combining comparatively high tractive efforts with the capacity to haul passengers train at speeds equal to, if not greater than, those called for under the present timetables, and an exhaustive study of the prevailing practice on Continental, British and American railroads revealed that the type embodying these characteristics and best likely to meet the needs of the Victorian Railways was the Pacific type with three cylinders.

The three-cylinder departure was necessary in order to conform to permissible limits of width, and with a view to obtaining as near to a perfectly balanced engine as possible. The provision of three cylinders has the advantage of minimising the variation of pressure on the rails when travelling at high speeds, and from experiments in Great Britian and the United States, where the three cylinder type has found favour, definite steam economy has been realised.

For the information of the unini-

tiated, it might be mentioned here that the term Pacific Type indicates the arrangement of wheels, namely, 4–6–2, in other words, a four-wheeled bogie leading three pairs of driving wheels coupled, and a radiating truck supporting the weight at the trailing end.

A decision having been arrived at as to what would best meet our requirements, it was decided to embark upon the construction of such a locomotive, and we were commissioned to proceed with the design of a three-cylinder Pacific type locomotive of not less than 40,000 lbs. tractive effort, with a tender capacity sufficiently large to enable the locomotive to run to either Albury or Serviceton without replenishing coal or water supplies.

The specified tractive effort represented an increase of nearly 60 per cent. on that of the A2 class (our present standard passenger locomotive), so that in undertaking the construction of the new locomotive, we had, to use a colloquialism, "bitten off a whole mouthful." However, with full confidence in the ability of the designing and construction staffs to surmount any difficulties which should present themselves, work was commenced on the largest and most powerful locomotive ever designed and constructed in Australia.

After deciding that the locomotive should have three cylinders, the first main problem confronted was the casting of these in one piece. This portion of the engine weighs 5½ tons, and being the largest job of its kind in an Australian railway foundry, there was more than a little anxiety when the work was put in hand at Newport. However, the moulding shop staff rose to its task nobly, and in July, 1927, turned out the casting in perfect condition, thus amply justifying the policy of the Commissioners to have as much of the actual manufacturing work as possible carried out in the Departmental workshops.

The Cylinders

The three cylinders employed which are 20½ inches in diameter with a 28-inch stroke, have the cranks set at 120 degrees. They are provided with hollow piston valves with inside admission actuated by Walschaert valve gear, the centre valve deriving its movement from an arrangement of levers connected to the outside valve spindles. Steam reversing gear of the Precision type is another departure new to this State. Large bearings are a feature in the design, and grease lubrication has taken the place of oil for the axle boxes.

The next major problem was whether or not we should perpetuate the plate frame, as had so far been our practice, or adopt the American type bar frame. The great lateral strength obtained, and the arrangement of the spring gear above the axles, together with the highly successful results achieved in other countries with this type, were some of the considerations which led to the ultimate adoption of the bar frame. Each of these weighs 3½ tons, and is 30 feet long, and, of necessity, had to be imported from one of the only two firms in the world turning out these highly specialised foundry products.

The boiler is of telescopic design, the middle course in the barrel being conical, thus providing the necessary steam room at the firebox end.

A combustion chamber type of firebox necessitated the round top construction, the copper inner firebox being stayed to the outer shell by direct and flexible stays. A brick arch is mounted on arch tubes in the firebox. The heating surfaces and grate area are of generous proportions, and will ensure a sufficiently low rate of combustion to lessen the tendency to throw sparks. The superheater flue tubes are of copper, and the boiler or smoke tubes of brass. Numerous mud plugs are fitted, giving ample provision for washing out and cleaning the boiler.

Minimum of Internal Pipes

The regulator is of the balanced type with pilot valve, the main steam pipe being of copper. Internal pipes have been reduced to a minimum, all the auxiliary steam supply being taken from a turret on the back of the firebox. Three Coale safety valves, one pop and two muffled, of ample capacity, are fitted to the top of the firebox. A tube cleaning device, known as the Superior Blower, is fitted to each side of the firebox and operated from the cab, and there is also provided a Franklin type firedoor which may be either hand operated or air operated by means of a foot treadle on the floor of the cab. Water is fed to the boiler by means of two Gresham and Craven injectors.

The whole of the boiler barrel and firebox is lagged with Asbestos mattresses covered by steel sheets.

The grate is of the hand operated rocking or shaker type, and is fitted with front drop grate. On the hopper type ashpan there is provided a swing door and hand operated side dampers.

The superheater is of the M.L.S. type, the elements of the short return type being fitted with ball points.

Lubrication is provided for by means of a six feed Detroit hydrostatic lubricator.

Other details of interest are—Superheater steam to Westinghouse Pump, Chime Whistle, Pyle National Electric Headlights, marker lights and ample lighting of gauges in cab, Initial and back pressure gauges and straight air brake, in addition to the automatic brake, hand operated shaker grate and hopper ashpan.

The leading dimensions and particulars are as follow :—

Cylinders, Diameter (3)	20½ in.
Cylinders, piston stroke	28 in.
Wheels, coupled, diameter	6 ft.
Wheelbase, rigid	13 ft. 4 in.
Wheelbase, total, engine	35 ft.

Boiler heating surface.

Boiler tubes	2010 sq. ft.
Flue tubes	906 sq. ft.
Firebox and arch tubes	250 sq. ft.
Heating surface total	3166 sq. ft.
Superheater	740 sq. ft.
Grate area	50 sq. ft.
Boiler pressure	195 lbs. per sq. in.

Total weight in working order—

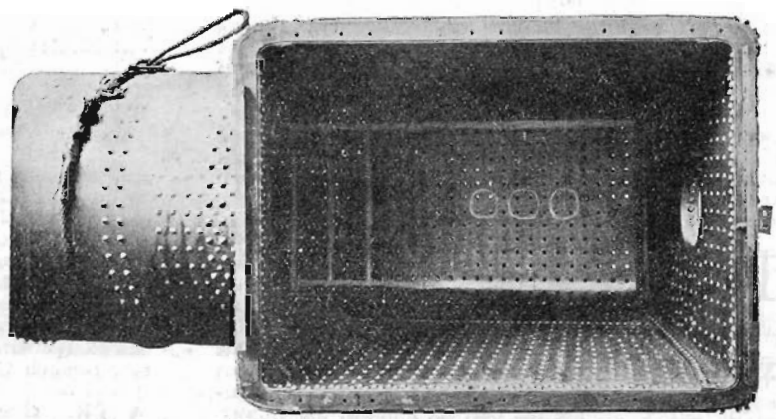
	Tons.	Cwts.
Engine	108	10
Tender	78	—
Weight	186	10

Adhesive weight — 69 tons.

Tractive force at 85 per cent. boiler pressure = 40,360 lbs.

Tender.

Tank capacity	8,500 gals.
Coal capacity	9 tons.



S. 300's huge firebox

Things We Are Talking About

FEBRUARY rains, almost unprecedented in their heaviness and beneficent results for the time of year, have restored a little of the ebbing confidence we referred to in our last issue. People are beginning to glimpse the silver lining of the existing economic depression, and, in the light of wonderfully improving prospects, to realise that the depression isn't quite so black as pessimists have painted it. The Monthly Summary of Conditions issued in February by the National Bank of Australasia sums up the position dispassionately. After reviewing the decline in primary production, falling prices, increased production costs, and the over-importation—especially of luxuries—the Bank observes that although trade, employment and finance present a number of unfavorable features, there is little indication of any widespread distress, and it is clear that the present adverse conditions are far from constituting a decided trade depression.

THE SILVER LINING

THE Bank goes on to enumerate the favorable indications for the coming season which lead to an expectation of trade revival, next spring. Prospects, it states, for the ensuing season's rural production are better than is usual at this time of the year; public and private expenditures have been adjusted, to some extent, in keeping with the reduced national income; industry and trade have been expecting a decline in business for some months past, and should have little difficulty in passing through a period of slackness; and there are few indications of industrial troubles. All of which points to rock bottom being reached in the railway revenue drift before very much longer. Then we can build up again—provided unfair road competition is not allowed to drag the State and its people down into the morass of further loss.

PROSPECTS BRIGHT

RAILWAYS in supposedly prosperous America, by the way, are feeling road competition more and more keenly, and as a result are not enjoying the best of prospects judging by the statistics given in the Review of the Economic Situation in the Railway Industry, recently issued by the Bureau of Railway Economics. Nineteen-twenty-six was a boom year, and the revenue freight car-loadings for 1927 ran almost consistently ahead of those for 1926 up to the third week of May, but since then have run as consistently behind. Passenger traffic in 1927 ran consistently below that for 1926, and has decreased steadily since 1920. Total operating revenues for the first nine months of 1927, for which period figures are accurately worked out, show a decline of 110,000,000 dollars, or 2.3 per cent. compared with the same period of 1926; but operating costs dropped only 27,000,000 dollars, and this despite the fact that railway property investment continued to increase, while their contribution to general welfare in terms of service, reduced rates and efficiency was greater.

U.S.A. RAIL REVENUE DROPS

TALKING of road-motor competition, Drysdale's Station-master, Mr. Jenner, has just sent in some particulars of the state of affairs in his district. Two passenger and nine freight buses, he says, are daily taking away legitimate rail revenue, quite apart from the boat service between Portarlington and Melbourne. During the past six months, the railway, he points out, has carried 1180 tons of metal, at an unpayable rate, to maintain the roads for these competitive motor services, which are now actively—very actively—canvassing for the transport of a big green-pea harvest, charging three times the rail freight, and getting away with it. Granted a couple of days' leave recently, the S.M. set out to canvass the district for business, and succeeded in counteracting some of the misrepresentations of his competitors on the subject of rail service and in getting much of the freight business back to the railways. His is a worthy example to many another S.M. in selling service.

MOTOR COMPETITION

THE proposed big scheme to stimulate travel to and within Australia, the possibilities of which are being investigated by the Development and Migration Commission, has been hailed with general and solid approval. Australia is the tourist world's Cinderella, and for no apparent reason. As Sir Robert Horne has pointed out, the Commonwealth has a big attraction, because it is *different* from other countries. People in the old world and America are getting, perhaps, a little blase about the well-worn tourist round of European capitals, the little sixteenth-century villages, the fashionable and convention-regulated snow sports-grounds and rivieras. They are looking for something new, something fresh to see and experience. Australia can—with adequate publicity and the will to give the best service in hotel, guest-house, shop, garage, station platform, train and car—amply fill the bill, and, in so doing, secure a few extra million of pounds a year to help to keep occasional wolves of depression at a respectable distance from the door.

ATTRACTING TOURISTS

BUT the proposal goes considerably deeper than that, as the Prime Minister, Mr. Bruce, has stressed. It postulates a scheme for development by attracting capital. Capitalists, as a rule, like to probe a proposition thoroughly before committing themselves to support it; and before we can ask them to invest their money or their sons, or both, in Australia, we must interest them sufficiently to come and see the proposition, first-hand. And we must arrange for them to see it properly, and from all angles, when they get here—not leave them to wander haphazardly around the capital cities. That, we understand, is the larger aim of the proposal, an aim not shared by some other countries which, possibly, regard tourist revenue as the sole raison d'etre of their publicity efforts. From this point of view, the scheme which, as yet, is still in the germ stage, seems to be a very natural and fitting development of the Reso idea which originated with the Victorian Railways, an idea which from the very soundness of its nature was bound to expand.

THE LARGER IDEA

MEANWHILE, arrangements for the Victorian Railways' 1928 season of Reso tours are going ahead. Next month will see the train that has achieved international repute heading for the Western District with Mt. Gambier as its farthest objective—a point hitherto unexplored by Resonians as Resonians. The following month, 60 odd boys from Melbourne Grammar will embark for the Wimmera on the first Junior Reso Tour. The big jaunt to North Queensland will eventuate in June, and there is talk of one to Western Australia, a couple of months later. A tour through Gippsland is scheduled for November.

1928 RESO SEASON

MR. Lance Bromilow, of the Betterment and Publicity Board, who is organising the Western District tour, came across, he tells us, an extraor-

dinary natural freak, the other day, when he was making preliminary arrangements along the route.

BEES' FREAK

Near Puralka station, a swarm of bees had built a hive outside the limb of a tree. This, bushmen say, is unknown in this part of the world, although travellers through the Malay States say they have seen it there. The hive was in five layers of comb, and the bees appeared to be working for their lives at it. The hot sun had melted the honey which, Mr. Bromilow says, was dripping to the ground. The accompanying photograph which he secured is of considerable interest especially to naturalists who, possibly, can explain the occurrence.

THE installation of an 85-ft. turntable has just been completed at Ararat. Hitherto, the largest in use in Victoria were 70 ft. long, but the advent of bigger engines have necessitated turntables of increased capacity at large locomotive depots. Ararat is the first. The 70-footer is a rigid affair, and when in use, the whole weight of the locomotive and table is supported by the ball-bearing at the centre, the end wheels and bearings coming into use only when the locomotive is moving on or off the table. The larger table is more flexible, and the wheels at each end, which are fitted with ball-bearings, help to support all weight and eliminate any tilting motion, besides obviating the necessity for larger ball bearings in the centre.

BIGGER TURN-TABLES

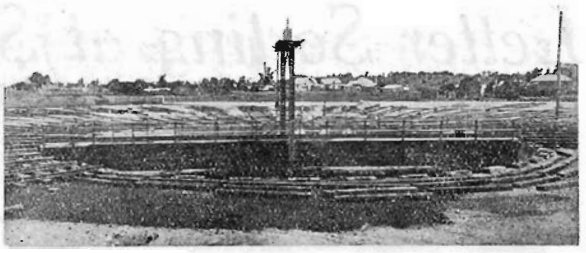
NEWSPAPER limelight has focussed public attention on the new locomotive depot at Ararat lately. The work is steadily progressing, and it is expected that the Rolling Stock and Transportation Branches will be in full occupation in time for the next grain season which promises to be a very busy one. This, of course, opens up the question of transport between Ararat and Stawell, because this short, 20-mile section handles a greater tonnage than any other part of the Western District. Recognising the futility of trying to work a greater volume than could be economically handled, the Department has decided to extend the Armstrong loop for train crossing, while a remodelling scheme is being considered for Great Western. These projects will solve the problem of quick traffic handling between these two points.

ARARAT'S NEW LOCO. DEPOT

PEACH week which developed into Peach Fortnight has come and gone. So, judging by the Department's figures, has a considerable number of peaches.



A beehive built outside the limb of a tree near Puralka station



Ararat's new 85-ft. turntable

In the twelve days of business the railway stalls in the city sold 2,500 cases, while the special trucks attached to country trains disposed of 5,919 cases. More trucks in the two subsequent weeks sold approximately another 2,000 cases, so that, all told, the effort succeeded in disposing of at least 10,000 cases—nearly 200 tons. Averaging 40-lbs. to the case, and 4½ peaches to the lb., the Railways Department sold nearly 2,000,000 peaches, or two peaches to the equivalent of every man, woman and child in Melbourne. Not bad for one selling agency!

PEACH FORTNIGHT

PARLIAMENT'S decision to extend the Suburban system by a new six-mile line from Darling to Glen Waverley will open up admirable residential land from which both the metropolis and the nearer ranges are readily accessible. The whole district has wisely been mapped out into streets, boulevards and recreation reserves by the Town Planning Commission. Even the types of houses have been decided upon. Other constructional works authorised by Parliament are proceeding apace. The new Southern Riverina line from Kerang to Stony Crossing, a matter of 50 miles, is, so the Bendigo District Superintendent (Mr. Tredinnick) tells us, almost completed. Several large land holdings contiguous to the new line are being cut up for closer settlement. Much of this land is well suited to mixed farming, and promises to yield considerable wheat and live stock traffic in the years to come.

NEW LINES

INCIDENTALLY, Mr. Tredinnick says that although wheat traffic has slipped back this season, there has been a marked increase in other products in the Bendigo district. Egg loading, for instance, for the past 12 months has exceeded one million dozen, and is likely to show further substantial increases, as many farmers are taking up poultry-keeping as a side line. The tomato industry, too, is going ahead, the season's output showing every indication of beating last season's 13,000 tons. One wonders how much of this increased production is due to the influence of the Better Farming Train. But whatever the impulse, the result should help to make up the leeway in wheat production.

MORE EGGS AND TOMATOES

MENTION of the Better Farming Train calls to mind the latest appreciation of it. It is expressed by Dr. R. A. Phillips of the New Zealand Public Health Department, who, spending a few days in Victoria on his way to England, recently, was greatly taken with the train's baby welfare section. Subsequently he wrote a very happily-worded little article on it for *Overseas*, the bright monthly journal of the Overseas League. He concludes with "good luck to Sister Peck, and congratulations to the Victorian Government." Thus the fame of the train spreads abroad.

MORE KUDOS FOR FARMING TRAIN

Letter Sorting at Sixty Miles An Hour

By HUGH RICHARDS

SORTING letters in a wheeled post office which travels at 60 miles an hour is the daily experience of the travelling postal officials on the P.M.G.'s staff.

Between Melbourne and Warrnambool, Albury and Bendigo, the sorting is carried out regularly. The how and why of it is described in this article.

"THAT," said the mailman, on the Bendigo platform, "is the lot." He wiped his forehead with the back of his hand and surveyed the mail bags with moody satisfaction.

"The whole blanky lot," he added as an afterthought.

"And so it ought to be," I observed as, brushing briskly past him, I stumbled over the heavy, shapeless bags which had swooned in an exhausted heap at the open door, and entered the BDSE car on my hands and knees, somewhat after the fashion of a playful Newfoundland dog. I scrambled to my feet, dusted my knees and, coldly disregarding the mailman as he chuckled and trundled his trolley away, peered curiously along the interior of the mail sorting van.

On the platform side, opaque, netting protected windows cast the dying afternoon light on to a bare iron rack which dangled a burden of empty mail bags. Opposite, the rays of the setting sun filtered through a roof-high framework of pigeonholes, which was built up against the windows on the right-hand side of the car. Supporting the pigeon holes, and on a level with the iron rack and its mail bags, stretched a smooth bench. The letter-sorting bench, I decided with native shrewdness. Something like five feet separated the iron rack and the wooden bench.

80 Bags—An Off Night

I discovered that someone was addressing me. A plump, good-humored twinkling-eyed man in a pair of overall trousers which covered his chest—as well as the rest of him, of course. I wrenched my attention from the van equipment and listened to him. He was disagreeing with me. With something I had said. What was it? I begged his pardon.

"You seemed to think that was a lot of mail matter to sort." A hand was waved at the corpses huddled inside the door. "Actually, tonight is an off night. Monday night always is. I don't suppose Bill and I'll have more than 80 bags of mails to go through tonight. Tomorrow, though, the T.P.O's 'll have to go some. They'll have more than a hundred, I daresay. There'll be mails from places which haven't had a clearance since Friday."

Confirmation of this opinion came from Bill, who had silently become amongst those present. Bill was a thin, black-moustached man, also in overalls. I assumed that he was a sort of assistant, or assistant sorter (you can read it either way), and that his confrere was the senior man.

Bill led me wordlessly before a card on the wall. He spoke. "That is the average number of mail bags which we handle in this car every day in the week."

Mentally open-mouthed, I absorbed the pen-and-ink message. Mails, it seemed, came from Inglewood, Kerang and Echuca, besides Bendigo and roadside stations. Monday's total hovered around 80 bags. Tuesday's was in the vicinity of 120, and Wednesday's dropped to 90. Thursday, Friday and Saturday all took it over the 100 mark.

We're Off!

I was still absorbing when our A2 chimed a warning, dragged the van into motion and lurched me against the iron rack. One swinging mail bag threatened to engulf me. I staggered back, steadied myself and noted that a third sorter—a boy—had joined the van just as it started.

"We get assistance as far as Harcourt," said the senior sorter, passing with a heavy bag. "This boy helps us and takes back any local Bendigo stuff with him on the down train. Saves a lot of time."

Upended, the bag spilt its contents on to the bench. Letters tied into neat packets, small brown paper parcels, packets, newspapers rolled and flat. Hands rummaged amongst the pile. A pink mail invoice, which showed the quantity of mail, was run to earth and checked. Some bundles, already sorted—mostly for suburban addresses—were dropped immediately into the bags dangling from the rack. The remainder provided exercise for the fingers of the sorters.

I anchored myself on the trembling floor at the elbow of the senior sorter. Envelopes flicked from his fingers and flew into the pigeonholes in front of him. He never raised his head. Ceaselessly he digested addresses, swallowing without chewing, and letting his diet, unaided by his sight, control the direction of the envelopes.

"There are 27 different postal districts in the State," he told me while he sorted. "These pigeonholes, as you can see, are numbered from 1 to 27. We sort what we can, concentrating at first on any Bendigo stuff, and then on Mildura, Merbein, Ouyen, St. Arnaud, Birchip and Donald mail. We start with filled bags, and we finish with filled bags. The only difference is they are inwards mail at the start, and outwards mail at the finish.

"Whatever Bendigo matter we find in the time goes back from Harcourt. The Mildura line stuff, of course, goes out at Castlemaine."

Kangaroo Flat called a halt. More mail dropped in. Wheels vibrated beneath the floor of the van again. Gathering speed set the empty mail bags swaying. They swung backwards and forwards, they jostled one another, they elbowed one another aside, they became short-tempered. Feeling ran particularly high between two limp neighbours labelled "City" and "Suburban." "City" shouldered "Suburban" and "Suburban" bumped "City." The express roared down an incline and the two combatants locked, "City" striving to clap a body-press on to "Suburban." Then Bill dumped a bundle of letters into "City," and the pair sobered down, sullenly jabbing an elbow in one another's ribs every now and again.

Jazz of Labels

Over the rack hung a collection of tin labels for the mail bags. Some hundreds there were; and they clattered gently against each other to the motion of the van. A metallic swish it was, rather than a clatter, culminating occasionally in a sharp clash as the labels struck in unison. Somehow, it suggested a very stout man running in rubber shoes, with several pounds-worth of loose silver in his trouser-pockets, a stout runner who sometimes jumped fences, and who stopped sometimes for breath before setting his silver chinking again as he resumed his running.

Or it might have been a big-chested, medal-covered Admiral of the Fleet dancing a dignified hornpipe on a thick hearthrug, so that only the sound of his medals rising and falling could be heard.

Chink, swish, *clash*! . . . . Chink, swish, *clash*! . . . . . .

And all the time, the 30 fingers at the

bench slipped letters into pigeonholes, snicked string with a knife, tied neat packets, folded empty mail bags.

Ravenswood had come and gone. Harcourt had taken the boy sorter and a bag of mail for Bendigo. Electric lights were switched on. Cold wind blew in through the gaping door. I balanced myself in the opening and slid the door to.

The wild shriek of a whistle heralded the approach of another train. Thunder of wheels, tumult of speed and roar of echoes crashed in through the windows as our van rocked past the Bendigo-bound express. The senior sorter jerked a thumb. He raised his voice.

"Picks up that Bendigo mail we left behind at Harcourt. See the time we saved. Without this van, that mail would have gone straight into Melbourne, would have landed in a sorting room already swamped with metropolitan mail, and wouldn't have got to Bendigo until late tomorrow evening.

"It's the same all through." He tipped another bag over the bench, fished two brown parcels out of the white sea of envelopes, and slung a bundle of newspapers behind him into one of the yawning bags. "We'll get all this Mildura stuff out at Castlemaine and on to Maryborough and beyond tonight. No double haulage, no delay, no additional sorting at the G.P.O."

A Granite-shelled Nut

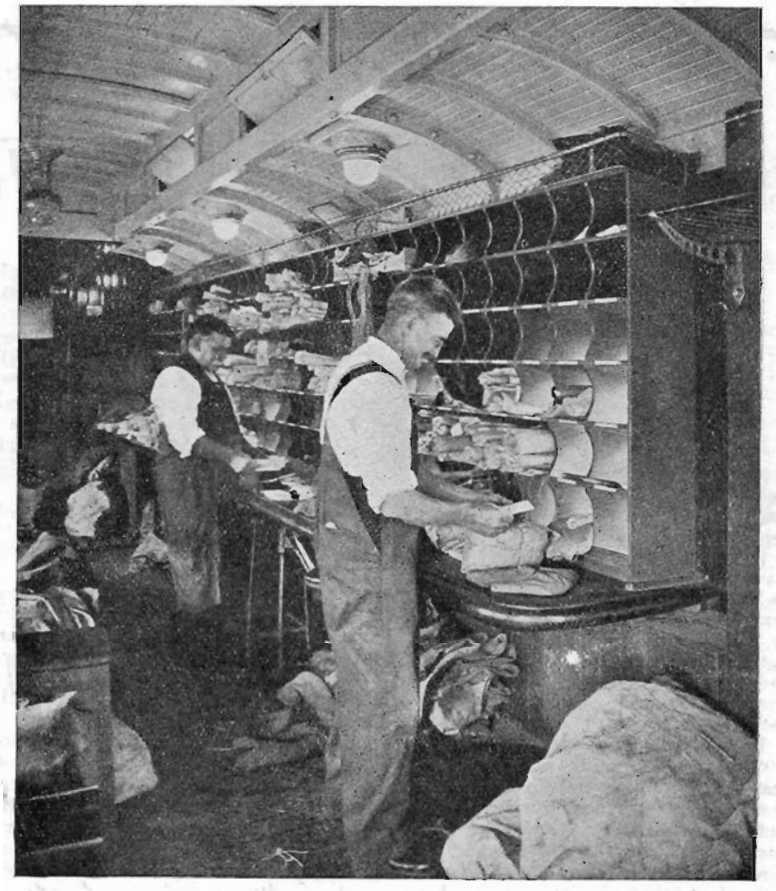
I nodded, listening intently, but at the same time watching Bill sealing a bag of mail further along the bench. He threaded the ends of twine through a small round disc, the size of a sixpenny bit but as thick as two half-crowns. Then he crushed the disc in a large instrument resembling a nutcracker. The comparison is an inappropriate one, however. A nutcracker opens nuts, but this instrument, on the contrary, provided a granite-shelled nut for a tamperer to crack.

Grinding brakes brought us to a standstill at Castlemaine. It was chilly when I went to the door. I felt cold and I was a bona-fide traveller anyway. So I drifted along the platform.

When I got back to the van, I found Castlemaine had done its worst with a fat bag of mails, while the two sorters had returned the compliment by unloading Maryborough's quota as well as the local proportion.

I drew up a stool beside the senior sorter and settled down to watch him as we bore down on Kyneton and Woodend. On the wall behind me, the fat man had resumed fence-jumping and the be-medalled admiral his marathon hornpipe . . . . . .

The postal man agreed that it took a long time to master the sorting. The new system of postal district numbering in the metropolitan area didn't affect him. Still, I could see for myself—he pointed to a heap of letters near me—that not many letter-writers had yet learned to show the extra symbol.



Sorters at work in the Mail Van

"Some of them are a bit groggy about simple addresses even. Look at this." He held out a letter addressed to a suburban householder. The wording was squeezed down into one corner and the caligraphy was reminiscent of the footprints of an ink-smeared spider suffering from delirium tremens, but it was the spelling of the suburb which caught the eye. "Essington," it ran.

"That means Essendon," deciphered the sorter.

Kensington or Kennington?

The interpretation intrigued me. I craned over the sorter's shoulder and tried to read other addresses as he fluttered the envelopes into their sections. He was sorting with inconsiderate haste, but I managed to glimpse one address. To my astonishment, that very envelope went into the wrong pigeonhole.

I coughed. I didn't want to gloat. "Excuse me, but you put that suburban letter in one of the country pigeonholes."

"Eh?" The sorter had advanced another 20 letters.

"That letter to Kensington," I pursued. "You didn't include it with the suburbans."

"Did I miss?" The sorter was surprised. "Lucky you noticed." He dragged the letters out and scrabbled his fingers through them.

"That's it!" I pointed as he grabbed one.

He scrutinised the envelope closely. He grinned. "Oh, no. That's Kennington, not Kensington. Kennington in Bendigo, you know."

I coughed again. I sidled off the stool and paced diffidently to the van door. I disguised my embarrassment by shoving my head into the cold night. An icy wind dragged my hair, buffeted my face, whipped the blood into my cheeks. Along past the next carriage was the huge, throbbing shape of our A2, outlined sharply against the blinding glare of its headlight. We were tearing headlong through a black void.

Nearly Home

And so, with a couple of short stops, we tore for an hour or so. Once Woodend was behind, the two sorters began to tie the now-filled mail bags which were to emerge at Spencer-street. Sorted letters had been withdrawn from the pigeonholes and

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The Community Must Pay For Its Rail Service

By T. F. BRENNAN, F.I.C.A
Chief Accountant, Victorian Railways.

VICTORIAN railway revenue has slumped badly, very badly, and is faced with a probable deficit of £800,000—perhaps more—when the ledgers are balanced on June 30.

This, of course, is an abnormal year, and a period of prosperity should, in the usual cycle of things, follow. But will it restore railway financial equilibrium, already shaky through failure to provide against the wastage of assets? Or are increases in freights and fares primarily essential? Mr. Brennan, whose finger is constantly on the financial pulse of the railway, discusses the question.

THE difficult financial position in which the Victorian Railways are placed this year has been, and still is, a matter of grave concern to the Commissioners who are the managers of this industry, as well as to the government in which is vested the responsibility of deciding the policy to be followed to meet the adverse conditions against which the Department is struggling.

Following upon an unfavorable winter and spring, in both of which seasons the rainfall was below requirements, there was in many parts of the State a partial failure of the wheat harvest. From the railway point of view this failure is two-edged. In the first place, there is much less wheat to be railed than would be available in a normal year. In the second place, the purchasing power of the producers, as well as of those who are engaged in marketing the wheat, has been appreciably reduced and, accordingly, the transport of other goods as well as of passengers has also been correspondingly reduced.

In addition to the partial failure of the harvest, there has been a somewhat pronounced depression, which has affected a large portion of the commercial community of this State. The result as far as the railways are concerned is that the traffic, both passenger and goods, has fallen off to an astonishing extent, and the consequent decrease in the revenue has been so great that no action on the part of the management could keep the expenditure within the limits of the income.

At Least £800,000 Deficit

For the period of seven months which ended on January 31, the total railway revenue was £460,000 less than that earned during the corresponding period in the previous year, and of this sum, the loss, as compared with the previous year, due to the falling off in the passenger traffic, was £100,000. There would, unfortunately, appear to be no doubt therefore that the revenue for this financial year will be at least £800,000—perhaps £900,000—less than the amount received last year. From the financial view point, last year was relatively a good year. The wheat harvest was well above that of an average season, the prices of our products were satisfactory, and conditions generally were prosperous. Yet there was a deficit—comparatively a small one, but still a deficit. Our interest charges have increased since last year owing to the additional capital moneys which have been expended, and so has the cost of the superannuation scheme. In the face of these adverse factors—a revenue falling at an alarming rate, the increased cost of interest and superannuation, and the fact that even last year's revenue was scarcely sufficient for requirements—there is still the necessity to provide a service of a high standard, which the community insistently demands, and therefore, notwithstanding every economy which it is practicable to make, there is no way of avoiding a deficit which in the most favorable circumstances must be of considerable magnitude.

The Freights and Fares Problem

As has already been announced, the Commissioners have recommended the Government to make certain increases in fares and freight rates, but, after consideration, the Government intimated that it was unable to agree to do so. It is, of course, clear that most of this year's difficulties are the result of the ruinous slump in the revenue, and that this slump is due to abnormal conditions. Our records show that a year of drought is almost invariably followed by one or more favorable seasons, and should there be no exception now, a return to prosperity may be reasonably anticipated.

In that case, it may be considered that an increase in the charges for the services rendered to railway users would not be justified, and that the increase in the revenue which would follow from a return to prosperous conditions would solve the difficulties which now confront the Department. If the charges imposed (as at the commencement of this year) for the services rendered by the railways were adequate in a normal year to meet operating costs, maintenance (including depreciation), and interest on capital, that view would be sound.

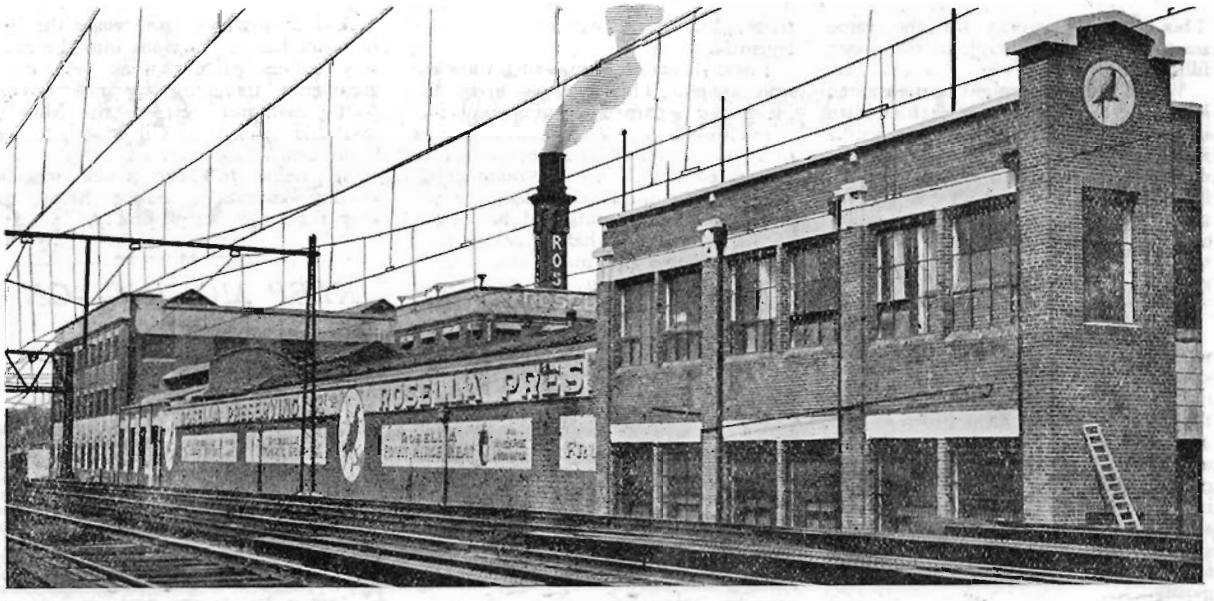
But, are they adequate? It has been shown in these pages, some few months ago, that the property of this great industry is losing value from day to day and from year to year in the process of giving service and earning income, and that much of that loss of value—or depreciation—is not being made good. The amount of value so lost is part of the cost of earning the income in the period in which the loss occurs. The wages of the men engaged in operating the services are not more definitely a part of the income earning cost than is the depreciation incurred in doing so, and the obligation to make good the depreciation, notwithstanding that the Railways regularly fail to do so, is fixed and definite. Admittedly they make good part of the loss, but part of it is accumulating and is being carried forward, and to that extent they are living on their capital.

This position is quite wrong. Had the increases been made in the fares and rates as recommended, there would, it is estimated, have been sufficient revenue available in normal years to meet the depreciation charges as well as the operating, maintenance and interest costs.

Present Charges Inadequate

It is a thankless task to seek to increase the charges to the travelling public; but if it be accepted as a principle that the railways should be operated on a commercial basis and that (except as regards developmental lines) they should pay their way, and if the community continues to demand service of a high standard, then—

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The Rosella Preserving Company's premises at Richmond

THE SOURCE OF SAUCE

By HUGH RICHARDS

THEY give you plenty of sauce down Rosella way. Literally that is, of course, not idiomatically. It's not sauce in the vernacular, but sauce in bottles.

And, besides that sauce, Rosella comes to light with a palate-tickling variety of different commodities in tins and jars and cartons. There is tomato soup and chutney, and fruit mincemeat and canned fruit, and sliced fruit and honey and prunes. There is plum pudding and ginger pudding and fig pudding and sultana pudding and date pudding. There is lemon butter and pineapple butter and vanilla butter and banana butter and peanut butter. There are jams and jellies and candied peels and canned tomatoes. There is crystalised ginger and ginger in syrup and passion fruit and fruit salad. There is spaghetti with cheese in tomato sauce, and there is pork and beans. There is olive oil and there is asparagus. And there are olives and capers and sweet gherkins.

Altogether, the Rosella range features 80 lines. And, although the company's reputation rests on the tomato, the factory cannot keep pace with the popular demand for its tomatoless products.

The factory itself would need a nine-acre tomato to rest on. It sprawls on the old site of the Cremorne-gardens, beside the railway line, as far as the Yarra bank.

Behind its towering walls, hundreds of thousands of mute tomatoes are slaughtered, to be offered up as pulped

KNOWN wherever Australia eats, the bright colored Rosella label has lent a zest to appetite for 32 years.

And for the same period, the railway has given its service to the Company, while the Company has given consistent freight to the railway.

sacrifices on the altar of Rump Steak. The sacrificial high priests and priestesses wear no ceremonial robes, but they bring weirdly human machinery to their aid in the wholesale massacre of their defenceless victims.

Machinery sweeps the tomatoes on a slow-moving belt into the fast-moving teeth of a pulping machine. Water sprays drench the hapless procession, and unerring fingers fasten on to any specked or bruised tomatoes before the cavernous depths of the pulper are plumbed.

The mangled corpses are moved reverently to the sieves, which rub off their skins and filter out their uncountable seeds.

What looks like red oxide of lead, but smells like a fire in a tomato orchard, then pours into a glass-lined vat of 600-gallon capacity. Sugar and spices and salt go in. The mixture is boiled. Ready for the bottle, it trickles under cover to a reservoir, from which it passes into the rotary vacuum filler.

Briefly, this filler is a miniature merry-go-round, the roof of which rotates at the same pace as, but in the opposite direction to the flooring. Naked bottles form a queue on a moving belt, and press forward on to the plated floor of the merry-go-round. They are heated before they reach the filler as the sauce enters them boiling hot. And boiling liquid has a habit of cracking cold glass.

The warm bottle takes up a position on a separate plate of the merry-go-round floor. As the floor revolves, that plate raises itself and forces the open neck of the bottle against a filling section of the revolving roof. A vacuum is created, automatically releasing sufficient sauce to fill the bottle. The plate lowers its filled burden and trundles it round to another belt, which in turn whisks it along to the sealers.

If a bottle is cracked, a vacuum cannot be created, and the filling section sternly refuses to fount.

Down at the crown sealing machine, two men cap the bottles at a rate of 40 a minute each. The pressure of the blow which snaps the cap on ranges from 450 to 600 lbs.

Filled and capped, all bottles pass through the pasteurising machine—loosely, a hot shower in a bathroom with a very high temperature. Then labelling and grading move the bottles into the storehouse, ready for despatch.

Tomato soup is souped in much the same fashion as tomato sauce is sauced. It being a difficult matter, however, to snap a bottle-top on to a broad tin, another type of machine is necessary to seal a lid on to the tin of soup.

This machine works on the same merry-go-round principle as the rotary filler.

Wise foresight, it might be mentioned here, has provided each section with its own motive power. Sauce works independently of soup, jam independently of canning, and so on. For the heating and cooking, three multi-tubular boilers and a donkey-boiler steam in an inferno of mechanical tumult. This plant will be increased shortly.

Peanut Butter

Up on a top floor, opposite the spot where lemon butter simmers in golden stickiness and immense pots, Rosella makes its peanut butter. Actually, there is no butter in peanut butter. The sole ingredient is peanut: more accurately, the sole ingredients are peanuts. Roasted by revolving blades in a long coffin-shaped container, the shelled peanuts are forced through sieves which peel off the husks and squeeze out the sharp little propagating germs.

Then, pulped, squeezed, crushed and compressed into a soft, yellow-brown mass, and mellowed by their native oils, the peanuts sink their individual nuttishness in butter. In short, they are communised into butter.

King Clamor reigns supreme in the tin-making section of the factory. Machines clank and thump. Belting throbs and whirrs. Iron grinds against iron. Echoes are flung from wall to wall . . . . . pounding, crashing, vibrating . . . . . .

And over all sounds the metallic, empty clatter of innumerable tins, rolling along elevated races from machine to machine, and swooping in a big-dipper descent in mid-air from one section of the factory to another. Light glints on the shining tin surfaces. Tin rattles after tin in an aerial procession without beginning or end, a long-distance race in which all are triers, but none winners and none laggards.

First, sheets of lacquered tin are cut into strips. This lacquer gives the inside gold-enamelled lining exclusive to the Rosella tins. The strips are curved in a body forming machine, and solder is sweated into the outside seam which seals the strip into a body. Flanged edges are rolled on to the ends, and the bottom of the tin (a somewhat necessary portion) advances to meet and attach itself to its partner, the two being joined by an ingenious sealing machine.

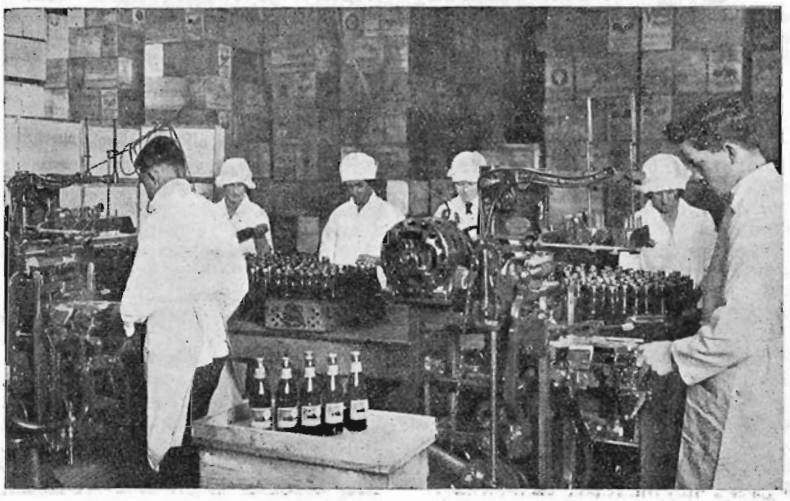
Next comes the breathless **descent** into the abyss, the abyss in this case being the jam-filling section. After cooling off, the weighted, lidded and sealed tin, with its sweet, sticky filling, clothes itself in a label by rolling over an edging of paste and collecting a bright-colored jacket in its stride.

Glimpses of the actual jam-making leave a confused impression of bare-armed, jam-splashed men ceaselessly stirring the contents of huge, shining coppers in an atmosphere of steam clouds, moist heat and the overpoweringly sweet smell of boiling apricots and peaches . . . . By no means the world's best job in the summer.

39 Kinds of Jam

In all, 39 different varieties of jam are made in this section, from blackberry to golden melon and from cherry to pineapple. There is even a jam called "seedless bramble."

These jams, as with all the other Rosella products, are backed by a reputation which has been built up over more than a quarter of a century. Thirty-two years ago, the company commenced operations in Flinders-street. It lasted there for two years, and then migrated to North Melbourne. The move to the Yarra occurred eight years later. Rosella has thus been at Richmond for 22 years.



Labelling bottles of sauce

And through all those years the big industry has paid freight into the railway coffers. Every week sees consignments travelling by rail north, south, east and west—to the Mallee, to the Wimmera, to Gippsland, to the Goulburn Valley . . . . .

Oil helps to keep truck wheels moving smoothly. Sauce helps to keep them moving profitably.

KEEP MOVING—ON ONE TRACK

By LATIMER-ESCH
(For the V.R. Magazine).

IT is a train's ability to keep moving on one track that gets it to its destination, isn't it?

Likewise, it is a man's ability to keep moving on one track, that gets him to his destination, which of course is happiness. We call it success. We call it Wealth . . . or Fame . . . or Power. But unless we think that it means Happiness too, we don't want it. That's so . . isn't it?

NOW just as it is absolutely essential for a train to keep to one track, in order to reach its destination, so it is equally necessary for a man to do the same.

No matter if you see someone else travelling along faster on another track, stick to the one you have chosen, and it will get you there. Chop and change around, and you will never get anywhere.

BY stopping on one track, however, we do not mean getting in a rut.

The difference between a track and a rut is that a track leads somewhere, whereas a rut does not.

A track is a legitimate thoroughfare over which other men have travelled to Happiness. They have made improvements as they went, so that things might be easier for those who follow. A rut, on the other hand, is a groove which, once you get deep into, it takes a deal of shifting to get you out again.

IF you have any doubts whether you are on a track or in a rut ask yourself these questions; but don't be satisfied with asking, answer them, too:

"Where does my job lead me?"

"What position do I want to rise to? Can I rise to it through my job?"

"Do I take any steps to increase my usefulness?"

"Can I get the things I want by stopping where I am?"

WHEN you have decided this question, the next thing to remember is that you have to keep moving!

A train which stands still on the track is no use to anyone anywhere. The only time a train is fulfilling its purpose is when it is moving.

A man has to keep moving, too.

As a matter of fact, a man cannot help doing this. He is like an engine on a gradient, without any brakes. He has either got to move up . . . or he'll start moving down.

Hence, not only must you keep to one track but you must keep moving forward on it.

Every day's work that you do should mark an advancement in your progress!

If it doesn't, its not worth doing it.

NOW here lies the Secret to Success.

Firstly you must determine what your idea of success is.

Fortunately every man has a different idea. One may want to be a millionaire, whilst another would rather retire to a prosperous little chicken farm.

Find out what you want! That's the first thing. You have some chance of getting it then. But remember it must mean happiness. You might fancy yourself as the Minister for Railways . . . but would you be happy?

The next thing, of course, is to decide whether you are on the right track or not, to get what you want. . . . Then having made up your mind, to stick to the one you have chosen. The next thing is to move. . . . .

Forward, of course!

Representative Railroaders

No. 7—Mr. A. E. SMITH

Chief Mechanical Engineer

By R. H. JUNIOR

Caricature by Angus Mac

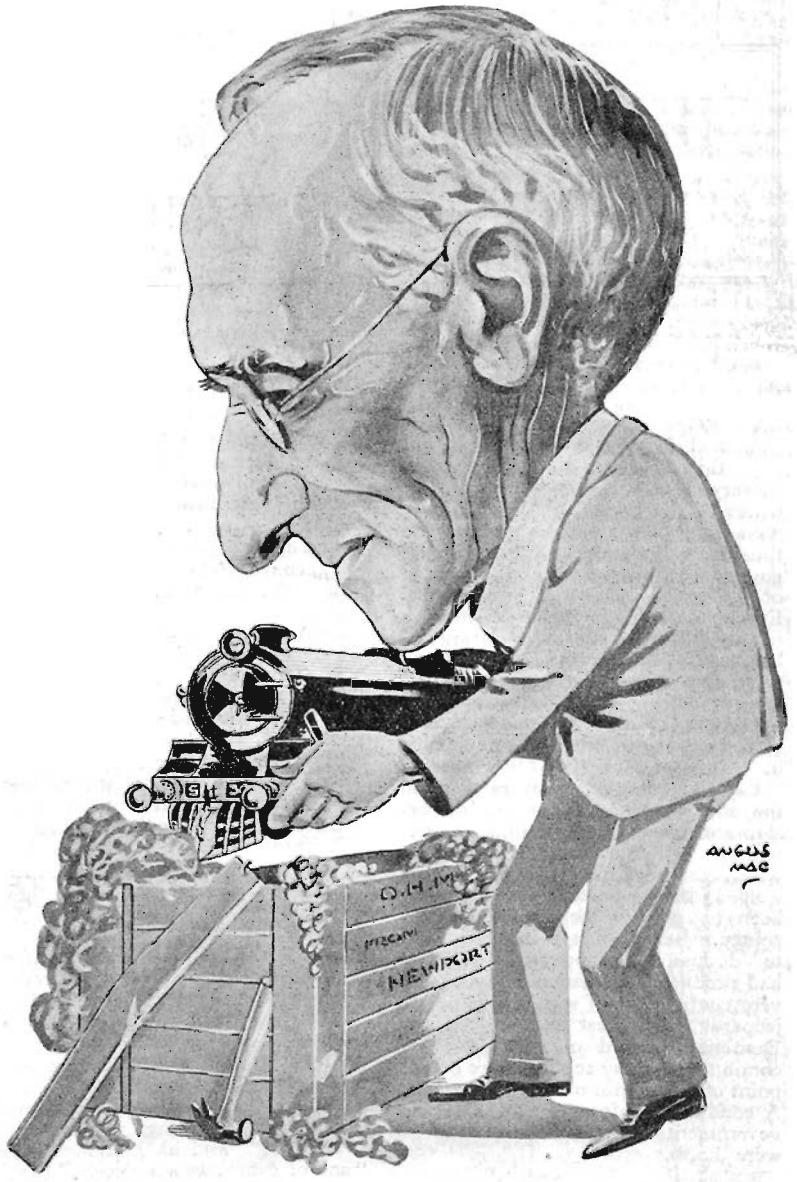
MISFITS, it is popularly supposed, clutter the surface of the civilised globe. Mute inglorious Miltons groan behind drapery counters. Hands that the rod of empire might have swayed scrub the exterior of railway carriages. The tonal depths of a Chaliapin, untrained but robust, thunder from a Flemington bookmaker. A heavy, stolid-featured, flat-footed man, designed physically for an immediately successful church career, rules the traffic at a city intersection or cuts rump steak at a butcher's block . . . . . .

It seems that if there is one thing more common than a round peg in a square hole, it is a square peg in a round hole.

Accordingly, the discovery of even a passably square peg in a reasonably squared hole becomes a matter of general interest. And if you read "meticulously" for "passably," and "glove-fitting" for "reasonably," you will begin to appreciate the suitability of Alfred Ernest Smith for the job of Chief Mechanical Engineer of the Victorian Railways. In his case, the man suits the job as well as the job suits the man.

Since April, 1919, the one-time Williamstown apprentice has carried out the work for which his training, his natural aptitude and his personal inclinations have particularly and collectively fitted him. Since September, 1883, actually; as all his preparatory work—from his first day in the railway service, and from his appointment as assistant engineer and engineer right up to his succession of Commissioner Shannon as Assistant C.M.E. in 1913, and full-blown C.M.E. six years later—has hinged on, rather been coupled to, the steam locomotive.

Birds-nesting never interested Alfred the schoolboy as much as engines. The allegation that he once took a donkey engine to bed with him is probably unfounded, but it is the sort of story that ought to be true. Marbles were a bore when there was enough material available to make a model of some sort. And it always had to be a model that would work.



This boyish pathway of toy trains and steam models and donkey engines and miniature railways led young Smith into the old Williamstown workshops. Loco. Superintendent Mirls was the Rolling Stock Branch chief at the time, and Manager Jackson ruled the shop with a velvet-gloved hand of iron. An apprentice fitter and turner, Smith passed into No. 5 erecting shop.

There were, by-the-by, two other notable members of the huge Smith clan in the offing just then. One was Allison, later Loco. Superintendent; the other, James Alexander, now one of Melbourne's best-known consulting

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Turning Deficit into Surplus

What Canada's National Railway Has Done

By WILLIS J. ABBOTT



SIR HENRY W. THORNTON, K.B.E.

WHEN the Canadian Government, in 1921 welded the Dominion's privately-owned railroads into the Canadian National Railways, the aggregate operating deficit of approximately £2,300,000 had brought them to the verge of bankruptcy and partial abandonment. Under state control and the presidency of Sir Henry W. Thornton, however, the financial tide began to turn, until, at the end of 1926, it had reached an operating surplus of approximately £9,600,000.

In this interview, which we publish by courtesy of the Christian Science Monitor, Boston, U.S.A., Sir Henry Thornton traces the growth to prosperity of the railway.

ACROSS Canada, from the chill and foggy shores of the Maritime Provinces to the genial and flowery clime of Vancouver extend the tracks of the Canadian National Railways—one of the world's greatest and thus far most successful examples of government ownership and operation of railways. States of Continental Europe and dominions in Australasia maintain their roads in governmental hands. In the former instance considerations of military expediency dictate the policy; in the latter, the need for giving railway service to sparsely settled regions as yet unable to support it.

Canada, however, embarked upon the adventure of government ownership and operation for a more prosaic reason. The private corporations which controlled most of the roads now welded into the Canadian National had been brought to the verge of bankruptcy. Just how it is needless now to discuss. But private ownership had produced a situation in which the very continuance of service was put in jeopardy, the great sections of the Dominion, settled under promise of continuing railway service, were on the point of being shut off from the world. A condition confronted the Dominion government before which theories were dumb.

Service and Loyalty

A year ago it was my good fortune to travel over the railway system which the Canadian government has erected upon the ruins of half a dozen privately organised lines. I found a service at least equal to that of the older and richer railways south of the international boundary. But more than that I discovered among the members of the operating force a degree of loyalty to their chiefs and pride in their organisation which could not be excelled.

More interesting was the sense of personal proprietorship expressed by people of the thriving towns of Canada in the nationally owned railroad. "It is our road," said an Edmonton man, "and of course we support it. We are proud of it, of the service it gives, and of the string of hotels it operates. It's our business to contribute to its prosperity, and we do."

This attitude was so different from the sentiment of antagonism to railways which constantly crops out in the smaller towns of the agricultural sections of the United States that I determined to seek out the intellectual force which had thus impressed upon employes and patrons of the road alike this sense of their common interest and proprietorship.

Sir Henry W. Thornton, K.B.E., president of the Canadian National Railways, is an American—an Indianian, in fact—developed and broadened by operating experience as head of the Great Eastern Railway of England during the trying days of the World War.

Conditions forced government ownership upon Canada, and accepting these conditions as they are, Sir Henry Thornton is making a success of a system which under other conditions he would not have considered adopting. His is the view of the pragmatist that if the theory works out in good results it must be justifiable. And in the case of the Canadian National, under his management, it is clearly thus working out.

"It is not my present job to discuss, defend or justify government ownership as an economic theory," he said to me. "The Government has the roads. It had to take them because they were bankrupt. Our present task is to see whether by reasonable co-operative work we can't keep the roads serviceable and make them profitable. Their former owners gave no promise of doing either. I certainly have not approached this task with any fear of failure. No army assured of defeat ever won a victory.

The Kernel of the Nut

"As a matter of fact, when you have said on the one hand that transportation has such a vital effect upon the progress and prosperity of a community that it should be in the hands of the state, and

on the other that the interjection of politics into a railroad system is sure to cause disaster, you have summarised the arguments on both sides.

"But quite as true as either of these statements is the assertion that a railroad must be able to meet its financial obligations, to furnish adequate transportation at reasonable rates, and to pay its employes that reasonable wage which will enable them to live in decency and comfort, and to bring up their children to be useful members of society.

"No one of these things could the railroads now grouped in the Canadian National System do when the government took them over. They could pay neither dividends nor interest, nor could they maintain their equipment or service. Great sections of Canada to which settlers had been attracted by the promise of railroad service were confronted by the danger of being shut off from markets and the centers of population.

Still a Business Concern

"In this emergency the government stepped in and took over the roads. But in a sense while state-owned they are not state-operated. I am responsible to one stockholder—the Dominion government—instead of to several thousand individual stockholders. But the roads are manned by railroad men, not by government employes owing their places to politics. Were it otherwise the results which have been attained would have been impossible. Let me give you a few of the evidences of real progress made under this method of railway management.

"In 1921, the year in which the various properties passed into the hands of the government, the lines now incorporated in the Canadian National system showed an operating deficit of 11,719,393 dollars (approximately £2,300,000). This has gradually been eliminated. Earnings have been so increased, and expenditure reduced, that the years from 1921 to 1926 have shown the following gratifying results :—

Operating Surplus		
1922	...	3,993,236 dol. (£800,000)
1923	...	21,187,462 dol. (£4,200,000)
1924	...	18,326,877 dol. (£3,800,000)
1925	...	33,433,298 dol. (£6,700,000)
1926	...	48,225,030 dol. (£9,600,000)

"This result has been attained despite certain reductions in freight rates and increases in wages running into millions of dollars, and the financial improvement has proceeded coincidently with steady betterments along the lines. Capital expenditures aggregating more than 200,000,000 dollars (£40,000,000) were needed during this period for branch line construction, improvements to the property, and new equipment. Here, of course, an inestimable advantage of government ownership was made apparent, for the new capital was readily obtainable on credit of the Dominion. It is probably no over-statement to say that except for the government aid the roads could not have been suitably equipped to handle the business which came to them.

"The period of this development began with the collapse of the war-time 'boom,' but showed, with the exception of a slight setback in 1924, a steady improvement in business conditions in our territory. We were enabled to take advantage of this condition by the government aid which was steadily forthcoming."

"Perhaps a little rough on your competitor which enjoyed no such aid," I hazarded.

Competition Not Cut-throat

"Well, of course, I am concerned chiefly with the road I manage, and am discussing that. But our only competitor, the Canadian Pacific, is solidly founded, prosperous and admirably managed. It can stand on its own bottom—as every enterprise essentially should. But, after all, it can only profit by the increasing prosperity of the government-owned roads. For if they were ill-equipped, impoverished, their employes dissatisfied, their service inadequate and slovenly, the whole country would suffer. Our competition is not cut-throat, and each road profits by the other's prosperity."

"Suppose, Sir Henry," I said "your railroad is brought to a high type of prosperity by the gradual development of its territory, and by efficient management—will the Government hold on to it, or will it be turned over to private ownership ?"

"Well, now, who can tell ?" he replied. "I think the progress we have made already shows that the Canadian National can in time be made a valuable, income-producing property for the Dominion. I can vision it paying interest on its obligations, dividends on the government-owned stock, and setting aside revenues for a sinking fund.

"It may be that such a position would be more dangerous than the present one which enforces upon us continuous and rigid economy. What I mean to imply is that such a condition as I have visualised might bring with it the danger of political exploitation.

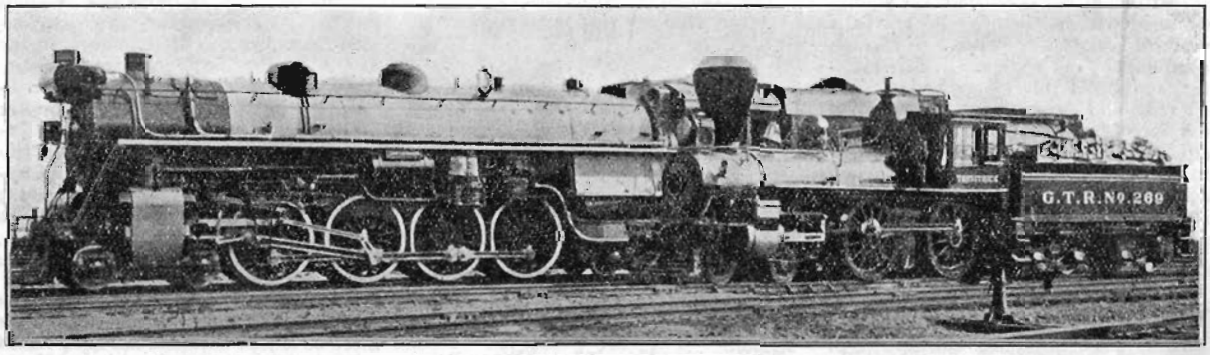
Protection of Public Opinion

"On the other hand, the gradual education of the people to recognition of the value of their state-owned railroads might produce a state of public opinion which would protect them against political interference—and against the covetousness of outside capital as well. For, of course, if the Canadian National became a valuable income-producing property, speculative persons would not let it rest quietly in government ownership, but would try to acquire it for private profit.

"However, I don't allow myself to look forward that far. My task is to build up the road, and with a loyal and efficient body of workers that is being accomplished.

"What I think of government ownership is of slight importance. Right now we have it ; we have to have it ; and we are making good, under it. But if you want to let your readers thresh it out for themselves, I would suggest to you the arguments pro and con which I offered in a recent speech.

Concluded on page 33



The oldest wood-burning engine in Canada alongside No. 6,100, the first of the largest passenger type engines in the British Empire

Training The Railway Apprentice

By RICHARD HUGHES



Apprentices at the V.R. Technical College

DOWN near the Newport station, fronted by green lawns and a well-kept garden, stands a neat brick building. A row of wide windows gives an impression of a well-lighted and airy interior. Over the glass door appear the words, "Victorian Railways Technical College."

Inside, the polished flooring of a wide passage sweeps past a bookcase and into a white-painted classroom. At desks sit a score or more of railway apprentices, frowning with the painful concentration of youth at the shrine of Knowledge. Most of them are without collars, some are in overalls, all have just left their jobs at the workshops to put in a few hours at the College.

In front of the class stands a young, white-coated instructor, who waves a piece of chalk in one hand as though conducting an orchestra. An even-flowing verbal tide of *x's* and *y's* and *z's* ebbs and flows about the heads of the intent apprentices. *X* squared is equal to something and minus *y* cubed to something else. Every now and again the piece of chalk is dabbed against the long blackboard and a complicated algebraical equation shapes itself to a neat conclusion.

The Young Idea of the railway technical world is acquiring knowledge. . . . .

And, these days, the acquisition of knowledge is a simple matter for the Victorian Railways apprentice. He

TO ensure an adequate supply of skilled artisans for all trades; to provide a selection of the most promising apprentices for graduation into positions on the executive and professional staffs; and to encourage the apprentices to take a thoughtful interest in their work, to develop initiative and pride of achievement, and to become useful members of the community——

Such are the ideas at the back of the system adopted by the Victorian Railways Commissioners for the training of the 140-odd apprentices who enter the service every year.

receives free tuition in hours of duty in a building erected and maintained at the expense of the Commissioners. Scholarships and prizes, free places at the University or the Workingmen's College are open to him. In addition, his fees at night technical school—which he is required to attend on two or three evenings a week for practical and theoretical trade instruction—are paid by the Commissioners, who also grant him free travel to and from the school.

He can study electrical or mechanical engineering and obtain his diploma, qualifying later, at the University, for his degree of Bachelor. Appointment as engineering assistant renders him eligible for promotion to the professional and administrative staffs. The solitary personal expense at the Technical College for the apprentice is the provision of his own books and drawing instruments. He gets this equipment at cost price, and it costs him something like £2 for the first year and 15s. for each of the other two years. Which is scarcely a heavy outlay for the foundation of a life career.

On the apprentice himself depends the progress which he makes, and the standard which he attains in his three years at the College. On entry, his educational qualifications grade him into a class appropriate to his leaving-school standard. If, for instance, he has a Junior Technical Intermediate certificate or University Leaving certificate, he is advanced to the Senior grade. If his qualifications are restricted to a Junior Technical Certificate or University Intermediate Certificate, he goes into the Intermediate grade. And if he has attended a Technical, High or Elementary school, but has no certificates to his credit, he passes into the Junior grade.

As a result of this grading, the standard of work performed by the more advanced students has been raised considerably. The slower apprentice is not handicapped by having to keep

pace with the faster lad. And the faster apprentice doesn't chafe while points with which he is thoroughly conversant are drilled into the slower student.

Syllabuses of work are detailed for the subjects in each grade, set out as far as possible on the same lines as those of the Education Department. Work unfinished in one year is carried on to the next before the higher grade is attempted.

Main subjects taught during the three-year course are mathematics, geometrical and mechanical drawing, and elementary science and applied mechanics. In the first grade of mathematics, arithmetic, mensuration and algebra form the *piece de resistance*. Most apprentices, of course, have already learned something of these subjects, and the Newport instructors demonstrate the practical use of this knowledge on the job, and its application to workshop problems. A step forward into the second grade introduces trigonometry, which is linked up with physics and mechanics as applied in particular to machine shop practice. Elementary calculus, connected with applied mechanics, falls to the lot of the higher grades.

Importance of Mechanical Drawing

Being the language of the workshop —and a language which the efficient workman must be able to write as well as read—mechanical drawing is a subject which looms large on the Railway College curriculum. Geometrical drawing is properly regarded as its basis, and the apprentice is weighted with as much knowledge of projections and geometrical development as he can carry. He learns to determine points and lines and surfaces. He acquires that very necessary but very elusive faculty of visualising from a cold, bare geometrical drawing an actual object in all its iron or steel virility. Then, with a mastery of the signs and symbols of working drawings, he tackles the sketching of simple machine parts, until he is able to face a complicated piece of machinery and transfer its shape and features to paper.

Mechanics, hydrostatics, heat, electricity and magnetism and a little chemistry pattern the fringe of elementary science through which the apprentice runs curious fingers. He learns, for instance, the principle of the vernier calipers. He is able to identify members of the micrometer screw gauge family. He studies the shop applications of levers and pulleys and screw jacks and similar lifting gear. Determination of the train of gears for screw-cutting and calculation of the speed of belts and pulleys and the horse-power transmitted by belting become comparatively simple tasks. Finally, he observes the effects of heat on various substances, and is taught how to arrive at the tractive effort of engines and how to compute loads on different grades.

Similarly, the course in applied mechanics covers a multitude of subjects. Material strengths, engineering properties, bending moments (this has no reference to corporal punishment in the class room), riveted joints, and shearing force and deflection of simply loaded beams are treated.

Principles underlying the working of locomotives, steam turbines and internal combustion engines are demonstrated in the study of Heat Engines. This touches on boilers and boiler mountings, operation of valves and valve gears, setting of valves, and management and lubrication of locomotive superheaters.

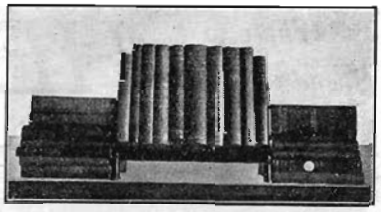
In the Shops

Supplementing this exhaustive technical training at the College is the patient and sympathetic attention given the apprentices at their actual work. They attend the College for a period of from six to eight hours per week, and the rest of their time is spent on various work in the shops. At Newport, for instance, the Assistant Workshops Manager personally supervises the work of the apprentices. He selects promising lads for special work, and sees that all apprentices are moved through the various departments. To illustrate, an apprentice fitter and turner generally makes up his five years' term as follows :—

Engine construction shop, 6 months ; engine repairs, 6 months ; motion benches, 3 months ; axle boxes and wheels, 3 months ; brake shop, 6 months ; lock shop, 3 months ; car and wagon shop, 3 months ; machine shop (milling, turning, slotting, shaping), 30 months.

Parents know exactly what progress their sons are making in class and in workshop. Terminal reports are regularly forwarded from the College, showing examination results, and candid opinions of the lad's instructors and foremen as to his aptitude in class and the standard of his work and behavior on duty.

These golden opportunities for success and rapid promotion are not restricted to metropolitan apprentices. The concessions and privileges offered at the Newport Technical College are reduplicated for Ballarat and Bendigo apprentices at the local Schools of Mines. At the end of last year's training, the Newport College had 395 apprentice students, the Ballarat School of Mines 26, and the Bendigo School of Mines 33.

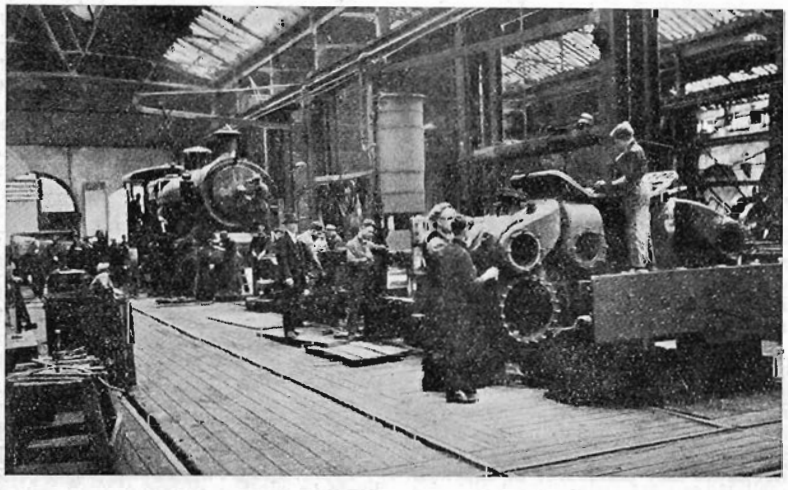


In three years, the apprentice has to master all these books thoroughly

Promising Boys are Attracted

As might be expected, the Commissioners' liberal policy of apprenticeship education has had the effect of attracting to the railway service the most promising talent in the ranks of boys just leaving Technical Schools. Of the 122 ex-Technical School students who entered the Victorian Railways College in June, 1927, only eight lacked technical certificates. In their recent report to the Commissioners the Board of Technical Inspectors who inspect the College every year, said : " It is very interesting to note that of the 103 students who enrolled in 1925, of whom 67.7 per cent. were from Technical Schools, 14.5 per cent.

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In the shops at Newport

Where to Spend a Holiday

HEALESVILLE

By JOHN DIX



Crowley's Gully, Meyer's Creek, Healesville

YOU can't judge a book by its cover. Neither can you judge Healesville by its tourist map. Superficially, an uninteresting conglomeration of names and marks, white spaces and faint hair lines, it is in actuality a guide, albeit a prosaic one, to some of the finest scenic country in the State. Which means, also, in the Commonwealth.

ITSELF, Healesville is shown as a black splodge. Nothing more. But concealed beneath that black splodge are sufficient comfortable hotels and guest houses to accommodate from eight to ten thousand visitors at the height of the holiday season, besides tennis courts, a 34-acre park, croquet lawns, bowling greens, swimming baths and golf links. Brooding over the sleeping ranges, snow-capped Mt. Donna Buang looks like a dark pimple. The shade, the scent, the gum trees and the song of birds and rippling waters which make Condon's Gully are represented by five-sixteenths of an inch of tiny lettering. The silvery expanse of the Maroondah Reservoir—a giant's mirror—is disguised as an irregular smudge. The sprawling ramparts of the Dividing Range show as attenuated fishbones. Mt. Juliet hides its beauty under an isolated speck. The music of Meyer's Falls seeks expression in a faint "i" dot.

Graceburn Weir, with its cool, sweet-smelling walk through a cathedral-like aisle of gums, tall-growing blackwood and straight-boled, towering blackbutts, is a pin-point and a name. Crouching on the shoulders of the blue-misted ranges, and staring eternally across the upper, middle and lower cascades of the Mathinna Falls, the bold shape of Mt. Monda is given all the prominence which seven-sixteenths of an inch of lettering bestows.

Malleson's Lookout, with its view across miles and miles of hills and greens and trees and mists to Mt. Macedon, leaning ponderously against the sky, is a terse label attached to a full stop.

So it is with the scores of other beauty spots on Healesville's tourist map. Exhaustive that map certainly is—mathematically precise, accurately drawn, scaled and planned. But mapping pen and Indian ink hardly suggest (nor could they reasonably be expected to suggest) the sunlit splendor and moonlit mystery of the bush tracks and mountain gullies of the famous holiday resort—that magnificent riot of scenery which has drawn artists like Patterson and Buvelot and Mather and R. Yaylor Ghee to the district, lured them into an attempt to limn the beauty of graceful gums and ferns, of purple sarsaparilla and vari-colored heath.

The tourist map is a hand that whisks the curtain of locality obscurity from the beautiful picture which is Healesville. It is a prosaic incentive to exploration.

And exploration knows no compass boundaries in Healesville. North, south, east and west, the same entrancing vistas beckon the holiday-maker. The nearer beauty spots are Condon's Gully, Echo Tunnel, Graceburn Weir, Maroondah Reservoir, Badger-river, Mt. Riddell, Badger-creek Weir and Meyer's Creek and Falls. Leisurely walking tours to all these spots can be covered between breakfast and tea-time or breakfast and lunch-time.

Longer trips are the ascent to Malleson's Lookout, and the climb over the Blacks' Spur to Narbethong and Marysville. The former is reached by following a winding ribbon of road, which

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Railway Schoolmaster

THIS month marks the fifth anniversary of the appointment of Mr. O. E. Nilsson, B.Sc., A.M.I.E. (Aust.), as principal of the Victorian Railways Technical College at Newport. Fair-haired and youngish, and looking more like an athlete than a college principal, he has thrown himself heart and soul into the business of educating young railwaymen, and to him personally is due much of the success which the college has achieved. He was loaned to the Railways department by the Director of the Education department, and took control of the College at its opening in March 1923, remaining in charge ever since. He has a staff of four instructors, including one railman, and to date 777 apprentices have passed through his hands.

A Budding Borotra



CHAMPION wielder of the racket in Head Office for 1927 is R. J. Ryan, telephonist in the Telegraph Branch. Only 19, the winner of the tournament plucked the title from 33 rivals. He eliminated Jim L'Hullier of Room 2 in a hard semi-final (9–7), and knocked out Barrow in the final (6–2, 3–6, 6–1). This is young Ryan's first big victory. At present he is not even a club player, although he is negotiating for inclusion in the Hampton club. Most of his previous tennis has been played in private games. The boy should go far.

Happy Jack

HAPPY JACK will again be the scene of the Bendigo guards and shunters' picnic, which comes off for the second time next month. And "Happy Jack" Dooley will again be the secretarial influence behind the outing. Jack pushes a pen in the Transportation offices at Bendigo, and no picnic ever had a harder working secretary. The success he helped to make of last year's picnic, and Bendigo's increased interest in the affair suggest that 1928's day out will be more memorable than 1927's. Which is saying a whole lot.

Migrated



TRANSPORTATION Branch has lost one of its crack shorthand writers, 23-year-old Eric Cook, having snapped up an affluent job on the Development and Migration Commission. A licensed shorthand writer and a confirmed 60-mile an-hour speedster with the pencil, he takes up secretarial duties with the Commission. His new job will entail as much travelling as shorthand.

Bill the Conqueror

THE two bandits, who aimed at getting away with £150 of Balaclava railway station's takings late one night last month, struck a snag—and a six-foot snag—when they tried to beat up big Bill Addicoat, who was alone in the booking office at the time of their arrival. Refusing to turn the other cheek, the hefty clerk met his assailants half way and a little bit further, and a confused tangle of legs and arms wrought havoc with the office furniture. Clapping a wrestling hold on one of his adversaries, while endeavoring to dodge the rain of blows from the other, Bill raised his voice in a stentorian shout for assistance. His vociferous shouts smote the ears of A.S.M. Bert Montgomery on the opposite platform, and a rescue party at once swarmed across, occasioning the hurried departure of one intruder and the capture of his considerably damaged confrere. "Nothing to it," said Bill with a grin. But Mr. Clapp thought otherwise and said so when General Superintendent Canny introduced the hero of the encounter and Mrs. Bill to him in his office a morning or so later.

Matrimonial Contract

SQUARE-JAWED Bill Hemming of the Advertising Division has scored many personal victories in the sale of carriage space, station hoardings and V.R. Magazine advertising, but he signed up the most attractive contract bill he ever handled a week or so ago. And that, despite a most unusual handicap of intense nervousness. Still the young lady to whom he broached the matter didn't mind his nervousness in the least. In fact, she rather liked it. And she duly signed up a life time contract with the overjoyed Bill, the preliminary agreement to be ratified before the altar on a date to be fixed.

Two More

ROLLING STOCK Branch has furnished two more benedicts in Arthur Houghton and Ralph Dunn. Former has been in the R.S. accounts office for several years, and Accountant Bustelli presented him with the staff's wedding gift of a clock and set of ash trays. As for Ralph Dunn, there couldn't be a more pronounced railway flavor about his engagement. He met Miss S. Bransby in the R.S. accounts office where she was employed for some time before transferring to the Powers division, and in the prosaic Head Office began the romance which culminated in the determined young man depriving the department of the services of one of its most capable Powers machinists.

Still a Fourth



FOURTH engagement of the month comes from Dal Bernard, of the Betterment and Publicity Board. Dal's job ought to make him a pretty useful sort of husband. He has travelled so extensively in Victoria that he should have no difficulty in selecting the honeymoon spot par excellence. Altogether, he has journeyed officially on a round dozen Reso trips, including the historic excursion into the heart of Australia. For a time in the crown solicitor's office, he came to the Betterment and Publicity Board in 1923, after passing through the Tourist Bureau and the Traffic, Transportation and Way and Works branches. He has the distinction, incidentally, of being the only Victorian railwayman,

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By AERIO

Tap the World

THIS remarkably simple plug—in short wave adapter, using no extra valves or batteries, has been evolved for use with the already popular V.R.I. 3, which, with this attachment, is capable of logging short-wave stations in every country in the world.

EVERY wireless enthusiast knows the V.R.I. 3 which, when first described in the June, July and August (1927) issues of this Magazine, created widespread interest, and incidentally entailed the writing of 450 letters to constructors of the set (many of them in other States) who bought out every "Polar" and "Lissen" book-condenser in Melbourne and Sydney at the time.

Now comes this cheap and simple short-wave adapter, which, it is predicted, will rival the parent set in popularity.

The re-broadcasts in Australia, during the past year, of such short-wave stations as K.D.K.A., America; P.C.J.J., Holland; and 5 S.W., England, have aroused in the ordinary listener a mild interest in what is generally accepted as a highly technical branch of wireless, requiring special skill and expensive apparatus, the results from which would, to the ordinary listener, hardly justify the outlay in time and hard cash.

This impression is quite wrong, and, in introducing this adapter, a brief discussion of short-wave work may be of interest to those who already have the V.R.I. 3 or contemplate its construction, but are not familiar with the wonderful possibilities attending reception far below the ordinary broadcast band.

Short-wave Morse

The foundation of short-wave work was undoubtedly laid by the DX work of the amateur pioneers, and with the technical knowledge now available regarding the behaviour of short waves, and the increased efficiency of transmitter, aerial and valve design, it has become possible under the necessary favorable conditions to exchange Morse signals with any part of the world, using the simplest type of receiver, and—mark this—the simple receiver is practically the only type that will work. Moreover one does not have to wait for darkness, as short waves, on one wave-band or another, can be picked up in daylight and darkness. It is therefore possible, provided you can read morse code at the very slow rate of 8 to 10 words per minute, to hear, in 24 hours, some stations in every country on earth.

Short Wave Telephony

Telephony (speech and music) is not so reliable or easy to tune in, requiring a little more skill in tuning, and good atmospheric conditions. A little practice with the same simple apparatus, however, will, with favorable conditions, yield astonishing results in long distance reception of telephony. Such short-wave stations as have already been re-broadcast use very high power, and, once logged on your receiver, their carrier waves can always be picked up, and on favorable occasions their transmission can be received with varying degrees of volume—sometimes on the loud speaker. Numerous amateur and commercial telephony transmissions in various parts of the world can be received from time to time at all hours of the day and night, the fascination of short wave reception lying in the uncertainty of what may be received every time you pick up the 'phones. Lists of 'phone and morse stations to look for, with notes on tuning, will be incorporated in a subsequent article.

Selectivity

One of the principal advantages of low-wavelength work is that static or atmospherics are not so much in evidence as on the long waves, and interference is reduced to a remarkable degree. Moving the condensers over a few degrees is a revelation of what can be done in the way of packing a large number of stations into a small band of wavelengths. The remarkable thing is that two or three stations may be had within one degree on the tuning dial without interference.

Aerial Efficiency

While a short, well insulated, vertical aerial (say 35 feet high) is best for short-wave reception, the ordinary back-yard aerial will yield results quite out of proportion to those obtained on the longer waves, and even with aerial and earth disconnected, stations as far distant as America and Japan can be received at respectable strength.

Concluded on page 36

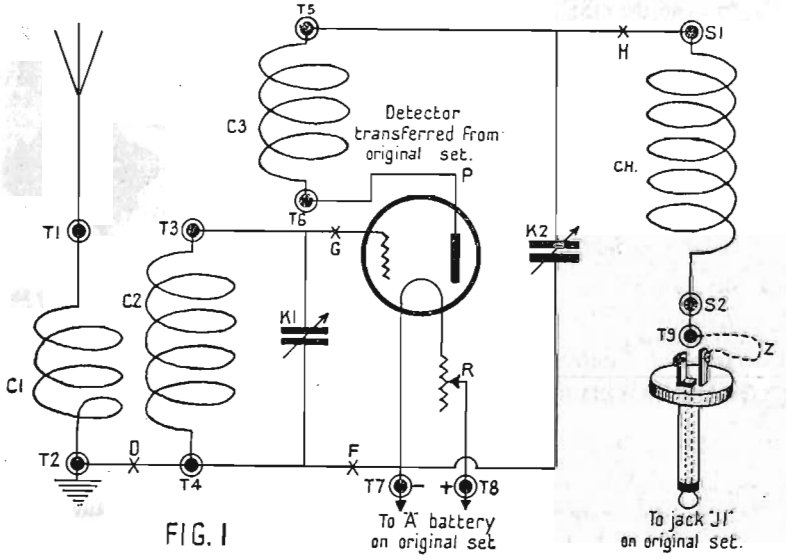
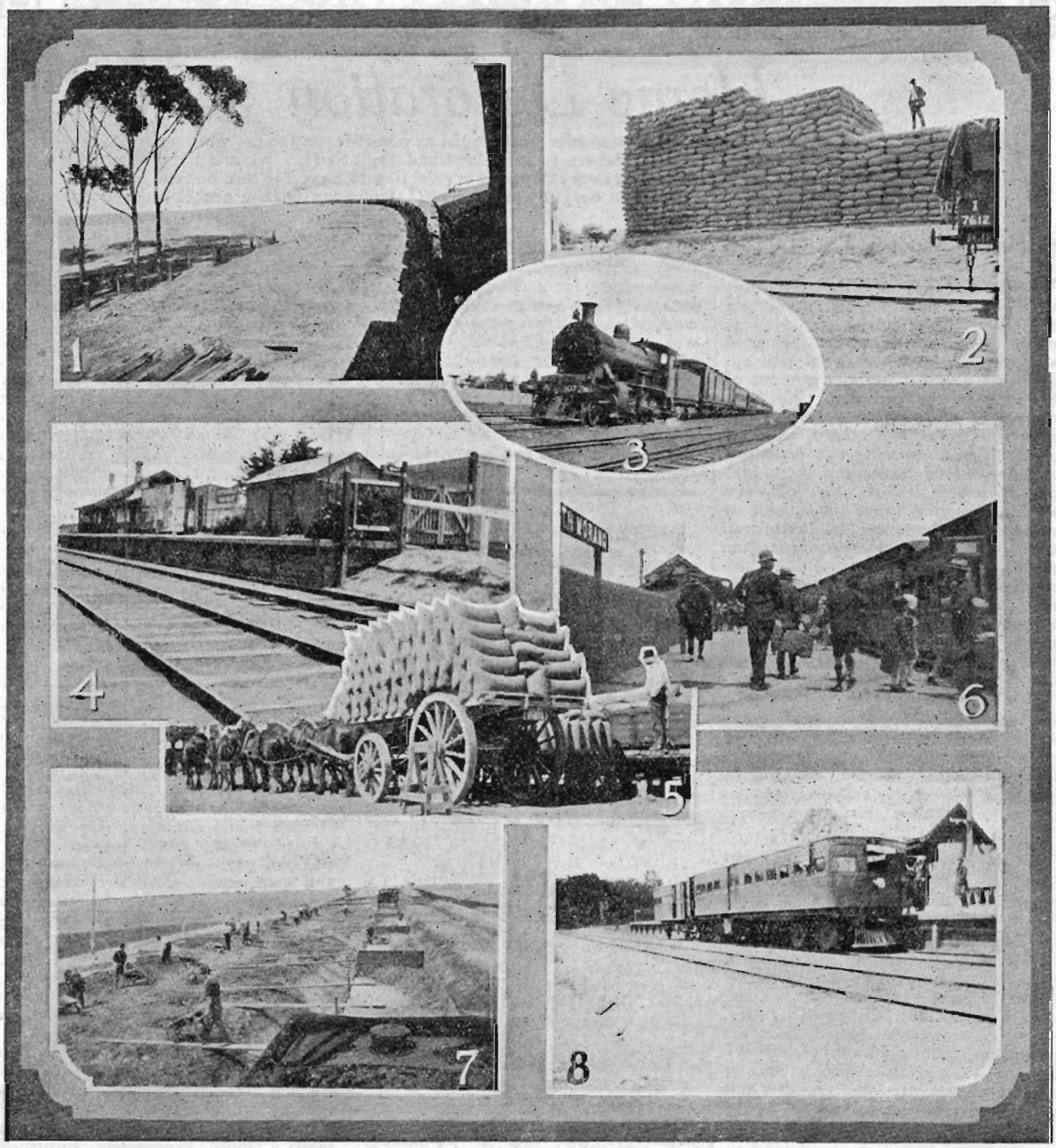


FIG. 1

Snaps Round The System

SENT IN BY CONTRIBUTORS



1.—The maximum length goods train—75 vehicles—possible on Victorian lines. The picture was taken on the Jung bank, near Murtoa

2—Wheat stack at Ellum

3.—The Reso train at Yarram

4.—Drysdale station

5.—Loading wheat at Kinnabulla

6.—Week-enders at South Morang

7.—Makinga new wheat siding at Detpa



Conducted by EILEEN, to whom all communications for this feature must be sent

Home Decoration

EVERY woman likes her home to be as nice and bright as possible, and every man appreciates a comfortable cheerful house to return to after his hard day's work. We are not all blessed with sufficient money to buy just everything we would like to have for our homes, but it is quite a simple matter to make a house bright and cheerful, and even with a small income to make it a real home.

IN furnishing our homes we should think of what each room means. The first essential in a bedroom is a restful atmosphere. In considering how color may best be employed to create this effect, remember that vivid shades are not good. As a rule you will find that very bright hues are out of harmony in the bedroom. We have the choice of soft greens, pale blues, pinks and greys, and mauve, with the possibilities of working out variations of these, or of combining them into colour chords. Blue, in soft sky shades, suggests the illimitable, is wonderfully clean, cool and alluring, and has a particular friendliness for white. White furniture and white muslins are delightful for a girl's bedroom, and, with soft blue walls, blue cushions and a blue bedspread, they give a peculiar satisfactory harmony of contrast.

Pinks, Greys and Greens

Then there are pinks and greys which blend exceptionally well. I have noticed some very charming looking rooms furnished in grey maple, and with pink rugs, cushions, and so on, which looked particularly pleasing.

Green has many advantages. It is fresh and soothing, provided the right shade be chosen. It harmonises equally well with dark wood or light, and is undoubtedly good for the eyes.

There are many dainty nick-nacks, quite simple for you to make, which help to finish the room. Colored feather dusters with fancy handles and ribbon bows, 1830 lady powder boxes, fancy pin trays, etc., help to give the room that feminine atmosphere. Dainty colored silk and tinsel fire screens of various shapes are also popular and pleasing to the eye.

Then the drawing room—this room should be snug and cheery, giving an air or comfort, refinement and ease.

You can not only double the distinction of the ornaments in a room, but you can make the dresses of yourself and your guests seem brighter and their complexions clearer and more delicate by having black for the fundamental color. I recently noticed a suggestion for a room of this type, and the advice was to stain the woodwork black, and have the deep chairs and sofa upholstered in black silk plush. The walls should then have light dove-grey or biscuit tonings; the carpet should be light, toning with the walls, with a motif of black with a bright color.

The room now needs a **vivid color** note, which should be introduced in cushions, lampshades, curtains and ornaments. Any amount of bright colored cushions should be used to suggest comfort in the room.

With such a definite scheme, simplicity to the point of sparseness is essential. For decoration you may have almost any kind of ornament, but you should keep to one kind. In a dove-grey toned room dull beaten silver is austere. Vivid cornflowers, roses, sweet peas, or some bright splash of color is needed; the result will be restful.

If you are the lucky possessor of good old china, don't introduce anything else. The beauty of Wedgewood, Doulton, or Dresden is too delicate to stand contrasts. Give it delicate old world flowers—sweet peas, lavender, roses, sweet William.

Books are Decorative

Books, too, with their bright red, blue, green and gilt bindings, set off by their black shelves, are decorative. They add a stabilising note to a room.

With such a bold, simple scheme, you can achieve distinction, cheer, and restfulness in a room at a far lower cost of money and energy than with more subtle, elaborate plans.

The kitchen should be always spick and span, and white is the ideal color for this room. The many conveniences of electricity and gas make it far easier to keep this portion of the house clean than in the days of fire stoves. Tiles, which are easily washed and cleaned, are used for the walls, and a fancy colored border or design introduces the decorative note.

Flowers, ferns and palms around a house make it fresh and cheerful, and a home may be furnished cheaply, but with an eye to these small details, and be far more comfortable and homelike than a more expensively furnished dwelling.



This is the time when girls are looking to their new season's evening frocks. The design illustrated is suitable for making up in chenille georgette, or floral georgette, and is particularly suited to the girl with a slim figure.

The evening cloak, as illustrated, looks very charming made in brocaded satin or velvet, trimmed with white fur and lined with a contrasting silk. This embraces the wrap-over principle so popular at the present time.

Lodger: "I'm going out to-night to see 'The Barber of Seville'."

Landlady: "Will you find out what he charges for ladies?"



Congratulations to Miss Dorothy Griffin, here pictured, who recently topped the list in the Victorian Railways Institute typewriting examinations. Miss Griffin is engaged in the Powers Machine division of the Accountancy Branch at Railways Head Office.

RAILWAY ENGAGEMENT

The engagement is announced of Miss F. C. Jamieson of the Railways Rolling Stock Branch to Mr. Gordon Peart of the Road Motor Services administrative office.

CORRECTION

Last month we congratulated Miss N. Stephens, typiste in the office of the Chief Engineer of Signals and Telegraphs, on having gained third place in the *Herald's* recent typing speed test for Victorian business girls. This month we learn that actually congratulations were due to her as runner-up in the competition, the test disclosing only one other girl in the State with more agile fingers. Incidentally, Miss Stephens had considerably less errors than the winner.

HOME HINTS

DO not leave knives in the washing-up water. The heat causes the handles to loosen, and the soda in the water discolors them.

TO remove marks from light-colored shoes, get some finely powdered French chalk, and rub some into the marks on the shoes. Leave for twenty-four hours, then rub off and clean the leather with some of the specially prepared cream which it is possible to buy at any shoe shop. Repeat this treatment if necessary.

WHEN dyeing material the best results are always obtained when the material is dyed a much deeper shade than the original. Pink dyes deep rose, rust maroon, red black or nigger brown best. The best plan is to get a small piece of pink material and to experiment with it until the shade required is obtained.

FINGER nails that are brittle and liable at any time to split or crack should be greased nightly with vaseline.

PEACH stains on linen, etc., may be easily removed by soaking the material in glycerine.

WHEN making apple jelly, add a few slices of beetroot to the apples while boiling—it improves the color.

Wife: "Mrs. Jones has another new hat."

Hubby: "Well, if she were as attractive as you are, my dear, she wouldn't have to depend so much upon the milliner."

Golfer (who has just tipped caddie): "That's for a drink, Angus, but I hope it will be a tee-total one."

Angus (with dignity): "Mr Br-r-own, a caddie ah may be, but ah'm no a tea-caddie."



A dainty 9ct. gold rectangular shaped Wristlet Watch with an engraved front. The movement is a high grade 15 jewelled Swiss lever, which is guaranteed for five years. Complete with a moire silk ribbon. Our price **£3-10-0**
(Others £2-10-0, £3 to £7-10-0)



Gent.'s high grade 15 jewelled Swiss Lever movement with a luminous dial. Fitted to a 10 year guaranteed gold filled case on a leather strap. Five years' written guarantee - - - **35/-**
(In solid Silver case 30/-)
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Books and New Books

Thumbnail Reviews by J. D. MICHIE

Trumpets of Jubilee.—By Constance Mayfield Rourke. This book gives the lives of five characters—Lyman Beecher, Harriet Beecher Stowe, Henry Ward Beecher, Horace Greeley, P. T. Barnum—and reveals the social history of America in their time.

Voices From My Garden.—By Marjorie Weatherly. This book is attractively produced. The authoress shows her love for the out-doors and the beauties that sanctify her garden. There is a fine piece of description in "The Finding of a Day," while the story, "The Millstone," is dramatic.

Messages.—By Ramon Fernandez, translated by Eric Sutton. Monsieur Fernandez is concerned with the problem of personality. Addressing those eager for an ideal in life, he points to the development and perfection of character, and for his inspiration and illustration, he goes to fiction.

Free for Ever.—By Honore Wilsee Morrow. This is a story about Abraham Lincoln from his arrival at White House until the signing of the decree of emancipation.

Young Anne.—By Dorothy Whipple. Youth is not happy. Let no one envy it. You stand on a peak of piled-up illusions, and then grope your way down until round about thirty you begin to make happiness out of what is. This is what Anne found out.

The Sower of the Wind.—By Richard Dehan. This author has produced many stories of striking merit, but she has accomplished nothing better than The Sower of the Wind. There is genius in the book.

Due Reckoning.—By Stephen McKenna. This novel depicts a profoundly moving and sincere situation. The story is distinguished by the confidence of its workmanship, the depth of its insight, and the indefinable air of good breeding, both literary and social.

A Cloudy Mirror.—By Adrian Heard. In the case of a woman who has sinned greatly, can the past be forgiven entirely, and if forgiven, can it ever be forgotten and ignored? The author faces the issue frankly, and, although he is never didactic, the fact that Anita does not find happiness suggests her answer.

Training the Railway Apprentice (*Cont. from page 21*)

from High Schools, and 18.5 per cent. from Primary Schools, 78 will complete this year the full three years' course without repeating the work of any particular year. Of these 78, 83.3 per cent. are Technical School boys, 11.5 per cent. High School, and 5.2 per cent. Primary School."

And, as to the final result of the V.R. Technical College training, no one is more fitted to speak than the Principal of the College, Mr. O. E. Nilsson, B.Sc., A.M.I.E. (Aust.). Before the annual conference of the Technical Schools' Association of Victoria, some three or four months ago, he declared: "As a result of the improvement in the system of training, it might be mentioned that of the 44 lads who were the first to complete the course of training at the V.R. Technical College, and who finished their term of apprenticeship in 1926, nine have already demonstrated their ability for positions in the professional branch of the service, while a number of others have been given special work in the shops, and two, who were selected from a large number of applicants, have been loaned to the Commonwealth Railways for work on their locomotives at Darwin."

The proof of the pudding is always in the eating.

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Railwaymen in Sport

HEAD OFFICE TENNIS CHAMPIONSHIP

The first Annual Head Office Championship Tennis Tournament, which commenced on January 23 at the M.L.T.A. courts at Glen Iris, was brought to a successful conclusion on February 7, after some excellent and exciting tennis.

R. J. Ryan won the Singles Championship from 33 entrants, while A. W. and G. A. Cobham annexed the Doubles title from the 21 pairs who nominated for the event.

Several surprise results cropped up, prominent players who were expected to reach the final stages being eliminated by others of lesser renown.

Results

Singles Championship—Semi-Finals—Ryan d. L'Huillier, 9–7. Barrow d. Dempster, 9–5. **Final**—Ryan d. Barrow, 6–2, 3-6, 6–1.

Doubles Championship—Semi-Finals—Cobham–Cobham d. Ryan–Lewis, 9–3. Dempster–Black d. Barrow–O'Brien, 9–8. **Final**—Cobham–Cobham d. Dempster–Black, 6–1, 6–2.

The winners were presented with trophies by the Tournament Committee and thus became Head Office Champions for 1927. The doubles championship trophies were donated by Mr. R. J. Byers.

A feature of the tournament was the fine sportsmanship shown generally by competitors, and the excellent social spirit which prevailed throughout, which augurs well for the success of future tournaments.

The 1928 championships will be held during December of this year, and thenceforth during December of each year.

CRICKET COMPETITION

Great interest is being shown in the cricket competition games, and a keen struggle is expected for the final four. Newport Shops are well ahead at present, but at least five others appear about level on points, and with only a few matches left to play, there should be some exciting contests. Coburg broke the Association record score in their match against the Signalmen. In a shade over two hours they hit up 341 runs, Montgomery 107 not out being the chief scorer.

Grimshaw, of Loco., is doing fine work with the ball. In his last three games he has the fine figures of 7–11, 7–14 and 4–24.

Following are the leading teams :— Newport, Jolimont Yard, Way and Works, Loco., North Melbourne Yard and Coburg.

ARARAT RIFLE TEAM

Ararat Institute members have decided to form a rifle team with Mr. Dwight as Chairman and Vice-Captain, and Mr. H. Pope, an experienced rifleman and ex-captain of the Ararat Club, as Captain. Members hope the team will ultimately become a club.

HARRIERS' CLUB

The Harriers have at last come into their own, and have been defeated only once this year. Essendon, Y.M.C.A., Melbourne and Collingwood, are numbered amongst their victims, and they have now a fighting chance for the first four. All the active club members, with the exception of Jack Williams, started the season without any previous athletic experience, and in the circumstances their performances are full of merit.

Roy Read (Newport) and Sid Leamon (Jolimont) have been the outstanding performers to date, and with another season's experience behind them, should be able to hold their own in any company. Alan Chalmers (high jump), Tom Shatwell (pole vault), and Jack Gilchrist (hurdler) are rapidly improving, and are sure to put up some good performances before the season ends.

THE new range of shirt patterns is particularly suitable to wear with the lighter tones in suitings now being worn among the young men. Here are a few of our popular lines which can be obtained from any Pelaco retailer at the following prices :—

In serviceable, good quality material with several colored stripes and shades. The diamond effects and colored dot line styles are also popular. With two stiff collars to match **10/6d.**

Good quality covered ground twill in shades of fawn and blue and suggested self stripe. Two soft collars to match **11/6d.**

Pelaco Tobralco in various stripe designs and popular plain grounds with collar to match - - - - **12/6d.**



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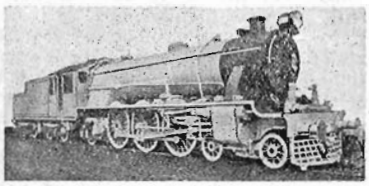
The new season's tonings in Luvisca are favored in the plain, colored and fancy colored grounds. Sell at - **21/-**

Lines from Other Lines

"Light" 4-6-2 Engine for Indian Railways—Prominent London S.M. retires—Virginian Railway builds new electric loco. Maintenance Shop—Travel in Soviet Trains—Rail Fords—L.N.E.R.'s £300,000 Yard Scheme—Orange Traffic through Vancouver

NEW PACIFIC ENGINE FOR INDIA.

THE first of a series, a new Pacific locomotive was recently built in England for the Indian State Railways It is a 4-6-2 "light" type for the 5 ft. 6 in. gauge. The design corresponds in all respects to repre-



sentative practices for modern locomotives built for main line passenger service, and specially adapted to the conditions ruling on Indian Railways. Commenting on the engine, the *Railway Gazette* points out that circumstances necessitate the equipping of the boiler with a wide firebox, wide and large grate area, for the reason that low-grade fuel is used; otherwise the boiler conforms in its general features to customary practice for locomotives used in this country. A locomotive of this class, developing a tractive effort of 28,335 lb. at 90 per cent. of the boiler pressure, provides a useful medium for handling passenger traffic, and as these particular engines are being distributed to three important railways in India, the circumstances in which they will work will be sufficiently varied to test out their capabilities and give results of a decisive character.

ENGLAND'S BUSIEST S.M. RETIRES

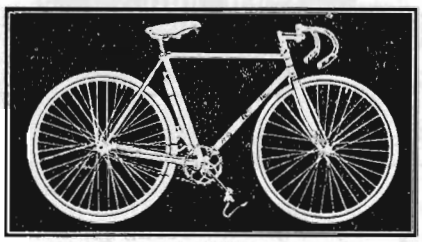
MR. W. J. JOSLIN, M.B.E., Station-master of England's busiest station — Liverpool-street, London, has recently retired, after serving the great Eastern Railway—now merged into the L.N.E.R. group—for 43 years. He knew every member of the Royal Family who travelled by train to Sandringham, personally. His recollections of the Duke and Duchess of York date from the day they went to Sandringham to ask the King's consent to their betrothal. Of that occasion he has a treasured momento in the shape of a photograph in which he appears with the Royal couple and the Duchess's parents, the Earl and Countess of Strathmore. Mr. Joslin's M.B.E. was awarded at the conclusion of the war in recognition of his efficient handling and despatch of war material, troops and ambulance trains. No fewer than 1,180 trains daily with additions to meet summer and holiday pressure now pass through Liverpool-street station while the ordinary daily total of passengers is about 280,000. About 80,000 season tickets are available at that station, while approximately 50,000 ordinary tickets are issued, every day.

MAINTENANCE OF ELECTRIC LOCOMOTIVES.

THE Virginian Railway, U.S.A., has recently erected a new modern shop for the maintenance and repair of electric locomotives, in connection with the electrification of 134 route miles of track. The shop is



situated at Mullens at the Western end of the electrified zone. This is one of the few instances that a complete new plant, designed for the purpose, has been constructed in connection with an electrification. The plant includes the shop proper, a storehouse, an oilhouse, a building for the sub-station and steam heating boiler, a water tank, a sanding tower, an outside inspection pit and locomotive storage tracks. The shop contains all the most modern appliances. The electrification of the line has proved most satisfactory. "Our experience has proved the wisdom of the expenditure," said the President of the Rail-



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road (Mr. C. H. Hicks). "The first eight months' operation, on a gross ton-mile basis, showed a 45 per cent. decrease in cost in favor of electric operation over steam."

FROM MOSCOW TO PEKING

A GLIMPSE of mid-winter travelling in North-Eastern Asia is given by a writer in a recent issue of the London *Daily Express*, who undertook a journey from Moscow to Peking. The train service controlled by the Russian Soviet, although leaving very much to be desired, has recovered almost to pre-war standard of running. Trains are keeping more or less to schedule time, and their make-up includes a restaurant car with good chefs and waiters, and the best of Russian cooking. The writer says :—

A time-table enclosed in bright yellow covers labelled "Direct communication with Europe and Asia" advertised in Moscow the departure of trains thrice weekly for all points in the Far East. This is a noteworthy Soviet achievement of the last two years.

You order your sleeping accommodation in advance, and risk the character of the man or woman (for in Russia the railways do not differentiate between the sexes) who will become your travelling companion for the journey.

The cost of the railway fare to Peking is approximately £40, with an additional charge for a sleeping berth, and, of course, for your meals. The train is the acme of comfort. It is made up of pre-war coaches, redecorated so that everything to the ceiling is shining with a glossy freshness.

On the following morning, however, the traveller received a rude shock when on walking from his sleeping car to the coach adjoining in search of breakfast, he learnt that the restaurant car had been taken off during the night owing to a broken axle. This meant that for ten days passengers were obliged to live as best they could by picking up whatever food was available at various stations *en route*. The Customs examination on the Soviet frontier is, it would seem, a never-to-be-forgotten experience; but, finally, the traveller is permitted to resume his journey "in the exquisite special train of the Chinese Eastern Railway—which, in less than half a day, lands you in that brightest little city in the Far East—Harbin."

FORD RAIL SEDANS

RAIL motor sedans are not the exclusive prerogative of the Victorian Railways. A recent issue of the D.T. and I. Railroad *News*



describes improvements which have been made to that company's rail Fords. Henry Ford, by the way, is president of the Detroit, Toledo and Ironton Railroad—to give it its full name. The line is largely used for Ford freight, both raw and manufactured, and has the reputation of being the most spick and span railroad in America. The improvements to the rail Fords include rubber cushion wheels, tubular front axles, a strengthened frame, a lower gear ratio, and special springs supporting the front axles. Four-wheel emergency brakes are now standard equipment on each car, as well as a four-tone, foot-operated siren, a heater, and special marker lights.

L.N.E.R.'s NEW MARSHALLING YARD

TO expedite the movement of heavy traffic, the London and North-Eastern Railway is now constructing, at a cost of £300,000, a large and up-to-date marshalling yard, at March, near Cambridge. It will be the biggest yard of its kind in England. Car retarders, which have been used so successfully in America, notably at the Markham Yards on the Illinois Central Railroad, are being installed. There will be 10 reception sidings, into which trains of 80 waggons each can be run direct from the main line, and 40 sorting sidings capable of holding 3,679 waggons. The new yard is expected to be completed by the end of this year.

BIG ORANGE FREIGHTS ON C.P.R.

RATHER more than four oranges for every man, woman and child in Canada, or a total of 482,000 boxes of this luscious fruit, were landed at the Canadian Pacific Railway pier at Vancouver during December, and were rushed through the prairie provinces and to the east of Canada for the Christmas trade. Seven special Canadian Pacific Railroad trains sped across Canada to convey this huge consignment. Most of the fruit came from Japan, and it is another indication of the great trade passing through the port of Vancouver.

"Who's the absent-minded one now?" said the professor in triumphant tones suddenly producing a couple of umbrellas from under his arm, as he and his wife were returning from church. "You forgot your umbrella, and I remembered not only mine, and yours as well."

His wife gazed blankly at them.

"But," said she, "neither of us brought one!"

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Healesville *Continued from page 22*

is unrolled in a south-easterly direction through timber country and over the musical Badger-creek, and, stretching upward with a multiplicity of folds and convolutions, passes beneath Wade's Lookout. Cutting through Fernshaw, the Main Road crawls tortuously over the wall of the Blacks' Spur to tip breathlessly past the slumbering bulk of Mt. Dom Dom and on to Marysville.

To make the round trip from Healesville to Ben Cairn and Donna Buang and through Warburton to Healesville again, the road to Malleson's Lookout is continued over the eminence of Toole-be-wong, through Don Gap and under the forbidding shape of Ben Cairn. An ascent here reveals an outlook of typical Healesville grandeur. Through Clark's Gap, the road continues to Donna Buang, then, twisting over Cement-creek, stretches south and west and south and meets the railhead at Warburton. The return to Healesville is made via Yarra Junction and Launching Place to Dalry-road.

Another lengthy excursion is the visit to Toolangi, via New Chum-road or Meyer's Creek-road, returning by the newly constructed Mt. Slide-road, with its four leaps over Dixon's creek.

Then there is the trip to Christmas Hills, five miles out from Yarra Glen . . .

The only drawback to a Healesville holiday is that there is never sufficient time to see twice all the beauty spots which are worth seeing twice. Because there's not one beauty spot in the Healesville district which is not worth seeing twice.

The Community Must Pay

Continued from page 14

whether now or in the future—the community as a whole must pay the cost of the service.

And the plain facts of the case are that, at present, the charges imposed for the railway services are inadequate to meet the cost of providing those services.

Railwaymen of the Month

Continued from page 23

besides the Chairman of Commissioners, to lunch with an American Admiral of the fleet on his flagship. When the Yankee warships were out here in 1925, Dal went down to get some information for the scheduling of the special rail tour for naval officers, and Admiral Coontz insisted kindly that he remain for lunch. Dal's friends suggest that he should return the compliment by insisting kindly that the Admiral attend his wedding.

Letter Sorting at 60 Miles an Hour

Continued from page 13

bundled into separate bags. The small registered mail bags were tied in bundles of ten.

On the shaking van floor, the sorters wrestled with the big bags. They grappled with them, strangled them with naked hands, choked them with tightly-drawn twine, hauled them bodily to the door and assembled them into a stack of bulging corpses.

Feverishly the men worked, spurred on by the thunder of the wheels and the rocking speed of the train. Suburban lights glinted through the windows. We were nearly home.

It was then that I first glimpsed some very familiar long envelopes. Fascinated, I stared at them, bent closer over them, studied the O.H.M.S. crest.

"Yes, they're income tax assessments," said Bill placidly. I rubbed my hands. "Oh, good! Quick now, before we stop. Let's have them across here. I'll open the window."

But Bill was conscientious. Too conscientious. The man in him was dominated by the official. "No," he said sorrowfully. "Really couldn't. We have to give those taxation letters special attention."

"Most people do," I said bitterly. "Still, have it your own way . . . ."

Voices sounded outside . . . We slackened, crawled, jarred to a halt. I moved round the pile of mail bags, dragged the door across and blinked out at Spencer-street. A brawny, bare-armed postal man addressed me hoarsely.

"Lemme get at them mail bags," he demanded. I let him.

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J. E. Pearse, Storeman, Oakleigh	1882	46 years
W. H. Oates, Station-master, Kensington	1885	43 years
J. S. Ross, Porter, Camberwell	1886	42 years
T. Crozier, Guard, Sale	1886	42 years
E. T. Loveluck, Goods Foreman, Melbourne	1887	41 years
T. Cain, Road Foreman, Shepparton	1887	41 years
F. Kelly, Goods Checker, Melbourne	1888	40 years
J. A. Nesbitt, Laborer, Melbourne	1889	39 years
J. A. L. Von Duve, Signalman, Newport	1888	39 years
T. Clementson, T.R. Checker, Block Office	1888	39 years
T. Sutherland, Guard, Flinders-street	1889	39 years
L. Brennan, Ganger, Benalla	1890	38 years
R. Cubbin, Ganger, Clifton Hill	1890	37 years
S. Worthington, Ganger, Goornong	1890	37 years
F. A. Foley, Repairer, Deer Park	1898	30 years
A. W. Austin, Goods Checker, Melbourne	1901	26 years
L. W. Gough, Repairer, Box Hill,	1912	16 years
W. Doyle, Puller Out, Moonee Ponds	1920	7 years

Turning Deficit into Surplus

Continued from page 19

Pro

" First—That railways play such an important part in the life and welfare of the community that they cannot be safely entrusted to private ownership, lest discrimination, injustice and various irregularities develop.

" Second—That under state ownership rates and fares can be fixed upon that scale which will best promote development and progress.

" Third—That, broadly speaking, a higher degree of justice will be accorded to communities and the public in general than under private ownership.

Con

" First—That state-owned and operated railways are inefficient, unprogressive and expensive, largely because of the impossibility of divorcing entirely the railway administration from the field of politics, and the feeling that officers and employes working for the state have less reason for initiative and industry than those who are employed by private corporations.

" Second—That in a democracy, the more that is left to private initiative the better.

" Third—That state ownership is a form of paternalism treading closely upon the heels of Socialism.

" After your readers have successfully harmonised these conflicting propositions, they may take up the ancient problems of the collision of an irresistible force with an immovable body, and whether the first hen laid, or was hatched from, the first egg. Academically and theoretically, the problem of government ownership and operation seems as hard as these to solve. Practically, we are solving it by the hard work and intelligent direction which are making the Canadian National serviceable to its territory and its patrons, and potentially valuable to the government that owns it."

THIRTY-FIVE YEARS AGO

EXTRACTS from the Victorian Railways *Gazette* on March 1, 1893 :

THE wheat traffic for the year so far is very satisfactory. Over one million bags have been trucked, and there are lying at stations for despatch about 825,000 bags.

REFRIGERATOR trucks have engaged much attention from the department. The ice cars formerly in use were too expensive, the cost of replenishing being very large. Taylor's refrigerating apparatus was introduced some months ago for the purpose of trial and likewise has not given satisfaction, principally in the item of economy. The louvre cars are now having a trial and it is believed they will answer the requirements of the service. The sides and ends of these cars are built on the Venetian shutter principle.

THE new line from Warracknabeal to Beulah has been opened for traffic. The distance is 22 miles, and there are stations at Lah, Brim and Galaquil. Only one train per day is run at present, connecting with the 6.50 p.m. down and returning at 1 p.m.

THE age of chivalry is not past, for our Commissioners have granted the privilege of half-fare tickets to married ladies, on production of a declaration from their husbands that they—the ladies—are not in business of any sort.

THE survey of the proposed line from Warragul to McDonald's track is nearly finished.

THE special trips arranged for Saturday afternoons have been very successful. The trains to Ferntree Gully last week conveyed nearly 700 passengers and the revenue derived was £57.

ONE morning last month, one of the light-fingered gentry was frustrated in an attempt to ply his nefarious calling at the Princes Bridge railway station. Immediately the Gippsland window was opened, he bustled forward as though he intended buying a ticket. Noticing his chance, he smartly put his hands in a passenger's pockets and withdrew from the window with the man's purse. In attempting to walk off, however, he was accosted by Porter Amor who, grasping him gently by the throat, demanded an explanation. None being forthcoming, he was given into custody. As showing the assurance of these gentry when being taken to gaol, he protested very strongly against the indignity of having to walk through the streets in custody, and requested the luxury of a cab. He walked, however.

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Jottings From The Institute

CLASSES BEGIN

EDUCATIONAL classes for 1928 commenced on Monday, January 30, and will be continued until November 24, with the exception of a week's recess between each of the four terms. A member attending classes may obtain, on application to the Head of his Branch, a free card pass (first or second class, according to Departmental status), available from the station nearest his home to Flinders-street and return. All classes are open to financial members of the Institute on payment of 1/- registration fee. Students are urged to join up without delay if they wish to be eligible to compete for "Harold W. Clapp," "Arthur E. Hyland" and Institute Prizes at the close of the educational year.

STATION ACCOUNTS CLASS

The Institute has inaugurated a Class of Instruction in Station Accounts for porters and other Transportation Branch employes who desire to qualify for promotion to operating porter. Employes in the country who enrol and are unable to attend will be given the necessary tuition by correspondence.

Examinations will be held at least twice each year, and certificates will be issued to those who attain the required standard. Non-members of the Institute and employes not enrolled in the class will be eligible for these examinations, but as systematic tuition must obviously enhance the prospects of passing, enrolment in the class is desirable. An employe to be eligible for the grade of operating porter must hold a telegraph certificate, and at least one safeworking certificate, and from September 1, 1928, preference for promotion to this grade will be given to those who, in addition to these qualifications, have passed the station accounts examination.

DEBATING SOCIETY

The first item on the syllabus for the current term, a chairmanship competition, was held on February 6th, and the honors of the evening were carried off by Mr. Richards, G.P. and F.A Branch.

The President (Mr. Hunt) who has been absent for some months owing to a serious accident, was welcomed back on this evening.

In the syllabus for this term are included debates, all forms of speeches, toast proposing, magazine articles, and a mock trial, and it is anticipated that inter-branch debating teams will be competing later in the year.

The intellectual and literary improvement of members, which was very noticeable towards the end of the previous term, was attributable to the efforts of the Coach, Mr. J. J. Sullivan, and the increasing membership and enthusiasm now being displayed are an assurance of the success of the Society.

NOVEMBER EXAM. PASSES

Last month, a pass-list for certain subjects at the November, 1927, examinations, was published. The following is the list for the remainder of the subjects taken :—

Bookkeeping—Grade 1

J. D. Broughton, Clerk, R.S. Branch, 85; G. T. Donoghue, Junior Clerk, Commonwealth Railways, 81; Frank Vince, Clerk, Advertising Branch, 80; B. C. Murphy, Clerk, R.S. Branch, 74; R. J. Davine, Junior Clerk, Melbourne Goods, 65.

Bookkeeping—Grade 2

J. McGrath, Junior Clerk, Workshops, Newport, 86; J. T. Haines, Clerk, Melbourne Goods, 80; R. A. Spencer, Junior Clerk, Stores Branch, 64; L. Cardiff, Clerk, Accounts Branch, 60; Arthur Allen, Junior Clerk, Construction Branch, 60.

Shorthand—Elementary Theory

J. J. Slattery, Junior Clerk, Workshops, Newport, 90; R. A. Meates, Junior Clerk, R.S. Branch, 89; C. T. Hansford, Junior Clerk, Melbourne Yard, 85; Miss R. Mulcahy, Education Department, 85; A. W. Blair, Junior Clerk, Melbourne Goods, 84; W. A. Hinchcliffe, Junior Clerk, Parcels Office, Ararat, 80; J. E. Einsiedel, Junior Clerk, Audit Branch, 80; N. J. Bear, Junior Clerk, Ballarat Goods, 76; R. G. Finch, Junior Clerk, R.S. Branch, Ararat, 75; E. J. Bryce, Messenger, V.R. Institute, Melbourne, 74; H. A. Tyson, Clerk, Ballarat, 71.

Shorthand—Advanced Theory

R. Tucket, Junior Clerk, Construction Branch, 96; F. H. Berry, Lad Messenger, Melbourne Goods, 94; E. W. P. Jones, Junior Clerk, R.S. Branch, North Melbourne, 85; A. W. Jaensch, Junior Clerk, Loco, Seymour, 82; Miss E. Jackson, V.R. Institute, Melbourne, 79; A. R. Ray, Clerk, R.S. Branch, Ararat, 79; M. Harford, Junior Clerk, R.S. Branch, 78; D. A. Hawkins, Messenger, Electrical Branch, 75; F. R. Taylor, Junior Clerk, Loco., North Melbourne, 72; B. Hawes, Junior Clerk, Electrical Branch, 65.

Shorthand—Speed

R. J. Place, Clerk, Secretary's Branch, 180 w.p.m.; J. Aldred, Clerk, Secretary's Branch, 150; E. W. Sparks, Junior Clerk, Ballarat, 140; W. L. Gilbert, Junior Clerk, Ballarat, 130; L. I. Whitby, Junior Clerk, Audit Branch, 130; J. J. O'Connor, Junior Clerk, Signals Branch, 110; J. N. Garnet, Secretary's Office, 100; W. F. Thomas, Secretary's Branch, 100; Miss P. Muggridge, Accountancy Branch, 90; T. A. Fleming, Clerk, Williamstown Beach, 80; C. Conlon, Clerk, Transportation Branch, 80.

Typewriting

Miss D. Griffin, Accountancy Branch, 50 w.p.m.; W. G. Hassett, Acting Junior Clerk, Electrical Branch, 40; W. L. Gilbert, Junior Clerk, Ballarat, 40; K. Redpath, Junior Clerk, Construction Branch, 35; A. R. Ray, Clerk, Ararat, 35; E. W. Sparks, Junior Clerk, Ballarat, 35; P. C. Hale, Junior Clerk, Ballarat, 30; W. J. Welch, Junior Clerk, Ballarat, 25; P. G. Gleeson, Lad Laborer, Ballarat, 25; H. A. Tyson, Acting Clerk, Ballarat, 25; H. Harford, Junior Clerk, R.S. Branch, 25; J. F. McDonnell, Lad Laborer, North Melbourne, 25; E. W. P. Jones, Junior Clerk, North Melbourne, 25; D. A. Hawkins, Messenger, Electrical Branch, 25; N. J. Bear, Junior Clerk, Ballarat, 25; T. C. Curnow, Junior Clerk, Ballarat East, 25; F. Briggs, Junior Clerk, Stores Branch, 20; B. E. Casey, Lad Laborer, North Melbourne, 20; W. E. Paterson, Messenger, Secretary's Branch, 20; A. E. Lee, Messenger, Melbourne Goods, 20; F. W. Corrie, Junior Clerk, Stores Branch, 20; R. A. Meates, Junior Clerk, Rolling Stock Branch, 20; G. W. Maconachie, Lad Laborer, Newport, 20; L. A. Russell, Workshops, Newport, 20.

Safeworking

R. L. Foster, A.S.M., Bungaree, 66.

SUCCESS AT LAST! Australia Produces a DRY GIN
Better and Purer than the best Imported

Distilled under, and Guaranteed Pure, by the Commonwealth Govt.

Preston's Medicinal Dry Gin

Obtainable all leading Hotels and Licensed Grocers

6d. A NOBBLER WITH SQUASH 7d.

For a Hot Day Reviver:
PRESTON'S GIN AND SQUASH

Wholesale Distributors:
Alexander & Paterson, Melbourne; Hansen & Company, Melbourne

Have you eaten that apple to-day?

Good Eating or Cooking Apples; firm Pears or Mixed Cases; 7/- per bushel, 6 lbs. for 1/-.

Freight paid anywhere
Liberal discount on "10 case" lots

CAMPBELL BROS.
KILSYTH

WHAT THE INSTITUTE HAS DONE FOR ME

No. 9

Early Promotion in Sight



SEVEN certificates — from the humble telegraph brief to the more pretentious diploma of Assistant Station-master—have fluttered my way since I joined the Victorian Railways Institute.

I was a 17-year-old lad porter—and a supernumerary—when I fastened on to railway pay for the first time, early in 1922. I was 19 when I joined the Institute classes and got my head down to the science of dots and dashes. To-day I am 23 and hot on the trail of S.M. honors. These things have a habit of happening when you belong to the Institute.

My telegraph certificate came to light in February, 1924. Four months later I moved in among the permanents; the same month I passed the examination in Ticket Checker's duties; and a week or so later the doctor thought I was good enough for a qualification in Ambulance and First Aid work.

The technical side of train running—the all-important safeworking practice—was the next obstacle, and a pretty stiff obstacle too. Again the Institute instructors lent effective helping shoulders, and I scrambled over, to grab an Electric Staff certificate in one hand and a Double Line Block certificate in the other. Then, at the beginning of 1926, I made it three of a kind with the Staff and Ticket certificate.

Now the New Year has just brought my A.S.M's diploma.

And already my instructor is snapping impatient fingers as he leads me into the thicket of facts and jungle of knowledge which separate a felt hat from an S.M's cap.

A. H. NEAL,
Parcels Porter.

GYMNASIUM NOTES

Instructor Larry Copeland is optimistic regarding the prospects for 1928.

E. Hallet from the Dining Car Depot seems to thrive on punishment, and gives promise of developing into a first-class welter. D. M. McDonald, last year's inter-state representative, and R. G. Jennings of Newport, are now in the middle weights, and should materially strengthen a hitherto weak division.

W. Angell is a very consistent performer among the feathers, and some members of the special Schoolboys' Class are rapidly coming on. This class is proving very popular.

Wrestler Tom Bolger is one of Victoria's nominees for the Olympic Team, and by all accounts stands an excellent chance of selection.

His record of more than 60 consecutive victories stamps him as the outstanding wrestler of the Commonwealth.

Representative Railroaders

(*Continued from page 17*)

engineers and propounder of the big scheme to throw an 80-acre roof over the Jolimont yards.

Early impressions of apprentice Smith sketch a picture of a youth with a mechanical complex, a mania for crawling into the most uninviting recesses of engines, a habit of finding out things, a mind which absorbed technical information as blotting paper absorbs ink, and a partiality for a regrettable straw hat.

With a workshop reputation, Smith advanced into the drawing office. Followed the historic Speight-Syme duel, which led to departmental reorganisation and reduction of the drawing-office staff to the imposing total of one. Smith secured leave of absence (this was in 1889) and worked for a couple of months as fourth, fifth, or it might have been sixth, engineer on a steamer called the Wastwater, trading along the coast. Neptune was supplanted by Newport in November of 1889, and Smith was appointed draughtsman a year later.

His first big job cropped up in 1898 in the designing of new high-pressure boilers for Beyer and Peacock's venerable A class engines. So well, so Smithly was this work carried through, that, in 1900, the 33-year-oldster was designing Victoria's first DD engine. Then in 1907 he conceived his masterpiece, the A2, which still holds its own with the best of them. His other creations were a consolidated type engine which was never built, the C class, the K, the N, and now the handsome, sleek, powerful 'Pacific, which represents incidentally the Smith swan-song, a 190-ton swan-song. For next month he goes to England on retirement, never, he asserts, to look at another engine. Which assertion moves his friends to polite disagreement. They know him.

Artist and practical engineer look through his eyes when he bends over a locomotive blue print. The cleverness of his fingers matches his brain. His model of a steamship in the Melbourne Technological Museum is a gem of accurate engineering and perfect workmanship. And his model of Lord Forster's yacht "Yeulba," which he presented to the Royal Brighton Yacht Club, brought Lord Jellicoe down to inspect and admire.

Astronomy has always interested him. He made his own telescope, performing with typical thoroughness the hazardous grinding of the lenses—a job of infinite delicacy, the warmth of the hand alone is sufficient to disturb the focus.

And with this mechanical genius, A.E.S. combines the kindliest manner and the most unaffected personality. Retiring and unassuming, he is always easy of approach. He governs the branch with a light rein. He can be firm, but he has never been known to assume with any success an expression of severity.

As an administrator, A.E.S. never tempered justice with mercy. Invariably he tempered mercy with justice.

Bourdic's Skin Lotion.
For the relief of all kinds of Skin troubles :— such as Eczema (dry and moist), Hives, Herpes, Itch, Prickly Heat, Pimples, Acne, Freckles, &c. **Price: 2/6 per Bottle.**
B. G. LEWIS, Chemist,
BOURDIC'S PHARMACY,
98 Spencer St. (opp. Station), **Melbourne.**
Phone : Central 2475. Established 1886.

A BIG DISCOUNT
—Wm. F. Johns—
Consulting Optician
allows 15 per cent. discount to all Railway Employees
SEIZE THIS OPPORTUNITY, ring us today, and arrange to have your eyes tested.
WM. F. JOHNS
167 Collins Street
Auditorium Buildings (lift to 3rd floor)
'Phone Central **9904**

Wheel Centres
Axles - Tyres

For
RAILWAYS
and
TRAMWAYS

Vickers-
Commonwealth
Steel Products
Limited

WARATAH, N.S.W.

Contractors
to all
Australian
Railways

Steel Castings
Of all sizes and descriptions

Manganese Steel
For Points & Crossings

Majex Automatic Couplers

Agents :

FOR COUPLERS
Gilbert Lodge & Co., Ltd.

FOR ALL OTHER PRODUCTS
Howard Smith, Ltd.
Market St., Melb.

Wireless (*Continued from page 24*)

The Adapter

The short-wave adapter about to be described has been thoroughly tested under various conditions and can be confidently recommended. It is designed to stand on top of, or nearby, the V.R.I. 3 to which it is connected by means of a piece of flex and a plug inserted in Jack J1 on that set. The B406 detector is removed from the V.R.I. 3 and inserted in the adapter. No direct B. battery connection is made to the adapter, this power being supplied through the plug and flex. External connections are made from the adapter to the same A. battery supplying current to the V.R.I 3. It will therefore be seen that the change over from long to short waves is a simple operation occupying no more than a few seconds.

Apart from the coils, the adapter can be easily built in an hour. A certain amount of experimenting with the coils will be necessary to get a nicely balanced arrangement, and a special article in our next issue will be devoted to this portion of the job, which is, however, quite simple although very important to the efficient working of the set.

MATERIALS REQUIRED	s.	d.
Baseboard, 5½ in. x 9 in. ...	—	
Ebonite, 6 in. x 9 in. and 9 in. x 2 in.	3	6
Condenser, K1, 5 plate ...	9	6
Vernier dial for K1 ...	4	6
Condenser K2, Lissen book or ordinary .0005	10	6
Rheostat R., 30 ohm	2	6
Valve Socket	2	9
Single coil holder (Ch)	1	3
200 turn coil, mounted (Ch) ...	4	2
1 box of Igranic spring clip terminals	1	9
1 foot of single flex		3
4 oz. reel of No. 22 d.s.c. wire ...	2	0
No. 2 white celluloid	1	3
2 oz. bottle of Acetone	1	0
Busbar, screws, etc., say ...	1	1
	£2	6	0

The baseboard may consist of any thoroughly dry wood. The Vernier dial for K1 should be preferably an all-metal dial, but a composition dial will answer quite well. The main point about the dial is to see that there is no play in the gearing. A Lissen or Polar book condenser is very desirable at K2 if obtainable. (Please don't ask me where they can be obtained). Most of these condensers have already found their way into the hands of railwaymen. Alternatively, use an ordinary .0005 variable condenser and note that if an S.L.F. condenser is used a slightly longer panel will be required. The valve socket must be the same type as used in the existing set so that the detector valve can be used either in the set or the adapter. The Igranic spring clip terminals are put up in boxes of 10, but 9 only will be required.

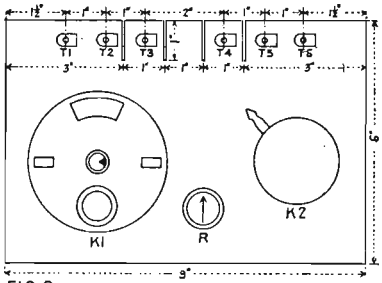


FIG. 2

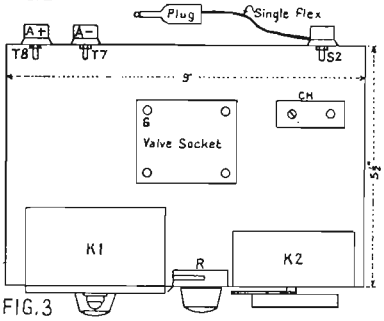


FIG. 3

The Lay-out

The layout is shown in Figs. 2 and 3. Note that saw-cuts are to be made in the panel on both sides of T3 and T4 for the purpose of isolating these terminals which carry the secondary coil. These cuts are one inch deep measured from the top of panel. Terminals S2, T7 and T8 are mounted on a terminal strip 9 in. x 2 in. On the diagram these are shown as clamp terminals, but, as you will have to purchase a box of Igranic clip terminals with which to hold the coils in position, several clip terminals will be to spare and these may be used.

(Wiring and construction next Month).





The Traralgon V.R.Institute, which, in December, was made a centre area, held its first Sunday picnic at the Latrobe River recently. The photograph shows some of the 300 picnickers who helped to make the outing an outstanding success.

March Holiday Bargain

A Week at The Chalet Mt. Buffalo National Park for £6-15-0

Week-end £4

(FRIDAY EVENING TO MONDAY)

Inclusive of First-Class Rail and Motor Travel from Melbourne and back, and meals en route

Escorted tours at the £6-15-0 rate leave Melbourne on MARCH 9 & 23

Book at

Govt. Tourist Bureau

Queen's Walk, Melbourne

(Opposite Town Hall)

V. R. MAGAZINE APPRECIATED

Dear Mr. Clapp,

I have greatly appreciated your kindness in arranging for me to receive the "Victorian Railways Magazine." I happen to know what it means to establish successfully and effectively a publication of this kind, and I may say that the effectiveness and energetic running of the Railways Magazine has struck me very forcibly. I am sure it must have proved a very important factor in establishing and maintaining unity of action and outlook, activity, energy and *esprit de corps* throughout your service. The latest number (January, 1928) strikes me as being just what was wanted for the New Year in its two front pages, with its photo "Off for the Holidays" on the left, and "Objections" on the right-hand page. Indeed I am so impressed by the "Objections" page that I am about to get it framed and have it hung up in our new Karitane Products Society's Factory, as an excellent message to the staff for the New Year. I can imagine that in the course of the last 20 years you must yourself have been strongly impressed from your own personal experience, with the universal applicability of Dr. Johnson's aphorism, quoted in the first paragraph: "Nothing will ever be attempted if all possible objections must be first overcome."

With many thanks for your many kindnesses, and every good wish for 1928.

Yours very sincerely,

(Sgd.) F. TRUBY KING

The Royal N.Z. Society for the Health of Women and Children,

Melrose,

Wellington, N.Z.

You owe something

to yourself, your family and your country.

You cannot expect your own future to be prosperous, if you do not give it some thought and planning. You cannot expect your family to exercise restraint and practise thrift, if you do not set the example.

You cannot reasonably demand that your country be governed with farsighted wisdom and economy, if you are not prepared to apply these principles to your own affairs.

Don't just be a miser—practise *thrift with purpose*, and practise it the easiest way.

Open a Savings Account at any Branch or Post Office Agency of the

Commonwealth Bank of Australia.

(Guaranteed by the Commonwealth Government)

Railway Users Say—

APPRECIATION AT BOX HILL

PLEASE accept and convey to the members of your staff our cordial season's greetings and our warmest appreciation of the courtesy and attention we have uniformly received from you all during the year now closing.
—S. Sampson and Co. "The Reporter," Box Hill, writing to the Stationmaster, Box Hill.

HEROIC FIRE-FIGHTERS

MAY I be permitted to express to you my admiration of the very successful work, heroically performed, by the railwaymen from the locomotive shed at a fire this day, which totally destroyed a house and contents. Two adjacent houses, 20 ft. and 11 ft. distant, were saved by the heroic efforts of the men, assisting the fire brigade, after the weatherboards of each house had been burnt through.
The railwaymen had their fire hose on the fire before the brigade arrived, and several of them persistently stuck to the work in the fierce heat until all danger was over. Property owners and spectators were loud in their praises of the magnificent work of the men.
—Mr. James Clancy, Cunningham-street, Benalla, writing to the Railways Commissioners.

LOST BAG FOUND

YESTERDAY evening my wife, who is lame, was travelling from Heidelberg to North Richmond. At Alphington she remembered that she had left her handbag containing money and ticket on a seat at Heidelberg. She left the train and telephoned me at home.
I went to the lost property office at Flinders-street and was advised to enquire at the caoin on the Princes Bridge platform. There I saw Head Porter Dando. He telephoned twice to Heidelberg and once to North Richmond. He then arranged with Alphington to send my wife on to town, and, promised to let me know if and when the bag turned up. He then passed us through the gates, after obtaining for me a refund on a ticket to Alphington which I had needlessly purchased.
All this was done most willingly and cheerfully in the midst of a busy period, and I am most grateful to him for his ready kindness. Throughout there was not a suggestion of fee or reward. In fact, he let me see indirectly, that none was expected.
The booking clerk at Alphington (Mr. Walsh, I think) when my wife explained the situation to him, lent her the twopence to telephone to me. He then asked Heidelberg to look for the bag and later saw her on to the Melbourne train. Mrs. Mills told me that he also was most kind. I recovered the bag today.
—Mr. C. Mills, 7 Elphin Grove, Hawthorn, writing to the Secretary for Railways.

ROAD COURTESY

DURING Xmas and New Year, I had occasion to travel by car as far as Belgrave.
I would be lacking in my duty as a decent citizen if I failed to express, through you, to the motormen in the service of the Department, my appreciation of their universal courtesy—road courtesy shall I call it—to all and sundry motorists who like myself used the roads.
Contrasted with other drivers along the route, their sense of fair play was most marked, and may I add, most deeply appreciated.
—Mr. S. J. Wilson, 479 Collins-street, Melbourne, writing to the Secretary for Railways.

PROMPT GOODS DELIVERY

I AM writing to express my thanks to the officers of your Department who so promptly delivered goods to me which I bought from Messrs. G. Russell and Co., Flinders-street. The job I wanted the goods for was finished before the next loading day for here, and that meant a good deal to me.
—Mr. A. H. Dowie, Junction Lodge, Carisbrook, writing to the Secretary for Railways.

WARRAGUL SERVICE COMMENDED

HAVING been obliged to travel to and from Melbourne to Bairnsdale on two recent occasions, and received every courtesy at the hands of the Railway staff, I should like to express my appreciation and added pleasure thus enjoyed. I wish particularly to mention the dining service provided at Warragul, where the Department possesses such commodious and well equipped Refreshment and Dining Rooms, spotlessly clean. An excellent meal, expeditiously served, at a most reasonable rate. The staff of waitresses is almost ideal. Although there are only twenty minutes allowed for dinner, there is ample time to enjoy the meal, largely owing to the efficient service.
World travel has fallen to my lot, but Warragul can, I think, hold its own against all comers.
—Mr. Will Gordon-Sprigg, "Wahroonga," Ridgeway-avenue, Kew, writing to the Secretary for Railways.

A CHARITABLE WORK

THE members of the Board of Management of this Hospital desire to express their appreciation of the splendid service rendered by the members of your staff who assisted in the installation of wireless throughout the Hospital.
Will you kindly convey our sincere thanks to every man who assisted in providing this great boon for patients, and our admiration of the wonderful organisation which made it possible to complete such an extensive work in one afternoon.
—Mr. A. G. Proudfoot, Chairman, Infectious Diseases Hospital, Fairfield, writing to the Secretary for Railways.

MAGAZINE APPRECIATION

I GUESS it is up to me and it's about time I thanked you for forwarding me the Magazine. I greatly appreciate it and I find it full of interest. Please accept my appreciation and thanks for what you have done. It is the best Magazine ever printed so far. My case is incomplete without it.
—Mr. W. J. Slack, Bannockburn, writing to the Secretary for Railways.

KINDNESS AND COURTESY

WE wish to express our deep gratitude for the unfailing kindness and courtesy we have received from you and your staff during the past year. Our position often prevents us from doing our business personally: hence we must depend on messengers who, we fear, might not always be as polite as we would wish. In spite of this, we have always received the greatest consideration, and we think the people of Wodonga are most fortunate in having such an obliging railway staff: it is a big asset in life.
—The Sisters of Mercy, Convent of Mercy, Wodonga, writing to the Stationmaster, Wodonga.

A. AND P. SOCIETY'S THANKS

THE President and Committee desire me to convey to you and your staff a special letter of thanks for the attention given to exhibitors of stock consigned by rail to our recent show. The completeness of your arrangements and prompt return of the stock, we feel sure, was as much appreciated by the exhibitors as by ourselves.
—Mr. C. S. Thompson, Secretary, Colac A. and P. Society, Norwich Chambers, Murray-street, Colac, writing to the Stationmaster, Colac.

COURTESY APPRECIATED

I WISH to place on record my appreciation of the courtesy of the Stationmaster at Queenscliff on Saturday, January 7.
While helping me out of an awkward position, his courtesy was unfailing through the bustle occasioned by the incoming of an excursion train and the outgoing of the Melbourne train.
—Mrs. D. Fisher, 10 Blessington-street, St. Kilda, writing to the Chairman of Railways Commissioners.

"CAN'T GIVE ENOUGH PRAISE"

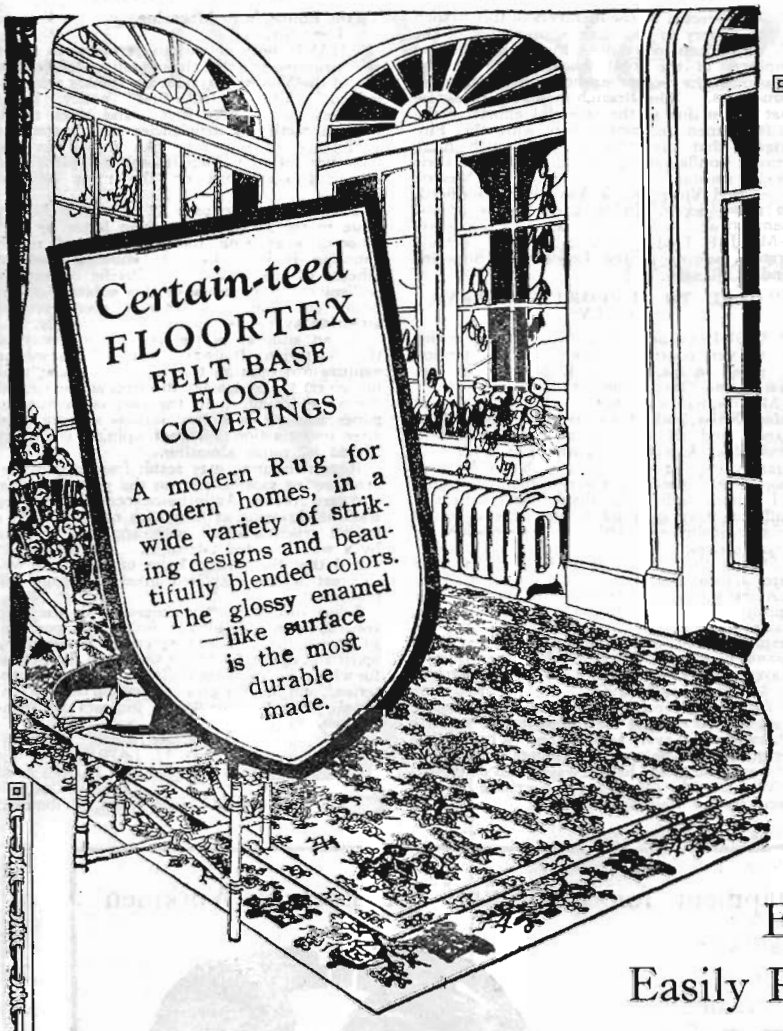
I AM thanking the engine driver, and mate, and also the porter for the kindness shown to me last Sunday at Warburton station. I and my friend can't give enough praise to them.
—Mrs. G. Woods, 30 Alder-street, Caulfield, writing to the Stationmaster, Warburton.
(The letter refers to the help given to Mrs. Woods in catching the 6.5 p.m. Up train on January 15).

PROMPT RETURN OF LOST BAG

A WEEK ago on my way to the seaside with my family I had the misfortune to leave my hand bag containing a sum of money on a seat on the Brunswick station. On arriving at Royal Park I missed it. On enquiring immediately, I am very pleased to say, by the prompt and honest action of Mr.

(Concluded on page 40)

For all
Bronchial Troubles
Take
TUSSO
MELBOURNE'S BEST
COUGH MIXTURE
"A Dose in Time Saves Nine"
Gardiner & McMullin
(In Business for Your Health)
Chemists
276 Flinders-st. (opp. Elizabeth-st. Entrance to Flinders-st. Station)
Spencer-street Railway Station
287 High-street, Northcote
627 High-street, Croxton
210 Victoria-st., North Melbourne



Sizes and Prices

6 x 9 ft.–35/-

7½ x 9 ft.–42/6

9 x 9 ft.–50/-

9 x 10½ ft.–57/6

9 x 12 ft.–65/-

Easily Laid
Easily Cleaned
Easily Paid For

TO the readers of the Magazine we are offering this month the newest and most up-to-date in floor coverings.

The glossy surface and the artistic designs in all fashionable colors are unequalled, and the laborious polishing, which is necessary on ordinary linos and squares, is eliminated.

The outstanding feature of our offer is a money back guarantee if you are not entirely satisfied.

Send us a card and we will mail you a range of designs and colours for your approval.

Freight paid on all Cash Orders and Terms arranged with pleasure.

Country Customers when calling take the Train to Seddon Railway Station
Electric Trams stop at the door.

The Victoria Furnishing Co. Pty. Ltd.

121 *Victoria Street, Footscray*

George Hanley, porter at Brunswick, who had handed it in to the Stationmaster, I was soon in possession of it again. I feel so grateful to this young man that I would, therefore, like to convey my thanks to him through you, as the contents of the bag would have been a big loss to me.

—Mrs. F. J. Kent, 83 Victoria-street, West Brunswick, writing to the Chairman of Railways Commissioners.

COURTESY

I WOULD like to express my gratitude towards Mr. S. Beer, Stationmaster at Windermere. I went there to meet my husband, and as I was a stranger in a strange land, I appreciate how he invited me in for a cup of tea, and afterwards motored me to meet my husband who was about two miles from Windermere on his way to meet me.

—Mrs. S. J. Thompson, Teddywaddy, via Charlton, writing to the Secretary for Railways.

SMART DESPATCH OF FRUIT

I FEEL that I must drop you a line thanking you for despatching two cases of fruit to me as promised yesterday. The first was picked between four and five o'clock, yesterday, delivered at Emerald station at 6.15 p.m. and picked up by my carrier at 10 p.m. at Camberwell and delivered at my house at Kew at 10.30 p.m. on the same day. I feel it my duty to recognise the efficiency of the railways, especially at such a busy holiday time.

—Mr. W. H. Griffin, 8 Tennyson-street, Kew, writing to the Stationmaster, Emerald.

COURTEOUS REFRESHMENT SERVICE

I HAVE sat at your table a good deal during the last few months, and I thought this would be a slight reminder that your ever-cheerful and courteous service, often under rush conditions, has been appreciated.

—Mr. W. Meagher, Commonwealth Electoral Office, Dandenong, writing to Miss M. McCarthy, Spencer-street Railway Refreshment Rooms.

FIRE FIGHTERS THANKED

I AM directed by the members of this Branch to convey to you their appreciation of the magnificent work done by the officers and employes of the local Loco. Sheds on the occasion of the recent disastrous fire in Cunningham-street. The Branch members recognise that it was due to the splendid efforts of the Railway men in conjunction with the Fire Brigade that prevented a very much more serious conflagration, and that but for their timely assistance the residences of Messrs. Curry and Vicary would have been sacrificed. So please accept the heartfelt thanks of our members who deeply appreciate your fine work.

—Mr. J. F. Dodd, Secretary, A.N.A., Benalla Branch, writing to the Locomotive Superintendent, Benalla.

"GLAD TO SUPPORT RAILWAYS ONLY"

I WOULD much like to bring to your notice the very courteous and considerate attention given to me by Mr. Kitto, the S.M. at Ararat, and Goods Shed staff.

My business was transferred to Barkly-street before Xmas, and a big consignment of players, pianos, and all sorts of musical goods was received at Ararat, when, owing to a hitch in arrangements in connection with the lease of shop, I was placed in a very difficult position.

I cannot sufficiently thank Mr. Kitto and staff for their splendid treatment, and feel I must acquaint you with my appreciation for their services.

During the years I have been in business here, I have always received best of attention at Ararat station. It is pleasing to mention that almost daily I have consignments of very fragile goods, often two or three lots twice daily, and despite the quantity I have not had even one record broken or damaged, but everything—players, pianos, records, rolls, etc., have arrived in A1 order and condition. In these days of fierce motor competition with the railways, I am glad to support the Railways only—where I have received every satisfaction. I have wired for goods with only a few minutes before train time and the goods have always been delivered.

—Mr. D. M. Low, Ararat, writing to the Secretary for Railways.

ROUGH SHUNTING

To the Editor, V.R. Magazine.

Dear Sir,

I HAVE noticed various articles in your magazine wherein the operating deficiencies of the Victorian system are frankly acknowledged. This "truth-first" policy is a corollary of "safety first" and does much towards rectifying deficiencies and creates the confidence of outsiders like myself in the endeavor of the Department to place the operating conditions on the most efficient basis.

The reference on page 11 of your February issue to the receipt of a chain letter by Mr. Thomas suggesting the avoidance of rough shunting is interesting, as showing that an officer of the Southern Pacific Company realises the importance of this subject, and is under the impression that it needs greater attention by railways authorities generally.

As an admirer of the general efficiency of the Victorian Railways, may I meantime venture the opinion that sufficient thought is not given to the damage to merchandise caused during shunting. In the case of cement in paper bags, it is a very serious amount, and after investigation I am of opinion is largely caused by rough shunting.

Rough shunting may result from a policy of economy or carelessness on the part of engine and yard crews. An instance recently witnessed was the throwing of four bags of chaff from a loaded truck covered with apparent security by a well fastened tarpaulin. My informant stated that the impact force of the truck was so great he was surprised greater damage did not result.

I feel sure it is only necessary for the men concerned to individually realise the position, to give effect to the splendid co-operative spirit and desire for better service to the public, for which the Victorian Railways are now characterised, and thereby greatly decrease the loss that rough shunting needlessly imposes on consignees.

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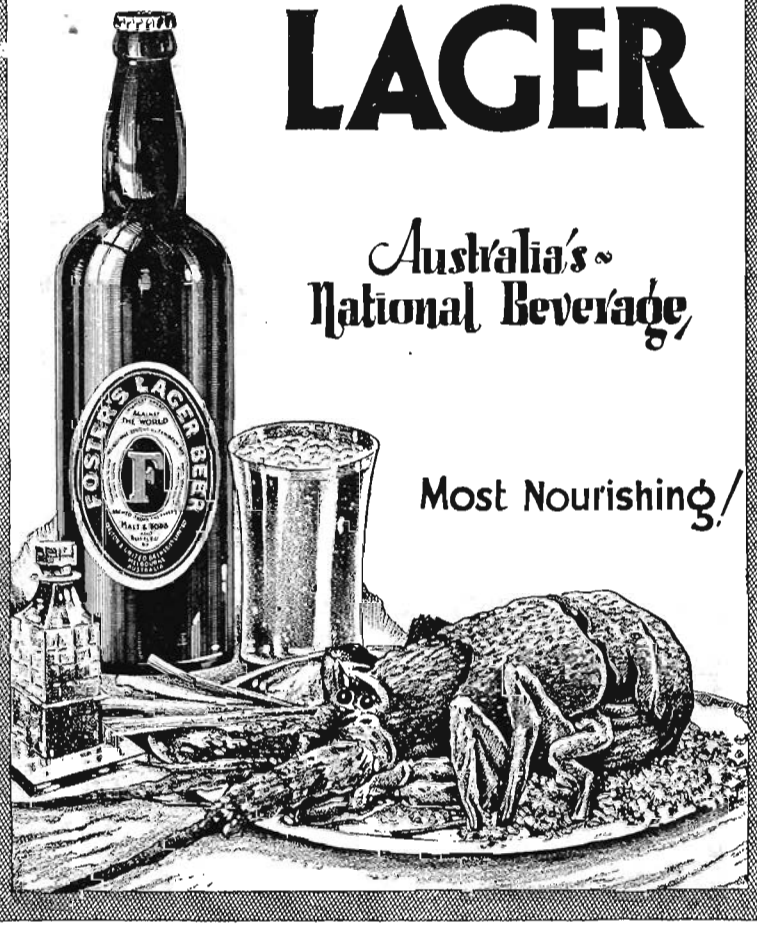
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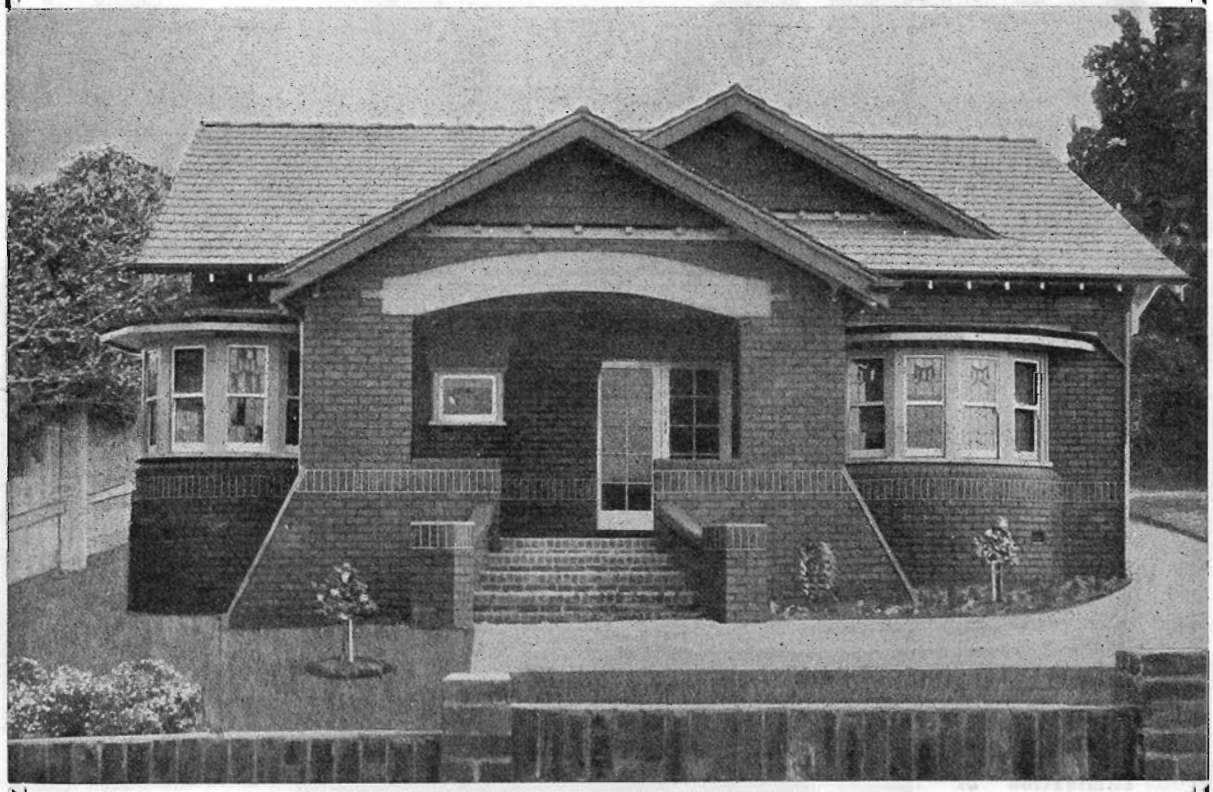
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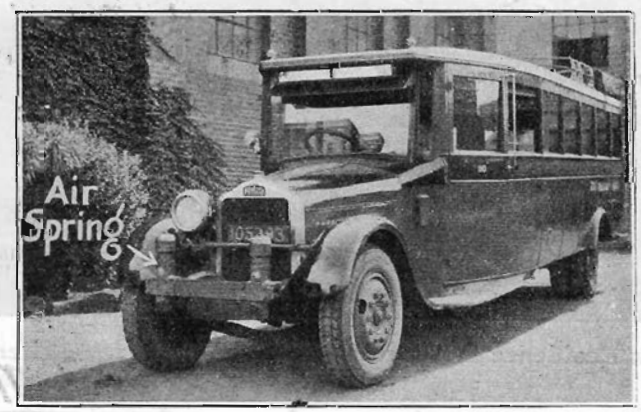
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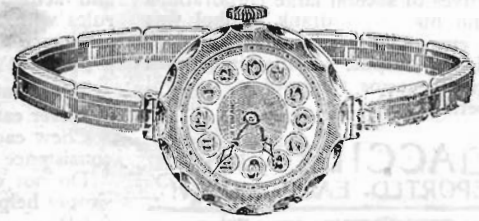
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SAFETY-HEALTH-BETTERMENT

SAFETY FIRST IN HEALTH No. 3—'WARE INTEMPERANCE!

By Dr. A. E. STENNING, M.B., B.S.

IN the third of a series of articles specially written for this page of the V.R. Magazine, Dr. Stenning points to the ill effects of intemperance—not merely intemperance in drinking, but intemperance in eating, in pleasure, and so on.

WE have dealt with exercise and worry. In this article we will deal with intemperance. Now, immediately there looms before you the image of a man who has imbibed too freely, but we are going to deal with intemperance in a larger way. There are many forms of Intemperance. They include :—Intemperance in drink, intemperance in food, intemperance in pleasure, etc.

Most of you probably realise that intemperance in drink is not conducive to good health. From our earliest infancy we have seen examples of men whose health has been seriously impaired by over-indulgence in alcohol. Particularly do we see it here in the north-west where the effects of alcohol are far reaching.

In this article I am not going to argue the pros and cons of alcohol as a beverage, but will simply say that alcohol is not necessary.

The human economy can get on quite well without it. Certainly over-indulgence in it will seriously affect the health of the individual.

While travelling through America, a few years ago, I was informed by the executives of several large corporations that no man who drank alcohol was given employment as it was found to impair his output. If that is so, and experience seems to prove it, we will do better work and maintain better health by leaving alcohol as a beverage alone.

In regard to intemperance in food, we are touching a subject which probably affects us all. For every man intemperate in drink, there may be a dozen intemperate in food. Perhaps you will be surprised at this, but a little experiment by you will probably prove it correct. Most people over-eat. For every person who dies from starvation in Australia there are thousands who die from over-eating. The human body requires a certain amount of food to keep it in health. That amount is largely exceeded in many cases, with the result that sooner or later various discomforts are felt and the person's health is impaired. Cut off a large part of your diet for a time and see the result. I have often experimented on a sparse diet and have been surprised at the result. Some time ago I was a member of a party on a trip to the Otway Ranges, when we ran out of food, and for nearly a fortnight we rationed ourselves on about a quarter of our usual allowance, with the result that we never felt better in our lives and actually put on weight. A few rules with regard to diet should be of assistance to all of us :—

Never OVER-EAT

Never eat when you are not hungry

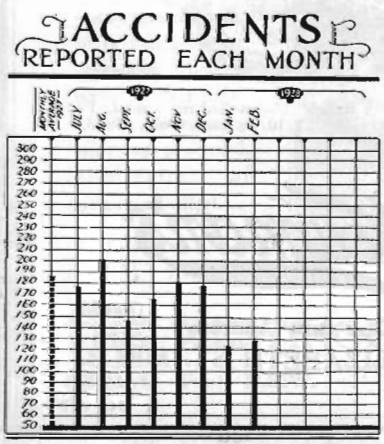
Never eat when you are exhausted

Chew each mouthful until it is of a consistence of thick cream

Do not drink fluids at meals—they simply help to push down an excess of food

Do not take an appetiser before meals.

Now for intemperance in pleasure. This is an age of pleasure, as witness the crowds rushing away on a Saturday afternoon for a week end in the country or at the seaside. Now this is quite right if the holiday is spent temperately, but in many cases it is not. The whole time is filled up with as much excitement as one can squeeze into it, with the result that it is well into the next week before one recovers from the fatigue of the week-end. I know because I have erred in the same way myself. I have been down to places like Lorne and have seen holiday-makers more fagged at the end of their holidays than when they started. Their daily programme was usually : rise about lunch-time, a little stroll to the beach during the afternoon, dancing in the evening until the wee hours, and so on day after day. Now that is what I mean by intemperance in pleasure. Take your pleasure quietly, and get the full benefit out of your week-ends and holidays. Get right into the bush and get into touch with nature and you will come back to your work refreshed in mind and body.



BENEFIT BY YOUR IDEAS

The following awards were made during February for adopted suggestions :—

Total amount ... £146
Highest award ... £20

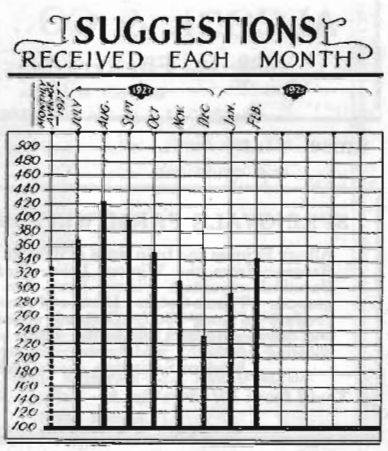
Arrangements now exist for the placing of adopted suggestions of particular merit before the Railways of the various States, and those of the Commonwealth and New Zealand.

APRIL SUGGESTIONS DRIVE

The subject chosen for the eighth suggestions drive, which will be held during April is :—

"How to save stationery"

Suggestions should be submitted to the Betterment and Publicity Board, Railways Head Offices, Melbourne, in the usual way.



The Olympic Team sails on May 1st.

ALONG with it goes T. P. (Tommy) Bolger, who is well-known to railwaymen as a wrestler of undoubted ability.

For three years Tommy has been undefeated, and in that time has won 69 contests. He richly deserves success at the Olympic games, for along with his quiet unassuming manner goes the determination to give of his best at all times.

Tommy will be judged not only on his performances on the mat, but also on his personal appearance when present at the various social functions arranged during his big tour.

Knowing this, Tommy is taking no risks, for he has entrusted Byers with the task of replenishing his wardrobe with all the necessary up-to-date clothes that will enable him to take his place among the best-dressed men on the other side.

Now we know that not only will T. P. Bolger bring credit upon himself and Australia in the ring, but in the streets and boulevards of the world his broad-shouldered well knit figure will cause admiration to be expressed for the faultless tailoring of Byers' clothes.

It is pleasing to note that so prominent a railway man decided to utilize the good services of such a tailor and mercer as R. J. Byers, who is known to all railwaymen.



For the benefit of those members of the Victorian Railways Welfare Society, special discounts are available, and new winter suitings are now being displayed at the city showrooms, situated over Stewart Dawson's, on the first floor, at their well-known corner of Collins and Swanston Streets.

Should you be unable to call just ring F2004, or drop a line and your wishes will be immediately attended to.



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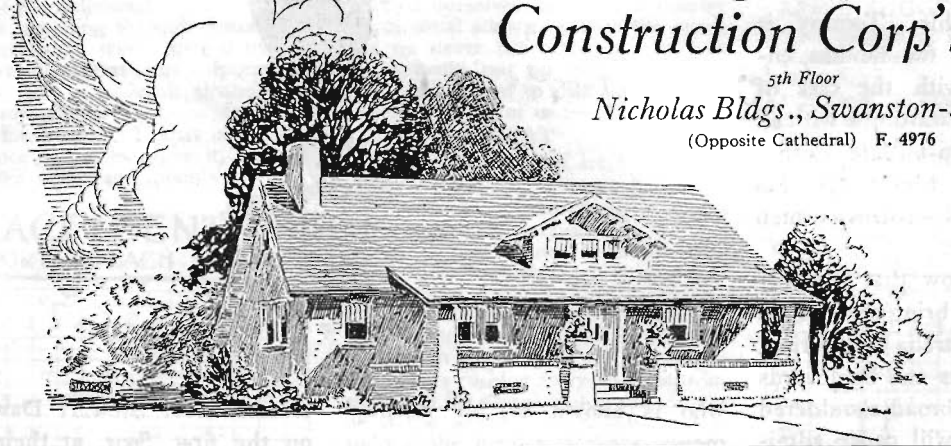
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Contributed articles, paragraphs, verse, and photographic prints (negatives are not required) must reach the Editor, care Betterment and Publicity Board, Railways Department, Spencer-street ('Phone Railways 393) not later than the 12th of each month. Correspondence relating thereto is carried free over the Railways.

Communications in regard to advertising should be addressed to the Manager, Railways Advertising Division, Savings Bank Buildings, corner of Spencer and Collins-streets, Melbourne ('Phone C. 6414 or Railways 139).

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Give Experts a Chance!

CIVILISATION with a wet towel round its head is trying to solve a transportation problem that affects its very vitals. Each year the urgency for working out the answer becomes more marked, while each successive stage in the solution becomes more difficult. The problem, of course, concerns the relative merits of road and rail.

Millions have been spent on railways and trains; fewer millions on roads and road-motors. Neither can possibly oust the other. That is agreed. But while the uses of each are being sorted out into ordered, economic spheres of usefulness, competition, duplication, inefficiency, waste and bad feeling—all the symptoms of transportation indigestion—are apparent.

And the trouble is that everybody is crowding round and giving advice. Transportation experts all over the world are bewildered by the clamor of transportation amateurs and sectional interests.

Here, in Victoria, we have the same thing. Experts, physician-like, are trying to treat this dyspepsia and improve the blood-circulation of the whole body, while the first-year students insist on prescribing for the development of the lungs at the expense of the heart, because they appear, at the moment, to be more efficient.

Suppose we let the experts get on unhampered with their job, and see what happens!



ON TRIAL

—Photo by W. Howieson

The Victorian Railways new Pacific locomotive about to begin a trial run. Standing behind the temporary shield are Mr. George Curtis, Engineer in charge of Tests (left), and Mr. T. Doyle, Engineer in charge of Rolling Stock Drawing Office where the engine was designed. Standing beside the engine is Mr. J. M. Ashworth, Asst. Chief Engineer of Way and Works.

TRIAL BY— ENGINEERS

By RICHARD HUGHES

WITH a limited load of 250 tons, S. 300 made its first revenue-producing run to Seymour on Monday, March 19.

Incidentally, the trip was the Pacific locomotive's first trial run under working conditions. Ten weeks of strenuous trials will follow.

A WISP of black smoke flattened against its cab, S. 300 rumbled round the curve past the sprawling storehouses of the New Zealand Loan into Kensington. Beside it on the red brick wall that swept along near enough to touch, a bold clear cut shadow raced—a shadow with an aggressive funnel crouching behind a huge headlight, and set on a menacing squat-shouldered smoke box.

His light, grease-stained overcoat whipping behind him in the wind, Engineer Edgar Brownbill crawled from the mammoth curve of the smoke-box into the comparative shelter of the closed-in railing which flung a protecting bulwark waist-high round the front of the locomotive. He had a little blue cap pulled down on the side of his head like a tennis player's beret, and his eyes were expressionless behind big goggles. He was a cross between Jean Borotra and Bert Hinkler. He grinned at me, standing mascot fashion under the headlight with my right hand twined round the smooth locking handle. I was having trouble with driver Ted Burnell's overall coat. He had lent it to me to wear until we reached Seymour. A trifle on the large size, its tails were displaying a boisterous tendency to coil about my neck. However, with commendable stoicism, I nodded a careless affirmative when Brownbill screamed "all right?"

Glitter of Steel

Down at my feet, Arthur Burrows, the second testing engineer, crouched in the corner over a neat wooden box. His fair hair was whisked straight back from his forehead. He frowned over the steel instruments which glittered in the box. He shouted something to Brownbill, and the two conferred at the top of their voices.

Ahead, the two shining rails and the prone procession of sleepers hurled themselves eternally under the thundering wheels of the engine. The overhead cables seemed to lower as we passed as though to brush the funnel.

Skimming the metal ballast, the blunt nose of the cow-catcher bored its way forward like the bows of a destroyer. The heavy automatic coupling gear pressed ponderously against it like an anchor. Instinctively I looked for creaming billows on either side. . . .

Instead a city bound electric roared by in a clamor of speed and tumult of thundering wheels. From a tiny model a mile away, it developed with a rush into a tornado, a thunderbolt . . . . It rocked past with a maniacal screech.

Proudly S. 300's chime whistle defied electricity and all things electrical. . .

At Essendon we slowed down while a couple of overhead gangs moved aside. Hands and two long ladders were waved as we passed. The Pacific girded itself confidently for the stiff climb over Oliver's bank.

Electro-plated Finger

Engineer Brownbill beckoned me. I picked my way cautiously along the trembling footplate and followed him round to the side of the smoke-box. He pointed to the edge of the footplate, where a neat, polished instrument gleamed in the sun. A glittering cylinder like an electro-plated nine-inch finger pointed upwards. From one side jutted a tiny pencil; from the other, a fragile support for a small drum from which dangled a homely piece of string. Close by, a lengthy rod with an upright arm moved continually backwards and forwards on the footplate in time to the monotonous throb-throb-throb of the cylinder underneath.

"Crosby steam indicator!" Brownbill cupped his hands to his mouth as we roared under a bridge. "We'll take diagrams on that as we run to Seymour. Arthur Burrows has one on the other side cylinder too. Later on—when we're coming home, most likely—I'll take mine off this side cylinder and fix it to the centre one."

"'S the idea?" I roared.

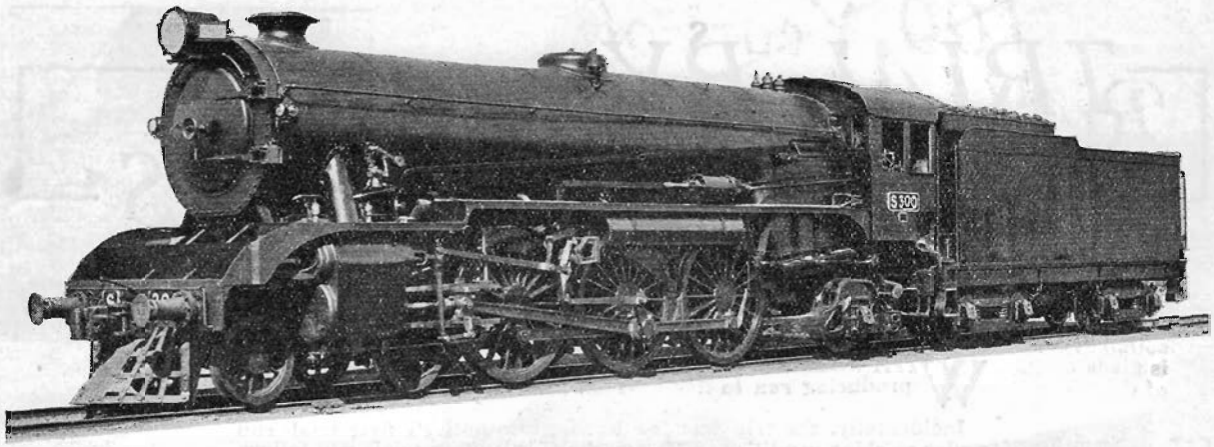
"Called the indicator test." Brownbill screamed. "Shows how our valves are working. Front and back. The diagrams help us to get the horsepower of the engine. Show us the pressure and travel in the cylinders. Give us the valve setting, inlet pressure and lots of other things."

Carefully, the goggled engineer tucked a strip of stiff paper round the drum of the indicator. I hung my head and shoulders over the protecting rail to see better. The chime whistle "popped" thrice. Brownbill hooked the loose end of string on the drum over the upright arm which was travelling backwards and forwards on the long rod. The movement set the papered drum in sedate motion. It revolved once, was released and swung back, revolved again, was released, and so on. The tiny pencil touched the paper on the drum. The drum revolved twice against it. Brownbill turned a valve handle. Steam hissed from the shining barrel. The pencil moved up and down on the paper. The string was released, the paper was removed from the drum, and the test was over.

I had a look at the diagram. It was an irregular, very faint marking. If anything, it resembled a crudely drawn pair of feet—the kind of feet, chopped off at the ankles, which adorn chiropodists' advertisements. One was superimposed on the other, with its toes pointing to the other's heel, and its own heel resting on the other's toes.

Boots and Trouser-legs

I looked up to see Burrows clambering down from his side with the card diagram of the left-hand cylinder clutched between finger and thumb. He scrawled a few particulars on the back, slipped the diagram into his wooden box and crawled along with another card for the indicator drum. Brownbill's boots and trouser-legs, protruding from the other side of the smoke-box, showed that he was similarly engaged.



The latest photograph of S. 300, Victoria's new Pacific type locomotive—the largest and most powerful ever built south of the equator

Again, the three "pops" of the whistle sounded, and again the two engineers emerged with red faces and white cards.

"Thirteen mile post the next," Burrows bellowed to Brownbill as we bore down on Broadmeadows. He said "thirteen" at one end of the Broadmeadows platform and "next" at the other end. S. 300 was fairly in its stride now. It shook off overhead cables, and whisked its 250 tons of loading into a world of green rolling fields and grazing cattle. A hot sun was climbing higher and higher in the cloudless sky.

"Forty miles an hour is our limit," Burrows told me, as we gripped the front rail and faced the rushing torrent of the wind. "She's designed for 70 you know, but we've got to run her in like a motor car. First thousand miles, we take things quietly."

"She runs like a ball-bearing job, eh?" cried Brownbill, joining us, his remark more a statement of fact than a question. We nodded vigorously.

Tide of Technicalities

Then Burrows said something about the diagram cards, and the two engineers plunged into a technical argument. I was washed away on a tide of "cut-offs" and "atmospherics" and "compressions" and "exhausts" and "stroke measures." I glanced along the huge black body of the speeding giant into the window of the cab. George Curtis, the engineer in charge of the tests, leaned out of the side window, a pipe in his mouth, an old hat pulled down over his goggles, and a handkerchief fluttering round his neck. He looked a murderous bandit until he waved cheerily and smiled. He disappeared almost immediately, in response, I supposed, to some question from Ted Burnell or Gil. Nelson, who was firing. I got a hurried glimpse of Ted talking with his lips, eyebrows, hands and shoulders. . . . . the two hands and shoulders. . . . . .

At the 13 mile post, the two testing engineers took another indicator card each. Five miles further on, on a stiff gradient midway between Craigieburn and Donnybrook, they took their fourth.

"And we've got others at the 25½ mile post, the 28, 33 and 50½," Burrows told Brownbill.

I put it to them as man to man, "How do you read those diagrams?" I shouted.

They both plunged into explanations. I gathered that the heel of the foot showed whether the valves were "getting right compression," the curve of the instep whether the "expansion curve was approximating closely enough to the hyperbola," and the toe "how the exhaust is going."

Thick Ankle Popular

"If she is steaming well," amplified Brownbill, waving to a small assembly of 14 round-eyed children stacked on the top of the railway fence, "if she is steaming well, we want to see a good square toe, and if she's not steaming much, a slender pointed one."

"Then," chipped in Burrows, smiling, "we like thick ankles. A thick ankle shows that the valve is doing more work."

"And the bigger the foot the better," went on Brownbill. "The area enclosed is the measure of the stroke. Bigger the area, more work."

"Comparing the two feet on the one diagram," Burrows took up the tale again, "we always want to see the ankles the same width. The width of the ankle, you see, represents the opening for steam inlet in the cylinder. And, of course, the front valve opening should be the same as the back —."

"And that was the 25 post," interrupted Brownbill. "The next half-one is ours."

They moved along to anticipate the whistled signal.

We thundered through Beveridge, barely giving the S.M. time to wave a salute, and touched the trial speed limit on the straight, rolling run into Wallan. Back in the cab I could imagine Nelson shovelling for his life, Burnell watching the track with tight lips, and Engineer Curtis tightening here and examining there, keeping an anxious eye of responsibility on pressures, speeds, water levels, cut off points and coal consumption, ceaselessly recording and noting. We whistled headlong through Wallan, a cluster of railwaymen on the curved platform, and climbed with a heavy and relentless pounding. Another dip, a rush through a cutting, a leap across a level crossing and we were into and out of Heathcote Junction.

Outside Wandong, the engineers made their second last indicator test. And S. 300 ran slap into a swarm of flying ants. The insects pattered against the hot smoke-box of the engine, and, shrivelled and scorched, fell on to the footplate. One accurate ant struck me smartly in the open eye. As I groped with greasy fingers and smutty handkerchief for the corpse, I appreciated the sturdy good sense behind Brownbill's goggles. I took no active interest in the proceedings until the waves and cheers of Broadford's population were behind us.

A Ten-week Trial

And then with a wind-scorched face, bloodshot eye, nigger minstrel complexion, ruined collar and impossible hair, I glimpsed the silvery Goulburn ahead.

S. 300 shivered to a standstill in the Seymour yard. . . . . .

Brownbill flicked his indicator cards.

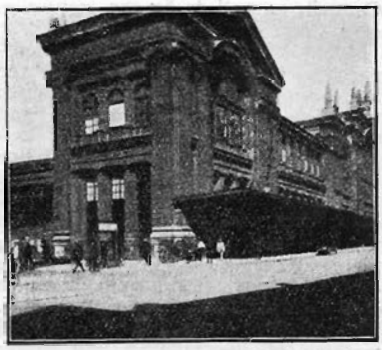
"Quite good, from a cursory glance," he observed. "Though only a mere handful of forerunners, of course. We've got 10 weeks of strenuous trials to come."

S. 300 whistled as it moved off towards the turntable. I'll swear there was a note of scorn in the chime.

100 Years of Railroading in France

By ARTHUR L. STEAD

A CENTURY ago, there was opened the first railway in France. It ran from St. Etienne to Andrezieux in the Department of Loire, a distance of 12 miles. Since then, other roads have been built, have prospered, have suffered grievous destruction and disorganisation through the greatest war in history, and have once again been placed on a comparatively sound footing. A brief outline of the history of French railroads is given by Mr. Stead in this article which we reprint by courtesy of the "New York Central Lines Magazine."



Gare du Nord, Paris

THE Saint Etienne and Andrezieux road was opened in 1827. It was a single-track line of 1.45 metres gauge, which is the standard gauge of the French roads today. With the gradual swallowing up of the smaller roads by the great systems that came into being as the years proceeded, however, the Saint Etienne and Andrezieux line inevitably disappeared as a separate undertaking. To-day the pioneer road forms part and parcel of that great transportation system, the Paris-Lyons-Mediterranean Railway.

The earliest French railroads were constructed by private enterprise under State concessions. In 1842 a change of policy was recorded whereby the government undertook to construct earthworks, bridges, stations and other works, for an elaborate system of railroads, which were to be equipped and operated by private companies under concessions providing for the ultimate reversion of the roads to the State. Out of this plan there were developed the six large railroad systems—the Northern, Eastern, Western, Southern, Paris-Orleans, and Paris-Lyons-Mediterranean companies. Interest on capital employed in new construction on these roads was guaranteed by the government, and the agreement was made that the undertakings should revert to the State at the end of ninety-nine years.

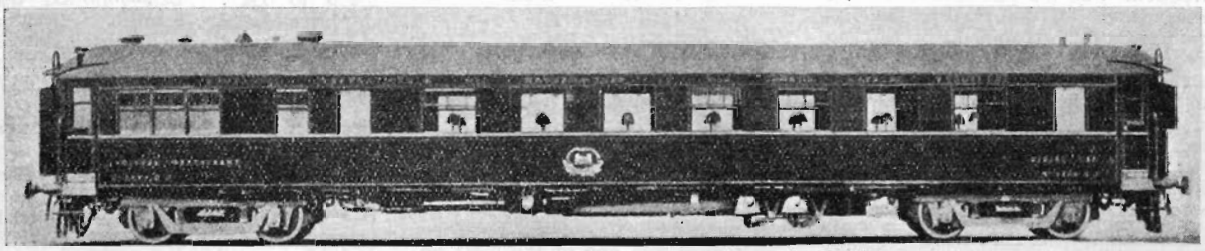
What is known as the State Railway System of France—an undertaking quite distinct from the private roads previously named—was acquired by the government in 1878, when 1,615 miles of track were purchased for 280 million francs, to which a further 225 million francs had to be added for the completion of the roads. The State Railways owed their birth to the financial embarrassment in which many of the smaller private roads found themselves at this period. The conditions of purchase were extremely onerous to the State from the financial viewpoint, but in view of the fact that the majority of the stockholders of the roads acquired were people of comparatively small means who had invested their life savings in the undertaking, the government wittingly undertook the heavy financial burden as an act of generosity. By the acquisition in 1909 of the Western Railway, the State Railways of France grew into a system of some 5,500 miles, and after a long period of depression, the undertaking now is prospering side by side with the five big private undertakings.

The P.-L.-M. Line

From the point of view of length, the leading railroad in France is the Paris-Lyons-Mediterranean Company, with some 6,000 miles of track. It serves the industrial centres of the Rhone Valley, the thriving seaport of Marseilles, and the exceedingly popular holiday haunts stretching along the coast of the azure Mediterranean. France's second largest private railroad is the Orleans Company, owning 5,000 miles of track, and linking Paris with the south-west. The Southern has about 2,500 miles of track, the Eastern 3,000 miles, and the Northern 2,500 miles. Although a comparatively short road, the Northern system is especially important, serving as it does the great industrial and coal-mining areas lying to the north of the French capital.

On the termination of the world war, to the successful conclusion of which the French railways made so important a contribution, the financial situation of the privately owned roads gave grave cause for concern, while enormous losses also were registered on the State Railways. The view has been expressed that a much better showing might have been made on both the private and State railroads if the government and the railway managements had tackled the problem of rehabilitation in somewhat more courageous fashion. The enormous losses in track and equipment suffered by the French roads during the war years, and the disturbance created among the personnel, however, must lead most of us to be charitably inclined towards the railroad leaders of France in their struggle. Taking the broader view, the rehabilitation which has been effected on the French roads is nothing short of miraculous.

In the restoration plan, a big part has been played by the new nation-wide railroad reorganisation scheme which came into effect seven years ago. Under this scheme the privately owned roads were left independent as regards internal administration, but far-reaching innovations were introduced by the creation of a Committee of Directors and a Superior Railways



A typical restaurant car run by the Compagnie Internationale des Wagon-lits in the French railways

Council, as well as by the institution of a Common Railways Fund.

The Committee of Directors is composed of representatives of all the leading roads who meet each week to review the current situation and to prepare proposals for the Superior Railways Council in Paris. The council is formed of representatives of the railroads, the government, and other private and public interests; and the idea underlying the reorganisation plan is assurance of the co-ordination of the various systems in accordance with the general interests of the nation. The council supervises the general working of the railways and makes proposals for sanction by the minister of public works with a view towards the co-ordination of services, improvements, alterations in conveyance tariffs, conditions of employment, and so forth. It must be consulted by the minister of public works on all questions affecting the railroads generally.

The Common Railways Fund is a pool providing common financial interests for all the railroad undertakings, both private and State, and the balancing of its receipts and expenditures has to be secured by the application of suitable traffic. All the five large company-owned roads, the State roads, and the railway system of Alsace-Lorraine supervised by a French Committee located in Strassburg, are members of this pool.

As a result of re-organisation and stricter supervision the French railroads are now making a much better financial showing, after a tremendously hard struggle.

Following the lead set by Britain, a comprehensive consolidation plan now is under review in France to aid in the move towards increased efficiency and economy.

Tracks and Roadbeds

So far as tracks and roadbed are concerned, the French railways compare very favorably, indeed, with the other great transportation undertakings of Europe. On the trunk routes a feature is the employment of heavy steel laid on a specially prepared bed, and the excellence of the French main-line track is to a considerable degree responsible for the many fast runs recorded in the time-tables.

Typical of the care with which the French railroad track is laid is the introduction, on the North road, of new heavy track on the trunk routes radiating from Paris to Calais, Lille and Erquellines. On these routes there are employed 59-foot, flat-bottomed, steel rails weighing 92½ pounds a yard, with 110½-pounds steel on tunnel sections. Each rail rests upon 30 oak ties, and is secured by steel screws. Fishplates are 25 inches long, while steel bars about 10 feet long are secured to the top of the middle ties of each rail to prevent creeping. Slag ballast is 12 inches thick under ties, and the tops of the ties are sunk to ballast surface. The new tracks carry a heavier passenger traffic than any other northern French road, and they are safe for travel at 75 miles an hour.

French locomotives conform to European standard design, and many of the machines employed are constructed in the railroad companies' own shops. A feature of French locomotive practice is the employment on a big scale of coal bricks, made from small coal and pitch for firing purposes. Their use is rendered necessary by France's lack of good quality locomotive coal. Many of the bricks utilised come from South



Lens Station (Nord) on November 11, 1918

Wales, but recently the State railways have set up elaborate plants of their own for the manufacture of the fuel from local sources of supply.

On the branch roads passenger car stocks embrace vehicles of very quaint design, but in their trunk services the French railroads operate passenger cars of remarkable comfort. The through trains almost all include in their make-up the luxurious cars of the International Sleeping Car Company, while recently the Pullman Company has entered the field with elaborate cars employed in the fast



Lens Station to-day

"Golden Arrow" trains of the Northern road between Paris and Calais. These trains are operated in connection with the boat train service of the Southern Railway of England from Victoria Station, London. They cover the 185½ miles between Paris and Calais in 190 minutes.

The northern French roads are rich in historical associations. The trip from Calais to Paris is packed tight with vivid memories of the world war. Calais itself was one of the most important British military bases. At Fontinettes, just outside the city, one passes the huge marshalling yard which handled millions of fighting men of all nations moving to and from the front. At Etaples rest-camps and hospitals galore were located among the sand dunes. The great junction of Abbeville follows, with Longeau a little further along, where the zone of trench warfare is reached. This section of track was shelled mercilessly by the German guns during the spring of 1918. At Creil the French and German armies met on September 1, 1914, and the British second army corps—fresh from the Aisne campaign—entrained for the battle of Ypres. Chantilly forest next is passed, where General Joffre had his headquarters during 1915 and 1916, and on the ridge of Dammartin a little further along the track British general headquarters were once established. At Louvres, nine miles from Paris, Von Kluck's Uhlans broke through on September 2, 1914.

Paris is the jumping-off point of the trunk services affording connection with all the European capitals, and its many beautiful railroad terminals are almost invariably thronged with tourists of all nations.

The heaviest passenger business in and out of Paris is handled at the Saint-Lazare terminal of the Chemins de Fer de l'Etat (State Railway). Here are some twenty-seven platforms, each handling about sixty trains daily. Forty-two million passengers annually are passed through the depot. The opening out and remodelling of the approach tracks and the electrification of the suburban tracks are effecting marked improvements in the working of trains in and out of this immense terminal. Direct current supplied by a third rail is the system which is being adopted.

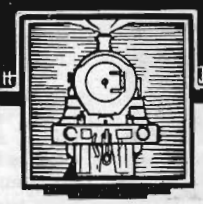
Electrification Progress

Electrification is to play a big part in French railroading in the future. Leaders in this endeavor are the Orleans road and the Midi. On the Orleans electric services now operate over the Paris-Etampes (38 miles) and Bretigny-Dourdan (15 miles) sections, as well as on the Paris suburban tracks. The section Etampes-Orleans (40½ miles) is worked electrically, as well as that from Orleans to Vierzon (51 miles).

Before the world war, the Midi Company had 142 miles of track opened to electric traction, and in 1924 completed the 190-mile stretch from Toulouse to Dax. Then followed the Bordeaux-Bayonne-Spanish frontier electrification, effected in 1926. Branch roads also have been electrified in different areas, and to-day the Midi possesses something like 600 miles of electrified track. By 1930 there will be nearly 1,000 miles of electric railway operated by the Midi. On the Paris-Lyons-Mediterranean Company's system there has been electrified an 84-mile stretch of track between Culox and Modane, this being the first instalment of an elaborate electrification

(Concluded on page 44)

Things we are talking about



EACH successive Safety First campaign seems to be launched with more enthusiasm and support than the last. This year's, which started, as far as the Victorian Railways are concerned, on March 16, is no exception. For the first time, the recently-formed National Safety Council of Australia is co-operating, and a really big joint effort bids fair to kill a good deal of the carelessness and nonchalance with which people drive and wander across level crossings. Once upon a time there was a tendency to blame the railways for all crossing accidents, but opinion, stimulated by occasional trenchant remarks from coronial and magisterial benches and by regular safety campaigns, is veering round to a more reasonable view, and is taking due cognisance of the human carelessness, foolhardiness and, what one might term, vehicular larrikinism that exists on the road.

SAFETY FIRST

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THE National Safety Council, of which the Railways Department is a member, is, by the way, doing something more than hold meetings and pass resolutions. It has got to work on first class propaganda which, we believe, has been directly responsible for a decrease, over the last few months, of street and crossing accidents. With the help of the Majestic Theatre people, for instance, who have supplied an expert producer and camera man, they have "shot" realistic films depicting common accidents, not only in street and on crossing, but on the beach and elsewhere. These films are being screened throughout the Majestic circuit, and already have stimulated a considerable amount of comment which, of course, is the aim of all publicity. We were given the opportunity, the other day, of seeing the staging and shooting of some level crossing scenes on the Geelong-road, and were frankly surprised at the amount of trouble to which members of the Council and the film people had gone to get realistic pictures. The photograph on the next page shows a collision scene taken at the psychological moment when the engine hit the back of the lorry which had stalled on the crossing in front of it. Incidentally, another thing that surprised us in that comparatively lonely spot was the crowd that made its appearance, apparently from the void, directly the camera and the train made their appearance.

GOOD PROPAGANDA

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TO such an extent has the Safety First idea influenced the outlook on traffic in America that a recent Supreme Court decision there set aside a judgment of a lower court against the Baltimore and Ohio Railroad and in favor of the wife of a man who was killed in a grade crossing accident at Whitfield, Ohio. It was argued that the man who was approaching the crossing in his car had no practical view beyond a point 243 feet from the crossing until he was about 20 feet from the first rail or "twelve feet from danger," and that the train was still obscured. He had cut down his speed from 10 or 12 miles an hour to five or six miles when about 40 feet from the crossing. "It appears plain," ran the Supreme Court's judgment "that nothing is suggested in the evidence to relieve him from responsibility for his own death. When a man goes upon a railroad track he knows that he goes to a place where he will be killed if a train comes upon him before he is clear of the track. He knows that he must stop for the train, not the train stop for him. In such circumstances it seems to us that if a driver cannot be sure otherwise whether a train is dangerously near he must stop and get out of his vehicle, although obviously he will not often be required to do more than to stop and look. It seems to us that if he relies upon not hearing the train or any signal and takes no further precaution he does so at his own risk. If at the last moment he found himself in an emergency it was his own fault that he did not reduce his speed earlier or come to a stop. It is true . . . . that the question of due care very generally is left to the jury. But we are dealing with a standard of conduct, and when the standard is clear it should be laid down once for all by the court." That judge neither minced matters nor clouded the issue.

"HIS OWN FAULT"

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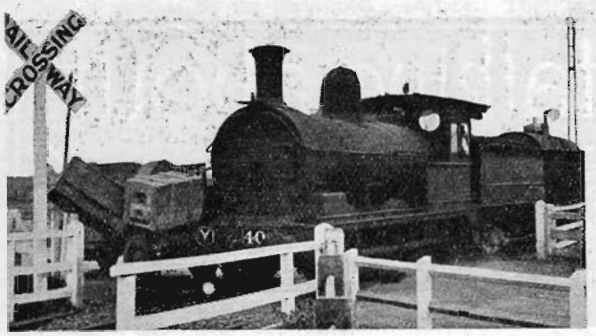
BALD and concise though they be, telegrams can be eloquent enough on occasion. Consider these three which buzzed over Victorian wires a week or so ago. The first was to Railway Commissioner Molomby, who was with the Commissioners' Special at Nullawil: "Members Ballarat Rotary numbering up to 30 journey to Tasmania this week D.S. suggests it would be appreciated if Commissioners agreed allow them use Melville car Ballarat to Melbourne provided not required by Standing Committee I am favorable to granting request.—Canny." The second was addressed to General Superintendent Canny: "No objection Melville car being made available Ballarat Rotary. This car usually provided Ballarat council on visits Geelong. —Molomby." And the third came all the way from Tasmania and was addressed simply to "Harold Clapp, Railways, Melbourne." It ran: "Ballarat Rotary express appreciation excellent transport arrangements Friday last. Thanks.—President Pullen." A short and sweet example of service by telegram leading to service by rail.

SERVICE BY TELEGRAM

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VICTORIAN Railways penetration into the Riverina, authorised by a far-seeing parliament, five years ago, proceeds apace. Last month the Minister for Railways officially opened the new bridge over the Murray for the Euston to Lette line, as well as the new railway from Gonn Crossing to Stony Crossing. The quota of land fixed by the N.S.W. Government for subdivision along the latter line was fixed at 75,000 acres. Fifteen estates, having a total area of 167,637 acres, have already been made available. This acreage will provide

RIVERINA RAILWAYS



Safety last

139 farms, of which 108, representing 144,000 acres, have been selected. The average price, Mr. Tredinnick, the Bendigo District Superintendent, tells us, is £4 6s. 7d. an acre, or £5,776 a farm. The whole of the holdings made available by these subdivisions are for mixed farming and should yield very fair traffic.

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THE first line to be opened under the Border Railways Agreement was, of course, that to Balranald, and the first Victorian train puffed its way along its twin steel ribbons exactly a year ago—on April 5, to be exact.

CLOSER SETTLEMENT AREA TREBLED

New South Wales undertook to make 125,000 acres contiguous to the line available for closer settlement, and it is a point of considerable interest that this figure has already been more than trebled. Thirty-four estates, aggregating 377,559 acres, have been subdivided into 348 farms, averaging 1430 acres apiece, and £4 2s. an acre, or a total value of £1,547,650. This land, unfortunately, hasn't had a proper chance to show what it can do in the way of production because of the dry season. But, judging by prospects, next season should show some splendid figures.

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A FEATURE of tourist travel in recent months has been the rise in popularity of the one-day educational tours or "Resos" which the Tourist Bureau originated, last year, with Yallourn as the venue. Mr. Roy Gollan tells us that these trips have so

DAY RESOS

appealed to popular imagination, that, within five days of advertising the tour to the Sugarloaf Weir and the Rubicon hydro-electric system on Eight Hours Day, the whole of the accommodation for 84 people was applied for. Three days later it was decided to increase the train accommodation to take 144 people, and even then there were 20 or so left over. Like its predecessors, the tour was an unqualified success. By the way, another overseas party which is visiting Australia through Pacific Tours Ltd. of San Francisco, is now touring Victoria under Mr. Gollan's capable wing, after having spent five days in Tasmania. We want more of these parties.

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ALTHOUGH a storm of press and other criticism has met the Government's action in controlling and regulating more strictly the operation of motor lorries, trucks and 'buses, signs are not wanting that it has also a good deal of sympathy from people who realise something of the waste and duplication of competition in a commodity such as transport. For instance, members of a Borough Council in the Wimmera recently recorded their agreement that while the development of motor traffic had to be faced, it should be effectively controlled. One councillor said he had followed a fully laden motor truck on the road from Dooen in his car, and to keep up with it he had had to increase his speed from 20 or 25 to 38 miles an hour, at which speed he estimated the damage done by the truck to the road, on that one trip, would run into twice the amount of the licence fees. That instance of course emphasised, in a nutshell, the unfairness of road competition which doesn't contribute a tithe of the cost of its permanent way.

ROAD MOTOR REGULATION

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RUBBING shoulders with five brass bands, six merry-go-rounds, 400 gallons of ice cream, 780 gallons of soft drink and 100,000 sandwiches, nine electric trains had a say—and a very important say—in the recent entertainment of ten thousand South Melbourne school kiddies. South Melbourne's mayor arranged a gigantic picnic at Aspendale for the juvenile population of the 22 schools around Middle Park, South Melbourne and Albert Park. And the Railways Department arranged the running of the aforesaid nine specials, which were scheduled right through from St. Kilda to Aspendale. Hitches were as noticeably absent as frowns, and the whole outing was a tribute to effective organisation from start to finish. As to the railwayman's share, perhaps the mayor himself is the best witness to put in the box. "The transport arrangements were wonderful," he testified. And those who saw the clock-like precision of the specials following one another at three-minute intervals to clear the platforms of the dense battalions of excited children, agreed with him.

SOUTH MELBOURNE'S DAY OUT

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RUSHWORTH, too, had its annual day at the seaside a few weeks ago. The day could easily have been a better one, but close on a thousand picnickers braved the gloomy skies and travelled in a 12-car special train from Rushworth to St. Kilda. The special left Rushworth at 6.15 a.m., arrived at Melbourne at 10.20 a.m., and, returning from the city at 7.15 p.m., reached home again at 11.40 p.m. Children's tickets for the long return journey were less than four shillings. Mr. E. A. Coyle, M.L.A., was as usual the power behind the secretarial throne—incidentally, the very generous power which handed out free tickets to the children. Let's hope that Nature is in a more cheerful mood for the 11th picnic.

— AND RUSHWORTH'S

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"IF every department on the railroad which is represented on a Get Traffic Committee should send in one Traffic Tip a month, freight and passenger business would be immeasurably increased . . . . Every person and every bit of movable goods mean possible business for the company. Every newspaper contains items suggesting freight or passenger traffic. The freight and passenger agents on each division are looking for Traffic Tip cards and for clippings from which they can procure new patrons. The Traffic Department is ready to co-operate further by sending speakers to meetings . . . The value of every job on the railroad is affected by the company's amount of business, which in turn is influenced by the loyalty and initiative of its employes . . . . " Statements like these fairly bristle in American rail magazines these days. The Traffic Tip idea has become almost universal in Uncle Sam's land. Checkers and clerks, conductors and cashiers, stenographers and station-masters have all joined forces to solicit traffic. Even members of the public, who take a pride in their railroads, help. The local man who picks up word that somebody is moving, or that somebody is sending a litter of pigs somewhere, or that somebody else is sending a chaff-cutter somewhere else, either gets in touch himself with the prospective customer, or else sends the tip along to the official agent for the district.

TRAFFIC TIPS

HERE in Victoria, " Send Traffic Tips " has not been raised to the dignity of a slogan, although the need for co-operative effort by the railway staff in that direction is just as great as in America. And dozens of concrete examples of what can be done by the exercise of a little intelligent anticipation and keen salesmanship come from different corners of the State. One conductor, for instance, reported that a football team was contemplating an excursion to Melbourne by motor. A word or two with the secretary brought the team along by rail. An alert S.M. picked up news that a regular motor service was about to be commenced from his town. He passed the tip along to the Commercial Agent, who immediately interviewed all the local business people and conserved the rail traffic. Then there was the operating porter who heard that his shire secretary was being transferred to another district, and who straightaway interviewed him, explained rates and conditions of furniture transport by rail, and landed the job of getting the secretary's household effects to his new post for the railway. Incidentally, the operating porter beat a representative of the motor competitor by 10 minutes or so. The habit is worth cultivating.

EXAMPLES WORTH FOLLOWING

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THE Western District Flier is to stay, or rather to continue running. A month or two back the existence of the train was threatened by road competition or, strictly, by the amount of patronage given to road competitors. The Railways Commissioners frankly put the case to the people whose business and pleasure necessitated frequent travel to and from Melbourne and the Western District. " It's your train," they said, " and it doesn't pay. We can't run it at a loss, so what are you going to do about it ?" The response has been good. Apart from its undoubted advantage to travellers in cutting off an hour and a half and more from the old journey, it serves the interests of producers, especially of dairy concerns, which use the train for quick transport of milk. Because of all this there was a general stocktaking of the position, and patronage began to improve. The Flier was and is evidently serving the community well, and the community is showing more tangible appreciation—appreciation which found expression in some regular travellers by road forsaking both service and private cars to use the Flier. The Commissioners have officially expressed their gratification in a leaflet which is being circulated.

" FLIER " TO CONTINUE



Boys of the Tongan Methodist College Choir who visited Melbourne last month, and who gave a number of very successful concerts, enjoying themselves at Newport, where the new Pacific locomotive claimed most of their attention. None of the boys had ever seen a railway or a locomotive until they arrived in Australia. The smallest boy standing on the engine is Crown Prince George Taufu'ahau of Tonga.

THE March " Buffalo Bargain " at £6 15s. a week instead of £11 for the inclusive ticket, has resulted in record bookings at the Chalet for this time of year. The average number of guests in residence there during the month was 100, and the highest number on any one day, 168. The Refreshment Services Branch which controls the Chalet tells us that the average for March, 1927, was 48, while the Tourist Bureau booked fewer than 40. Apart, of course, from the business soundness of reducing the tariff in off-seasons, it is helping to bring Mt. Buffalo, which overseas globe-trotters have told us should become the playground of the Continent, into greater popularity with the ordinary man in the street, who has long regarded a week or fortnight on the Plateau as a rich man's holiday. At £6 15s. a week it is wonderful value.

BUFFALO BARGAIN SUCCESS

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THE report presented to the recent Victorian Country Party conference discloses some very disconcerting, not to say startling figures, illustrative of the drift of population to the cities at the expense of the country. It points out that the population percentage in the capital cities of Australia, in 1911 was 38. In 1926 it was 48. In 1922, the population of Melbourne was 816,880 compared with 773,425 in the rest of Victoria. That is bad enough. But the respective figures for 1926—944,400 and 764,600—are worse. During the five years, the natural increase of rural population at 12.3 per 1000 was 48,000, or, adding 26,909 migrants, 74,909, so that the full extent of the country's depletion was 83,734 people. This, as the report comments, is really an evacuation, a disease of long growth which must be eliminated. Its true meaning is obscured in the mere word drift.

DRIFT TO THE CITIES

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THE lure of the city with its fixed wages and working hours, its theatres, movie shows, dance-halls, and all the other arc-lit pleasures of a hectic civilisation, is a very real menace to a country which depends, and must depend for many years, primarily on its wheat and wool, its flocks and herds, for its wherewithal to live. Other countries are trying to counter the same trend, but in probably only one—Palestine—is there a marked movement of population towards the land. In England and America determined efforts have been made to keep farmers on the land, and, what is even more important, to induce their children to stay there through the formation of Boys and Girls' Farm Clubs. These clubs, which have the financial and moral backing of government departments, bankers, chambers of commerce, municipalities, railways, Rotary clubs, and other influential bodies, are doing excellent work. The idea is to develop an appreciation of his heritage in the youngster, and the club way is essentially a profitable and pleasant way of doing it. In America, Senator Arthur Capper started these clubs for pig raising, 12 years ago, in Kansas. The first club had a membership of 75. Today more than two million of Uncle Sam's sons and daughters belong to pig, calf, poultry and corn clubs, and they produce more than £1,500,000 worth of food yearly.

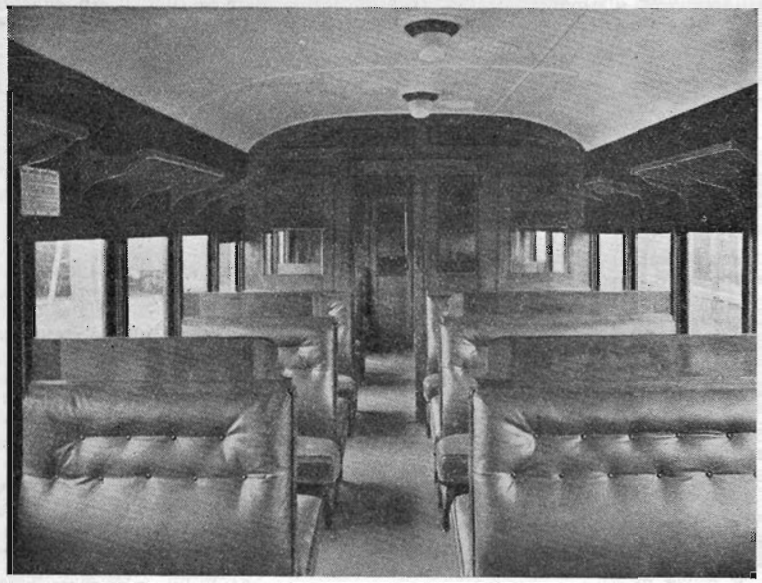
YOUNG FARMERS' CLUBS

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THE movement has spread to Victoria, and already a considerable number of clubs has been formed. Centres such as Geelong, Bendigo and Ballarat have taken up the idea, and a movement is on foot to co-ordinate their efforts with the help of the Department of Agriculture. The Railways and Education Departments and the Royal Agricultural Society are co-operating, and before very long something tangible should result. It will probably take a generation for club work to have any pronounced effect on the drift of population, but it's an experiment worth every ounce of effort that influential people can give it.

A START IN VICTORIA

Australia's First Petrol-Electric Rail Car



Interior of the new petrol-electric car

By
Lieut.-Col. N. C. HARRIS
D.S.O., M.C., B.Sc. (Mech. Eng.), M.Sc.,
Acting Chief Mechanical Engineer, Victorian Railways

UNTIL three or four years ago, the application of self-propelled motor vehicles for rail work was limited to those utilising petrol engines which had been developed for road motor purposes, and the engine capacity was thus limited to approximately 100 h.p. With the growing demand for heavier services which could be operated more cheaply than by steam, some systems have developed rail motor vehicles utilising the Diesel-electric or petrol-electric systems, the former embodying power units of up to 400 h.p., and the latter from 150 to 800 h.p. These types of vehicles are capable of hauling heavy trailers at good speed over long journeys and their use is at present developing rapidly, more especially in America.

Nearly Ready for Service

Recently, the Victorian Railways Commissioners decided upon constructing a rail motor-car of greater capacity than that of existing types, and alternative tenders were invited for petrol-electric and Diesel-electric equipment. As the result of information obtained by departmental officers who recently visited America, a decision in favor of equipment of the former type was arrived at, and, about the middle of last year, arrangements were made for the commencement of its construction at the Newport workshops. This vehicle, the first of its kind in Australia, is at present almost ready for service.

THE petrol-electric or Diesel-electric car which was introduced to American railroads, comparatively recently, and which has now passed through the experimental stage, will shortly make its appearance in service on Victorian lines.

Designed to cater for the growing demand for heavier services which can be operated more cheaply than by steam, such a car, the body and underframe of which were built at Newport Workshops, has just completed its trials. It is the first car of its kind in Australia.

The car body is 57 ft. 4 in. long, 9 ft. 9 in. wide, and 8 ft. 11 in. high, and is built on an underframe having centre sills and outboard riggers, this being suitable for centre buffing. It is equipped with three-quarter size automatic couplers and spring draft gear, similar to that in use on our narrow gauge rolling stock. The body is of all steel construction, the frame work being of rolled or pressed steel members.

Body panels are of steel $\frac{1}{8}$ in. thick. These were sand blasted and sprayed with red lead prior to erection, an innovation so far as Victoria is concerned, adopted from American practice, to lengthen the life of panels which are otherwise subject to rapid corrosion.

The body panels and pillars are lined with Celotex, an insulating material, 1 in. thick, while the interior is finished in polished Queensland maple. The car is divided into four main compartments—the engine room, smoking and non-smoking passenger saloons, and an end vestibule. Two lavatories are provided, opening off the ends of the passenger saloons, with a pressure flushing system, having a tank of 100 gallons capacity. Driving compartments are located at each end of the vehicle, opening off the engine room and the end vestibule respectively. Side entrance doors are provided at the cross passages near each end of the car.

The car has a seating capacity of 61 second class passengers. A centre aisle divides the seats which are upholstered similarly to those in the latest cross-country steam passenger cars.

Power Equipment

The power equipment includes a 220 h.p. 6-cylinder Winton petrol engine, governed at 1000 r.p.m., having force feed lubrication, overhead valves, dual magneto ignition, and bushed cylinders. It is provided with means for air, hand and electric starting. Cooling is carried out by a radiator placed at the driving end, with a reversible electric motor-driven fan operating in the air duct. The reservoir for this radiator is situated on the roof. A tank with filtering system is provided through which engine oil circulates. The petrol tank, having a capacity of

150-kilowatt, 700-volt D.C. generator and exciter, which supplies power to the main traction motors and to the lighting and starting battery. The battery (32 volt) supplies head and car lighting system, and, when the engine is idling, supplies the excitation, whilst at higher speeds, the exciter supplies power for charging the battery.

Controls are fitted at both ends of the car and both automatic and straight air brakes and a hand brake are provided. Controllers regulate the supply of power to two traction motors, each of which drives one axle of the bogie at the engine end of the car. The throttle control incorporates a dead man's handle for automatically applying brakes should the driver, for any reason, release his hold.

The driving motors are each 110 h.p., 700 v., and are air cooled by fans situated in the motor casings. An air compressor situated in the engine room is electrically driven.

The Car is provided with Strombos air whistle, and drinking fonts.

At Least 30 Miles an Hour

The approximate weight of the car, without load, is 43 tons, and it will be capable of running at a speed of at least 30 m.p.h. on a level track with a trailer attached.

In order that a vehicle of this type may be used to the best advantage, it is desirable that it be operated in conjunction with a trailer, and the design of a trailer weighing about 14 tons to seat approximately 40 passengers, and having a goods compartment, is at present under way. To avoid delay, however, in getting the motor car into service, arrangements have been made to utilise an APL passenger car with alterations to meet requirements. To provide a goods compartment, seats have been removed from three end compartments of the APL car, and the position of one lavatory has been altered. The space thus provided (19 feet long) has been equipped with a hand brake, a guard's desk and seat, a dog box and temporary seating accommodation (hinged seats) for 15 passengers. The total seating capacity of this improvised trailer is 68, including these 15 temporary seats in the goods compartment, and the weight is approximately 25 tons. Two lavatories are provided as well as non-smoking and smoking saloons. First class accommodation only is provided in the passenger portion of the trailer as the comparative freedom from noise and vibration should render this car somewhat more comfortable than the power unit.

It is considered that operation with this trailer will be reasonably satisfactory, although owing to its weight both speed and economy will improve later when the specially designed trailer becomes available.

On certain lines, stopping passenger trains, followed by expresses, are being operated with the idea of clearing roadside stations and of placing passengers at the larger or depot stations for transference to the express trains. At times the earlier train is a mixed, which must necessarily run a considerable time ahead of the express concerned and at relatively slow speed. A suitable substitute for the earlier trains, both from the point of view of economy and of reducing overall times of passengers' journeys will, in some cases, be a unit of the petrol electric type. The estimated cost of operation is 3s. per mile compared with 5s. 3d. in the case of an average steam passenger train of this class. There is a good deal of scope for economy on a number of lines by a gradual introduction of self propelled vehicles of this category.

SPAIN'S 1,800-YEAR-OLD BRIDGE

PLANNED and built by Caius Julius Lacer, a Roman engineer, Trajan's bridge has spanned the Tagus River at Alcantara in Spain for 1800 years. It is 600 feet long and 26 feet wide, and flings six arches across the turbulent river. Neither cement nor mortar was used in its construction. The blocks of granite of which it is built were so carefully cut and shaped that they seem to make one solid mass. The archstones, which number nearly five hundred, are mammoth blocks of granite, each weighing 12 tons. The famous Forth Bridge carries its railway 152 feet above the surface of the water, but Trajan's Bridge sweeps 172 feet above the summer level of the river.

WRITING IN THE TRAIN

That the train is a good place in which to work is the conviction of many prominent literary men. The peculiar pleasure and excitement of train travel gives wings to the imagination and the mind goes soaring into every corner of the realm of fancy.

Of the great literary men of our day who work in the train, George Bernard Shaw is perhaps the most famous. It is said that this distinguished dramatist writes nearly the whole of his plays whilst travelling in the train between London and his country house at Agot St. Lawrence, Herts.

If you consider yourself a worm of the dust you must expect people to trample on you. If you make a doormat of yourself people are sure to wipe their feet on you. More men fail through ignorance of their strength than through knowledge of their weakness. You may succeed, when others do not believe in you, but never when you do not believe in yourself.

THIRTY-FIVE YEARS AGO

Extracts from the Victorian Railways *Gazette* of April, 1893 :—

WE beg to draw members' attention to the fact that the Argus will be published at price one penny per copy on and after April 3.

PLANS have been completed and tenders will shortly be called for the proposed alterations necessary to bring the north suburban traffic into Flinders-street station via Spencer-street. A sum of £10,000, placed on the estimates, has been appropriated for this purpose.

A NEW book of circulars in a compendious form is in course of preparation and will shortly be issued to the Traffic Staff. The information will be of a general character and will embrace outside duties and official information.

THE traffic on the Camperdown-Timboon line has not developed sufficiently to warrant the continuance of a daily train. The Commissioners have therefore decided to run the service on Tuesdays, Thursdays and Saturdays only. This is the first departure made in giving a tri-weekly service on any of the branch lines in Victoria.

AFTER all business had been disposed of at the usual monthly meeting of the Central Council of the Union in March, a vote of thanks was accorded Mr. John Arthur Russell for the decorations arranged by him in the Council room.

"COUNTRY S.M." writes to us, asking: "Has an S.M. authority to grant his assistant or porter permission to leave the station (say, to visit a neighboring one) when off duty, provided he pays his fare?" We are pleased to inform our correspondent that when a porter or assistant has completed his day's work he is at liberty to go where he wishes. If he travels by train, he must be provided with a ticket or pass.

AT the last monthly meeting of the Council, Mr. Lethlean gave notice that he intended moving at the next meeting: "That a co-operative store be established in connection with the Traffic Union."

AN invention called the "teller" was exhibited at Princes Bridge station last week. It is an advertising medium, whereby a timetable card and other useful information is delivered by merely pulling a metal button.

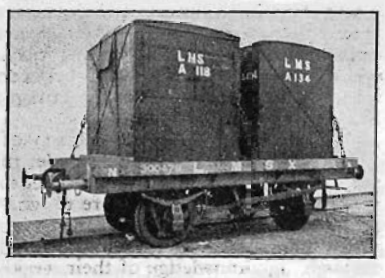
FROM a return, it appears that the new steel axle boxes are not a success in running, although they may withstand fracture better than the old cast iron boxes. Last year there were about 600 cases of hot boxes reported, of which 170 were old and 530 new style, although the majority of rolling stock is equipped with the old pattern.

COMPLAINTS have reached us of the unsuitability and injurious effects of the new car wash used for the cleaning of paintwork on carriages. It is stated to be very destructive to clothing and injurious to the hands, gnawing into the latter very painfully if a cut or abrasion appears thereon. The fluid is condemned by the cleaners in very general terms.

Lines from Other Lines

FREIGHT CONTAINERS

LONDON, Midland and Scottish Railway is testing in practical fashion the idea of container transport for bulk freight consignments. Between 400 and 500 containers have been built, the smaller type having a capacity of 2½ tons or 273 cubic feet, and the larger, 4 tons or 526 cubic feet. The smaller type—pictured on this page—is of timber construction (although attention is being given to the possible use of steel or other metals), and is seven feet long, six feet wide, and six feet six inches high. It is fitted with end doors—a drop door at the bottom, and a pair of swing doors above. Generally these containers have been conveyed in ordinary open trucks, but there is no reason why the vehicle should represent more than the underframe and running parts of the usual wagon. The use of containers is limited to consignments of one ton or

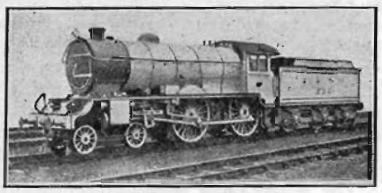


Small closed containers on a truck

over, from one sender to one consignee, although in suitable circumstances delivery to three or four addresses has been undertaken. Traders, the L.M.S. has found, like the container, as it gives them the door-to-door delivery which they have previously sought from the road motor. Up to the present, the railway company has spent £20,000 on the idea.

BRITAIN'S NEW 4–4–0 ENGINE

THE heaviest and most powerful 4–4–0 type locomotive in Great Britain, the 3-cylinder engine just constructed by the London and North-Eastern Railway, belongs to a new series which is known as the "Shire" class. As a class, this type is not being built as freely as was previously the case, but its wheel arrangement suits it admirably for normal—as opposed to heavy—express passenger traffic. Of its total weight of 66 tons, nearly two-thirds is available for adhesion purposes. Total heating surface, including superheater, is 1643·88 square feet, length overall nearly 60 feet, grate area 26 square feet, and boiler pressure 180 lb. to the square inch. With tender the engine weighs 119 tons. The 4–4–0 type is noteworthy for freedom of running, and is an exceedingly useful class for fast



L.N.E.R.'s new "Shire" engine

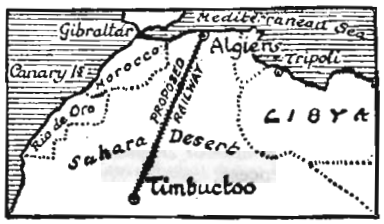
passenger service with trains of 350 or even 400 tons weight.

UNDERGROUND ROBOT

A REMARKABLE ticket slot machine that cannot be cheated has been installed on the London Underground Railway. The machine prints, dates and issues the ticket; weighs the coin inserted, tests it electrically and gives change for 6d. and shilling pieces. With this machine it is impossible to find—as was found in the older type of slot machines at one station—half a bucketful of iron washers. The machine has one money slot only, and whether 2d., 6d. or 1s. is inserted, the ticket will be delivered together with the proper change. At two stations on the system these machines are electrically attached to a special form of turnstile, which is automatically released when a coin is inserted, thus allowing the admission of the passenger to the platform.

RAILWAY ACROSS THE SAHARA

THE project to throw a railway across the Sahara Desert, one of the greatest railway feats ever attempted, has finally been approved by the French Cabinet after 30 years



of discussion. A bill has been framed to provide a fund of £100,000 for the study of alternative routes by a special commission. About 2,250 miles long, the railway will probably follow a straight line from Algiers to Timbuctoo. It will bring the tropical products of Central Africa to within four or five days of France, and, by providing a safe route for the transport of troops to the Mediterranean seaboard, will develop considerable strategic importance. The operating concession will probably be handed over to a company representing all the French railway lines. Route investigations and surveying should begin towards the end of the year.

FASHION CHANGES IN SLEEPERS

DUNN'S *International Review* reports an interesting change in rail sleeper fashions. It seems that early in 1926 the Delaware and Hudson Railway put into test service a short piece of track in which the sleepers were formed of old scrap flat-bottomed rails, welded together into the required form. Each sleeper consists of two lengths of scrap rail, two flat tie plates and two scrap angle bars. The rails are spaced in parallel formation with their inner flange edges about an



An American track with sleepers of discarded rails electrically welded

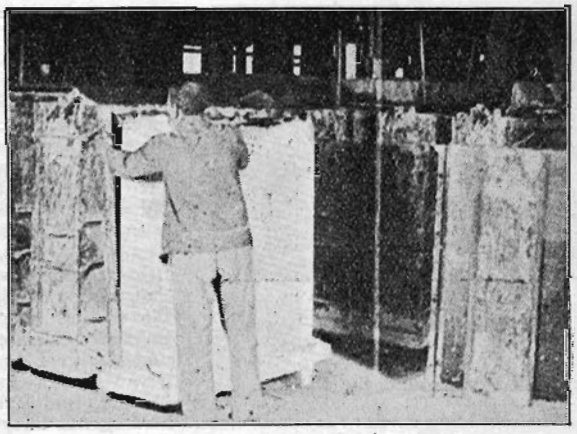
inch apart, and the tie plates are welded across the intervening space in their normal position, so as to be underneath the running rails. At the end of the unique sleeper are welded the scrap angle bars. In all, 15 of these sleepers are being tested on the D. and H. road. Reduced renewal costs coupled with decreased maintenance costs, are expected to be accompanied by a longer life, the sleepers under test having required no attention for 14 months. The first cost is moderate, since the materials used are scrap, while the welding cost is about 2s. 6d. per sleeper. It is intended to adopt this type of sleeper as standard for yards and sidings, and, if continued success is obtained, to employ it later in main line service.

Concurrently with this news comes an announcement in the *Railway Gazette* that the London and North-Eastern Railway has installed 1,000 reinforced concrete sleepers and cast-iron chairs on the main line at Manor Park, near London. The substitution

(Concluded on page 34)

Helping to Wash the World

By HUGH RICHARDS



A 10 cwt. cake of soap ready for slicing

THE chemist calls it $3NaC_{16}H_{31}O_2$. The dictionary calls it "a compound of oils or fats with soda or potash." The Encyclopaedia Britannica calls it a "chemical compound or mixture of chemical compounds, resulting from the interaction of fatty oils and fats with alkalis." And the Preservene people—in common with most people—call it soap.

Not that it looks like soap all the time the Preservene people have it. Sometimes it looks like porridge, sometimes like very solid foundation stones, sometimes like half-pound and pound cuts of whitish butter, sometimes like brightly painted axe handles. Sometimes it is "pefumed like a milliner," sometimes it whiffs like nothing on earth or in the waters under the earth.

But in every form, shape and smell it is always soap. And very good soap.

What Soap Contains

Good for washing, that is. Never is it good for eating. For that matter, few soaps are. The man who waves aside fullers' fat or lard oil, cotton seed or cocoanut oil, ox or sheep tallow, resin or caustic soda, isn't necessarily a gourmet. And all these substances find a place in one variety of soap or another.

Preservene's main ingredients are tallow, cocoanut oil, eucalyptus oil and ammonia. These mix into a thick, sticky, and most unsavory conglomeration which pours sluggishly into immense 20-ton boilers. A jacket of hot pipes surrounding the boiler does the cooking. The brown, simmering lake swirls and heaves and bubbles and throws off hot steam like a porridge breakfast for an army of starving Scotsmen.

Foundation stones supplant porridge after the cooking. The soap is framed. Not in American crook parlance. It is poured into tall iron frames, each six feet high and holding something

TWENTY years ago, the present Preservene Company started making soap in Melbourne. It had a hard struggle before it succeeded in laying the solid foundation on which it now conducts its extensive manufactures of soap, starch, washing soda and candles.

Today the industry is one of the few Australian secondary industries which have captured a regular and increasing trade overseas.

like 10 or 11 cwt. of soap. In these frames, the soap cools down, recovers its breath, mops its forehead, fans itself and solidifies. It becomes a foundation stone of soap.

Solidifying is a very gradual process. Lot's wife must have nothing on the soap when it is hauled from its frame and balanced on its broad, square base. It must be solid, through and through. Otherwise it would run like boarding-house butter in the summer when it was being sliced into tall slabs and neat bars for the stamper and wrapper.

That, broadly, is the way Preservene makes soap. Different kinds of soap, of course, involve slight variations. Sandsoap, as the acute reader would suspect, is toned up with fine sand. Hence the name . . . . .

Toilet Soap

Then, toilet soap is made by a milling process. The water-content of a high-class soap, amounting to, say, 30 per cent., is mopped up by more than one-half in currents of warm air. It is then milled into ribbons, perfume and coloring matter is added, and the strips of blue or yellow or pink soap are welded into thick bars in a machine from which they emerge, via a heated nozzle, as colored axe-handles. Pressure in a mould bites dainty cakes of toilet soap off these bars.

The hundreds of thousands of wooden cases in which the soap corpses are coffined are manufactured *in toto* on the Preservene premises. Nail hammering machines knock the cases together at the rate of 60 or 70 an hour. The cut pieces of timber are held lightly in position on the machine, and a bristling array of nails is punched in with one sweeping descent of mechanical arms.

Unlike soap, washing soda, another prolific Preservene product, evolves with quiet dignity. Its progress is the direct antithesis of hustle. After the soda ash has been boiled, all it asks for is peace, quietness and coolness, In 15-cwt. vats it lies, broods and sets like a jelly. For seven days it sleeps. When aroused, it has crystallised into stalactites of washing soda.

Seven Weeks to Make Starch

But while it takes a week to make Preservene washing soda from soda ash, it takes seven weeks to make Preservene starch from rice. The rice is broken, softened and swollen in weak caustic, stirred, left in pickle, hardened, ground into liquid, washed, hardened again, boiled, rubbed dry, congealed, left to cake in hot ovens, scraped and stored in neat, square, 10 lb. packets until it is as thoroughly, completely and entirely devoid of moisture as the Sahara. By that time it has forgotten that it ever was rice. It crumbles into long, perfectly white flakes and is hurried behind cardboard before it has a chance to get sun-burnt. About 85 lb. of starch is mangled from every 100 lb. of rice.

The fourth item on the Preservene programme is the cylindrical rod of solid fatty or waxy matter, enclosing a central fibrous wick and designed to be burnt for giving light. Otherwise, the candle. It is shaped in a moulding machine, a kind of trough pierced with rows of tapering holes. Down the centres of these holes run lengths of wick. The warm wax and stearine is simply poured into the moulds and



Wrapping bar soap

left to harden round the wicks.

The moulding machine is continuous in operation. The wick in each mould is coiled on to a separate bobbin, and the removal of the finished article automatically draws in a fresh set of wicks.

Yallourn's cheap electricity has, of course, bumped a good deal of the *joie de vivre* out of the candle business. But the Preservene people aren't worrying. You can't wash your hands or clothes in electricity, anyhow. And there's a flavor of poetic justice in the fact that engineer's hands and clothes need more soap than most people's.

Preservene has captured a regular overseas trade in soap. One million bars, or 300 tons, of soap sell in Great Britain alone every month. Some of that export topples over the Straits of Dover and plops into French and Belgian washtubs. Honest Pierres, caked with Flemish dust, rinse their horny hands in Burnley soapsuds. Canada, South Africa and New Zealand extend dirty fingers and faces for Preservene. Even the impassive Parsee and the horn-rimmed Yankee rub with it.

And the Victorian railwayman knows the brand as one which he carries as regularly to Serviceton and to Albury as he does to every country station in the State. . . . .



Preparing the tallow

Candles may flicker before the onward march of time, but the soapsuds in the wake of Preservene's progress splash higher and higher every year.

ROAD AND RAIL CO-OPERATION

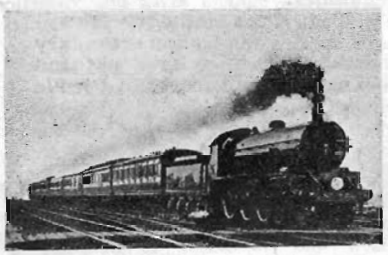
TRANSPORT schemes are being successfully operated by the London Midland and Scottish Railway in certain areas whereby the farmer is provided with a through delivery service for both the materials he buys and the produce he sells. Up to now the schemes have been more in the nature of an experiment, but so successful have the results proved, both to the farmer and to the L.M.S.R., that considerable extensions are being made. Not only are the L.M.S.R. prepared to cater for traffic to and from the farms, but also for general commodities conveyed by goods trains.

Under the scheme the manufacturer of, for instance, cattle cake, rents from the L.M.S.R. Company, at a nominal rental, warehousing space at certain railhead distribution centres, to which bulk consignments are railed. Farmers in the surrounding districts indent to the farmers' agent at the railhead warehouse for such quantities of cake as they require from time to time, and delivery is effected by the L.M.S.R. fleet of motor lorries direct. Where warehousing facilities do not exist or are not required, delivery is effected direct from railhead. Thus it will be seen that the farmer is saved from storing a larger quantity of material than is necessary for his immediate needs. He is also certain of prompt delivery of such supplies as he requires as the railhead distribution centre is near at hand.

A low charge is made for these cartage facilities which are arranged on a radial basis as opposed to road mileage basis.

Railhead distribution centres have now been established at several points on the L.M.S.R. system.

The London and North-Eastern Railway has established a somewhat similar scheme at more than 600 sta-



L.M.S. Railway express

tions on its system. In this case, however, arrangements have been made with local private motor haulers for farm produce and other commodities. General charges on the basis of 3/- a ton up to three miles, and between 4/- and 6/- per ton up to 10 miles are made.

LITTLE THINGS

Little things—a nod a smile,
A kindly word once in a while;
If everybody only knew
The wonders that these three can do—
They'd use them!

A single smile of true intent
Can start a crowd to merriment,
Can whisk away your troubles, too,
And make the whole world smile for you—
Just try it!

Or nod, or words, what they impart,
Could lighten many a heavy heart;
Footsteps of Peace, more felt than heard—
A smile, a nod, or some kind word—
How we need them!

—*Mary Morey.*

"How's your cold, Donald?"
"Verra obstanate."
"And how's your wife?"
"Aboot the same."

MORNING ON THE DAYLESFORD HILLS

The morning dawned through dream-white mist and cloud,
And sunbeams nestled in the yellow heath.
The kookaburra's laugh was clear and loud:
It filled the slopes, and reached the glades beneath,
For day had kissed the lovely Daylesford hills
And crowned the woodlands with a summer wreath.

From the dense tangle of the fern, I heard
A wild bird's warble, joyous, rich and free.
The dew-wet leaves by ev'ry wind were stirred,
And through the briar hummed the waking bee,
As high above it all, a soaring hawk
Looked calmly down on Nature's majesty.

A wondrous peace fell over field and farm,
Save when the bird alone the echoes woke,
Or stealing out upon the golden calm,
The bush resounded to the axeman's stroke;
For God's sweet beauty climbed the Daylesford hills
When through a dream-white mist the morning broke.

HARRY TUNNECLIFFE.

Railway Reconstruction in Russia

LAST November, Soviet Russia celebrated the tenth anniversary of its existence. One of its chief problems during those years has been to keep its trains running, although its success in that direction has not been spectacular. Now with the revolution regarded as definitely over, the Soviet has entered its eleventh year, according to Mr. Hiatt, whose article we reprint by courtesy of the "New York Central Lines Magazine," with extensive projects for building more railways, more bridges, more and heavier locomotives and more freight and passenger cars.

By
WALTER S. HIATT

RUSSIA, which occupies approximately one-seventh of the earth, including European and Asiatic Russia, is fundamentally a railroad country. Its distances are enormous. From London to Leningrad (old St. Petersburg), the distance is 1,679 miles, and from Berlin, 1,016 miles, or from Rome it is 1,905 miles. But from Leningrad, on the Baltic, to Odessa, on the Black Sea, the distance is 1,205 miles ; then across Siberia from Leningrad the distance to Vladivostock is 5,809 miles, or to Port Arthur, 5,930 miles, or to Pekin, 6,249 miles.

Russia's railways must look out for the transportation of 140,000,000 people who are inherently travellers, and for the carrying of their freights within a territory two and two-thirds larger than the United States.

Preceding 1914, Russia had 42,500 miles of railway in operation, mostly in European Russia and on the famous Trans-Siberian line. It was just at the beginning of its railway building era when the world war halted this and other industrial improvements. During the war, and particularly during the communistic movement and the subsequent civil wars lasting until 1921, one-fourth of this trackage was destroyed, along with 7,762 railway bridges.

Only a Few Hundred Engines

By the end of 1919 there were not 1,000 locomotives in condition to get up steam and pull cars, and by 1921 there were but a few hundreds, and that number is a favorable one. Rolling stock was in a pitiable condition. Freight cars were used for dwellings, kindling wood ; passenger cars were robbed of their fittings, the cushions cut and converted into clothing.

Since 1921, there has been a slow turn to the right of the communists towards capitalism, and with it a desperate effort to improve the railway systems. Every competent man in the government has at one time or another been called on for help in this reorganisation work.

While speed has not been obtained, xcept on the Trans-Siberian, yet there have been notable improvements, extensive repairs of old material and the manufacture of new material.

Mileage has been increased from the original 42,500 to a round 47,000 miles, eight new short lines have been laid, and work begun on several thousand miles of projected new trackage. Most of this is in Siberia and other previously neglected or undeveloped regions. Work was continued last year on the South Siberian trunk line, from Orsk to Barnaul, a distance of 1,250 miles, partly to tap mineral resources.

Linking Up with Cotton Country

The most picturesque and important of the new lines in projection, and on which work was begun last summer, is that from Semipalatinsk, in the very heart of Asia, to Tashkent in Turkestan. This line will cross the Altai mountains by one of two of the famous caravan passes known as the Kurdaisky and the Chokparsky.

The object of the railway is to open up regions until now either uninhabited or peopled by wild tribes, and to bring cheap grain from Siberia to the cotton country of Turkestan, so that people of the latter land will give less time to by-product crops and engage wholly in cotton raising.

The north terminus of this railway, at Semipalatinsk, there connects with the Trans-Siberian by a branch at the capital of Siberia, Novo-Nikolaievsk. Partly because of the new railway activity this capital city, lately renamed Novo-Sibirisk, has ceased to be a small station on the great trunk line, and is now spreading out like a boom city, sprawling with new buildings and streets over several miles.

The design of the Soviet in developing this cotton belt is apparent. It, last year, bought over forty million dollars worth of raw cotton in the United States, and if it can raise more of its own cotton, it will cease to become a purchaser of outside cotton, and manufacture its own textiles with a better foreign trade balance.

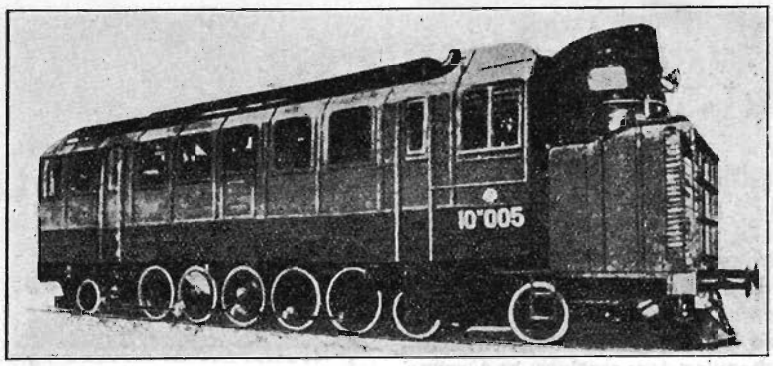
Americanisation is now the great password in Russia. It is trying hard to Fordise the nation, its industries, its railways. While the railways are a state or monopoly organisation, the Soviet is constantly sending delegations and engineers to the United States to learn system. Many of its plans are paper plans, for lack of capital and because of a bureaucratic government, yet the effort is there. It has bought a few American locomotives, partly to have new types on hand as models. Its old locomotives were of the sixty-to-seventy-ton type. Now its shops are turning out larger ones, and it is planned to have them of 180 tons. This work is being done at the old Putilov plant near Leningrad.

Heavier locomotives mean heavier tracks and stronger bridges. So engineers are being sent abroad to learn how to build better bridges. It is calculated that within the next five years 50 per cent. of Russia's existing bridges will have to be rebuilt. The Soviet has announced that it has decided to build two new bridge plants, one in the Ural Mountains and one in the Donetz coal basin in South European Russia. Each of these, it is promised, will have an annual capacity of 60,000 tons of metal shapes.

According to Moscow data, last year 125,000,000 dollars (£25,000,000) was devoted to railway repairs, improvement and service, and Commissar of Railways Rudzutak has demanded 250,000,000 dollars (£50,000,000) for this coming year.

Free Rides

One of the great tasks of the Commissar of Railways has been to cut down the free ride. During the communistic regime people got used to riding for nothing, at best bribing the conductors with food in exchange for rides, and that expectancy has not yet been shaken out of the cunning heads of the peasants. However, while true-blue communists may now and then get free rides, there has been a rigorous effort to make the railways pay. The three classes have been reduced to two,



A Diesel-electric locomotive in use on Russian Railways

and these two are divided into " hard " seats and " soft " seats. Those who wish a soft or cushioned seat pay double the fare of those willing to ride on the hard, wooden seats. " Hard " seat fares are slightly over two cents (1d.) a mile, and all tickets are cheaper for long distances.

"Hard" and "Soft" Sleepers

Passenger trains are of three kinds : the local or mixed freight and passenger, the " accelerated " or fairly fast, skipping way stations, and the express which travels at a speed of thirty to thirty-five miles an hour, and on which an excess fare of 25 per cent. is charged. These expresses are expected to keep schedule time. Such trains run in the winter season around the Black Sea, from the Crimea to the Caucasus, to accommodate persons going from one of these pleasure resorts to the other. There are in these trains both " hard " and " soft " sleepers, with an extra charge for bed linen.

The railways at present are making a bid for more passenger traffic by advertising the cheapest and fastest route from Europe to the Orient, or at least to China, offering one train a week connecting Paris and Vladivostock in thirteen days. This train runs from Moscow to Vladivostock now in exactly 240 hours, a reduction of forty-eight hours from two years ago. There are also daily expresses from Moscow as far as Novo-Sibirsk.

Another effort behind the railway desire for profits lies in the tourist agencies now being established abroad, or in co-operation with other branches of the government, to induce foreigners to visit and travel in Russia. It was stated that there were 10,000 foreigners in Moscow for the tenth anniversary on November 7. But how far this movement will go is problematical, because passport fees are high and hotel rooms cost from 8 dollars (33s. 4d.) up in Moscow. These are the trivialities which affect only foreigners and not always them, if they go in the group tourist plan.

Traffic Increasing

So far as concerns the Russian people, free ride or no, it is certain railway facilities are provided each year to accommodate an increasing number. The total passenger traffic of 1913 was 184 millions, as compared to 211 millions in 1924-25, and to 262 millions last year. On the other hand the freight tonnage last year was considerably below that of 1913.

Put another way, national production is still below 1913, if railway traffic be used as a measure. Thirty-three thousand freight cars were used daily in 1913, to handle 156.9 million tons of freight, whereas last year 27,489 were used daily to handle 66.9 million tons. Figures for the eleven months of the Soviet year ending November 7 show the average daily car loadings to be 27,400, which is not an increase over previous figures.

More Men Employed

The number of men employed in railway work has increased from 762,000 in 1913 to 1,072,000 at the present time, with average wages 30 dollars (£6 5s.) a month, adjusted however to the cost of living in different localities. They enjoy in many instances free dwellings and other conveniences at the charge of the government. Because of the certainty of the job and other advantages, such as private trading, these positions are much sought after in Russia. As in other industries, the eight-hour rule is law.

The partial recovery of the Russian railways has been accompanied by development of aeroplane, automobile and motor-bus services. That this recovery has been effected is due in good part to the inherent indestructibility of railway material, a fundamental fact which has been observed in Austria, France, Italy, and other countries where the war damaged the railways, though not to the extent of the civil war in Russia.

The revolution is regarded as definitely over, and after the present difficult reconstruction period, it seems fairly certain that Russia will ultimately take her place as the next big railroading country of the world.

By Latimer-Esch

DO YOU GET PAID ENOUGH?

For the V.R. Magazine

DO you get paid what you are worth? It is probably a lucky thing for you that you don't, otherwise you would find it difficult to make ends meet.

Perhaps you don't believe this. Perhaps you have never tried to estimate what you, yourself, are actually worth. . . . . What you could earn, on your own, if you didn't happen to be employed by somebody else.

Your job may be worth the salary you receive . . . . but it doesn't follow that you are worth it, too.

OF course there are men who are worth every bit they get. They are the conscientious workers who do their best every day, and in every way, every week of the year.

Some men are self satisfied individuals, with a strong disinclination for any sort of work, and a curious idea that they are doing their employers an honor by working for them.

Some of us realise that we could be a lot better than we are, and we try to keep ourselves up to the mark. Some of us, on the other hand, don't care a button.

IN every organisation there are two sorts of men.

One says : " I am not getting paid enough. I'll have to work harder, learn more, and increase my earning capacity."

The other says " I am not getng paid enough. So I won't work so hard, I'll balance it off that way."

There is only one cure for the second man, and that's the sack. It is just waiting round the corner for him.

It is the kindest thing that any organisation can do for him, because he is a sick man morally. He has lost his sense of values.

When he has been hunting round for another job, for a few weeks ; when he has stood with a mob of two hundred men, after a boy's job—and this actually happened a few weeks ago ; and finally when he learns that, far from being worth more than the basic wage, or whatever he was getting, he is not worth anything—not a rassoo—and that nobody is anxious to pay him sixpence for his services, then he will begin to wake up. Or give up.

ALTOGETHER there is a lot too much talk about " how much am I going to get ?" It is all very fine to a certain extent, but what he should ask, is : " How much am I going to be able to give ?" Much more important.

There are some positions where there is so little scope for a man to advance, or give anything, that no go-ahead fellow would stop at them long.

On the other hand there are firms and organisations where you will find every inducement and encouragement to improve yourself and give your very best. It is here that all the right minded men are found.

LOOK after the giving ; let the getting look after itself !

Don't worry about how much you are getting, provided there is no limit to what you can give.

The time to start kicking up a fuss is when you find you can no longer give as much service as you would like, and are able.

There's a bigger job waiting for you then.



Where the waybill's work begins

Waybill Wisdom

By
W. ARUNDEL
Asst. Goods Superintendent Victorian Railways

A TRANSPORTATION man of course knows the waybill as well as he knows the palm of his hand. In that very solid volume, the "Transportation of Goods" book, issued by the Victorian Railways, 16 pages of instructions are reserved for the waybill. There the diligent junior learns that every consignment of goods, from chaff bags to cream cans, and from empty boxes to filled barrels, "must, before despatch, be properly waybilled on a goods waybill form"; that a consignment note, properly prepared, must be received for each consignment waybilled; that all entries must be legible and never crammed between the lines; that an endorsement must appear on the waybill, showing whether the weight was averaged, estimated, or determined on departmental or sender's scales; that separate waybills must be used for certain kinds of traffic like poultry, rabbits, fruit, cheese or honey; that, with a handful of exceptions, waybills "must be enclosed in the prescribed truck envelopes which must be securely and properly placed in the clips provided on the sides or ends of trucks"; that wires must be sent if waybills are inadvertently left behind; and so on, *ad infinitum*.

PROPERLY speaking, a waybill is a freight consignment's birth certificate, railway ticket, passport and character credential rolled into one. It shows—or, it should show— the sender's name and the consignee's name and address in full, a description of the goods, the number of packages, the weight, the charges and a miscellany of accounting symbols.

Causes of Delay

If a waybill is to perform its very important function efficiently, every one of these instructions must be observed. Errors, illegibility and omissions leave a harrowing trail of delay, irritation, duplication and unnecessary work in the wake of the erring waybill. The tallyman, the entry clerk, the abstracts clerk and the accounting typist at the Melbourne Goods, the mathematician in the Audit Branch, and the silk-stockinged girl behind the freight accounting machine in the Powers' division, are all affected by the pencil marks heavily indited on the carbon-sheathed waybills at Mildura, at Port Fairy, at Serviceton and at Bairnsdale.

No entry on the waybill form is unimportant. And the most important entry is every entry.

Inwards waybills are the basis of the office work at the Melbourne Goods. The number dealt with each month is about 30,000. Or really 60,000, as both original and duplicate of each waybill accompany the goods.

On arrival of trains in the Melbourne Yard, waybills are stripped from the trucks and taken to the various sheds and offices. There they are at once registered and the two copies are separated. After trucks have been placed in the shed, the originals are handed to tallymen who are able to proceed with their tallying as soon as trucks are discharged. Second copies go to the entry clerk, who records particulars in alphabetical or firm order on delivery cards. Subsequently these cards form the shed office delivery record, from which all particulars of goods are supplied to the different consignees.

With the completion of tallying, the original waybills return to their particular shed office, for checking, accounting and transmission to the Bookkeeper's Office as required. Abstracted, they are balanced daily with accounts and then sent on to the Auditor with abstracts.

At the Perishable Shed certain items required for immediate delivery are accounted by the staff on night shift, and the balance by the accounts clerks, who commence duty at half past seven in the morning. Most other waybills are checked and accounted in the Bookkeeper's Office by a staff working day shift.

All waybills showing items for consignees, who have not a credit account with the Department, are first accounted. If immediate delivery is not given, the accounts are sent to the Inquiry Office. Here they are filed in alphabetical order and held as an advice to customers as to location of goods. Charges due are paid by the consignee at the adjoining Cash Office and delivery may then be taken at the sheds. Credit Account customers apply direct to the respective shed officers and obtain particulars of their goods there.

Plain, Clear, Writing Essential

Waybill accounting at Melbourne is performed by junior typists who have at times to work at high pressure. Tallying is done by men who are recruited from labor staff. Most of these work a night shift, and have frequently to tally on a congested floor after goods have been discharged. To a large extent, card entry work is done by junior clerks working a night shift.

No doubt, if any country station staff were asked what was the most important thing to watch in the compila-

tion of a waybill, the reply would be the invoicing of the correct destination, or the accurate computation of charges, or a distinction between "paid" and "to pay" consignments. The real need, however, strikes deeper, although the most important considerations are actually the simplest. The first essential is plain, clear writing, devoid of artistic curves and flourishes. Then the consignee's name should be written in full with legible initials. And the sender's name also should be clearly shown.

In one notorious case, "Swan Hill" as an address on a waybill was read as Terang. The very casual writer had not had room to link his last two "ll's" on the one line, so he just dragged them down on to the line underneath, where they formed a very neat "g."

Other instances include the waybilling of poultry as potteryware, the omission of the consignee's name altogether, and the transposition of sender's and consignee's names. Another time one can of cream, a/c Moran and Cato, was actually waybilled as one crate of poultry a/c Robertson and Gardner.

Of course, it is recognised that many irregularities are due to the receipt of indifferent consignment notes from consignors. This should be carefully watched.

But all aspects of waybilling should be carefully watched. For the price of a good waybill is eternal vigilance.

VICTORIAN RAILWAYS Date (In figures) 1/4/1928 Capacity _____ tons

G.F. 8 M* Goods Waybill No. 38 From Blanktown To _____

Sender	Consignee, Address, Carrier	No. of Packages and Description of Goods	Marks	Com. Code No.	Weight Tons	cwt.	qrs.	*
Smith	Paterson	1 roll lino.				1		
Brown	Mitchell	1 pkt hardware					2	
Robinson	Young	10 ck fruit				5		

Blanktown, which does not figure on the list of Victorian Stations, shows how a legibly written waybill can precipitate "confusion worse confounded."

In the absence of initials, or other identification in the consignee's column, the waybill clerks at the Melbourne Goods have no means of telling whether "Paterson" stands for Paterson's Ltd., or Paterson's Big Furniture Warehouse, or James Paterson and Co.; Pty., Ltd., or even Paterson, Laing and Bruce, Pty., Ltd.

Similarly, "Mitchell" might signify Mitchell and Co., or Thomas Mitchell and Co., Pty., Ltd., or David Mitchell. And "Young" might be Tim Young and Co., or T. H. Young, Pty., Ltd., or W. Young and Co., Pty., Ltd.

There remains also the likelihood of the names referring to private persons and not even to one of these well-known firms.

ELECTRIC RAILWAY RECORD

SIX Westinghouse-Baldwin electric locomotives, each weighing 67½ tons, were placed in running through the St. Clair tunnel on the Canadian National Railways in 1908. During the 19 years in which they have now been in use, there has not been a total of one hour's delay charged to locomotive failures, and in their 19th year they were available for service 97.7 per cent. of the time. This in spite of the heavy traffic which they have continuously carried—last year they covered a distance of 348,025 miles, hauled 468,760 cars, and carried something like 19,696,708 tons. The average maintenance cost per locomotive mile over the 19 years was 4¾d., this figure being reduced in 1926 to 3d. Some of the original gears in the locomotives are still in service and have made about 655,000 miles, while in other cases pinions exceeded 200,000 miles before being replaced.

BROKEN-HEARTED BIRD

Do love birds die of broken hearts? Dictionaries affirm that they sometimes do, but generally stories to this effect have been regarded sceptically. Confirmation of this strange trait was given at Montreal recently, when a shipment of the beautiful birds was being forwarded to Japan by the Canadian Pacific Express Company. One of a pair of love birds suddenly became sick, fluttered from the perch to the floor of the cage and, after a few convulsions, died. The hen bird, finding that efforts to revive her mate failed, stretched a wing over the prostrate body and died by its side within a few minutes. Several railwaymen who had been watching the birds at the time, were astonished at the incident, as the hen bird a few minutes after its mate became sick had been hopping along its perch in lively fashion.

Represen

EVERY Sunday morning. Sitting quietly in the office at the end of the long Bendigo platform. A little, clean-shaven man in dark gray suit and high collar. Soft hat dragged down over his broad forehead, shadowing the gold-rimmed pince-nez, almost brushing the bridge of the long nose. Drooping from the lips, a cigarette . . . . . .

Pencil skimming ceaselessly across the pile of train running sheets in front of him. Studying, comparing, analysing, dissecting. No smile of satisfaction, no frown of concern. Phlegmatic, detached, almost bored. Occasionally a scrawled comment on the margin of one of the sheets in stiff, angular writing. And down in the bottom corner of every sheet the initial "T." . . . . .

"T" of course standing for Tred., Tred. of course signifying Tredinnick, and Tredinnick of course meaning William ditto, District Superintendent at Bendigo for the past five years.

Or four years and 10 months, to be exact. And, for appropriateness, one should always be exact when referring to such an exact person as William Tredinnick. His thorough training in the hard school of train running explains that exactness, explains moreover why his Sunday morning scrutiny of Bendigo district's running records for the previous week is as searching as it is regular, as painstaking as it is cyclic.

Tred. passed through the service with a working timetable in one hand and a watch in the other. When the Victorian Railways established its pioneer train control business in 1908, he was appointed one of the first three, or three first, partners of the firm—Clark, James, Tredinnick and Co. Harry Clark subsequently moved up to survey the jungle of tracks in the Melbourne Yard, and later moved back to survey the jungle of trucks in the State. J. James moved into the Live Stock division as senior clerk and then died. Tred. consolidated his partnership, bought up most of the shares as well as a live interest in the business, and became managing director.

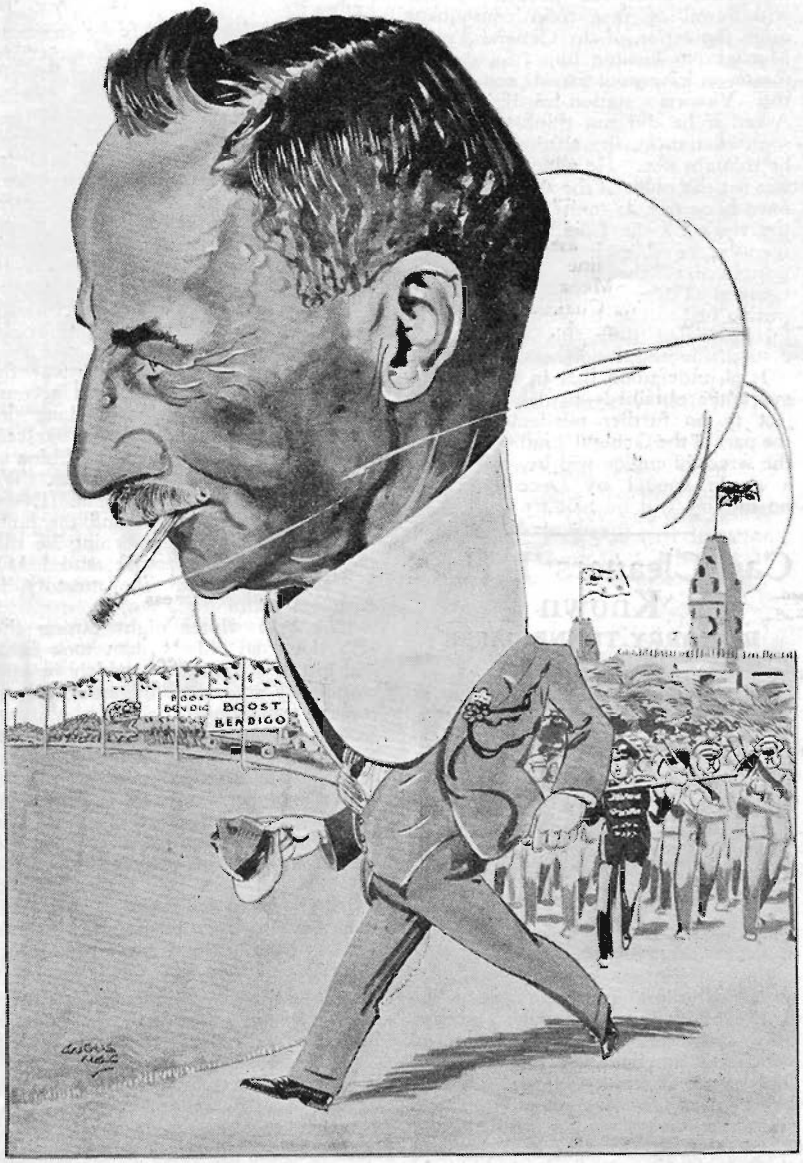
In other words, he took control of control. He concerned himself with the recasting of all country train schedules and the perpetration of the lonely forerunner of all Victorian railway graphs. He was in control when the department's batteries of telegraph instruments burst into excited life beneath his roof, carrying him on their frenzied *clack-clacks* into the position

ntative Railroaders

No. 8—Bendigo District Supt. WILLIAM TREDINNICK

By R. H. JUNIOR

Caricature by Angus Mac



of first Chief Train and Telegraph Officer.

A position which Tred., after an earnest examination of the northern, southern, eastern and western horizons, decided didn't suit him. His troubled gaze roamed farther afield. And, in consequence, he himself roamed in to see Commissioner Miscamble.

"Very well," said Commissioner Miscamble affably, "If you want to go out as S.M., we won't stand in your way. I forgot," he smiled slightly, "I forgot that you worked under Joe Poynton in Room 10."

For Joseph Poynton was the founder, patron, president, vice-president and committee of the Society for the Abolition of Ruts and Grooves and the People Who Work Therein. Restlessly energetic, he was as much the sworn enemy of myopia, as he was the active advocate of self-help. "If you don't like your job, for heaven's sake get out of it and find one you do!" was his simple gospel. "Aim for a definite objective, and don't be afraid of aiming too high."

Joseph was clerk-in-charge of Room 10 when William Tredinnick worked with him (he moved into a big job in the Commonwealth railways later on, and is now in charge of a private railway in Westralia), and the Tredinnick outlook was colored by the bold strokes of the Poynton brush.

Accordingly, Chief Train and Telegraph Officer Tredinnick reversed, shunted himself out of the track which he considered led to the buffer-stops, and set himself running smoothly and easily along a branch line which swept from Station-master to Relieving District Superintendent. Assistant Station-master before he came to Head Office, he now had his first experience as R.S.M., and picked up depot wrinkles at stations like Spencer-street and Flinders-street and Ballarat.

Definitely his foresight was rewarded on June 6, 1923, when the Bendigo railway staff welcomed its new D.S. and set about getting to know him. And to like him. There is nothing soft about Tred. Discipline could be his second name. But he is the personification of tact. As his most junior lad porter, with a wisdom beyond his years, has observed, "He ticks you off without making you feel a goat."

Off the job—if a railway District Superintendent can be said ever to be off the job—Tred. is a booster of all things Bendigonian. Form up the champions of the Capital of the Golden North in an imposing procession, and you would need to keep a vacant space in the very front rank for William Tredinnick. He has made the advancement of Bendigo and the northern district just as much a definite objective of his as he made the position of District Superintendent when he was in charge of the telegraph and train running room. Which is one reason why he is so interested in the big scheme for the formation of Young Farmers' Clubs or Boys and Girls' Clubs throughout rural Victoria.

One of his sons, incidentally, is studying the science of modern husbandry at Longerenong College, while the other is displaying all his father's keenness, exactness and adroitness on the path of lawsuits and costs with Maurice Blackburn.

The two chips, in fact, give promise of reconstructing the old block.

Home Rails

A DOMESTIC CATASTROPHE

By courtesy of London "Punch"

A REGRETTABLE railway accident occurred late yesterday afternoon when the 4.55 express from Victoria, scheduled to arrive at Liverpool Street at 4.56, left the rails at a point midway between the south-east corner of the side-board and the northern edge of the coal-box. The engine had just been rewound and was negotiating the awkward bend at this point at top speed. Leaving the track without any warning, the engine became uncoupled and ploughed up the pile of the carpet for some distance. Then gaining fresh impetus on reaching the linoleum surround. it crashed into the dining-room door, where it immediately overturned.

Happily the accident was not accompanied by any loss of life, although several passengers were slightly injured. An elderly doll, riding in the tender with her legs resting on the roof of the foremost carriage was dislodged as soon as the train left the metals and, we regret to say, falling heavily, lost two more fingers. Several cows and horses, belonging to Pauline's farm, travelling in the second and third carriages, were badly shaken, and the milkmaid in charge of the animals complained of scraped paint. A dog, believed to be Dismal Desmond, which, with his companion, Galloping Gus, had been leaning against the door when the engine crashed into it, was knocked down but not seriously hurt.

The locomotive—an old model which it was hoped would in any event have been replaced about Christmas—was not badly damaged in the actual impact, but as it lay on its side, the maid, coming into the room to prepare tea, trod upon it and buckled the front wheels. The owners were not insured against accidents of this type, but have extracted a promise from the underwriters as an act of grace to provide a new engine of the 1928 class not later than 25th December next.

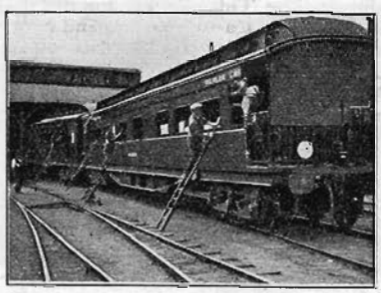
A tragic circumstance connected with the accident is that the 4.55 p.m. was, as it happened, the last train of the day. In another few minutes the line would have been closed down, the 4.56, the 4.57 and the 4.58 having been cancelled by the authorities as a punishment for the action of the General Traffic Manager (Gordon) in kicking his friend Brian, the stationmaster at Liverpool street, and pulling the hair of his young sister, Pauline, the stationmistress at Victoria.

The cause of the accident is not quite clear, but in an interview given to our representative during tea, the General Traffic Manager said he suspected foul play by the stationmaster at Liverpool street, whose turn it would have been to wind up the 4.57 slow, and who was no doubt somewhat peeved by the withdrawal of that train consequent upon the action of the General Traffic Manager in kicking him (the stationmaster at Liverpool Street) and pulling the Victoria station-mistress' hair. Asked if he did not think this was a somewhat unworthy suspicion he said he thought not. He added that if this was not the cause of the accident it may have been due to faulty adjustment of the track by the Chairman, who frequently, he alleged, assumed running powers over the line after he (the General Traffic Manager) had been put to bed. The Chairman, who had just returned from his office, hotly denied this imputation.

It is understood that in view of the guarantee obtained—namely that subject to no further misdemeanour on the part of the General Traffic Manager, the wrecked engine will be replaced by a newer model by December 25—no inquiry will be held.

Car Cleaners I Have Known

By HARRY TUNNECLIFFE



OF all the grades embraced by the various branches of the Victorian Railways car cleaning is one on which the limelight is seldom thrown. This work is hidden in the shadow, being done for the most part on stationary trains in the Dudley and Flinders-street Yards. It does not come under the public eye, although, on rare occasions, it may come under its criticism.

In this grade men may be found in many instances far above the average intelligence, men with whose lives fate has juggled strangely. Yet in her caprices she has not deserted them altogether. Car cleaning has absorbed men from all stations in life ; the sailor, the artisan, the compositor, and the office clerk, may be seen working side by side in the cars. Many hold references which bear testimony to the fact that they were at one time in possession of high business qualifications.

But something had failed them. What this something was, no one can say. Perhaps in reaching out for some objective in the wide field of speculation, the prize cheated the grasp, and insolvency stood at the door. Who knows ?

One morning, some few years ago, a tall, refined looking man, accompanied by a leading hand, and carrying a broom, crossed the network of rails in the Flinders-street yard. He and I became fast friends. Born and educated in the city of Dublin, he had held the position of secretary to the late Cecil Rhodes, the South African millionaire. Possessed of a cultivated and fluent speech, he was by nature a gentleman. His knowledge of history was vast, and he was deeply read in philosophy. He contributed to a couple of English magazines. Sitting upon a pile of old sleepers during the lunch hour, we both wandered away with Wordsworth, across English meadows, and accompanied the Roman legions, along the Euphrates. We followed the Saracen armies from the east coast of China to Spain, in conquest after conquest. We meditated with the Buddha. Every day brought its subject, and the hour sped too soon. One morning he did not put in an appearance, and I saw him no more. But the memory is with me still.

One cold winter night during the crib hour, an elderly man took from his locker a violin, on which he did wonderful execution, fingers and bow moving rapidly over the strings, shifting from position to position with perfect ease. He played selections from grand opera with finished perfection, and with a final harmonic, he replaced the instrument in his locker. With lantern and broom in hand he walked out of the cabin into the early morning, for the hour of crib had expired. And although it is long ago, I am still haunted with the melodies which came stealing from under that masterly bow.

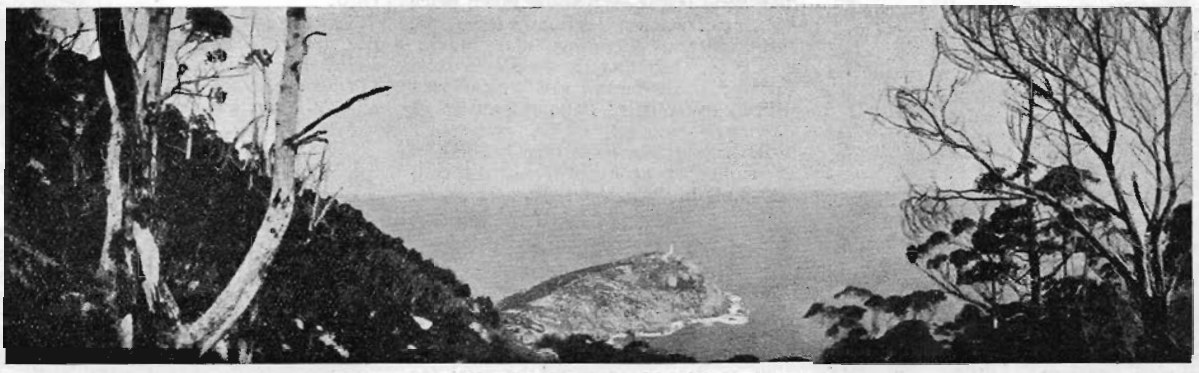
I have heard the most beautiful double and triple tongueing done on a cornet, by one of the men, who told me he had travelled over the world with a circus. I have heard running through a conversation the names of such men as Spinoza, Marcus Aurelius, Plato, Kant and so on.

And in looking back over the past, the retrospect is somewhat saddening, for some of these men have made their exit through death. Some are still in the yards, pleased with the fact that the fate which long ago had mapped out their destiny, had not altogether forsaken them.

Where to Spend a Holiday

A Hiker's Paradise

By H. L. JOHNSON



Looking down on the lighthouse, Wilson's Promontory

FOR a healthy, invigorating holiday, the National Park at Wilson's Promontory rivals the best in the world. The diversity of country is such that it must please all tastes.

A fast train journey to Fish Creek, a prosperous little town in an extensive dairying district, is followed by a car journey to the Darby River, on the banks of which the comfortable Government Chalet is situated. The journey down is full of interest. Part of it is along six or seven miles of firm smooth sand which forms a natural speedway, and over which at high tide, the ocean rollers curl. This stretch is a conchologist's delight. Thousands of shells of all descriptions strew the beaches. It is an exhilarating run to the Darby. The sunrise over the Valley is exquisite, and an early riser can very often see emus, kangaroos, wallabies a mere stone's throw from the Chalet. Half a mile away is a glorious surfing beach, safe and sandy, but only one of the dozens that fringe the Promontory. Two miles away is Tongue Point, where at all times excellent fishing, including cray, is to be had.

Vista of Coastline

Look-out Rock, a high eminence close to the Chalet forms an excellent spot to obtain a magnificent vista of the coastline, the golden sands stretching for miles up the coast. Many trips are available, the Tidal River district, which abounds in excellent camping facilities, usually being made a centre. This river, some seven miles down the coast, forms the heart of the famous

HAVE you ever been to Wilson's Promontory? If you have, you will agree; if you haven't, you will discover if you go there that it is a veritable hiker's paradise.

Lilly-Pilly Gully, and winds leisurely through the Tidal Valley, towards the sea. Gums, tea-tree, rushes and reeds, alternately hold pride of place on its banks. Towering over this valley is Mt. Oberon (1,960 feet), one of the most accessible mountains, and one that unfolds a panorama which well repays the climbers. Birds of all kinds are numerous in this glorious valley.

Heading south for the lighthouse, wonderful scenery is plentiful, and this portion of the Park lives long in the memory. The bridle-path leads first over Oberon, then along the beach of Oberon Bay, where the rare nautilus is occasionally beached, and then across to rich flat grazing country, high over Martin's Hill. Splendid views are obtainable here. The path again follows high rolling grassy downs, into leafy gullies, across chuckling creeks, through narrow gorges, presenting scene after scene of bewildering variety. At last comes the climb of South Peak, and a truly magnificent sight is displayed. Some 1,500 feet below, almost at your feet, on a narrow neck of rock, stands the gleaming white lighthouse, 276 feet high, but looking like a quaint pepper pot from this height.

Outlined by a deep blue sea, and sky, with Deal, Cliffy and Glennie Island, set like gems in blue velvet, deep fern-clustered gullies sweeping down from your very feet, it is a scene of indescribable beauty, and one that lives long in the memory of all who see it. Visitors who reach the lighthouse are cordially and generously received by the keeper, who warmly welcomes all who come "farthest South."

To Sealer's Cove

This is but one trip. Another is the famous Sealer's Cove excursion. From Tidal River the path winds slowly along the contour of the Wilson Range, climbing steadily among massive gums and through sun-tinted gullies, wild flowers in profusion, and deep gorges with fine straight trees, the tops of which form a verdant carpet far below. Over the saddle, taking a last look down the gold-lined valley, extending for miles, one comes down the other side and into the heart of the most beautiful fern gullies in all Australia. Small ferns, large ferns, frail and delicate ferns, and the famous Lilly-Pilly fern, all find their home in the moist leafy glades. The rich soil, plenteous rainfall, and the days of sunshine, combine to produce miracles in the gullies. The canopy of trees overhead, the quiet of the bush, the beauty of the scenes, almost take one's breath away. At the Cove the vegetation grows to the very water's edge.

But these are but two trips. There are numerous others, several mountains to climb, gullies that have never been explored.

UP-COUNTRY

As Recorded by Railways District Superintendents

BENDIGO

OWING, no doubt, to the recent beneficial rains, an extraordinary demand for artificial manure and seed wheat has been made by the northern farmers, and these orders are being filled as quickly as possible by the Melbourne firms. This traffic, together with fodder, agricultural machinery, stone and gravel for road construction and an increase in general goods and building material has set up quite abnormal conditions.

Since the rains, the growth of grass has been wonderful, and the sheep and cattle previously sent away for pasture are coming back into the district. During the month approximately 1200 trucks of sheep and 200 trucks of cattle came into the district.

Special arrangements have been found necessary to operate this unbalanced traffic, and the effects have been felt in the larger depots and junction stations. During February no less than 92,000 tons of "down" loading was despatched from Bendigo, not including ordinary mixed train loading.

The bulk of the traffic was consigned to the distant sections of the long Northern lines, necessitating long empty haulage on the return trip. At Kooloonong the position became so acute that the Caretaker was replaced by an operating porter, and the station opened as a temporary staff station.

The fruit traffic continues heavy, and the outstanding feature is the heavy loading of apples for export. The Harcourt apple is well and favorably known abroad, and it is anticipated that some 140,000 cases will be exported this season.

Messrs. Noske's new flour mill at Charlton, now in full swing, loaded 1160 tons of flour during December and January last.

The Kerang-Koondrook Tramway Company handled a big tomato crop this season, 79,000 cases having been handed over to its railways at Kerang during December and January for transport. As many as 10 louvres were loaded on one day with this traffic.

During the same period, 826 cases of oranges were received off this line.

The egg industry maintains its importance in the district, no fewer than 1,886 cases, each averaging 25 dozen eggs, having been loaded during January.

BALLARAT

RESIDENTS of Ballarat, Ararat, Stawell, Murtoa, Horsham and Dimboola, have expressed appreciation of the decision of the Railways Commissioners to allow passengers to travel to these towns on Sundays by the 4.30 p.m. Express. On the first Sunday, a large number of passengers alighted at Ballarat. This will materially help to combat the present road traffic between the Golden City and the Metropolis.

A good traffic revival has taken place in the Western district during the latter part of February and March, with the result that trucks are in keen demand. All hands are busily employed in shifting large quantities of loading.

Ballarat railwaymen are making a special effort to form a football club and affiliate with the Ballarat League.

SEYMOUR

FOLLOWING February's exceptional rainfall, the outlook is very bright indeed. Throughout practically the whole of the territory the average was over five inches, while, in many of the dry areas, the rainfall for 1928 to date is equal to the total for the whole of the previous year. It is years since the sub-soil has been so thoroughly soaked. The growth of grass and pastures has been extraordinary, and in many localities more like that of spring than of autumn. This has been reflected in the increased output from the various butter factories.

Following a succession of comparatively dry seasons, the acreage under crop has been more or less restricted, but the prospects are at present good for the whole of this idle land being put under crop during the coming season. Fallowing is in full swing, and it is practically certain that the area planted with wheat will be much bigger than for the past several years. Increased production all round is indicated. The present manure traffic affords a fairly accurate gauge of the extent of the planting.

The early estimate of a 25 per cent. fresh fruit increase in the aggregate bids fair to be easily eclipsed, notwithstanding the damage and loss sustained owing to hail storms and heavy rains. The late peach crop, however, has been adversely affected, the fruit having become full of moisture, and soft and spongy, but the main crop of canning peaches has not been affected, and the yield is prolific.

With the luxuriant growth of grass and summer fodder crops, the market has improved all round and much stock is on the move. Thousands of sheep which have been on agistment in the Upper Murray are again en route for the Riverina. A very big proportion of the cattle from this district comes from the hill country of the Upper Murray, and many thousands of head are summer fed on the Bogong High Plains. Reports indicate that the grass there is the best on record, and now carries between 5,000 and 6,000 head. Mustering will commence early this month, and the traffic on the Cudgewa Line promises to be a record.

Picking in the five hop gardens in the Ovens Valley commenced late in February, and the yield is heavy. Owing to the abundance of labor available, the work has proceeded apace.

GEELONG

THE general traffic throughout the district is heavy, especially in manure, fodder and live stock.

Owing to reconditioning work on the railway pier at Geelong, shipments from this port have fallen considerably short of those of previous years. The work of remodelling the pier, however, is well advanced, and it is anticipated that the coal berth will be available within a short period. When completed, the pier will offer increased facilities for the handling of both import and export traffic.

The yield of fruit in the Portland district has been very good, and a considerable quantity of apples has been despatched from Gorae and other stations on this line for export.

DANDENONG

THE heavy February rains throughout the district have had a material effect on the beet crop which previously had good promise, and the yield should be a record, the estimated total now reaching 28,000 tons. Delivery to the factory will commence shortly.

The maize crops also indicate excellent promise, and the yield should be very heavy.

Heavy live stock traffic has been a feature of the month, a large number of trucks having been despatched to the north with the more favorable conditions existing.

Cereal crops, particularly in the Kilmany district, have given excellent yields, and a movement has commenced among the growers for the establishment of government experimental plots with a view to establishing the best varieties most suited to the district.

There is likely to be a considerable increase in the production of suitable cereal crops in Gippsland where originally such crops were considered unprofitable.

The alterations to the Pakenham station yard, which are now in hand, will provide suitable crossing facilities and materially reduce the standing time on the Warragul section.

Snaps Round The System

SENT IN BY CONTRIBUTORS



1.—Inspecting potatoes at Ruby.

2.—A railwayman in embryo. Kevin Critchley, Manor S.M.'s young hopeful ready with the section staff.

3.—Loading green peas at Drysdale.

4.—Trawalla station.

5.—New wheat siding under construction at Detpa.

6.—An unusual load. A type "E" header-harvester.

7.—Goods train crossing Horseshoe Bend, near Tostaree.

RAILWAYMEN of the MONTH

Cupid's Hat Trick

THE unmarried men's team in the Rolling Stock accounts office has been putting up a poor showing recently against the demon bowler, Dan Cupid. A couple of weeks ago, Arthur Houghton was clean bowled, and the next batsman in, Ralph Dunn, followed him cheerfully to the Benedicts' pavilion, the very next ball. Now Cupid has scored the hat trick, skittling the bachelor stumps of Bill Coffey with a well-pitched ball that broke sharply from the off. On quitting the crease, the batsman was presented with a set of cutlery and a cut glass vase by the spectators. He looked as pleased as though he had rattled up a double century.

No. 6



DADDY of V.R. block and signal inspectors, Laurence Stevens calls it a fair thing after 44 years service, He joined up as a junior in the Melbourne Yard under Inspector Sadler in 1884, being "No. 6" in the very first ballot conducted by the Railways Commissioners. (Incidentally, who were and where are the leading five?) He landed his appointment as signalman shortly after, and put in some 27 years in the suburban signal boxes. Paradoxically, although he has slept in every railway town in Victoria he has not once been stationed outside the metropolitan area. His rural peregrinations were all done on the relieving staff. In 1911 he jumped up to inspector and, after another term with the relievers, passed into the General Superintendent's office as Examining Officer. In that position he examined something like 3,000 railwaymen in his last two years. And when S.G.T.S. Clark handed him a wallet of notes at a recent block and signal inspectors' conference, the retiring inspector looked round a circle of a dozen smiling faces, and was able to say that there was only one inspector present, from the Safeworking Officer down, whom he had missed examining.

Link with Burke and Wills



THE first S.M. whom just retired S. I. O. Bob Davidson worked for was J. T. Wills, a brother of the junior partner in the ill-fated concern of Burke and Wills. Bob started under him at Geelong on February 15, 1886, and scribbles a glowing tribute to the memory of the explorer's brother. "A real old English gentleman and the kindliest officer I ever worked under. He always had a good word of advice for the youngsters." Bob was a number-taker in the Geelong Yard and remembers Commissioner Molomby and George Munro, retired Asst. Goods Superintendent, as clerks in District Superintendent Kirwin's office. From number-taking, Bob gravitated through a welter of train running, office, yard and shed duties to the position of railway 'tec. He holds commendatory notices of his work from two Police Commissioners—Sir George Seward and Sir John Gellibrand. And now, in addition, he holds a dinner service which the staffs of the Special Inquiry branch and the Claims Agent's office presented to him on his retirement.

First Editor



WITH the return of scholarly Jack Michie to the Institute, the Magazine parts with its very first editor and its oldest friend and mentor. Librarian at the Institute and editor of the old V.R.I. *Review* for a decade and more, Jack started the Magazine rolling as an Institute publication in 1924. Carrying through all the heavy spadework, and bearing unaided the brunt of the initial issues, he steered the Magazine on a smooth and safe course until it was absorbed by the Commissioners at the end of 1926. There was then some talk of establishing an official technical library at Head Office, and Jack's services were retained as Librarian in anticipation of the creation of that position. Meantime he remained on the Magazine staff as a writer of special articles and book reviews, and as "Uncle Ben" to the children. Library idea having since been postponed indefinitely, he has now returned to his former position in the Institute.

Stars and Labor

OFF the job, Jack Michie is an enthusiastic astronomer. He is by way of being one of Australia's foremost authorities on the starry science, and is secretary and a past-president of the Astronomical Society of Victoria. Then, of course, he has put in a power of sound sane work for Unionism and the Labor cause—work, not of the tongue, but of the head and hands. So that he has twisted the Royal Flying Corps "through difficulties to the stars" motto into *per labore ad astra*.

Discoveries in America



ONE unofficial discovery of Chairman Cameron of the Staff Board while abroad was that a traveller who carries a rug in an American train is always an Australian or New Zealander. For it was a rug, which didn't belong to him, that brought him a call from another Victorian railwayman whom he didn't expect to see, and who hadn't expected to see him. Travelling down Chesapeake way, a young Victorian rail engineer on leave in America noticed an elderly stranger opposite him with a rug on his knees. Confidently the engineer introduced himself as a fellow Australian, explaining to the slightly bewildered stranger the significance of a rug as a national visiting card. Then Coincidence outstretched a long arm, the stranger happening to mention that he had travelled over on

a boat with another Victorian railroader. "Chap called Cameron. On the Staff Board. He's in New York now." "What!" ejaculated the engineer "Mr. Cameron in America! Why, it was he who really got *me* here." Anxious to see and have a word or two with the travelling chairman, the engineer looked up the just vacated New York address, and, after a stern chase through Washington and San Francisco, ran his unsuspecting quarry to earth in Chicago. The pleasure of the chat that followed can only be appreciated by those who have themselves been strangers in a strange land.

Coincidence Again

INCIDENTALLY, Coincidence seems to have dogged Mr. Cameron's wandering footsteps. On four separate occasions, he and his companion, Mr. Dickinson, met in the street two other Victorian railwaymen, Messrs. Doyle and Cannington. The meetings occurred in different widely-separated cities and were quite accidental, both pairs moving independently on their individual lines of inquiry. If coincidence wasn't the explanation, the only conclusion is that America can't be such a big place after all. Which, of course, is absurd.

T. P. Bolger, Olympian



RAILWAY gymnasts and athletes generally are congratulating T. P. Bolger on his selection by the Olympic Games Council to represent Australia at the forthcoming Olympic games in the welterweight wrestling division. Bolger joined the physical culture class at the Institute when still in his early teens, and, at 16, came under the eyes of Billy Meeske and Bert Potts. In 1922, he was selected as a member of a wrestling and boxing team matched against those of the N.S.W. and Queensland Institutes, but he was beaten by Rash of N.S.W. Since then he has won many bouts in state and interstate competitions, both in the lightweight and welterweight divisions under V.A.A.A. rules. Bolger also wields a pretty good tennis racket.

April Birthdays



Col. Harris

APRIL is a popular birthday month in the Victorian Railways. Off hand, we can call to mind the following railroaders who will face iced cake and an avalanche of many happy returns on different dates during the month: ex-Chairman Arthur Hyland of the Betterment and Publicity Board, on the first; Bookstalls Manager E. J. Letcher, on the second; E. J. Tatterson, of the Live Stock Branch, and Audit Inspector W. Ellis, on the fourth; Fares Clerk Jack Reilly, on the eighth; Pym Goode, of Room 10, on the ninth; Acting Chief Mechanical Engineer N. C. Harris, on the 10th; Train Lighting Inspector W. A. Chipper, on the 11th; John Arthur Russell, of Room 2, on the 13th; Chief Clerk George Farrelly of the Stores, on the 18th; Chief Ticket Inspector George Johnson and Asst. Chief Storekeeper W. D. Morgan, on the 21st; Safeworking Officer Tom Edwards and Storehouse Manager A. Steele, on the 26th; Assistant Chief Engineer for Contruction F. Box, on the 27th; and Assistant Chief Engineer of Signals and Telegraphs S. P. Jones, on the 28th. Mr. E. C. Eyers, the Secretary for Railways is the man whose birthday *ought* to be in April. He got his first big departmental move in April, 1906, when he was selected as confidential secretary to Mr. L. McClelland, who was then Secretary for Railways; he was appointed first chairman of the Staff Board in April, 1921; and he became Secretary for Railways in the same month of 1923. But his birthday is September 8.

Com-Mence-s Well

FROM a field of 46 starters, Apprentice Electrical Fitter W. H. Mence has won this year's scholarship race for a diploma course in Electrical Engineering at the Workingmen's College. Competitors were all second and third year students at the Victorian Railways Technical College, and Mence's winning effort in both Theory and Practice was 382 marks, or an average of 76.4 per cent. Runner-up was Apprentice R. H. Warnock with 372 marks and 74.4 per cent.; while third place was filled by Apprentice K. Howard, with 366 marks and 73.2 per cent. The winner's record is an impressive one. He has collected a sheaf of certificates for engineering drawing, mechanics, electricity and magnetism, electrical technology, algebra and trigonometry; and he ran to second place in the second grade at the Technical College in 1926, and to first place in the third grade in 1927. And now, of course, he has made an excellent start in his pursuit of an engineering degree.

TIMELY

"What are you training for?"
"The 7.15."



Here, drawn up in camera formation, are the Bendigo railwaymen and their friends who made merry at the local guards' and shunters' second annual picnic at Happy Jack last month. More than 700 attended and more than 700 thoroughly enjoyed themselves. There were races for children and old buffers, for married ladies and single ladies. "Lofty" Davidson of Golden Square won the Sheffield Handicap, open to all railwaymen, and Master of Sports W. Gardner breasted the tape in the Committee race. Fowl-chasing, pig-catching, nail-driving and a bun-eating competition rounded off the programme which was carried through with characteristic railway punctuality.



By AERIO

Gleanings from The Radio Exhibition

THE All-Radio Exhibition at the Railways Institute last month was packed to capacity by keenly nterested visitors each night.

As a matter of fact, while necessarily of limited capacity, the exhibition was splendidly organised, and all concerned are to be complimented on the bright and interesting show provided. This Wireless Club, at the Institute, is certainly a progressive body and, if a tip from me is worth anything, I would suggest that it is worth while belonging to, from a social standpoint alone.

The room housing the amateur exhibits could well have done with elastic sides ; but, as luck would have it, I had access to the early door, and on my several visits had ample opportunity of examining some absolute revelations in radio gear.

A New Valve

For instance, I was quite astounded to hear 2 BL on the speaker at 4 o'clock in the afternoon on a single valve set, using an indoor aerial. There was no volume, as might be expected, but on switching over to the locals the speaker delivered just under 3-valve volume.

So impressed was I that I obtained permission to reproduce the circuit which is shown in Fig. 2. It will be seen that the valve is a double-grid, double plate arrangement, and permits of a detector and 1 audio hook-up (in this case a Reinartz with one stage of audio amplification) with the single valve. Accompanying the valve is a folder giving a variety of circuits in which it may be used, such as 2 HF, 1 HF and Det, 2 LF, etc.

Light-Socket Sets

There is no doubt that the battery-less receiver is now an accomplished fact. Several high grade light-socket sets were demonstrated. Volume, range and tone were all there, and the characteristic A.C. hum was entirely absent. The same may be said of the latest A.B.C. Eliminators.

Short-wave Kits and Adapters

Short-wave kits, sets and adapters were well in evidence, and provided an indication, if any be needed, of the growing popularity of short-wave reception as an alternative to ordinary broadcast. The V.R.I. short-wave adapter received a full measure of attention, and, judging by the interest shown, will form a very useful accessory in the radio equipment of many during the coming season.

In answer to many inquiries I may say that this adapter, although designed for use with the V.R. I. 3, may be used in conjunction with any set containing one or more stages of audio amplification, the only difference being in the manner of connecting the adapter to the set.

Further Notes on the Short-Wave Adapter

The circuit, lay-out, and general constructional remarks on the short wave adapter were published in our March issue.

Winding the Coils

We now come to the most vital part of our constructional procedure—that of winding the coils.

A cardboard former, 3 inches in diameter and 6 inches long, should be obtained. Four strips of No. 2 white celluloid, each 3½ inches long and ¼ inch wide, should be placed on the former at equal distances apart. Lay them along the length of the former, flush with one end, and hold them in position temporarily with small pieces of wire pushed through the former and across the strips.

The Aerial Coil

Start about ¼ inch from one end and wind on 5 turns of No. 22 d.s.c. wire. An air space is to be left between each turn, and to ensure a nice even spacing, a length of No. 26 d.c.c. wire should be wound on simultaneously with the No. 22 d.s.c. wire, so that the No. 26 wire may be afterwards removed, thereby leaving an air space in its place.

A tiny drop of acetone (obtainable from any Chemist at 6d. an ounce) should be used to cement the wire to the celluloid strips each time the wire passes over them, i.e., 4 times to every turn. This should be applied with a camel hair brush, and both wires should be cemented as you wind them. No difficulty will be experienced in pulling the No. 26 wire off again.

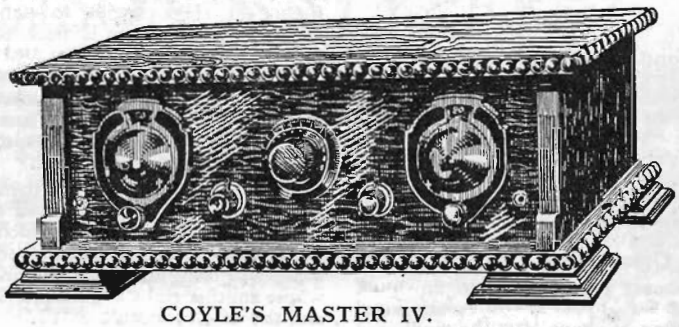
Leave three or four inches of wire over at beginning and end of each coil, for connecting up.



A section of the Exhibition at the V.R. Institute, last month

Here's— Real Radio Service

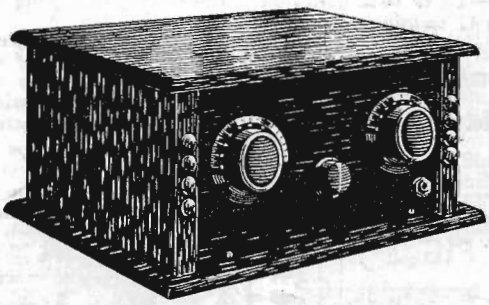
MELBOURNE'S Newest Radio Stores have proved an immediate success for they are meeting the needs of the city and country listeners alike. Special facilities are provided for Institute members, and a new mail order service for out-of-town listeners who can now enjoy the same pleasing service as those in the city.



COYLE'S MASTER IV.

A high-grade receiver—remarkably sensitive and selective. All interstate stations guaranteed. Mounted in attractive JACOBEAN CABINET—only best components used.

COMPLETE WITH ALL ACCESSORIES - - - - £18-10-0



TWO-VALVE SET

A popular two-valve receiver embodying best components. Selective—will receive all local stations on loud speakers.

COMPLETE WITH ALL ACCESSORIES - £7

B·E·T

Specials

Here are but a few of them. Call or write to-day, for particulars of others–

	s.	d.
Viking Vernier Dials, will fit one hole mount condenser - -	5	0
Kellogg Anti Micro U.X. Sockets, 4/6, reduced to - - - - - -	2	6
3 in. Black Dial - - - - - - -	0	9
.00025 Variable Condensers - -	3	6
Red Diamond Semi-Fixed Detector, 3/6, reduced to - -	2	6
Kellogg Tranformers - - - -	7	11
Bakelite U.X. Sockets, with Terminals - - - - - - - -	1	3
U.V. Metal Frame Sockets - -	1	3
E.Z. Toon Vernier Dial - - -	3	6

COYLE'S RADIO PTY. LTD.

Two Convenient Stores :

183 Bourke Street
CLOSE TO RUSSELL STREET
(where Robotham's was)

596 Collins Street
NEAR SPENCER STREET
(Mail Order Branch)

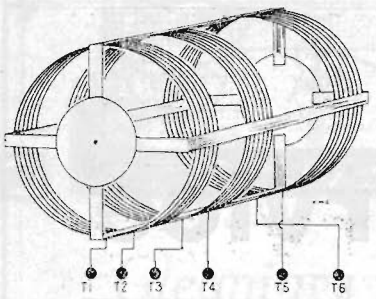


FIG. 1

Secondary and Reaction Coils

Leave a space of ⅜ of an inch and wind on 7 turns of No. 22 d.s.c. wire, spaced as explained above.

The reaction coil is to be commenced 1½ inches distant from the secondary coil, and consists of 7 turns, spaced as already explained.

Completing the Kit

The next procedure is to finish off the coil-kit so that it will remain rigid and retain its shape after the cardboard former has been removed.

Four strips of celluloid will be required, 6½ inches long by ¼ inch wide. One and a half inches from one end, each of these strips is to be bent at right angles. To do this, heat a pair of pliers over a flame until just too warm to bear on the palm of the hand. Grip the celluloid where it is desired to bend, turn at right angles, and the celluloid will set in position in a few seconds. If too hot, the celluloid will tend to stick to the pliers.

These strips are now to be cemented along the wire, directly over each strip beneath it, with acetone, so that the wire is held firmly in place with celluloid above and below. The right-angle pieces are turned towards the centre of the coil-kit.

The cardboard former has now to be removed from the centre of the coil. The only way in which this can be done is to tear it out piece by piece with a pair of pliers, using the same motion as you would in opening a sardine-can with a key.

It only remains now to bend the remaining ends of celluloid strips towards the centre and fasten top and bottom with a disc of the same material, cemented on with acetone. The completed coil-kit is shown at Fig. 1.

Constructors are strongly advised to make their own coil-kit, but if the task prove too difficult, I will make arrangements to have the coils hand-wound and tested at 7s. 6d. per kit.

Wiring Up

Busbar should be used throughout, the filament wires being kept close to baseboard, and the remainder well spaced from one another.

No. 1 Wire.—T8 to Rheostat.

No. 2 Wire.—Rheostat to F+ on valve-holder.

No. 3 Wire.—Commence at T4, thence at right angles to panel for about 2 inches towards back of set; thence at right angles again and parallel with top of panel until a point is reached just over the moving plate terminal of Condenser K1, then bend downwards at right angles and connect to this terminal on K1.

No. 4 Wire.—From T2, thence towards back of set and soldered to No. 1 wire; thence another 1½ inches towards back of set, thence down towards baseboard until level with terminal T7, where another right angle bend is made and the wire connected to T7.

No. 5 Wire.—From moving plates of Condenser K2, downwards towards baseboard; thence at right angles and to F— on valve holder; thence directly vertical and soldered to No. 1 wire.

No. 6 Wire.—T3 to fixed plates on K1; thence to G terminal on valve holder.

No. 7 Wire.—T5 to P on Valve holder.

No. 8 Wire.—T6 to choke-coil holder.

No. 9 Wire.—From fixed plates of K2 and soldered to No. 7 wire.

No. 10 Wire.—Choke-coil holder to terminal S2.

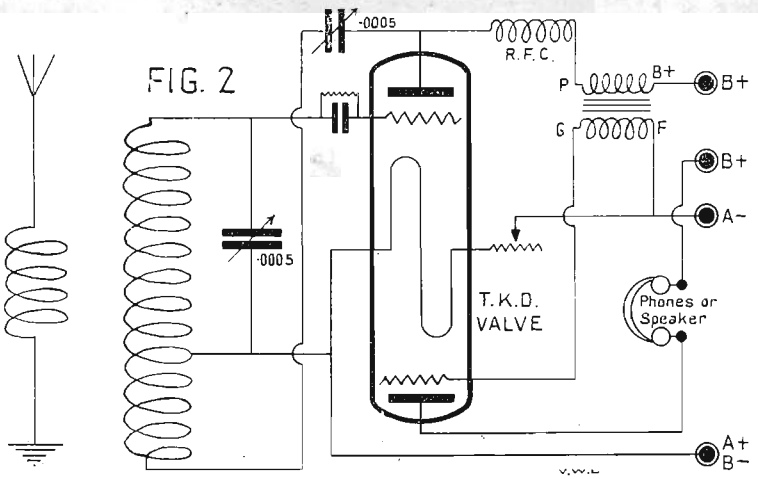
This completes the wiring of the adapter. It will be noticed that no wire is connected behind panel to T1 which holds one end of coil kit. The aerial is to be hooked on to the back of this terminal when the adapter is in use. Earthwire is to be hooked on to T7.

Note.—Disconnect earth wire from original set when using the adapter.

The next step is the connection between the adapter and the set with which it is to be used. One end of a piece of single rubber-covered flex is connected to terminal S2, the other end being connected to one terminal only of an ordinary phone plug which is then inserted in Jack J1 on V.R.I. 3. As there are 2 terminals on the 'phone plug, the correct connection will be found by trial.

Alternatively, if the adapter is to be used with some other type of set, this single flex connection should be connected to the Plate terminal on the empty detector-socket of that set. For convenience a plug-in arrangement can be made with the base of a broken valve, the flex being soldered to the appropriate valve leg and the base being then filled with wax.

All the apparatus and fittings described can be obtained at Messrs. Coyle's, whose advertisement appears in this issue.



Lines From Other Lines (*Continued from page 18*)

is being considered, not as an economic necessity but in anticipation of a possible future shortage of timber. Then, too, the South African Railway administration has been experimenting with steel sleepers, although stern necessity has been the impelling force in this case. Suitable wooden sleepers are becoming scarce in the Union. The metal sleepers are somewhat wider at their ends than in their centres, and are six feet six inches long. They are cambered to give the rail an inward inclination of 1 in 20.

As the deciding factor in the adoption of all permanent way materials is of course the relation of first cost to length of life, some years must elapse before it is known whether these fashion changes will become permanent or not.



Conducted by EILEEN, to whom all communications for this feature must be sent

NEW SEASON'S STYLES

New season's styles and colors are being displayed at present in all the shops, and there is apparently little change in the style of frock to be worn in the near future. Folds and tucking are still holding their own, and flares seem to be coming back as popular as ever. Many smart modes are showing, and it is a simple matter to obtain a pattern and make your own frock.

JUMPER suits are probably the most suitable for the business girl, and these are very popular. With a nice black silk pleated skirt, you can have several jumpers of different shades, and as many changes as you like. These are quite simple to make and look very dressy. These suits are also made up in jersey cloth, and other woollen fabrics.

The tonings are all to be more or less autumn tints, chocolate brown and neutral shades. Some of the new shades are very attractive, and the colors are easy to wear.

Flowers and shoulder posies are waning in popularity, and diamente brooches are taking their place. These look very dainty, and make a nice finish to an otherwise plain frock.

For evening wear, white is the main color, although, of course, pastel shades continue to be greatly worn. All sorts of styles are to be worn, and it depends mostly on the individual as to what style will be chosen.

For a bride, an autumn wedding holds the most attractive possibilities in many ways. Certainly it is very economical. The autumn bride may choose her dress with a direct eye on the evening gown she wants for the winter dancing season. Even as regards color she has nothing very much to fear, since the smartest shades are all pastel, and white is enjoying a greater vogue than it has done for years.



Two simple little house frocks which may be made in gingham or other cheap material, and look very clean and neat in the house.

Going Away Frock

Then again, for her going away dress, she may choose the frock or costume she will wear during the winter, and it is as well to invest in a really good suit which will pay for itself a sufficient number of times to merit her sane judgment. In fact, however you regard an autumn wedding, the costume happily looks right.

Many tailored coats will be seen this season, and these look very smart. A rain coat is a most desirable addition to the wardrobe at this time, and these, too, are being turned out in very nice colors and styles.

For the holiday season, the usual sports frocks will be worn, and any number of these are required if you are going to enjoy yourself. Every girl likes to have many changes when she is away, and the simple frocks for the presentday girl are so simple to make, and require such a small amount of material, that we need not worry about this aspect at all.



The sketch on the left shows an attractive jumper suit, suitable for making up in silk or jersey cloth.

The smart afternoon frock on the right looks very chic made in crepe de chene or marocaine, and is particularly suitable for the slim figure.

ENGAGEMENT

The engagement is announced of Edna Marjorie, youngest daughter of Mr. and Mrs. H. Collings, 41 Tooronga-road, East Malvern, to Mr. Frederick George Arkell of the National Bank, Moulamein. Mr. Collings is Officer-

in-Charge, Rolling Stock Train Running Room, at Railways Head Office. During the recent visit of the Reso train to Moulamein and Balranald, Mr. Arkell was one of the leading residents in providing and arranging cars for the party.



Mr. and Mrs. Ralph Dunn who were married recently. Both were in the Rolling Stock Accounts Branch, the staff of which presented the happy couple with a vacuum cleaner, a few weeks ago

Dog Catcher—"Do your dogs have licences?"

Small Boy—"Yes, sir, they're just covered with them."

HOME HINTS

Grease Spots.—Treat your rug as you would your woollen clothing. Rub with a woollen cloth dipped in benzine, to soften the grease; sponge with warm soapy water, then again with clean warm water, to remove signs of soap and grease. Hang out in a breeze to dry, and if the grease is not fully removed, repeat the process.

Burns or Scalds.—The best known cure is to mix equal parts of lime water and linseed oil, and apply this to the burnt part. If kept on for about an hour or so, there will be no blistering or breaking of the skin.

Apple Cake.—Take ½ lb. of flour, ½ lb. cornflour, 1 teaspoon baking powder, ¼ lb. butter, ¼ lb. sugar, 2 eggs, 3 apples, 1 lemon, 2 extra tablespoons sugar. Cream butter with sugar, add well beaten egg, lastly flour, cornflour and baking powder. Spread half the mixture in a greased dish or Swiss roll tin (about 12 inches by 7 inches). Spread on the apple which has been cooked in the sugar, and very little water, or grated on raw, and mixed with the sugar and lemon rind. Spread on rest of the cake mixture. Bake in a moderate oven ¾ to 1 hour. When cool, turn over and ice with lemon icing on the flat side. Sprinkle powdered cinnamon on top, and cut into finger lengths to serve.

ALL CLEAR

Betty: "Have you any green lipstick?"

Assistant: "Green lipstick?"

"Yes; a railway guard is taking me out to-night."

Husband (seeing wife off in train)—"Now, dear, just as soon as you arrive you must telegraph."

Wife—"All right. How much shall I telegraph for?"

SKELETONS

He—"Did you know that we have a family skeleton?"

She—"Goodness, yes; the whole world has known it since it first saw you in a bathing suit."

Graduate: "Have you an opening for a college-trained man?"

Manager: "Yes. It's right behind you, and would you mind closing it as you go through?"

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The "DELA" Lever is famed for its accuracy. It has 15 jewels, highly polished pinions and pivots, and many of the latest constructional improvements. Fitted to a solid silver or gold filled hunting Denison case as desired.

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Victoria Wins Blanch Tennis Cup for First Time

WITH Victoria's defeat of New South Wales by the narrow margin of one rubber in last month's interstate railway tennis play on South Yarra Courts, the Sydneyside team suffered its first reverse in seven years. And the tide of victory which had taken so long to turn carried the Blanch Cup for the first time on to the mantelpiece of the Victorian Club's president, Mr. T. F. Brennan, Chief Accountant.

Mr. A. V. Stenning, who was sole selector of the successful team, here reviews the play generally.

TAKEN all through, the standard of tennis was very high. Despite sweltering heat on both days, play never flagged, but was often brilliant and frequently spectacular.

The tournament commenced with a singles match between Lynch (V.) and Sidwell (N.S.W.), and a doubles match between McIver–Cobham (V.) and Selby–Muller (N.S.W.). Lynch won comfortably in straight sets, but the doubles went to New South Wales, after one of the best and closest contested matches of the series. McIver and Cobham won the first set 6–2, but lost the next two 5–7, 5–7.

Thus in the first round there was only one set difference between the teams, and that in favor of Victoria. However, at the conclusion of the first day's play, New South Wales led by one rubber.

On the morning of the second day, Victorian stocks rose high with victory following victory. So well was the pace maintained that with the arrival of luncheon—and, incidentally, another 200 spectators—Victoria had to win only one rubber of the remaining five to hold the Blanch Cup for the first time.

RESULT

	Games	Sets	Rubbers
Vic. Railways	**221**	**24**	**11**
N.S.W. R'ways	**224**	**22**	**10**

And that rubber was won immediately after the adjournment. McIver–Cobham played Hall–Clifford and won 8–6, 8–6. Endurance, mental control and courtcraft were all features of the hard struggle, and N.S.W. Captain Hall won rounds of applause for his fighting effort.

It is difficult to single out any individual player as the best in the Victorian team. There was not a passenger in the side—or in either side, for that matter. Anyhow, George Lynch won the racket which was awarded to the best player on the Victorian side, and to him, Arnold and Cobham, who were the successful singles players, is due much of the credit of the Cup win. McIver and Cobham, of course, were the dominating doubles pair, and both Ahern and O'Brien gave consistent support.

The Stetson hat which was presented to the best player on the N.S.W. side went to Vic. Selby, and perhaps the player who ran him closest for the honor was Muller. Hall, the captain, and Boulton, Sidwell and Clifford all fought hard to avert defeat.

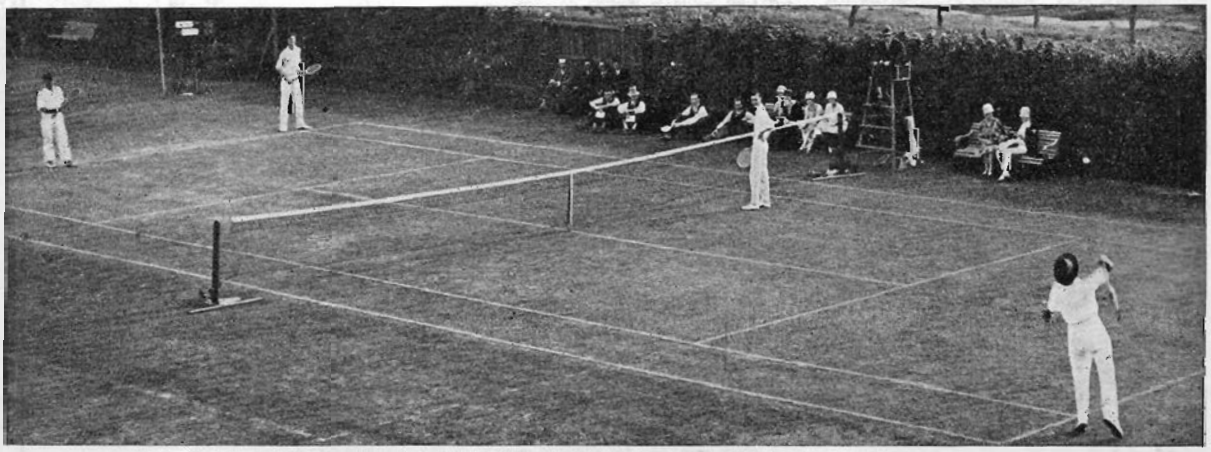
Secretary Jim Hennessy deserves all the praise for the excellent catering and social arrangements which contributed so materially to the success of the occasion. Luncheon and afternoon tea were given in the club pavilion each day, and a theatre party and outing to Mornington were enjoyed by members of both teams and their friends. Mrs. Hennessy's house party was a fitting conclusion to the tournament.

Detailed scores are :—

Singles

Lynch (Vic.) d. Sidwell (N.S.W.) 6–3, 6–1;
Arnold (Vic.) d. Boulton (N.S.W.) 6–1, 7–5;
Cobham (Vic.) d. Clifford (N.S.W.) 6–1, 9–7;
Arnold (Vic.) d. Hall (N.S.W.) 6–3, 6–4;
Cobham (Vic.) d. Muller (N.S.W.) 6–2, 6–4;
McIver (Vic.) d. Clifford (N.S.W.) 6–1, 6–1;
Ahern (Vic.) d. Boulton (N.S.W.) 6–4, 3–6, 6–4;
Lynch (Vic.) d. Selby (N.S.W.) 2–6, 6–2, 9–7;
O'Brien (Vic.) lost to Sidwell (N.S.W.) 4–6, 3–6;
McIver (Vic.) lost to Muller (N.S.W.) 2–6, 1–6;
Ahern (Vic.) lost to Hall (N.S.W.) 6–3, 0–6, 4–6;
O'Brien (Vic.) lost to Selby (N.S.W.) 4–6, 0–6.

(Concluded on page 46)



McIver and Cobham (Vic.) try conclusions with Boulton and Sidwell (N.S.W.). McIver is serving

Jottings From The Institute

BLUE RIBBON NIGHT

"IT is beyond question that the Institute is performing a valuable work to the Railways department, as well as to the community, in providing a sound technical education for those men who are striving to fit themselves for the more important positions in this very technical industry."

THUS Mr. T. F. Brennan, Chief Accountant and Associate President of the Institute, at the annual distribution of prizes to successful Institute students in the Concert Hall, last month.

Stressing the interest which the State was taking in technical education, Mr. Brennan pointed out that £150,000 has been set aside during the current year for that purpose. The need for technical education was as great in the railway industry as anywhere else, and the Institute was the Commissioners' medium for providing that education. The Institute was opened in 1910, and since then it had been actively conferring benefits on railwaymen. More than 4,000 students had passed through the classes that year, many of them with great credit to themselves and their instructors.

"Look back 20, 25 or 30 years ago," continued Mr. Brennan. "There was then no Institute standing with open doors for the railwayman who desired to improve himself, to undertake the duty which fell to his lot, to help forward this old world of ours, and to better the conditions of life for all. In the years which now seem far away, the man who wished to qualify for promotion was obliged to surmount many difficulties, and not every man could find the opportunity to do so. Yet the desire for knowledge was so great with many young men that they cheerfully continued their studies at considerable expense and with the sacrifice of much personal pleasure."

In an introductory speech, Mr. J. S. Rees, the General President, specially thanked Mr. J. C. M. Rolland of Willaura for renewing his customary five-guinea prize to the Institute. Mr. Rolland was not connected with the Department, but he was so interested in railway work that he presented a prize every year for the student who showed the most perseverance in his studies.

The prize-winners were :—

HAROLD W. CLAPP PRIZE—
Division A.
Kimber, M. S., Apprentice Fitter and Turner, Newport.

Division B.
Lee, A. S., Lad Porter, Welshpool.

Division C.
Hare, H. L., Cleaner, Traralgon.

ARTHUR E. HYLAND PRIZE—
McGrath, J., Junior Clerk, Newport.

J. C. M. ROLLAND PRIZE—
Kemmis, C. G. Fireman, Colac.

Algebra, Grade 1.
Borch, C. H., Super Laborer, Newport, 60, 1st Prize, Council.
No second prize awarded.

Algebra Grade 2.
Robinson, J., Apprentice Blacksmith, Newport, 76, 1st prize, Council.
Newell, A. R., Apprentice F. and T., Newport, 59, 2nd Prize, Council.

Bookkeeping, Grade 1.
Broughton, J. D., Clerk, R.S. Branch, Spencer-street, 85, 1st Prize, Council.
Vince, F., Clerk, Advertising Branch, Spencer-street, 80, 2nd Prize, Council.

Bookkeeping, Grade 2.
McGrath, J., Junior Clerk, Shops, Newport, 86, 1st Prize, Council.
Haines, J. T., Clerk, Melbourne Goods, 80, 2nd Prize, Council.

Building Construction, Grade 1.
Preacher, F., Apprentice C. and W. Builder, R. S., Newport, 66.6, 1st Prize, Council.
No second prize awarded.

Building Construction, Grade 3.
Robertson, W. J. (only candidate), Apprentice Carpenter, Signal Shops, Newport, 55, 1st Prize, Council.

Electricity and Magnetism, Grade 1.
Harrison, V. L., Travelling Crane Attendant, Newport, 75, 1st and 2nd, Council.
Horsey, A. E., Fitter, Shops, Newport, 75, 1st and 2nd, Council Prizes, divided.

Electricity and Magnetism, Grade 2.
Kimber, M. S., Apprentice F. and T., Newport, 91, 1st Prize, Council.
Priddle, I. S., Electrical Mechanic, Spencer-street, 88, 2nd Prize, Council, divided.
Williams, A. E., Acting Test Electrician, Spencer-street, 88, 2nd Prize, Council, divided.

Electricity and Magnetism, Grade 3 (Practical Technology).
Bennett, T., Electrical Fitter, Shops, Newport, 77, 1st Prize, T. H. Woodroffe, and 2nd Council divided.
Horne, R. D., Assistant Shift Electrician, Newmarket, 77, 1st Prize, T. H. Woodroffe, and 2nd Council divided.

English Course, Grade 1.
Holwell, V. R., Lad Laborer, R. S., Newport, 78.6, 1st Prize, Council.
McDonnell, J. F., Lad Laborer, W. and W., North Melbourne, 75.6, 2nd Prize, Council.

English Course, Grade 2.
Borch, C. H., Laborer, R. S., Newport, 93.3, 1st Prize, Council.
Edsall, G. S. J., Junior Clerk, Construction, Spencer-street, 89, 2nd Prize, Council.

Engine Working, Grade 1 (Junior).
Heffernan, G. A., Cleaner, North Melbourne, 94, 1st Prize, Council.
Harding, G., Cleaner, Colac, 88, 2nd Prize, Council.

Engine Working, Grade 2 (Senior).
Badham, J., Fireman, Bendigo, 88, 1st Prize, Peter Alexander Memorial.
Clancy, J. L., Fireman, Bendigo, 87, 2nd Prize, Council.

Mechanical Drawing, Grade 1.
Schmidt, H., Apprentice, F. and T., R. S., Newport, 55, 1st Prize, Council.
Johnson, M. C., Apprentice, F. and T., Newport, 50, 2nd Prize, Council.

Mechanical Drawing, Grade 2.
Brown, E. D. F., Apprentice, F. and T., Newport, 85, 1st Prize, Council.
Lennox, J. A., Apprentice, F. and T., Newport, 77, 2nd Prize, Council.

Mechanical Drawing, Grade 3.
Twist, S. A., Car Builder, R. S., Newport, 80, 1st Prize, T. H. Woodroffe.
Kiely, J. M., C. and W. Builder, R. S., Newport, 75, 2nd Prize, Council.

Shorthand, Elementary, Theory.
Slattery, J. J., Junior Clerk, Shops, Newport, 90, 1st Prize, Council.
Einsiedel, J. E., Junior Clerk, Audit Branch, 80, 2nd Prize, Council.

Shorthand, Advanced, Theory.
Jones, E. W. P., Junior Clerk, R. S., North Melbourne, 85, 1st Prize, Council.
Jaensch, A. W., Junior Clerk, Loco., Seymour, 82, 2nd Prize, Council.

Shorthand, Speed.
Place, R. J., Clerk, Secretary's Branch, Spencer-street, 180 (w.p.m.), Special Prize.
Aldred, J., Clerk, Secretary's Branch, Spencer-street, 150 (w.p.m.), 1st, W. R. Brown Memorial.
Sparks, E. W., Junior Clerk, D. S. Office, Ballarat, 140 (w.p.m.), 2nd Prize, Council.

Station Accounts and Management.
Lyons, J. L., Operating Porter, Warragul, 90.8, 1st Prize, Peter Alexander Memorial
Lee, A. S., Lad Porter, Welshpool, 88, 2nd Prize, Council.

Safeworking.
Lethlean, E. A., Clerk, Transportation, Spencer-street, 79, 1st Prize, Peter Alexander Memorial.
Cahill, J. D., Block Recorder, Melbourne Yards, 67, 2nd Prize, Council.

Technical Telephony and Telegraphy.
Craigie, J. J., Electrical Mechanic, Auto. Exchange, 95, 1st Prize, Peter Alexander Memorial.
Bishop, S. L., Electrical Mechanic, Spencer-street, 81, 2nd Prize, Council.

Typewriting.
Griffin, D. Miss, Tab **Operator, Accounts** Branch, 50 (w.p.m.), 1st Prize, W. R. Brown Memorial.
Hassett, W. G., Acting Junior Clerk, E. E. Branch, 40 (w.p.m.), 2nd Prize, Council.

Westinghouse Brake Grade (Junior).
Hare, H. L., Cleaner, Traralgon, 96, 1st Prize, Council.
Harding, G., Cleaner, Colac, 80, 2nd Prize, Council.

Westinghouse Brake, Grade 2 (Senior)
Clancy, J. L., Fireman, Bendigo, 95, 1st Prize, Peter Alexander Memorial.
Hinchcliffe, A., Fireman, Seymour, 85, 2nd Prize, Council.

HIGHEST MARKS, BUT NO PRIZE

Each year, class students who have obtained the highest percentage in their respective examinations have been unable to claim prizes through having failed to comply with by-law 4, which says: "No prize will be awarded to any candidate who has not effectively attended the Institute classes in the subject of the examination for prize, for at least three terms; effective attendance to be secured by attending at least 45 per cent. of the class meetings held during the year in the subject referred to." The Institute draws special attention to this by-law.

DEBATING SOCIETY

Meetings of the Debating Society continue to be well attended, and members are displaying keen interest in the

(*Concluded on page 46*)

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LIST OF PRODUCTS:

Tee Rails	Angles	Flats	Wire Rods	Sulphate of Ammonia
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Beams	Rounds	Ingots	Crushed Slag	Creosote Oil
Clutch Bars	Squares	Blooms & Billets	Solvent Naphtha	
Channels		Reinforcing Bars	Toluol	

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Railway Users Say—

PEACH SALES SUCCESS

I DESIRE to express our appreciation of the splendid co-operation and services rendered by the Stationmasters and their staffs on the Mallee line in connection with the sale of peaches from fruit trucks; also Mr. J. T. Roscholler, who is simply wonderful. The venture was most successful. Every case was sold, which was entirely due to the invaluable services rendered by your department.

—Mr. T. C. James (for Barley, Beckham and James, Orchardists), writing to the District Superintendent, Maryborough.

HONESTY AND COURTESY

I wish to bring under your notice an experience of mine which, I think, calls for special recognition.

On Saturday, 28th ultimo, I travelled by the 4.25 p.m. special train to Shepparton accompanied by a child of 11 years. On arrival at Seymour the child left the train to make a purchase at the fruit stall and whilst doing so forgetfully left a £1 note, on the counter, but did not advise me of this until our arrival at Shepparton.

On returning on Monday evening, I made enquiries at Seymour, but scarcely expecting to hear any more of the £1, thinking that it would have been picked up by one of the travelling public. However, after making enquiries at the counter the attendant referred me to the manager from whom I received the money.

I wish, therefore, through you, to thank the lady who handed in the money, and the manager of the Refreshment Rooms for his courtesy in the matter.

—Mr. J. G. O'Connor, Nathan-grove, Caulfield, writing to the Chairman of Railways Commissioners.

RAILWAYS HELP STOCK SALES

WE desire to convey our thanks to yourself and staff for the able manner in which the unloading and reloading of the trucks was handled at our special sale at Newmarket, yesterday, which you observe from the number loaded out, was a most successful one. Always assuring you of our hearty co-operation in all matters to our mutual advantage.

—John D. McNamara and Co., Pty. Ltd., Temple Court, Collins-street, Melbourne, writing to the Victorian Railways Live Stock Agent.

WE are pleased to report having had a very successful sheep sale at Wangaratta on Friday last, and although we at first considered 30 trucks would be sufficient to convey the stock away from the centre, we found it would take just double that quantity. We might mention that the stationmaster and his assistant afforded us every consideration, and without their co-operation in getting the stock away the same night and early the following morning, the sale would not have proved the success it was.

—John McNamara and Co., Pty. Ltd., writing to the Victorian Railways Live Stock Agent.

BACK TO LANCEFIELD

I WISH to thank you sincerely on behalf of the Committee of the Back to Lancefield celebrations for the splendid train provided and for the very fine decorations provided at the station. I can assure you they were appreciated.

At the same time, I wish to thank your stationmaster, Mr. Shaw, and his assistant, Mr. C. Bruen, for the courteous treatment at all times received from them. I can say, honestly, that it has always been a pleasure to work with them.

—Mr. W. Kirk, hon. sec. "Back to Lancefield."

COMFORTABLE AND ON TIME

I WISH to thank you for the splendid type of carriages provided for our excursion; also for the fact that both specials were run to time, which my Committee appreciated.

—Mr. W. Kirk, hon. sec. Lancefield, Romsey and Sunbury Schools Bay Excursion.

NO INDIFFERENCE AT SPENCER-STREET

I WOULD like to express my appreciation of the efforts of your chief stationmaster at Spencer-street. My wife and family were returning to Adelaide from Tasmania. Reaching Melbourne, a difficulty arose with regard to their tickets and baggage.

A consideration shown by your S.M. is deserving of highest praise, the time and trouble he gave to the matter enabled the journey to be made without delay.

I have since learnt that he was about to go off duty; it is therefore very pleasing to know that the indifference one usually meets when the whistle is about to blow is not met with at the top of the tree at Spencer-street.

—Mr. F. G. Kimber, writing to the Chairman of Railways Commissioners.

MORE WAS EATEN

I HAVE much pleasure in expressing my appreciation of the result, as experienced personally by me, of your recent campaign to increase the consumption of honey. All our honey is sold in single tins to users all over the State, and each year we have found it necessary to circulate post cards and use other more or less expensive methods of keeping the product in the public mind. This winter, however, we made no effort whatever to push sales, as our stocks were short, but the demand kept up splendidly. . . . . We feel that this is largely due to the publicity given to honey as a food by you and also by the Gippsland and Northern Co-operative Co. Ltd., and congratulate your Department upon its helpful and businesslike attitude towards the producers of this State.

—Mr. Stanley Pollard, Loddon River Apiaries, Crusoe Park, Kangaroo Flat, writing to the Chairman, Railways Betterment and Publicity Board.

EXCURSION WAS A SUCCESS

BY direction of my Committee I am instructed to convey to you our appreciation for the efficient arrangements made for our annual excursion to Royal Park.

The railway arrangements were most perfect and I shall be glad if you will kindly convey my very grateful thanks to the members of your staff concerned, and to Stationmaster Crowley and assistant for the valuable assistance so cheerfully given.

—Mr. D. Sullivan, hon. sec., Schools Excursion Committee, Kilmore.

ALDERMAN'S APPRECIATION

HAVING recently concluded my annual holiday in Victoria, may I express my appreciation of the courtesy I everywhere received from the Victorian Railways. Appraising the continued improvements with the eye of a prodigal brother, I enjoyed the fine new dining and refreshment hall at Seymour of which I hope to see more by and bye. Of course a trip in the Geelong Flier (gee! some train!) was included in an itinerary, which embraced never-to-be-forgotten excursions to Gembrook where the bell birds play at "striking the anvils in the air," Warburton and Hurstbridge. And those lovely fruit drink bars at my old Princes Bridge station, they are par excellence.

—Alderman William Freame, Historian and Journalist, Parramatta, N.S.W., writing to the Railways Commissioners.

PLAYING THE GAME

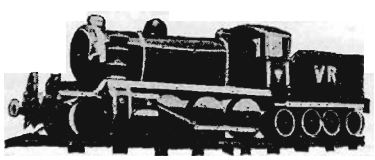
By RICHARD S. WALLACE

I'm just a common workman
Drawing down a common wage,
But I'm happier than lots of men
Who occupy life's stage.

I give a day's full measure,
And when that day is done,
I'm happier because I know
My pay was fairly won.

Somehow I haven't time to moan
My lot with all the mob,
I guess I'm too darned busy
Doing thoroughly my job.

And something tells me in my heart
I've found the magic spell
Of happiness, success and peace
By doing this job well.



This model locomotive was recently made of blackwood and oregon by Super. Repairer W. A. McPherson, of Hamilton. It is 37 inches long and weighs about 25 lbs.

She: "Which do you think are the most interesting years of a woman's life?"

He: "The first two or three years that she is twenty-one!"

TELL HIM SO

If a friend of yours does well,
Tell him so.
Don't go raise a jealous yell,
Tell him so.
He'll be glad to know you're glad,
Glad it doesn't make you sad;
Finest fun you ever had,
Tell him so.
If you like your brother's work,
Tell him so.
Drive away the doubts that lurk,
Tell him so.
He may feel that he has failed,
By grim doubt may be assailed;
By your words he'll be regaled,
Tell him so.
If you think his work is punk,
Tell him so.
It will rouse his fighting spunk,
Tell him so.
Tell him he is in a rut,
He'll just think you are a nut,
Maybe knock your block off. But—
Tell him so.

M.C.C.

Mather's Commercial College

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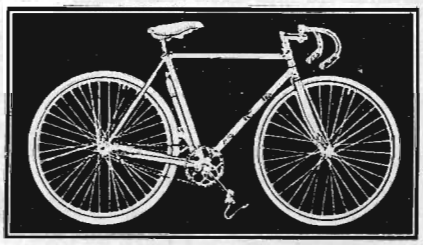
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Station Garden Beauty Prizes

PRIZE money totalling £178 has just been distributed among last year's winners in the Victorian Railways competition for best kept station gardens. In all, 41 stations won prizes, while another 13 were commended. Four stations—Gapsted, Winchelsea, Berringa and Waitchie—were awarded 100 points.

The complete list of prize-winners follows :—

BENDIGO DISTRICT

Tree Planting and Station Decoration.—1st: Waitchie (S.M. H. Gough) 100 points. 2nd: Chinkapook (S.M. M. P. O'Meara) 65 points. 3rd: Macorna (S.M. F. Smith, Ganger Hunt and Operating Porter J. Murray) 55 points.

Maintenance.—1st: Leitchville (S.M. H. Harry) 90 points. 2nd: Derby (Caretaker Mrs. D. Willis) 80 points. 3rd: Kotta (Caretaker Mrs. J. Keating) 60 points.

Commended.—Lalbert (S.M. J. Donne and Operating Porter Ramelli) and Warragamba (Caretaker Mrs. M. J. Hunt).

BALLARAT DISTRICT

Tree Planting and Station Decoration.—1st: Trawalla (S.M. C. P. Markham and A.S.M. N. J. Corrie) 90 points. 2nd: Kiata (S.M. J. Brennan and A.S.M. G. Kinniburgh) 60 points. No other entries received.

Maintenance.—1st: Armstrong (S.M. E. J. McMartin and A.S.M. A. F. Laird). 90 points. 2nd: Wallace (S.M. L.B. McKeown) 68 points. 3rd: Lethbridge (S.M. W. A. Hayward) 60 points.

Commended.—Windermere (S.M. S. F. Beer and A.S.M. P.W. Taffe) and Middle Creek (S.M. E. Ryan).

MARYBOROUGH DISTRICT

Tree Planting and Station Decoration.—None of the stations entered for new work were considered worthy of 1st prize. 2nd: Emu (S.M. A. E. Browne and A.S.M. R. Berry) 65 points. 3rd: Dunolly (S.M. F. C. Mackay and Operating Porters H. W. Lyndon and D. W. Robertson) 58 points.

Maintenance.—1st: Taradale (S.M. J. Donaldson) 90 points. 2nd: Trentham (S.M. W. J. Russell and Operating Porter H. C. Waterman) 60 points. 3rd: Campbell (Caretaker Mrs. Duxberry) 45 points.

METROPOLITAN DISTRICT

Tree Planting and Station Decoration.—1st: Edithvale (S.M. J. McGregor) 95 points. 2nd: No award made. 3rd: Clematis (Caretaker Mrs. A. E. Parkinson) 50 points.

Commended.—Aura (Caretaker Mrs. Goss).

Maintenance.—1st: Wandin (S.M. B. A. Cleary and A.S.M. F.R. Coleman 90 points. 2nd and 3rd (equally divided): Yarra Junction (Operating Porter C. H. Stone and Lad Porter A. W. McConnell), Mt. Evelyn (S.M. J. Rahilly and Operating Porter A.G. McArthur) and Gembrook (Caretaker Mrs. L. A. Maloney and Repairer Maloney) 60 points apiece.

SEYMOUR DISTRICT

Tree Planting and Station Decoration.—1st: Gapsted (Caretaker Mrs. A. Holian and Ganger M. Holian) 100 points. 2nd and 3rd (equally divided): Broadford (S.M. J. H. Koster), Cudgewa (S.M. H. O'Hagan, Operating Porter R. A. Walker and Repairer C. H. Karkeek) and Shelley (S.M. O. Hobson) 70 points apiece.

Commended.—Wahgunyah (S.M. E. Harraves and Porter F. J. Baird) and Murchison (Ganger J. Thompson).

Maintenance.—1st: Longwood (S.M. J. Boyd) 95 points. 2nd: Heathcote Junction (S.M. W. Maloney) 85 points.

3rd: Lima (Caretaker Mrs. M. E. Mullins and Repairer Mullins) 70 points.

DANDENONG DISTRICT

Tree Planting and Station Decoration.—1st: Yallourn (S.M. C. Nye and Yard Porter L. Phillips) 75 points. No second prize was awarded. 3rd: North Mirboo (S.M. J. Downie) 50 points.

Maintenance.—1st: Yannathan (Ganger G. McAleese and Caretaker Mrs. M. McAleese) 75 points. 2nd: Darnum (S.M. M. S. Frawley and A.S.M. H. L. Marshall) 60 points. 3rd: Nar Nar Goon (S.M. J. H. Manson and A.S.Ms. C. W. Cole and G. E. Scammell) 58 points.

Commended.—Jeetho (Caretaker Mrs. N. M. Boyle), Ruby (Repairer Unwin) and Bena (S.M. J. L. R. Butler and Operating Porter E. T. Knight).

GEELONG AND DISTRICT

Tree Planting and Station Decoration.—1st: Winchelsea (S.M. V. Asmus) 100 points. 2nd: Strathkellar (Caretaker Mrs. O'Brien and Repairer W. J. O'Brien) 65 points. 3rd: Pura Pura (S.M. B. Hills) 53 points.

Maintenance.—1st: Berringa (Caretaker Mrs. F. L. Brown), 100 points. 2nd: Allansford (S. M. W. O'Connell) 80 points. 3rd: Mininera (Caretakers Mrs. I. Pellatt and Mrs. R. Harrison), 75 points. Commended: Werneth (Caretaker Mrs. A. O'Loughlin), Panmure (S.M. O. B. Harvey) and Corio (S.M. A. Boyd and A.S.M. E. A. Smart).

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HEARD THIS ONE ?

And then we have all heard of the Chinese family who wished to name the baby "Tinkler," and finally decided on the name of Wun Long Hop.

A clergyman, about to enter 'bus, noticed a gentleman seated in the corner who had celebrated peace rather too well.

"Do you allow drunkards in your 'bus ?" he asked the conductor.

"Well, not as a rule," said the conductor. "But slip in quietly."

The signal inspector was newly appointed, and was examining his first signalman in the knowledge of rules and regulations.

"What would you do if you saw a tail lamp go by the box without a train ?"

The signalman's immediate reply was : "Sign the pledge, sir."

Poet : "How would you like a husband who writes blank verse ?"

She : "I'd really rather have one who writes blank cheques."

An ambitious but feeble young man
Wrote verses which no one could scan.
When accused by a poet
He replied, "Yes, I know it,
But I always try to get just as many
words into the last line as I possibly
can."

"Mamma," said small Elaine, "don't men ever go to heaven ?"

"Why, of course, dear. What makes you ask ?"

"Because you never see any pictures of angels with whiskers."

"Well, I guess most of them do get there by a close shave."

"How did the Smith wedding go off."

"Fine—until the parson asked the bride if she'd obey her husband."

"What happened then ?"

"She replied, 'Do you think I'm crazy ?' and the groom, who was in a sort of a daze, said 'I do.'"

Guide : "This, ladies and gentlemen, is the greatest cataract in the country, and if the ladies will only be silent for a moment you can hear the thunder of the waters."

Some folks could say what they think and still keep quiet.

They're picking up the pieces
With a dustpan and a rake
Because he used his horn
When he should have used his brake.

A man had been out fishing, and he was describing to his friends about the exact size.

"It was fully that long," he asserted, spreading his hands far apart. "I never saw such a fish."

"Probably not," remarked a friend.

She : "My husband certainly does enjoy smoking in his den. Has your husband a den ?"

Other She : "No, he growls all over the house."

A real estate salesman had just finished describing the glorious opportunities of a certain part of the country. "All West Texas needs to become the garden spot of the world," he said, "is good people and water."

"Huh !" replied the prospect. "That's all hell needs."

A meddlesome woman, riding in a tramcar, began sneering at a young mother's awkwardness in holding a fretting baby.

"I declare," she snorted, "a woman ought never to have a baby until she knows how to hold it."

"Nor a tongue, neither," calmly responded the worried young mother.

"I have always had a presentiment," she said, "that I should die young."

"Well, dearie," remarked her woman friend, "you didn't, after all, did you ?"

"It must be three years since I saw you last. I hardly knew you—you have aged so !"

"Really ? Well, I wouldn't have known you except for that dress !"

Son : "Mother, who put that statue under the sink ?"

Mother : "Shh ! That's the plumber !"

It was a sunshiny Sunday morning, and Pat had brought his shaving gear out on the porch.

Mrs. McGinnis looked over the fence. "Shure, Mrs. Murphy, does your old man shave outside ?"

"And what's bothering you ?" asked Mrs. Murphy. "Did you think he was fur lined ?"

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Spencer-street Railway Station
287 High-street, Northcote
627 High-street, Croxton
210 Victoria-st., North Melbourne

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MEDICINAL DRY GIN
(6d. a nobbler, with squash 7d.)

For a Hot Day Reviver
Preston's Gin and Squash

ALEXANDER & PATERSON
HANSEN & COMPANY
MELBOURNE

100 Years of Railroading in France—*Continued from page 12*

project covering some 2,000 miles.

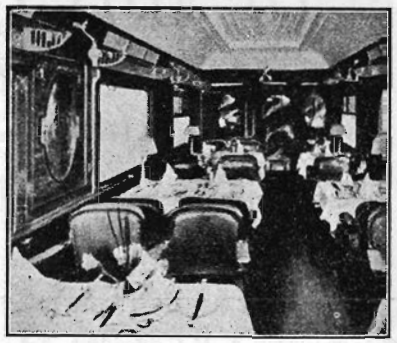
Passenger fares and freight tariffs on the French railroads have been increased time and again in recent years.

On March 10, 1924, new tariffs were introduced which, added to increases in 1918 and 1920, constituted an increase on the basic rates of 170 per cent. for freight, and 170, 160 and 150 per cent. respectively for first, second and third class passengers. The application of the new tariffs increased receipts by 1,520 million francs. Meanwhile the deficit on working, which amounted in 1923 to 1,127 millions, was cut to 467 millions. A further increase in tariffs was introduced in 1925 to meet higher wages scales granted employes, and yet another increase on January 1, 1926. This brought the passenger tariff to 190 per cent. over the basic rate, and freight rates to 230 per cent.

The fact that the French railroads have at last been put upon a sound financial basis, and have once again found prosperity, is attributable in part to the increases introduced in recent times to meet the changed situation, and also to the new spirit of teamwork and enthusiastic endeavor which today permeates all ranks of the French railroad workers. The evil legacies of the war years, in the shape of ruined way and works, and happy-go-lucky operating methods, have now been overcome, and one and all are pulling together in admirable fashion.

Nearly 1,500 miles of the 2,400 miles of track owned by the Northern Railway fell into German hands. Of the bulk of this mileage scarcely a single serviceable rail or tie remained at the conclusion of the conflict. Destruction was complete also of eight viaducts, 811 bridges, five tunnels, 338 stations and 10,000 employe houses. Today, 11,141 new railroad-built homes are occupied by the staff of the road. Soundly constructed of concrete and brick, each house has six rooms, and has cost about 26,000 francs.

In the education of their employes, the French roads have embarked upon the most ambitious plans. Typical of the effort in this direction is the accomplishment of the Paris-Lyons-Mediterranean Company. On this system every new entrant into the service is given a small handbook entitled "Manual of Professional Education of New Employes." This book contains in twenty lessons the fundamentals of railroading. Each lesson is explained to new employes in a course of specially prepared lectures delivered by experts, and so successful has this plan for primary education proved that following an appeal from the older members of the staff, the educative scheme was extended to cover employes of all ages. To date, more than 20,000 P.L.M. employes have successfully emerged from the company's lecture courses. In addition to the general educative plan of the P.L.M. Company, open to all ranks, there has been established at Dijon a superior school for trainmen. Men showing special ability are here passed through a three months' intensive training, and on successfully emerging from the course, are given opportunities for studying branches of railroading other than their own, and where justified marked out for rapid promotion. Correspondence courses are another feature of railroad education in France, auguring well for the future.



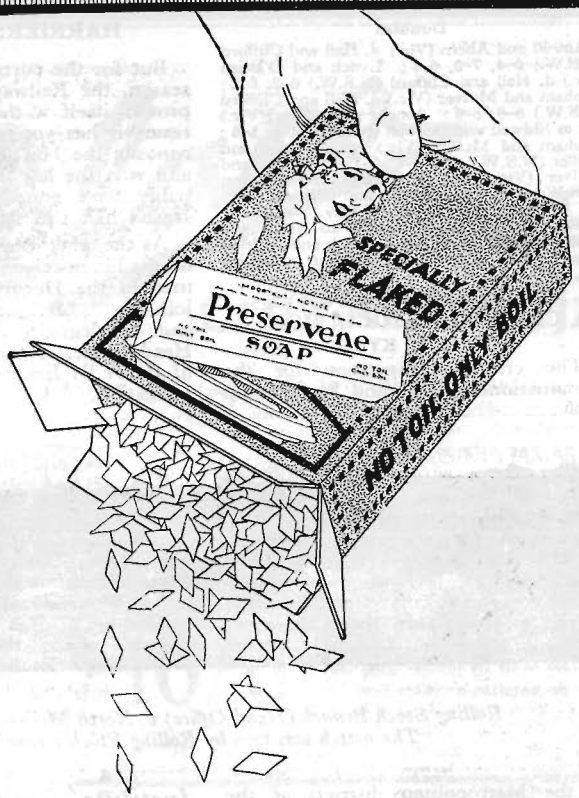
Interior of French dining car

Victorian Railways Honor Roll

RECENT RETIREMENTS.

As long as men shall live and build, as long as they strive for worth while achievement, there shall be honor and glory in work well done.

	Date of Appointment.	*Years of Service.*
C. Devitt, Ganger, Broadmeadows	1882	45 *years*
R. Davidson, Special Inquiry Officer, Melbourne ...	1886	42 *years*
T. O'Donnell, Ganger, Heywood	1887	41 *years*
W. King, Ganger, Wodonga	1887	41 *years*
J. E. McNiece, Ganger, Castlemaine	1888	40 *years*
P. J. Donoghue, Repairer, West Geelong ...	1890	38 *years*
D. Ainley, Ganger, Elsternwick	1890	38 *years*
M. D. Lawless, Office Cleaner, Hawthorn ...	1891	37 *years*
A. Moloney, Ganger, Templestowe	1900	28 *years*
J. Bowden, Carpenter, Wangaratta	1912	16 *years*
J. McDonald, Repairer, North Carlton ...	1914	14 *years*
A. V. Creati, Repairer, Cheltenham	1920	7 *years*
R. Brown, Blacksmith, Boronia	1920	7 *years*



Diamonds are Treasures to every Woman

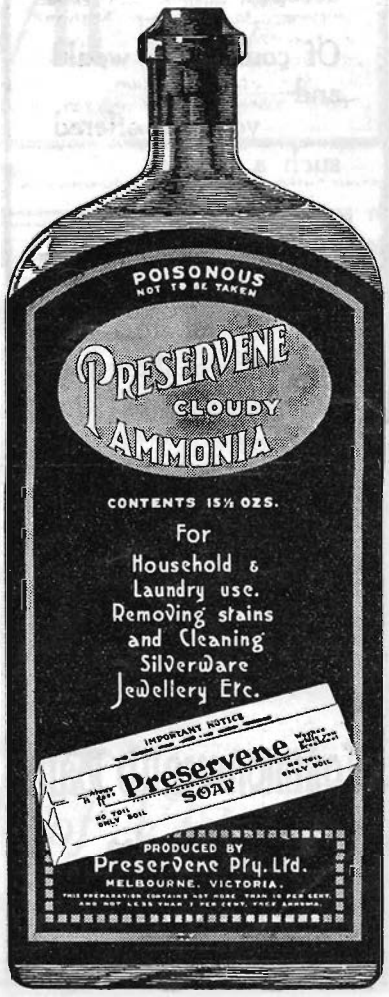
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the diamond shaped

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A Savings Account will do all this for you, and yet allow you full control of the business.

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Sport *(Continued from page 37)*

Doubles

Arnold and Ahern (Vic.) d. Hall and Clifford (N.S.W.) 6–4, 7–9, 6–4; Lynch and O'Brien (Vic.) d. Hall and Clifford (N.S.W.) 6–2, 6–2; Cobham and McIver (Vic.) d. Hall and Clifford (N.S.W.) 8–6, 8–6; Arnold and Ahern (Vic.) lost to Sidwell and Boulton (N.S.W.) 1–6, 1–6; Cobham and McIver (Vic.) lost to Selby and Muller (N.S.W.) 6–2, 5–7, 5–7; Cobham and McIver (Vic.) lost to Sidwell and Boulton (N.S.W.) 4–6, 2–6; Lynch and O'Brien (Vic.) lost to Selby and Muller (N.S.W.) 6–8, 3–6; Arnold and Ahern (Vic.) lost to Selby and Muller (N.S.W.) 2–6, 4–6; Lynch and O'Brien (Vic.) lost to Sidwell and Boulton (N.S.W.) 2–6, 1–6.

VICTORIAN RAILWAYS CRICKET ASSOCIATION

By R. M. KYDD

The cricket competition for the Commissioners' Cup and Premiership of the Metropolitan districts of the service is reaching finality. Only 10 matches remain to be played in the last round, and the finals are expected to be under way this month.

Great enthusiasm has characterised this year's competition and the games have all been played in a sportsmanlike manner. Newport, Way and Works and Jolimont Yard are assured of a place in the final four, but a great struggle is taking place for the fourth position between North Loco., Melbourne Yard, Coburg and Telegraph, these four teams being practically level. The finals will be played at Batman Avenue, on the wicket at present being used.

Outstanding individual performances lately have been:—Batting, O'Brien (Newport) 78, Watson (Jolimont Yard) 70, Furlong (Way and Works) 61. Bowling, Ellis (Coburg) 8 for 12, Grimshaw (North Loco.) 6 for 17, Purdey (Telegraph) 6 for 21 and 7 for 34.

Cricketers and railwaymen in general will be pleased to hear that negotiations instituted by the secretary (Mr. D. Ellison) for an annual Interstate Competition have been successful. At a conference held in Sydney last month, delegates from N.S.W., Queensland and Victoria, decided that these games should commence at the end of season 1928, and all details were arranged accordingly. The first series will be played at Brisbane, commencing on March 2, 1929.

HARRIERS' CLUB.

But for the curtailment of the track season, the Railways Club would have proved itself a thorn in the side of teams it has yet to meet. Out of 11 contests the Harriers lost the first six and won the last five, and would probably have gone on winning if the season had run its full course.

As the club wishes to finish No. 1 on the list next season, it asks all young men in the Department interested to join up. Mr. Jack Williams, Signal and Telegraph Branch, Railways Head Office, or the General Secretary of the V.R. Institute will give all information.



Rolling Stock Branch (Head Office) v. North Melbourne Loco. The match was won by Rolling Stock Branch

Institute Jottings

(Continued from page 38)

syllabus items. A Magazine Night was the outstanding success during the past month.

A debate has been arranged with the Y.M.C.A. The V.R.I. team will defend the negative side of the subject—"That the past hundred years have not produced as great men as previous centuries."

BENDIGO SCHOLARSHIP WINNER

The Bendigo Branch of the Victorian Railways Institute offered, from the beginning of 1928, a scholarship, tenable under certain conditions for three years at the nearest District School or Technical School, and carrying an allowance of £10 per annum, for competition among the children of qualified members of the Institute attending schools in the Northern District extending from Harcourt to Robinvale, Kulwin, Echuca, and Cohuna. The student who was successful in winning the scholarship for 1928 is Miss Mavis Allan, who obtained 94½ per cent. pass.

DANCING CLASSES RESUME

Miss Dorothy Gladstone, instructress in ballroom, ballet, toe and eccentric dancing has resumed her classes, both for adults and children, at the Institute. She is also arranging private classes.

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Books and New Books

Thumbnail Reviews by J. D. MICHIE

Samuel Johnson: Writer.—S. C. Roberts, M.A., is an eminent authority on Dr. Johnson; and his anthology of Dr. Johnson's writings, both prose and verse, under the foregoing title, recently published, is a notable addition to Johnson literature—perhaps as good a selection from Johnson's writings as could be made.

Days and Nights in Montmartre and the Latin Quarter.—Anyone with an interest in Paris—and there are many such—should read Ralf Nevill's new book. It is as engaging and vivacious an account of Montmartre and the Latin Quarter, past and present, as could be desired, and is full of good stories.

Meet Mr. Mulliner.—A new book by that prince of laughter-makers, P. G. Wodehouse. Readers will like this, his latest work, better than any he has written.

Behold a Woman.—By Neil Littlejohn. Mr. Littlejohn is a new novelist in whom his publishers seem to have great confidence. "Behold a Woman" is the story of a high-spirited, high-principled girl, whom fate throws into the midst of the allurements and temptations of a manicure shop.

Three Wives.—By Beatrice Kean Seymour, author of the Romantic Tradition, etc. The story of three women of different temperaments who marry hopefully from three very different motives. The story follows the course of their marriages ending sometimes in disappointment, and sometimes in success. The book is full of incident and humor.

Nettle Harvest.—By Silvia Denys Hooke. Here is a new novelist who will not remain long unknown. There are fantasy and high imagination in her story, but there is plenty of real life as well. In fact, the reality of life is the theme of the book.

Typet's Treasure.—By John Trevena. This new novel is full of romance and adventure. It might be described as a blend of Treasure Island and Westward Ho, and doubtless, will have a considerable appeal.

Wild, Wild Heart.—By Rosemary Rees. A new full length novel by a well-known New Zealand writer. It is easily the best Miss Rees has yet written. It is a romantic story full of incident and humor.

East Side, West Side.—By Felix Reisenberg. When you read this novel take a long breath and throw away any preconception of what is fashionable or artistic in fiction.

Broken Waters. By Frank L. Packard. This is one of the author's finest adventure stories since "Jimmie Dale." Taking a chance for a friend was the breath of life to John Crane; so he took charge of a fortune in jewels brought to him on board his yacht one evening in Havre, which involved him in an extraordinary criminal plot.

A Short Psychology of Religion.—By G. J. Jordan, D.D., D. Litt. The author insists that we need a psychology of religion, but that we must beware of making a religion of psychology, and he traverses the whole range of religious belief and experience with these ideas in mind.

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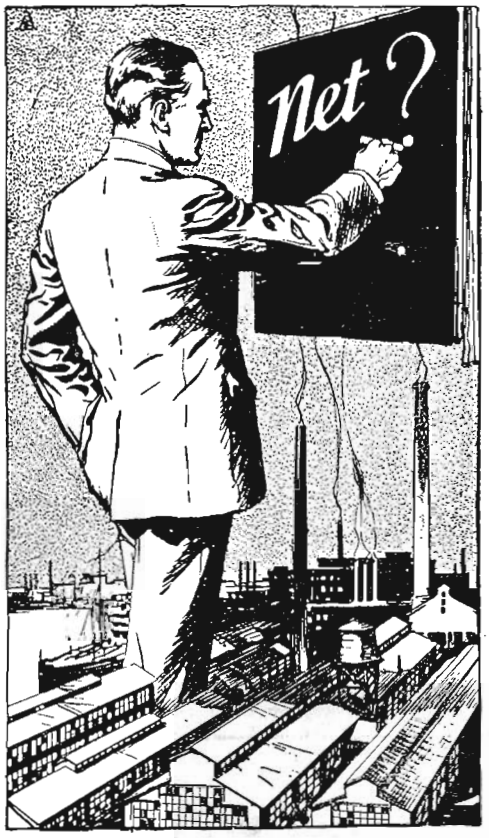
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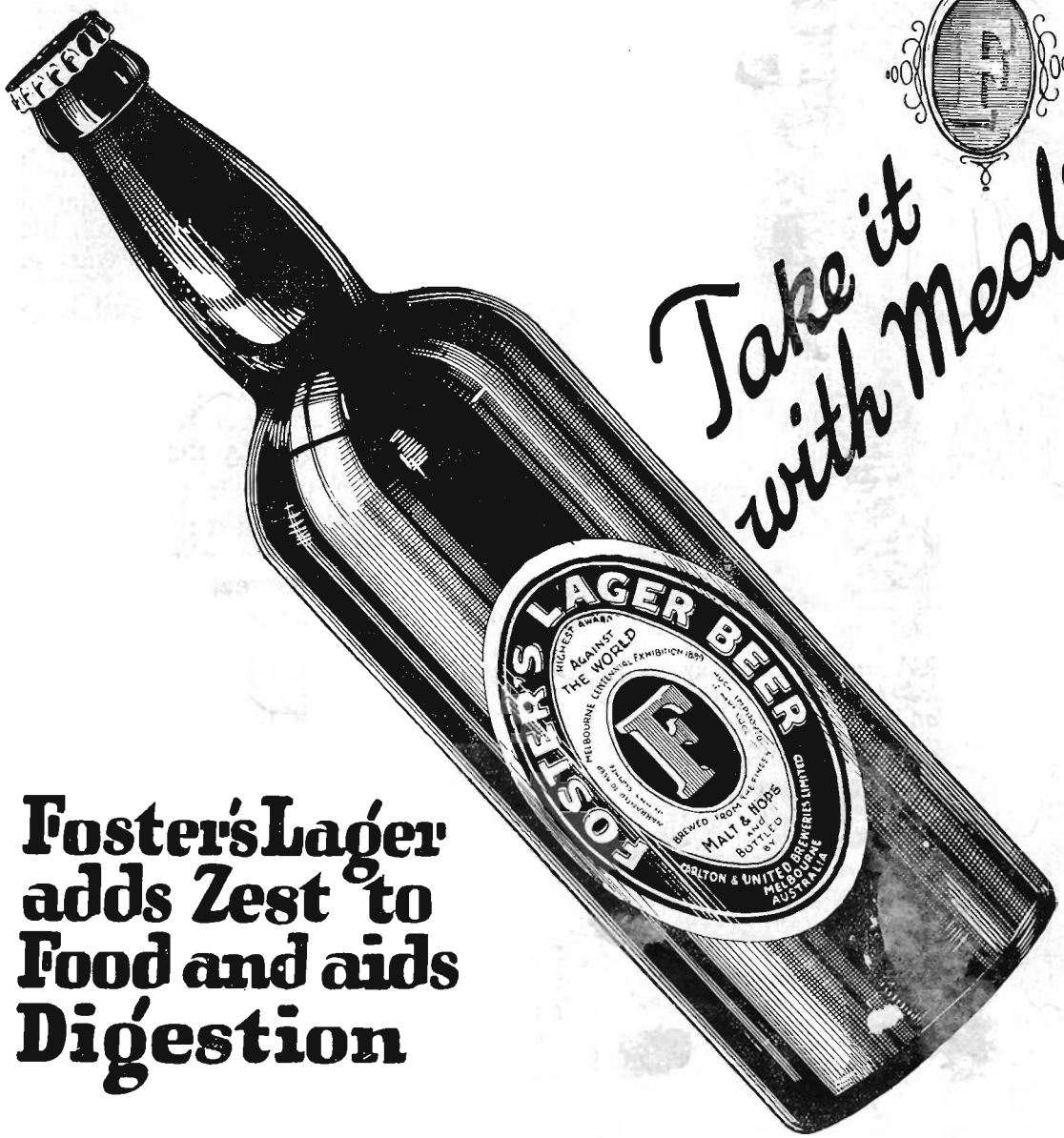
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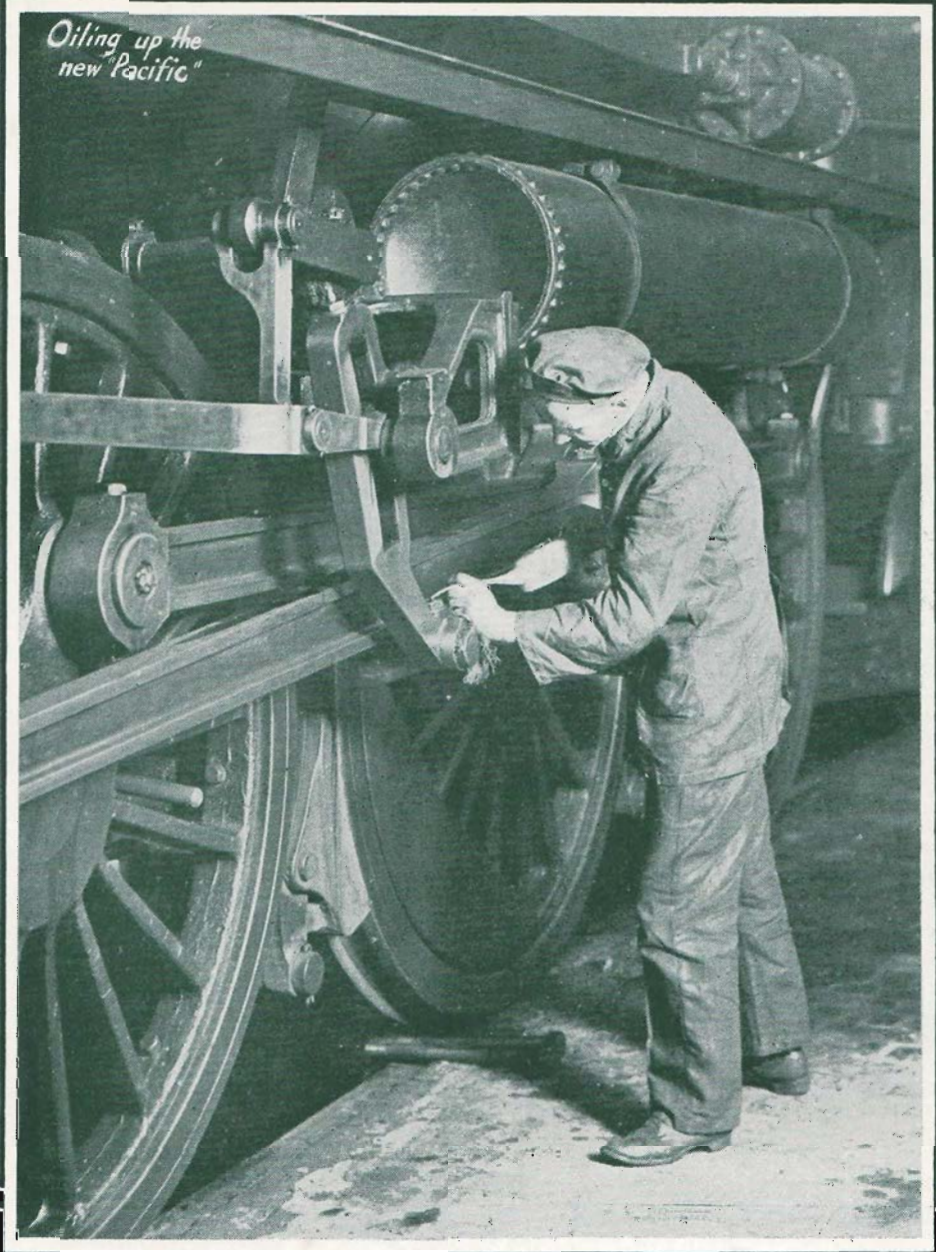
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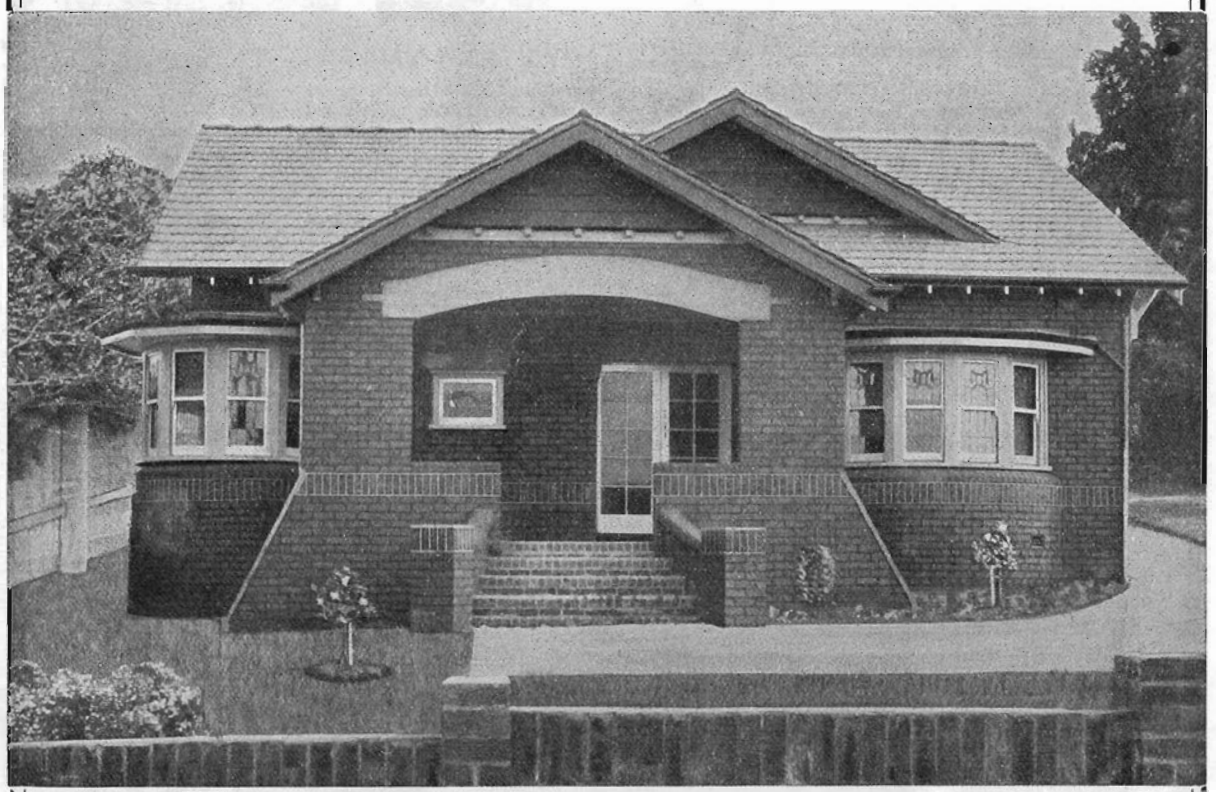
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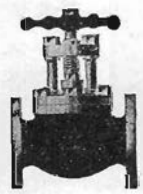
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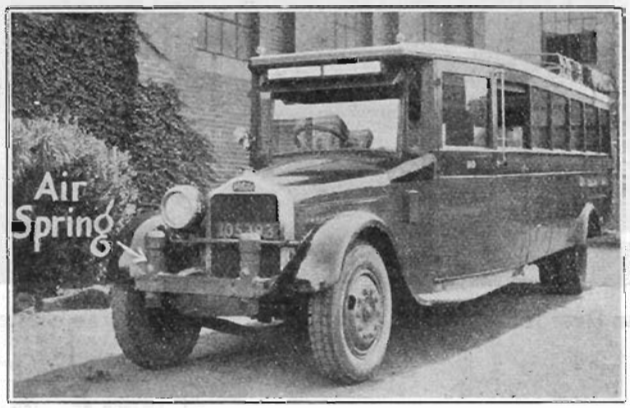
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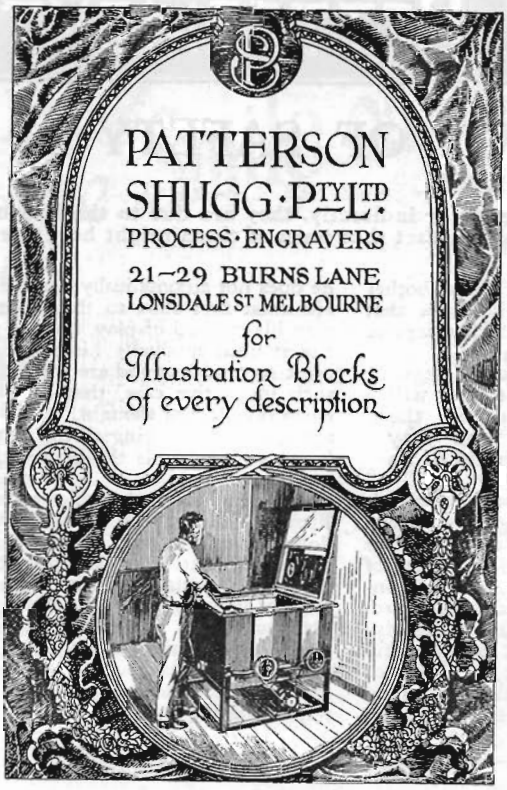


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SAFETY-HEALTH-BETTERMENT

THE MORAL ASPECT OF SAFETY

By P. H. O'KEEFE

ACCIDENTS are the result of human causes. Directly or indirectly, they are due to the lack of thought on the part of someone, and it is a deplorable fact that most of them might have been prevented.

MANY do not think until after the accident—that is, if they survive. From then on, they sometimes resolve to be more careful. They have learned their lesson. Very likely it has been a costly and certainly a painful one.

The safety movement aims to teach this same lesson by theory, not by individual and practical experience. It aims to impress the need for thinking beforehand—not afterwards—so that danger may be anticipated in an ordinary and natural way.

Mechanical safeguards, devices and appliances have been provided to minimise possibilities of danger. But in the very existence of these safeguards there lurks, perhaps, a tendency to encourage the careless man to become more careless. Someone else is looking after him; what need for him to bother so much? Insensibly he loses that alertness and thought which comprise the spirit of self-preservation.

Mechanical appliances have assisted in the past and will prove more helpful in the future. But never can they relieve the human mind of its primary responsibility.

The mind itself cannot be mechanically safeguarded. Originally it was safeguarded by instinct. Safety strives to revive this instinct by cultivation of thought. Thought, in the final analysis, is man's only reliable safeguard.

To illustrate the need for thought, let us take the case of a successful athlete, say a footballer, cricketer or tennis player. By merely making up his mind that he is an efficient player, he does not automatically become one. He must first start to think out and plan his method of play, then to practise it until gradually his actions become so confident and are applied with such instinctive ease, that he experiences no effort of thought. Although actually he is thinking all the time, he is co-ordinating his thinking with his acting.

Precisely the same applies to safety. First we must think of what we are doing, then we must adjust our methods, eliminate the dangerous habits and the habits that might be dangerous, and get down to the solid and regular practice of care and thought in every emergency, until thinking first and acting afterwards becomes an instinctive and unconscious process. That way lies safety.

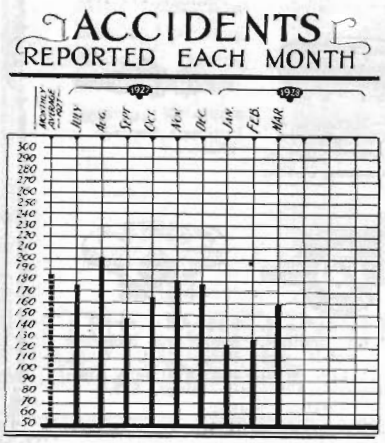
HENRY FORD SAYS—

Production without safety is inefficient. Accident prevention is absolutely an essential part of the industrial program.

While we take great pleasure in giving employment to maimed men, we believe that we are doing a far greater work by preventing this maiming of men.

We feel that accidents are absolutely unnecessary.

The careless man may be happy—but not for long.



CAREFUL CROSSING CAMPAIGN

For the first time, the National Safety Council of Australia is working in conjunction with the Victorian Railways Department in its annual campaign to eliminate level crossing accidents.

In addition to the Railways Department's publicity on the need for caution, at all times when approaching level crossings, the widely represented interests on the Council, covering every phase of transportation and commerce, should prove of invaluable assistance in impressing the message on all members of their different organisations.

During the Easter holiday period, members of the National Safety Council gave wireless talks from 3LO on various aspects of the safety movement.

Included in the speakers were—Mr. T. O'L. Reynolds, who dealt with safety from the tramways point of view; Mr. J. Fowler, representing the Railways; Mr. Alured Kelly, President of the National Safety Council and President of the Royal Automobile Club of Victoria; and Councillor W. Turner, representing the Trades Hall Council, who spoke on the general aims and activities of Safety First.

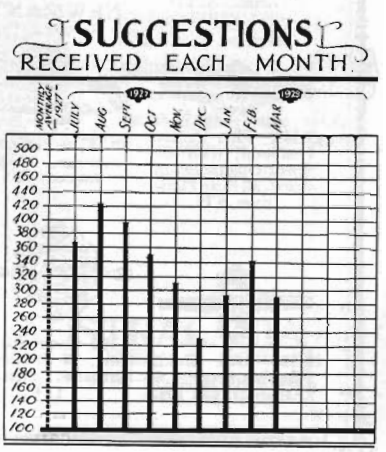
Turning on the gas is one way to commit suicide, stepping on it is another.

THE WORTH OF IDEAS

THE proper daily functioning of 29,000 minds means the efficient operation of our service. Each one of those minds has, at some time or other, criticised some existent method of working; has, perhaps, expressed surprise that certain matters were not receiving attention; or has thought of some idea which would effect an improvement. But we find many have not yet sent in their ideas, and, therefore, they have been of no benefit to anybody.

Why? Simply because the thought

(Concluded on page 6)



"The Smile on the Face of the Tiger"



KEITH MILLAR of the Signal and Telegraph Branch first marked a ball when he caught the one Grandma threw to him in the bassinet. Since then he has successfully managed to catch them in the football, cricket and baseball fields.

The wily old Richmond Tigers gave a cheerful grin, when, after playing for four years with them, Keith was picked to represent Victoria in Interstate football. He also played up to Interstate form at baseball, and a few weeks ago helped Hawthorn–East Melbourne Cricket Team to win the final.

Last season Keith knocked up his knee and had to take 3 months off with a couple of operations thrown in to pass the time. We are now looking forward to seeing him controlling the game this season with the whistle between his teeth, and the onlookers can rest assured that the umpiring will be of the same high standard as his play.

Off the field of sport he is one of the most likeable chaps in the Railways, and impresses you with the sincerity of his cheery smile.

Keith knows that clothes don't make the man, but he also knows that poorly made clothes are not an asset to the ambitious young man of today. He, like most of the well-dressed railwaymen, entrusts Byers, the well-known railwayman's tailor, with the task of making his clothes, because of the great care taken in the cutting and making of Byers' suits, which are hand-tailored throughout.

Other railwaymen who like smart clothes are advised to follow his example and select their material from the new winter suitings, which are now on display at the city showrooms of R. J. Byers & Co., High-Class Tailors and Mercers, over Stewart-Dawson's, on the first floor at the corner of Collins and Swanston-streets. Patterns and self-measurement forms will be sent to country employees, who can rest assured that they, like Keith Miller, will be well satisfied.

of making suggestions is not always in the minds of railwaymen.

This is a request to you to submit at least one suggestion a year. It is felt that every Victorian Railwayman has sufficient interest and pride in his job to co-operate in this manner.

The suggestion need not necessarily be one that will entail monetary saving. Those, for instance, calculated to improve our relations with our patrons are just as acceptable. Think about the details of your job, whether you are in an office or shop, or out along the track. Which one of the present methods that come under your notice can be improved ?

Pass on your ideas. No suggestions are too small—send them all in. REMEMBER—AT LEAST ONE SUGGESTION A YEAR !

MAY SUGGESTIONS DRIVE

The subject chosen for the ninth suggestions drive, which will be held during May is :—

" What suggestions occur to you as being of value in connection with precautionary measures to prevent damage to railway property by flood water."

Suggestions should be submitted to the Betterment and Publicity Board in the usual way.



BENEFIT BY YOUR IDEAS

The following awards were made during March for adopted suggestions :—

Total amount ... £264.
Highest award ... £26.

Arrangements now exist for the placing of adopted suggestions of particular merit before the Railways of the various States, also the Commonwealth and New Zealand Railways.

Taking a chance works every time but the last time.

EAT GOOD FOOD

We eat, more or less, about a TON of foodstuff a year.

To get the greatest amount of good from this food, it should be CLEAN food and WHOLESOME food.

Food consists of four elements, which are represented by meat, by starch or sugar, by fats and by salt. The body needs them all in different amounts.

Bread and cereals (oatmeal, wheatmeal, rice and what are known as breakfast foods) are valuable foods, and should be used freely.

Spend as much for fruit and vegetables as you do for meat ; it will pay you.

Use plenty of milk, especially for the children. Milk is about the most perfectly balanced food we possess.

Don't worry whether you should eat this or eat that. Ask yourself two questions : " Do I like it ? " " Does it like me ? " If you can answer "Yes" to both, just go ahead in moderation.

THE STRENGTH OF A NATION DEPENDS ON THE HEALTH OF ITS PEOPLE.

(From a publication issued by Colonial Mutual Life Assurance Society Ltd.).

No one likes flowers he can't smell. Practise " Safety First."

Personal Safety—

The man who does not save—who spends all his cash—*is not safe* — not safe against emergencies, accidents, illness—any sudden call for ready money.

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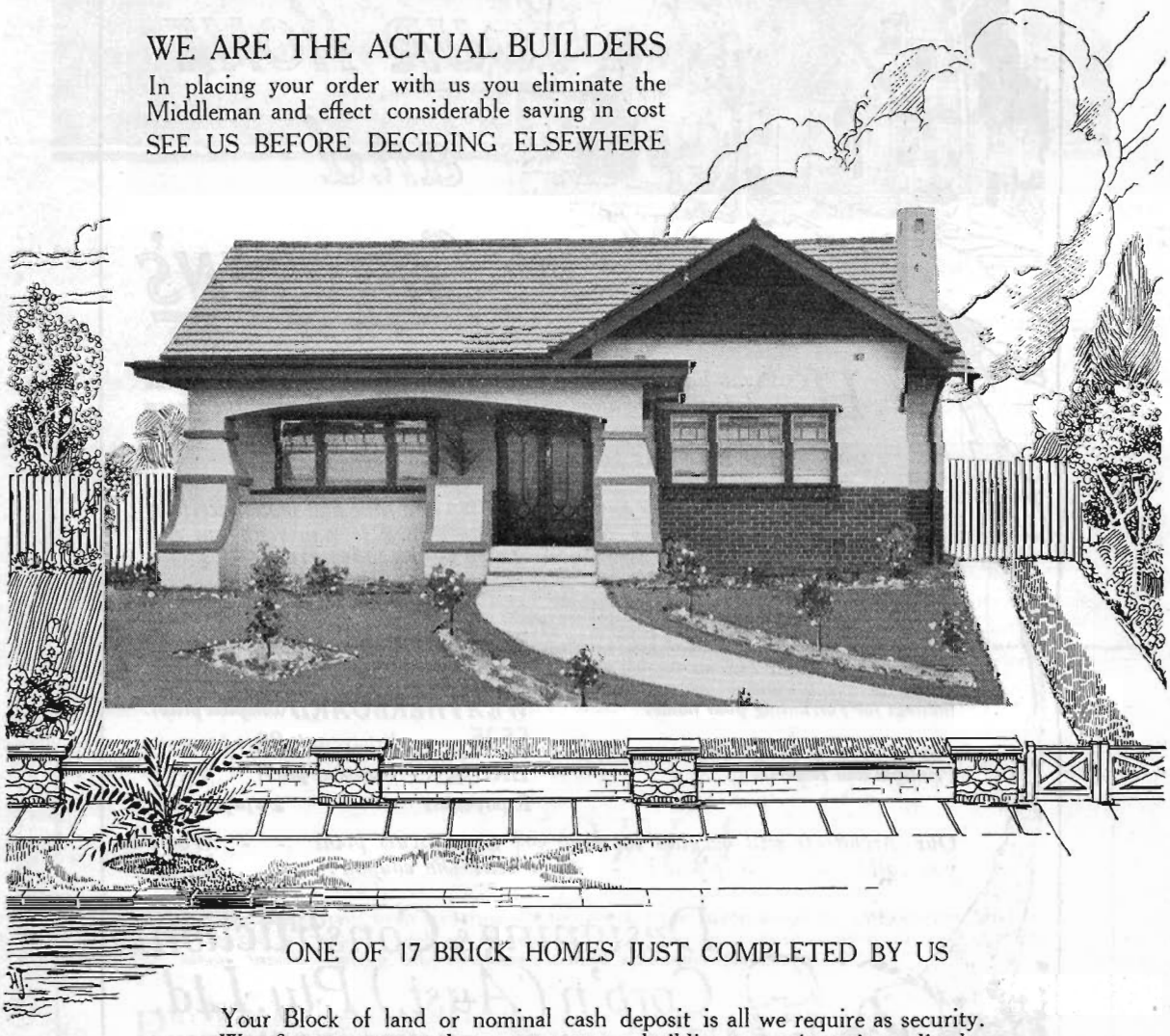
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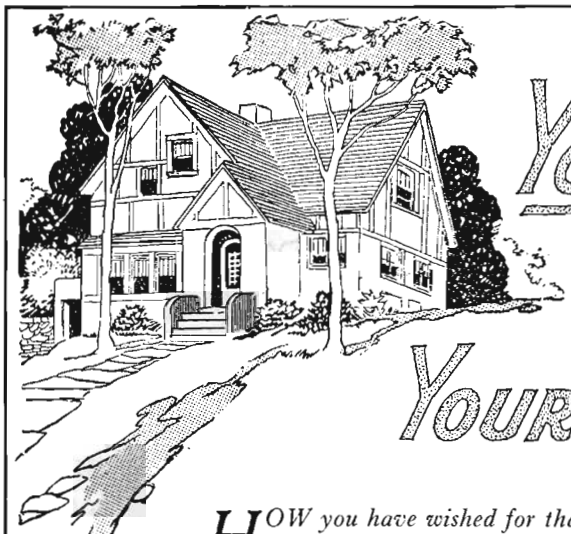
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The VICTORIAN RAILWAYS MAGAZINE



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A copy is issued free to all permanent Victorian railwaymen, and to all temporary and casual employes with six months' service.

Contributed articles, paragraphs, verse, and photographic prints (negatives are not required) must reach the Editor, care Betterment and Publicity Board, Railways Department, Spencer-street ('Phone Railways 393) not later than the 12th of each month. Correspondence relating thereto is carried free over the Railways.

Communications in regard to advertising should be addressed to the Manager, Railways Advertising Division, Savings Bank Buildings, corner of Spencer and Collins-streets, Melbourne ('Phone C. 6414 or Railways 139).

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MYOPIA

PEOPLE, lately, have been suffering far too much from myopia—of the grey matter, that is. From the symptoms which are daily manifest in newspaper, club, railway carriage conversation, union meeting, and what not, a mild epidemic is apparent.

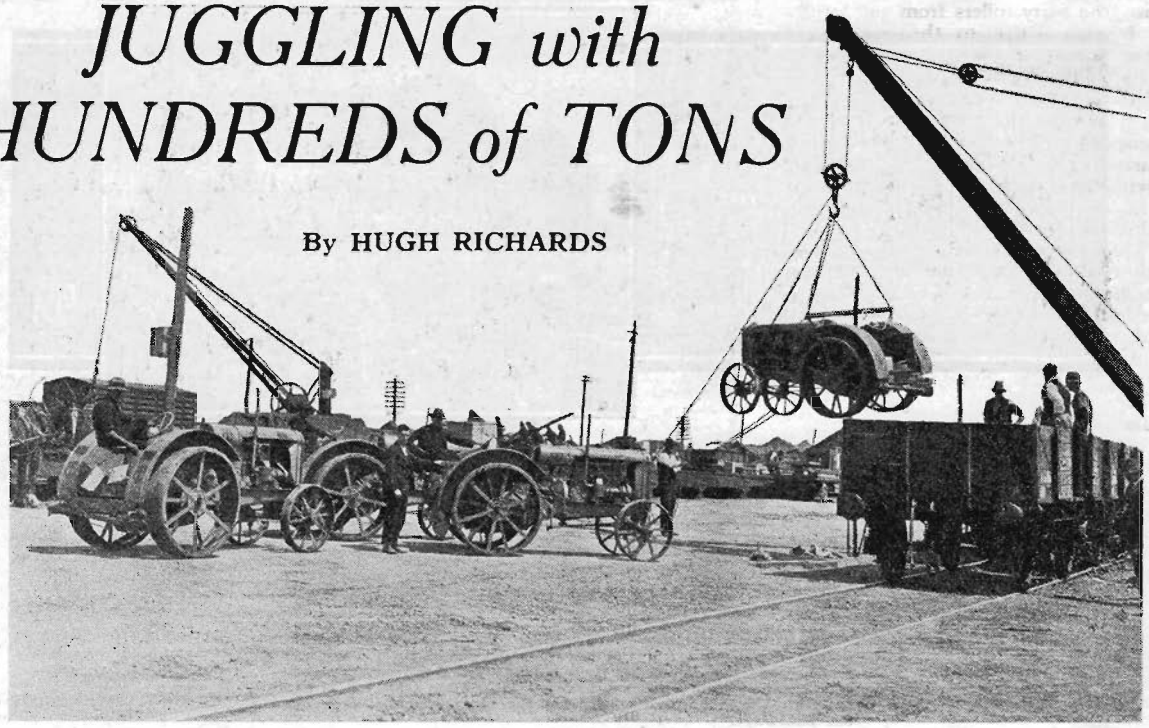
PHYSICALLY, myopia is near sightedness, distressing enough, but non-infectious and easily corrected by a competent oculist. Mentally and morally, it becomes prejudice, intolerance, lack of perspective, and unreasoning antagonism. Unfortunately the germ is nearly always present and needs merely the excitation of the jingo or of the agitator to develop into partial blindness.

THE 'bus question, the relation of capital to labor, and many other important problems that need the clearest and most steadfast vision have, unfortunately for the community at large, tended towards the level of mere garrulity, largely through the influence of myopes who, in their jumps from particular instance to general conclusion, from false premises to dangerous doctrines, from half-truth to chaotic unreason, nearly always substitute clamor for lack of vision.

THERE'S only one remedy—the spectacles of co-operation. None of us is wholly right and good, or wholly wrong and bad, but for heaven's sake, let's see each other and each other's aims and ideas properly. Then, *together*, we may get somewhere.

JUGGLING with HUNDREDS of TONS

By HUGH RICHARDS



Loading part of a 48-ton consignment of tractors from the Gippsland and Northern Co-operative Company for Mallee farmers

DOWN on the electric crane roads at the Melbourne Goods, where two 15-ton gantry cranes clank and rattle like giant lawnmowers all day long, hundreds of tons are whisked into and out of railway trucks with an ease and rapidity that would be the despair of a top-hat-and-white rabbit conjuror.

This, at any rate, is one aspect of rail transport before which the road lorry must bow its diminished bonnet.

THEY look something like instruments of torture, something like rabbit crates, and something like scrap timber. Stacked high, as leaning towers of Pisa in rusty iron and wood, they suggest the Spanish Inquisition, the Victoria Market and John Sharp's timber yards.

Or, in their obscure locations beside the Melbourne Goods's outside platforms, they could be mistaken for the heavy freight which they are actually designed to assist—and which they have assisted with such success as to attract representatives from the New South Wales and South Australian railways to copy their patterns.

For they are the stage properties of that eminent railway conjuror, foreman A. E. Burns, whose skilful juggling of traction engines, chaff-cutters and boilers has won him wide renown, and whose sleight-of-hand with steam rollers and tramcars must be seen to be appreciated. He has conceived and, more or less, designed all of these properties. They are prosaically standardised, under his control, as "A" class, "B" class, "C" class and "D" class frames. They include trays, spreaders, chocks, shoes and trusses, and they feature clips, handles, swan-necked hooks, chains and wire.

To embrace and steady the wheels of such heavy loading as traction engines, binders, reapers and harvesting machinery generally is the function of these flat frames. Not only do they eliminate risk of shifting and damage during a journey, but they also conserve truck space, and in many cases spell double freight. For instance, where formerly a single binder with selfish awkwardness claimed a standard "I" truck for itself, two and sometimes three can now be comfortably accommodated, if fitted into "A" class binder-frames. Similarly, "C" class header-frames can hold two headers in the space previously necessary for one.

Besides these frames, foreman Burns relies for effect to a great extent on his two electric gantry cranes. He finds them considerably more satisfactory than the "Cole's-book-arcade" cranes of 20 to 25 years ago, which provided the only lifting power for heavy rail consignments at the goods sheds. These were hand-operated by a couple of men, who wound a big handle round and round after the fashion of the two famous manikins in the case outside Cole's.

Although this type was equal to the best in Melbourne at that time, it is related that an American who witnessed one of the cranes in operation burst into tears. With twitching face and staring eyes, he watched while two brawny, perspiring railwaymen labored and heaved to lift a traction engine of his into a truck for Queensland. Inch by inch, to the frenzied straining of the men, it rose from the ground. "Say, son," said the American earnestly to a foreman, "Is this here your best crane?"

The foreman nodded. "We've got another of the same type over there. But it's slower."

"My Gawd!" said the American, groping for his handerchief. "*My* Gawd!" He stumbled away, wiping his eyes. . . . . .

Fifteen-tons is officially the single lift limit of each of the existing monster gantry cranes. Although, with special permission, they have on occasion raised 16½ and 17-ton weights heavenwards. The 17-ton weight was a mining boiler. Anxious eyes watched as it was hoisted aloft, hovered over the truck and slowly, heavily and safely lowered once more. The other excess weights were three enormous road rollers for the Country Roads Board and the Tramways Board. All were definitely out of the light-heavy weight class, tipping the scale at 16 tons 10 cwt. Effortlessly, one of the cranes

slung the hefty rollers from the bosom of Mother Earth to the bosoms of three railway trucks.

For difficulty, however, steam rollers yield place to tramcars. One tidy little railway job recently was the transport of 100 tramcars from South Australia to Melbourne. With their attenuated length and highly polished surfaces, they invited trouble. And didn't get it.

Then there was the gigantic 59-feet long electric track-shifter for Yallourn, designed to move the track of the mining dredge closer to the face of the open cut, and, incidentally, to do as much work in one hour as 70 men previously did in a day. Four hundred tons weight of shovels was another consignment for Yallourn.

It has not always been necessary to lift heavy freight into railway trucks. Some very heavy varieties have calmly walked in. Elephants, for instance. They didn't need any attention at all. They even carried their trunks themselves. Certainly more consideration was shown half-a-dozen caged lions. The crane attendants insisted kindly on lifting them into the truck. They would not hear of the lions being disturbed . . . . . .

Henry Ford kept the crane men busy when he started building his works at Geelong. Altogether, he sent 3,000 tons of girders and building material through the goods sheds. He wanted it in a hurry, too. Material was rushed down, accompanied by painters who administered finishing touches with the paint brush while the freight was on lorries en route to the railway. Railway men went home looking like murderers, red paint smeared over their trousers.

Again, when official Australia moved house from Melbourne to Canberra, the Victorian Railways Commissioners secured the job of furniture-removers for the nation. Thousands of tons of goods, furniture and personal effects were transported over the railways, the total damage being the destruction of one teacup and one saucer. And the saucer was badly cracked before it was packed.



Foreman Burns with some of his loading frames

Awkward Loading

But dead weight doesn't concern foreman Burns and his men so much as sprawling bulk. A compact and heavy traction engine is easier far to load and handle than, say, a 3-ton chaff-cutter nine-foot-six round the waist, or a portable stone-crusher on spindled legs. Merry-go-rounds have their problems, too; sometimes wheels of caravans must be temporarily amputated. Ornamental metal shop-fronts in skeleton frames, and wide sheets of plate glass don't help to make the loading foreman's ideal day.

Perhaps the heaviest single article ever carried on the Victorian Railways was a lift for the Yallourn electricity people. It weighed 40 tons, and was carried from Castlemaine on the department's special 60-ton truck, 13 Q.B. —a sturdy vehicle which could support 30 tons on a surface of 10 feet.

And the longest article would doubtless be some 100-feet poles from the Noojee line. They stretched lankily along three QR trucks.

Much out-of-gauge loading comes from Thompson's of Castlemaine. The girth of turbines and of huge masses of ship machinery often exceeds the standard 10-feet width for 5 ft. 3 in. gauge vehicles. A casting as wide as 12 feet has been carried, projecting two feet over the adjacent set of rails. Such freight must be transported by stealth on Sundays, so that two tracks are available for its passage.

Sometimes the machine or engine bed, or condenser shell, or whatever the giant passenger is, is loaded squarely on the truck with equal projection on each side. An engineer from Thompson's, a railway engineer and a block and signal inspector travel in the special train to supervise any shifting and jacking of the load which might be necessary when passing through a station or under a bridge. The Harbor Trust's 60-ton leviathan of a crane at Piggott-street is called upon to discharge this exceptionally heavy loading . . .

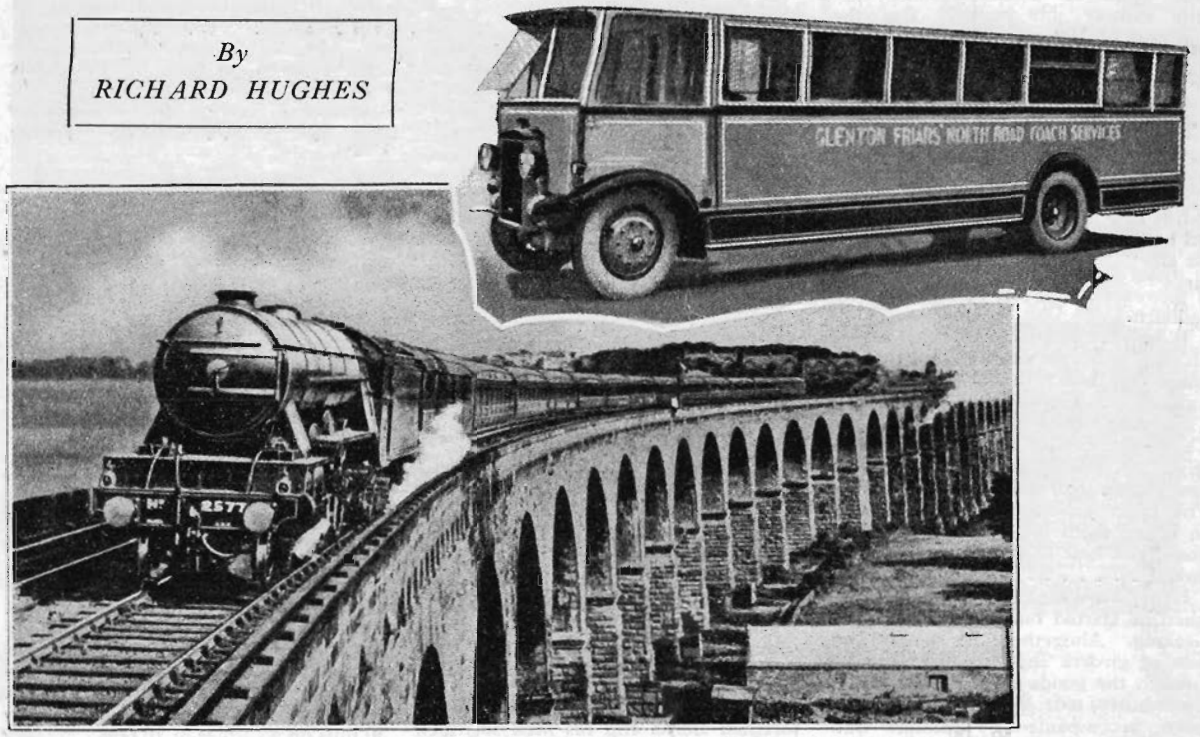
But what would interest the railways would be to see what happened if one of its supercilious motor rivals were called upon to bring one of its 200-ton single consignments of heavy machinery from the middle of Victoria to ship-side.



This elephant did not require a crane. He just walked to his truck

England's Road-Rail Problem

By
RICHARD HUGHES



COMPETITORS.—The London and North Eastern Railway's "Flying Scotsman" crossing the Royal Border Bridge at Berwick-on-Tweed, and a parlor saloon de luxe motor coach operating between London and Newcastle. The latter is fitted with a buffet, adjustable drop tables, and an imitation coal fire.

ON a tidal wave of words and newspaper controversy, the English road-versus-rail dispute has swept into the sacrosanct atmosphere of the House of Commons. It has washed in a sheaf of private members' bills, which the road interests are frantically endeavoring to swamp or divert into a backwater.

In all, there are seven bills, and behind them are the four great English railway groups and the London Metropolitan Railway Company. If passed, these bills will legalise operation by the companies of "road motor vehicles in any district to which access is afforded by their systems, and by means of them to convey passengers' luggage, parcels, goods, merchandise and live stock." They will further enable the companies "to make working arrangements with any local body running road vehicles for hire."

Already, of course, the railways operate their own collection and delivery services, and in some isolated cases, feeder passenger services; but alteration of their charters by special act of Parliament is necessary if they are to have a free hand in the road business.

Needless to say, the road motor people have solidified into an aggressive body of opposition to the proposals. The clamor of protest from the Commercial Motor Users' Association, the Omnibus Owners' Association and similar bodies is sustained and sonorous. Mr. Edward Shrapnell-Smith, who is chairman of the National Council of the C.M.U.A., leads the motor attack in a manner suggestive of his name. His best aimed shots are not always bullseyes, but they explode at times with superficial effect.

"'Ware monopoly!" is, in brief, his welkin-ringing cry. "The railway companies will shoulder us all off the roads if they're ever allowed to begin running on rubber tyres."

Solid and extremely influential support for this remarkable outcry—denouncing, as it does, in one breath any suggestion of a possible monopoly for the railway, and in the next breath implying that there must be a monopoly for the present road operators—comes surprisingly from the Federation of British Industries, a body which combines trading and manufacturing concerns with a total capital running into thousands of millions. I say surprisingly, because the Federation represents many big iron and steel interests, whose heavy products must seek rail transport, and who are therefore directly concerned—whether they realise it or not—in railway prosperity and low freights.

Meeting to consider the railway bills, the Transport Committee of the Federation expressed the strongest

NOT since the original railway bills themselves appeared before the House of Commons a century and more ago, has legislation affecting England's railways aroused such widespread interest and dispute as the private members' bills which have recently been introduced into the House to give the railway companies authority to operate road services.

The situation, which is especially interesting to Victorians, is discussed and analysed in this article. The case for and against the railway measures is given, as well as the general opinion of the press, business men, local authorities and trades unionism on the issue.

opposition to "any grant of road powers to the railways," and recommended to its Grand Council that petitionsbe lodged against the measures. They raised the popular shout of "Monopoly!" and added some high-pitched comment anent the general inefficiency of the railways and their misleading maintenance of deliberately inflated operating expenses.

In a nutshell, the committee's case was that much of the traffic lost by the railways to the road motors need not have been lost had not the operating expenses of the railway companies been unduly inflated above the pre-war level, and had not the services provided been less efficient than they were before the war. If the companies were allowed to embark on the new enterprise of road haulage, the incentive to improve their rail services and reduce their costs for the purpose of retrieving lost traffic would be considerably reduced, if not entirely removed.

Never, the committee's report continued, would the railways succeed in driving their competitors completely off the road, but, with their enormous resources, they could enter into rate-cutting campaigns in certain districts to crush competitors out of existence. So far as the power to "make working arrangements" with local road transport authorities is concerned, the committee "feels that this proposal holds a distinct element of danger." It would enable the companies to purchase controlling interests in larger road organisations, and to buy out the smaller independent concerns at their own terms. "The companies would then put up their road rates with a view to protecting their interests as railways, thus both keeping up the rail charges and also increasing road charges throughout the country, and removing the most effective sort of competition with the railways. The committee considers that if these bills are likely to be passed, a situation of the gravest danger to the industry and commercial interests of the country will be created."

Hostility Toned Down

However, the Grand Council of the F.B.I. used the blue-pencil extensively when the recommendations of its suspicious Transport Committee came before it. Uncompromising hostility was toned down and modified into a resolution "that the Council appoints a committee to be selected by the president and past presidents, to consider what amendments to the Railways companies' transport bills are necessary to safeguard the public interests and users of transport, and empowers it to negotiate with the companies with a view to the inclusion of such amendments in the bills, and, failing success in such negotiations, to approach the Government with a request for a full inquiry before the bills receive a second reading. Meanwhile, in order to retain the Federation's freedom of action, any necessary formal steps should be taken to maintain the Federation's status to deal with the matter in Parliament, should this prove necessary."

This resolution was moved by Mr. P. J. Hannon, M.P., seconded by the secretary of the Birmingham Chamber of Commerce, put to the meeting by Lord Gainford, and carried unanimously. Significantly, Mr. Hannon is president of the newly-formed Industrial Transport Association, which had previously decided that it would be unwise to commit itself either to a policy of attack on the railway companies or to one of defence of the existing road interests. The Association had established a Parliamentary committee of its own, designed to co-operate with the F.B.I. and a couple of transport bodies for the provision of the safeguards advocated by Mr. Hannon in his motion before the Council of the F.B.I.

F.B.I.'s Opposition

Opposition of some description from the F.B.I. had been expected by the rail administration. Seven years ago, when the London and North-Western Railway introduced private bills into the House of Commons seeking somewhat similar road powers, the Federation protested vigorously. The chairman of the Federation's Transport Committee gave evidence before the House, and after several days' hearing—during which the railway company's counsel admitted that the powers sought ought not to be granted unless adequate safeguards were provided against the creation of a monopoly—the L. and N.W. company withdrew its application.

Supplementing this present opposition is a number of petitions against the bills from local authorities and other public bodies—something like 200, all told. Such action, however, is not necessarily a sign of opposition on principle by the petition signatories. In general, petitions are merely deposited to give their framers either a *locus standi* in case their interests should be threatened in any way, or the opportunity of pressing for any safeguards that might be considered necessary. For instance, the Swansea Corporation, which has petitioned against the bills, is "just waiting to see how the position develops."

Yet another view is that of the Executive Council of the County Councils Association, which considers that the principal involved is of such public importance that the powers proposed to be conferred upon the railways should be the subject of public legislation on the responsibility of the Government, and should not be ushered in under the frail aegis of a private member. . . . . .

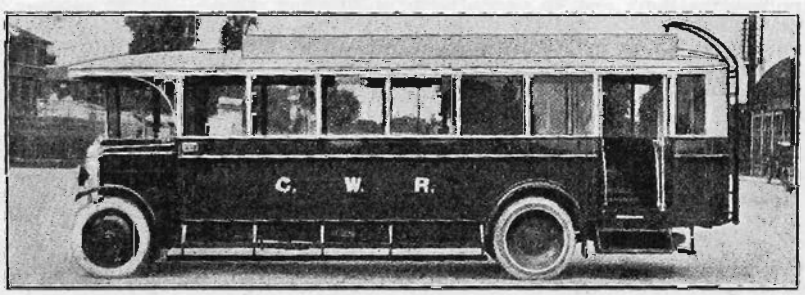
Strong Case for The Defence

The railway case for the defence is a strong one, and has been very ably presented. Bluntly put, it may be said to run: "What right has anyone to stop us from going on the roads? We are the largest contributor to their upkeep. Our rates bill is about £8,000,000. Of that huge total of our money, more than one and a quarter million pounds is spent annually on the maintenance of roads which we are not allowed to use. We claim that the roads should be free for the use of all ratepayers. The road transport interests claim that they should be allowed to retain and increase their present traffic and be protected against our competition. Who then are the monopolists, ourselves or our prosecutors? The road transport interests, enjoying the blessings of free (and rate-aided) competition, have abstracted millions of pounds' worth of traffic from the railways. Having done that, they now demand that we should be prohibited by Parliament from competing with them. The demand becomes audacious when it is remembered that those who advance it pose at the same time as the champions of free competition and the opponents of monopoly. We repeat, what *right* has anyone to keep us off the road?"

That defence neither minces matters nor clouds the issue. Nor do the seriatim replies of Sir Ralph R. Wedgwood, general manager of the London and North-Eastern Railway, and Sir Herbert Walker, general manager of the Southern Railway, to the criticisms of the F.B.I. Transport Committee.

"This talk of the establishment of a railway monopoly on the road is

(Continued on page 42)



A 'bus already in use by the Great Western Railway in an authorised area



Things We Are Talking About

LITTLE distinguished Easter railway traffic, this year, from that of its predecessors. Trains crowded with weather-lured holiday makers left Melbourne, for the most part, strictly to schedule—a tribute to the co-operation of transportation, rolling stock and yard men, and, of course, country Station-masters. The influence of the last named is most important when one analyses it, although it is frequently forgotten in the rush of getting things done. Their job of despatching up-trains to time, particularly on Thursdays before Easter and on Christmas Eves, makes it possible for the trains to leave the metropolis still on time.

EASTER TRAFFIC

HOLIDAY revenue was a couple of thousand pounds or so lighter than last Easter's, but the average fare paid was nearly 17/1½ compared with 17/- previously. The North east-bound trains were, as usual, very heavy, and little fault could be found with the patronage on the Adelaide journey. Cheap excursions were very popular, and two trains had to be run to both Bendigo and Ballarat. The preference, Metropolitan Superintendent Cox tells us, was slightly in favor of Bendigo. The Stony Point–Cowes traffic exceeded all expectations, and it looks as if Phillip Island, which by its demand for Home Rule has pushed itself prominently into the tourist limelight, has started to boom with everything in the way of climate and situation in its favor. The Belgrave, Emerald and Gembrook rail traffic, incidentally, showed marked revival.

WHERE PEOPLE WENT

IT is getting increasingly difficult, especially at holiday times, to distinguish passengers from lookers-on and seers-off on Spencer-street platforms. As many as 700 platform tickets were issued, on a recent Sunday, for the Sydney express alone. In many old world and American cities non-passengers are forbidden the platforms, especially at terminal stations, and, although for revenue considerations, Victoria cannot yet adopt this idea, many railwaymen think that, in the interests of efficiency, the matter will have to be given serious consideration. Meanwhile it is a feather in the collective cap of officers-in-charge that they are able to judge train accommodation requirements to such a nicety.

"SEERS-OFF"

THE ubiquitous motor-car was, of course responsible for most, if not all, of the potential rail revenue that didn't materialise at Easter. That, of course, can't be helped. Nobody has any quarrel with the private car which has added much to the enjoyment of life, but it is nevertheless the most serious competitor of the railway. A correspondent, Foreman M. J. Roche of the Newport Workshops sawmill, tells us that from a tally he took at Croydon, on Easter Sunday, of cars going towards the hill country along the main White Horse -road, 363 or 4.8 a minute, passed between 10.30 and 11.45 a.m. He again made a count the following morning between 11.8 and 12.23, between which times 424 outward cars passed, or at the rate of 5.65 a minute. The average number of passengers in each car he computes at four, so that the 787 cars he counted carried 3148 people. Assuming that a five-car train carries 450 passengers, these motors transported seven trainloads.

CAR COMPETITION

MENTION of cars inevitably drags in the vexed question of rail versus the commercial road motor, which has reached some bitterness in the newspapers and in clubs and places where men argue about these things. Unfortunately public discussion seems to have degenerated into the recounting of instances of immediate loss or gain, and supposedly intelligent comment is no more enlightening. Any vision or constructive thought seems to have been swamped by noisy protest against the operation of the new 'Bus Act. Naturally 'bus and lorry owners are aggrieved; they wouldn't be human if they weren't. But that shouldn't prevent disinterested thinking people from realising the big principle involved.

THE REAL ISSUE

IT is, or should be, obvious that any community (and especially a growing community that must husband its resources for development) can ill afford wasteful competition in the production of any commodity. By "wasteful," an oversupply or a swamping of the market is, of course, implied. And that is just what is happening to the production of transportation along many parallel or nearly parallel routes in Victoria. It is oversupplied, and the State is paying dearly for the waste. Let us here quote the trenchant observations on this point of "Political Student" in *The Age* of April 18: "There is no more reason for this duplication of services," he says, "than there would be for, say, two distinct telephone systems with two sets of wires, side by side, or two water-supply authorities, each laying mains in the same streets. But let us suppose, for the sake of argument, the 'bus supporters are correct in their contention that the railways are obsolete and must give way to 'modern means of transportation,' and the railways cease to function, how are the travelling requirements of the residents on the remote and sparsely populated parts of the state to be met? 'Bus owners, despite their claim that their vehicles are modern means of travel, refuse to supply a service unless it will show a profit, so apparently citizens residing in districts where it does not pay to give a 'bus service will be marooned."

WASTE

SO much for the passenger-carrying side. The remarks of "Political Student" on freight service are equally telling. "And who," he asks, "will cater for the bulky and other unprofitable lines of

goods that motor lorry owners now decline to handle? Surely the 'bus advocates will not have the effrontery to contend that railways should continue solely to operate on all non-paying lines and to carry the low-class freight, leaving to motor vehicles all the profitable routes and payable freights." Experts, the world over, have given their considered opinion that railways will continue to develop and serve civilised communities for many years to come, and that the solution of the present difficulties of transport duplication, which are being experienced in most countries, lies in co-operation. Sir Josiah Stamp, Chairman and President of the Executive of the London, Midland and Scottish Railway recently put it in a nutshell: "We ought to aim at such use of the railway and road facilities combined as represents the least economic cost to the country as a whole," he said. And that, precisely, is what Victoria is aiming at.

RAILWAYS NOT OBSOLETE

STRIKING examples of the waste of duplication have been supplied by 'bus owners themselves. At one time—and not so very long ago at that—there were no fewer than six private passenger motor vehicles plying between Melbourne and Portsea. Obviously, the transport market on that route was greatly oversupplied, and, just as obviously, somebody had to go. Other routes can tell the same story.

'BUS v. 'BUS

OPPOSITIONISTS to 'bus and lorry regulation, in Victoria, have been trying to back up their case with the suggestion that as no restriction is placed on the operation of road transport in other countries, Victoria should not make a joke of itself by hampering progress. The argument, however, won't hold water, because 'buses and lorries *are* restricted in other countries. In America for instance, where the problem has reached a more advanced stage than in Australia, 41 of the 48 States regulate the running of passenger 'buses, while 39 States restrict the carriage of goods.

WHAT AMERICA DOES

THE laws of these States make it necessary for intending operators to obtain a certificate of "public convenience and necessity" before they can run their road services. Mr. V. F. Letcher, Railways Commissioners' Special Officer, who recently investigated the whole position on the other side of the Pacific, tells us that these certificates are issued primarily to protect the public interest by eliminating wasteful competition. In other words, the State determines which persons or companies are best able to serve public transportation needs, refuses to sanction irresponsible operators, and gives certificated carriers some protection against unnecessary competition.

"CONVENIENCE AND NECESSITY"

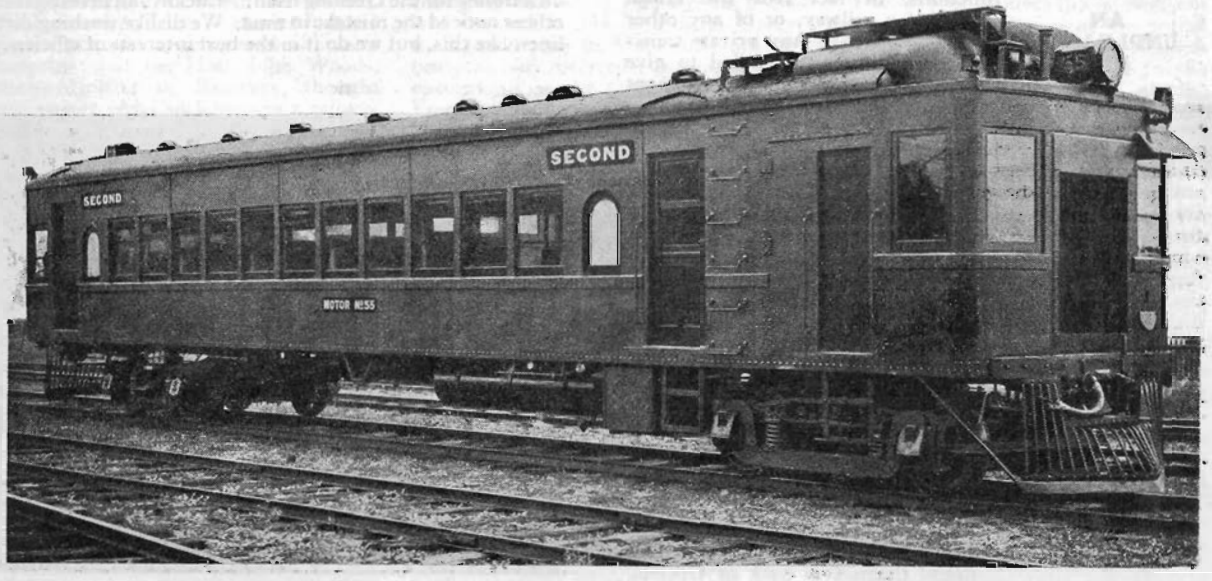
THE Supreme Court of Illinois, in setting aside, recently, an order of the Illinois Commerce Commission granting a certificate of convenience and necessity for a 'bus line in territory served by a railroad, gave the following judgment:—

AN IMPORTANT RULING

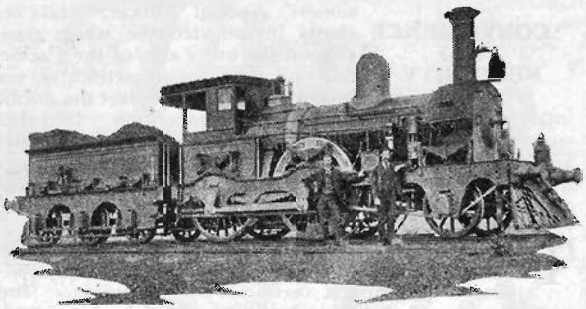
"Railroads have permanent road beds and trackage which require an outlay of millions of dollars, and which in turn yield large revenue to the people of the State. The average 'bus line is incorporated for a comparatively small sum. The railroad is of vastly greater financial responsibility. This is a matter of substantial public interest, particularly in cases of accident. It is the established policy of the law in this State that a public utility be allowed to earn a fair return on its investments. It is, therefore, not only unjust but poor economy to grant to a much less responsible utility company the right to compete for the business of carrying passengers by paralleling its line unless it appears that the necessary service cannot be furnished by such railroad. Appellants offer to provide whatever increase in accommodations and service is deemed essential to meet the public convenience and necessity. It is but consonant with our law regulating public utilities that they be given opportunity to do so. It is argued that appellants cannot give the necessary service except at a large loss. Such argument is beside the question involved in the proceedings before the Commission in this case. Appellants have stated that they are willing and able to give such service, and it appears clear that the Commission is not justified in granting a Certificate of Convenience and Necessity to a competing line until the utility in the field has had an opportunity to demonstrate the truth of its statement and to give the required service."

ALREADY the new Pacific locomotive has been earning its keep, during trials. After hauling freight satisfactorily, it was put on the 6.30 a.m. passenger run to Seymour and back, early last month, with equally satisfactory results. On April 11 it did its first job of work on an interstate train by hauling the first division of the Sydney Express from Seymour to Spencer-street, a job that normally takes two A2's. The performance, in a shade over schedule time, was again eminently satisfactory. S. 300, we understand, could easily have cut

PACIFIC'S PROGRESS



The Victorian Railways new petrol-electric rail car, the first of its kind in Australia. The car which was described in last month's issue of this magazine, is now going into service



Contrasting strangely with the modern "Pacific" S. 300 this "P" class engine hauled the first Sydney express on August 20, 1883. It was built by R. & W. Hawthorn Ltd., Newcastle-on-Tyne.

down the time, but it was obviously inadvisable to force a new engine. "She is throbbing with vitality and life," said Chief Testing Engineer George Curtis, whom we now suspect of having a streak of poetry in his composition. Foreman Ted Burnell, who is driving the engine, is in complete agreement, although he expresses it differently. "She's like a car to run," is his dictum. As a fact, "Tiny" as the engine has been unofficially dubbed, runs smoother than an A2. Our cover photograph, this month, by the way, shows Ted oiling up the engine.

INTEREST IN "TINY"

PUBLIC interest in "Tiny" continues unabated. At a platform the engine is invariably surrounded by admirers. On the road she is always greeted by the shouts of schoolboys and the obvious manifestations of interest of their elders. On one run the engine crew was vastly entertained by an enthusiastic woman who, rushing from her back door for a better view of the train, forgot about her doorstep and bit the dust. "Tiny" is now doing efficiency trials between Melbourne and Seymour with a made-up train of about 400 tons.

AN UNPLEASANT JOLT

WHEN people consign goods by rail they do so in the expectation of getting them delivered at a certain destination safely and within a reasonable period. To effect such delivery in every case is one of the primary functions, in fact half the raison d'etre of a railway, or of any other common carrier. Any private transport organisation that failed to give this service in exchange for payment wouldn't last five minutes. Because the Victorian Railways have, generally speaking, not only done their carrying job properly, but have thrown in a little extra in the way of courtesy and efficiency, they have secured the confidence and good will of the general public. They have built up an organisation that is solid and dependable. Because of that, a jolt such as occurred the other day over a coop of bantams consigned from Geelong to the Sydney Royal Agricultural Show, which took three days to get there and the same time to get back, is a serious thing. People dislike to have their confidence shaken, especially when there's no shadow of an excuse for it.

1200 UNNECESSARY MILES

THE bantams, which had been prepared with considerable trouble by a breeder who had twice won a championship at Sydney, left Geelong on March 31. The coop, marked "Urgent, With Care," duly arrived at Spencer-street in ample time to connect with the afternoon's Sydney Express. It was even put on the trolley for that train, but the bantams found themselves back in Geelong by the 5.30 p.m. Geelong promptly redespatched them by the 9.15 p.m. and took the trouble to ring Spencer-street about the mistake. Nevertheless the bantams turned up again at Geelong on the Monday morning. Hurried back to Spencer-street with the waybill marked "Third attempt at despatch" the coop was at last put aboard the Sydney Express, but it turned up at the show on the Tuesday (April 3), too late for the judging by half a day. The return journey was no more auspicious. The coop left Sydney on April 11 and reached Spencer-street next day, when, instead of being transferred along with the waybill, to the Geelong train, it was promptly sent back to Sydney. The bantams ultimately returned to their home pens on Saturday, April 14, after repeated inquiries by their owner. For a fortnight, they had spent six days in joy riding, and had been needlessly carried about 1200 miles.

"COULDN'T HAVE DONE WORSE"

THE owner of the birds had an excellent chance of making more than £5 in prize money, besides the honor and glory and enhanced reputation that result from good wins at an important show. His out-of-pocket expenses ran into about 25s. into the bargain. His claims on the Department have, of course, been paid, but that doesn't make up for Spencer-street's repeated carelessness in handling the coop. Admittedly, there were two addresses on the label—the sender's and the consignees—but that is the usual practice. And if any doubt existed, reference to the waybill would have obviated any and all of the mistakes. As Mr. Clapp remarked: "If we'd intentionally laid ourselves out to give bad service, we couldn't have done worse." The whole episode, of course, made good copy for a newspaper, but it let the service down very badly.

TWO MORE CASES

THIS isn't the only case recently. A crate of valuable birds sent the other day, from Ballarat to the Burnley Egg Laying Competition was a couple of days late through some perfunctory member of the staff having sent it to Colac. An old—obviously old—label happened to bear an address in that town, which fact furnished an explanation, but not an excuse. Still more recently, a consignment of breeding ducks from Corio to Seymour, having duly arrived for transfer at Spencer-street, was put on a trolley for the Geelong train. Luckily, an investigating officer noticed the mistake in time. We dislike washing dirty linen like this, but we do it in the best interests of efficiency



The coop of bantams that travelled 1,200 unnecessary miles

LOOKING BACK

Half a Century



By A. W. REES

FOR 48 years, Mr. A. W. Rees, just-retired Secretary of the Victorian Railways Boards of Selectors of New Staff, has been a railwayman. During the 27 years in which he has been Secretary of the various Boards, he estimates that he has personally dealt with no fewer than 65,000 candidates for employment.

Now, halting on the horizon of retirement, he looks back along the years.

ON February 4, 1880, I joined the Railway service. Two days prior to that date I was at school, where, I can remember, I spent quite a lot of time watching the dome of the Exhibition building being constructed. As I was then only 12 years of age, I had no thought of going to work in any capacity; but the Hon. John Woods, then Minister of Railways, thought otherwise. And so I became a railway man.

I have said that I was only twelve years of age when I joined the service. As a matter of strict fact, I was within five months of my thirteenth birthday which occurred on July 24, 1880, and was one of the most exciting of my natal days. To honor the occasion, I was taken to hear the Italian Opera Company perform "The Hugenots." Immediately after the dropping of the curtain on the first act, the dress circle was greatly startled to hear the sound of two pistol shots fired in quick succession. The shooting took place about fifteen yards from where I sat, and I saw two people—a man and a woman—fall from their seats. A man ran to the back of the circle and fired a third shot, which he directed against himself, and then fell heavily. The excitement was tremendous, and after it had subsided somewhat, all of the occupants of the circle, save a dozen or thereabouts, left the theatre. The affair happened on a Saturday night, and in Monday's papers there appeared detailed accounts of the tragedy, which it appeared was the result of the eternal triangle. The story told by the press was that while Mr. and Mrs. Greer were journeying to Melbourne on the boat, the lady received—and apparently encouraged — the attentions of a Frenchman named Soudre. Greer became suspicious, and decided to make an end of all concerned while the three were at the opera. Unfortunately for poetic justice, his first bullet, fired at his wife, missed her. The second, aimed at Soudre, merely grazed the cheek of that gentleman, but the third was only too successful, for poor Greer died the same night in the Melbourne Hospital. The first people to reach Greer after he had fallen to the floor were a young doctor named Charles Ryan and Joe Thompson, the Leviathan bookmaker. Forty years after, Sir Charles Ryan, then the Victorian Railways medical officer, told me the story of the tragedy, and of how his brand-new evening-dress suit, worn for the first occasion, was completely ruined by poor Greer's blood. You may imagine that Sir Charles was very much surprised when I supplied him with the exact date of the happening, and told him that I too was among those present.

When I joined the railway service the Ministerial and Secretarial offices were situated on the Spencer-street station platform, just where the new refreshment buffet now stands. Williamstown and Essendon line trains ran into dead-ends almost opposite the main door of the Secretary's office. On one occasion, however, the Williamstown train did not come to its usual dignified halt at the buffer stops but finished up on the concourse.

The Westinghouse Brake was not then in universal use, and the engine drivers had to rely upon the steam brake, assisted by the brake in the guard's van. The doors of all the suburban carriages were locked while the trains were in motion, and I remember what a sensation was caused when the locked doors were abolished, and safety catches substituted.

Altogether, prior to the advent of Commissioners in 1884, I served under four Ministers of Railways, John Woods, Thomas Bent, J. B. Patterson and Duncan Gillies. What an array of political giants I saw in those days—Graham Berry, James Service, Peter Lalor, J. G. Francis, names a trifle vague now but still familiar to the present generation.

Ministers used to change very frequently in the eighties, and one never knew who his boss would be next week. Sometimes, too, a change of Ministry meant disaster to certain heads of branches. Politics sat very heavily on rail administration those days.

I think between 1880 and 1883, I saw four different railway Engineers-in-Chief—Thomas Higginbotham (brother

to the Chief Justice), who never appeared outside of his office with ungloved hands; Robert Watson; William Elsdon, the white bell-toppered Scotchman, with his favorite salutation "My little man;" and George Darbyshire. Elsdon occupied the dual position of Engineer-in-Chief and General Manager, and was appointed as such by J.B. Patterson. Peter Paul Labertouche was the Secretary, otherwise permanent head of the department. Solomon Mirls was Locomotive Superintendent: John Lunt, Engineer of Maintenance; G. T. A. Lavater, Accountant; Harold Kent, Traffic Auditor, and John Anderson, Traffic Manager.

In 1884, the first Railways Commissioners took office, Messrs. Speight, Ford and Agg. The last-named (who was previously one of the three Audit Commissioners) died not long after, and W. H. Greene, until then Engineer of Existing lines, was appointed in his place. This triumvirate continued in office until 1892, when it was "removed" by Minister for Railways Shiels. Then followed a succession of Acting and Deputy Commissioners, amongst whom stood out Mr. W. J. Fitzpatrick. He had the opportunity of proving his worth and value to the department and the State later on.

No Telephones or Electric Light

Perhaps a mention of some of the changes in the City of Melbourne which occurred during my official life would be of interest. In the early eighties, there were no electric lights and no telephones. All the shops were closed at night with shutters, which the employes of the establishment were wont to produce magicianlike from some mysterious place of hiding. These were placed against the windows and secured ("secured" is the word) with iron bars and padlocks.

Policemen wore funny little peaked caps and carried dark lanterns attached to their belts. The street gas lamps were lit by fleet-footed men, whose equipment consisted of a ladder and a box of wax matches, although some scorned the ladder and shinned up the post. The Admiral Hotel occupied the present site of the Federal Palace Hotel while Whiteman's Clarence Hotel dispensed alcoholic refreshment at the corner of Collins and Elizabeth-streets, where the Royal Bank now stands. Also, the Burke and Wills monument stood in the exact centre of the intersection of Collins and Russell-streets.

'Buses and cabs provided community transport, and Toorak was always well represented in the vicinity of "The Block" between three and four o'clock in the afternoon by expensive barouches and broughams; those of course are not the names of the cigarettes of the nineties.

On my daily journeys between my home in East Melbourne and Spencer-street, I traversed "Big" Bourke-street, as it was then familiarly known. It was a very different street then; but just as full of life. The stalls of Paddy's Market (now called the "Eastern") opened on to the street; and Cheap Jacks and vendors of liquid and solid refreshment cried their wares; while three-card and purse-trick spielers pursued their calling unmolested by the law. Jem Mace, the then champion pugilist of the world, was a familiar sight at the door of his hotel—the "Criterion," which was the rendezvous of all the pugs of that time. Cole's Book Arcade was situated between Russell and Stephen (Exhibition) streets; and often I was turned out of the establishment for reading too long at the free counter. A remarkable sight was the Eight o'clock Rush every week night at the Mechanics Restaurant, where all the derelicts of the city used to assemble for a free feed. The proprietor of the Mechanics was a charitable Spaniard, who, having experienced hard times and an empty stomach himself, vowed that, so far as lay in his power, he would let no man go hungry. Itinerant musicians were then even more plentiful than now, and included "Ballarat Joe," an organ grinder and sometime bellman, or public crier, of Ballarat. Joe was always clad in a black broadcloth suit, white topper hat (in which he carried a large red, cotton handkerchief) and boots shined to an intense brilliancy. He accepted nothing less than silver for his performances, and was reputed to be a very well-to-do man. At any rate, he took frequent journeys to London, whenever he required a new organ. He was further remarkable in being clean shaven in an age of be-whiskered men.

To hark back to 1880, I well remember the capture of the Kellys. The day following their arrest, I experienced a more or less morbid thrill by being permitted to try on Dan Kelly's iron armor. It was, I also well remember, very heavy and very dirty. A week later, on my way to Albury to assist in bringing the Governor of New South Wales to Melbourne, I saw the charred ruins of Mrs. Jones's hotel at Glenrowan, where the historic fight took place.

Nearly a Tragedy

Speaking of the Kellys, not very long after their obliteration, a play entitled "Ostracized," dealing with their exploits, was produced at the Old Princess Theatre. In the first act depicting the simple home life of the Kelly family, Police Trooper Fitzpatrick attempts to force his unwelcome attentions on Kate Kelly. Dan Kelly suddenly enters, observes the plight of his sister, and fires his gun at the amorous policeman. In the play, Fitzpatrick was supposed to clasp his wrist with his other hand, and cry out "My God! I am shot!" but on the night that I witnessed the performance Fitz. clasped his hand to his face, gave vent to a most unearthly howl and then rushed off the stage. Next morning's papers explained that when cleaning Dan's gun, the property man left a small piece of candle in the barrel, and this it was that smote Fitzpatrick.

I suppose I have worked in every department of the Secretary's Branch during my career, but my principal job has been the one which I have held since 1901 — the secretary to the Board of Selectors which appoints new staff in the railway service. In that position, it has been my lot to act as guide, philosopher and friend to many Boards. Looking over my records, I find that between 1901 and 1927, I have dealt with, personally, no less than 65,000 candidates for employment! They included all sorts and conditions of men and boys, sober and drunk, sane and insane, good and bad, many thieves, and one murderer.

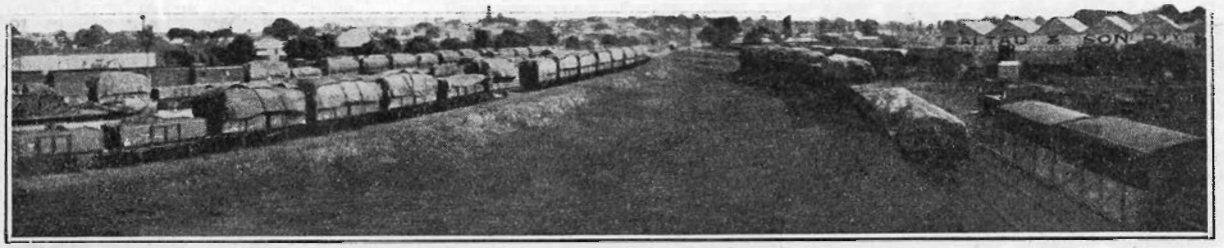
I completed my forty-eighth year of service on February 4, of this year. So I think I am entitled to a good long holiday. And to the many dear friends I have left in the department, I wish health, happiness, prosperity and success.

GLASS LINED MILK TRUCKS

BULK transportation of milk in glass-lined tanks is now an accomplished fact on the English railways. United Dairies Ltd., one of



the biggest milk supply companies, is co-operating with the Great Western and London, Midland and Scottish Railways in this regard. The rail companies have built the tanks, each with a capacity of 3,000 gallons, and have mounted them on wagon underframes. Adequate insulation is provided so as to keep the milk at a constant temperature, and plants have been installed for washing out, sterilisation, and so on. The tanks are of steel, and lined throughout with glass enamel which, according to leading dairy metallurgists, is entirely unaffected by the action of milk and harmless to milk itself. More than 280,000,000 gallons of milk are conveyed annually by British railways. The L.M.S.R. handles 95,000,000 gallons, and the G.W.R. 85,000,000 gallons.



The Railway Yard at Hamilton

Where Chaff Means Thousands

By JOHN DIX

SELLING at something like £5 a ton, chaff brings a good, round £100,000 into Hamilton and district in 12 months. Ten years ago a mere 2,000 tons was Hamilton's fodder figure.

This tenfold increase and more, inside a decade, is due to several factors. One, of course, is the enterprise and energy of the local merchants, who have pushed sales extensively in the far northern irrigation areas, as well as over the border in southern New South Wales. Another is the fine quality of the Western district chaff, oats and hay being grown in a climate which is as favorable to cultivation as the soil.

A third factor is Hamilton's geographical location. Situated in the heart of the fertile Western district, it is in a position to levy consistent and regular supplies of hay from the north, south, east and west. And the fourth, and by no means least important, factor, is the efficient railway service.

Hamilton's Staff

Hamilton Station-master has a staff of 23, including six porters, five clerks, three guards, three shunters, two signalmen, a shedman and three laborers. Six engines are stationed at the loco. depot. This large personnel has been kept particularly busy with chaff consignments during the past couple of months. February and March were peak periods, the demand for trucks for fodder being maintained right through each month. More than 200 trucks of chaff were handled in the station yard on February's 29 days, and about 170 during March. This makes a total of, roughly, 3,500 tons of chaff for the two months, compared with 2,250 tons for the same month last year.

For the weighing of the chaff alone, £21 worth of weighing tickets were issued by the shed staff in February, and another £20 worth in March.

Altogether, Hamilton's aggregate goods loading for February was 5,142 tons (inwards, 2,618 tons; outwards, 2,524 tons), and for March, 5,380 tons (inwards, 2,980 tons; outwards, 2,400 tons). Chaff, therefore, represented more than twice the tonnage of all other classes of Hamilton freight combined.

WITH a yearly output of more than 20,000 tons of chaff from the surrounding district, Hamilton lays confident claim to the title of principal chaff supplying station in Victoria.

Of recent months, the rail fodder traffic has shown a healthy tendency to increase and keep on increasing.

Incidentally, the aggregate goods and live stock revenue for February totted up to £5,636 (inwards, £3,128; outwards, £2,508). March's considerable share of similar grist was £7,318 (inwards, £3,775; outwards, £3,543). Then, local passengers, all told, brought in £1,245 in February, and £1,320 in March. Parcels contributed £292 in February and £318 in March.

But, perhaps, a more satisfactory manner of inducing statistics to tell the story of Hamilton's healthy goods traffic would be to show the number of vehicles handled in the big yard in a working week. Here are those figures for the two busiest chaff-loading months (the "engine hours" column indicates the actual hours the pilot engines were engaged on shunting work):—

Engine Hours.		No. Vehicles Handled.
FEBRUARY		
63	...	1463
60	...	1500
58	...	1220
75	...	1729
256	...	5912
MARCH		
67	...	1620
70	...	1933
61	...	1520
88	...	2148
286	...	7221

Primarily, chaff is responsible for the urgent need for increased accommodation in the Hamilton station yard. The removal of the existing loco. sheds to a site close by the new turntable is already in hand, and will provide a little more elbow-room for the cramped trucks. And next year, it is hoped locally, an adequate amount will be included in the Parliamentary estimates for the erection of enlarged goods sheds in a position which will allow of the construction of three additional sets of rails.

Behind this sustained boom in the chaff business are three big firms—Saltau and Son Pty. Ltd., Walter Bros., and Condon and Masterton. They control three chaff mills, electrically driven by power obtained from the Hamilton Electric Supply Co. And they give direct and indirect employment to 60 or 70 local people.

Achievement Still Lies in the Future

In the mills the hay is cut and bagged ready for the railway trucks. In the mills, also, large quantities of fine quality seed oats are clipped and cleaned for export to Tasmania and New Zealand, as well as for Victorian consumption.

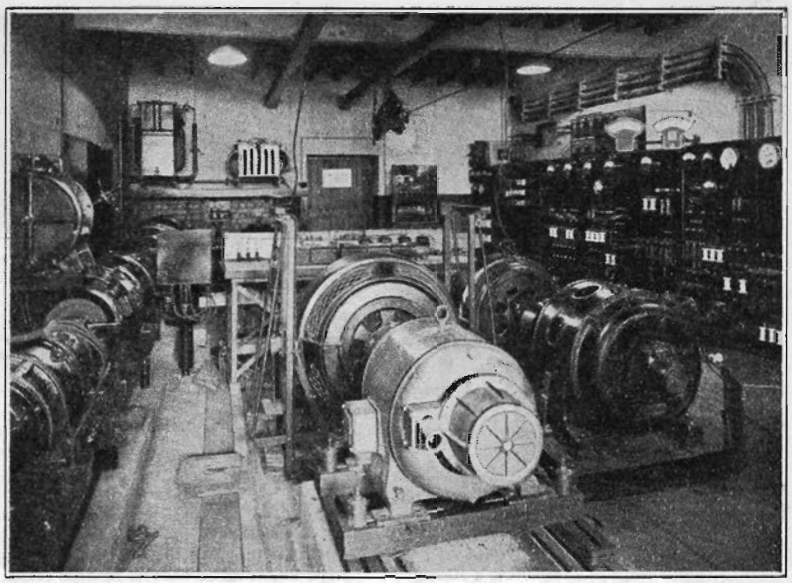
And significantly the chaff suppliers, despite the phenomenal increase in their business, are not talking of what they have achieved, but of what they are going to achieve.

"The storm burst upon us so suddenly and violently that we had no warning of its approach," said the hurricane victim, relating his experience to a friend. "In an instant the house was demolished and scattered to the four winds. How I escaped being torn to pieces I do not know! We—"

"G-good gracious!" said Mr. Meeke jumping to his feet. "That reminds me! I almost forgot to post a letter for my wife!"

The Why and Wherefore of Electrical Testing

By R. S. CONNOLLY
Assistant Engineer, Electrical Engineering Branch, Victorian Railways



Machine room showing motors connected to the electro-dynamometer for testing

THE Victorian Railways Department is the largest consumer of electricity in the whole of the Commonwealth of Australia. Operating its own power station at Newport, it has generated up to 260,000,000 units a year. Of this huge quantity, more than 145,000,000 units are used to operate the electric trains, more than 1,000,000 units for the electrical signalling scheme, while a considerable quantity is consumed for lighting and for driving industrial motors located in various departmental workshops.

More than 2,700 electrical measuring instruments and relays are in use either at the power station or in substations, and in order that the whole electrical system should function with the greatest reliability and efficiency, it is necessary that the aforesaid instruments and relays should be maintained in perfect order.

It is not generally realised to what extent industry relies upon the science of measurement. Particularly is this the case in electrical power generation. But a good appreciation of the position can be obtained when it is realised that a decrease in the efficiency of Newport Power Station of only one per cent. would result in an increased expenditure of £3,000 per annum for coal alone.

The Error Factor

Neither is it usually realised that the exact measurement of any quantity is an impossibility, or to put it more plainly, every measurement obtained has a certain error, and this error may be large or small according to the skill used, and the quality of the measuring instrument available.

The science of electrical measurement is in an advanced state, and precise measurements involving very small errors are possible; but except in certain cases, the results required do not justify the expenditure of time and skill necessary to obtain absolute precision.

THE extent to which industry relies on the science of measurement is not generally realised. Particularly is this the case in electrical power generation. In this article, which will be concluded in the June issue of the V.R. Magazine, Mr. Connolly gives some idea of the importance and extent of measurement and test as applied to the electrical operation of the Victorian Railways.

To maintain the high efficiency required from a large generating station, a few instruments, notably the meters measuring the electrical output, require to be kept as accurate as is humanly possible. Instruments indicating the steam temperature and pressure require to be of similar accuracy, while for the thousands of instruments used in general operation a lower degree of accuracy will suffice.

Frequent tests of all instruments, particularly the main output meters are highly desirable, and as it is inconvenient to shift such instruments from their location, they are usually checked in position against a more accurate instrument known as a portable test instrument. This, in turn, is checked at a laboratory against precision standards which again are calibrated at frequent intervals with the primary standard.

It will be realised from the foregoing, that the problem of maintaining the instruments is no small one. Some instruments are checked each month, others every six months, while those of lesser importance may be checked only once a year. To carry out the thousands of checks necessary in the course of a year, a special organisation is necessary, and to meet this requirement, the Railways Department maintains a section known as the Electrical Testing Division, for the purpose.

The headquarters of this division are at Spencer-street, where, quite fittingly, the old Spencer-street Power Station has been remodelled, and provided with all the equipment necessary for an up-to-date testing laboratory.

The maintenance of operating instruments, although quite a man-size job, is nevertheless, only a small part of the activities of the Testing Division. In any large system, faults and operating problems arise at frequent intervals, and investigations have to be carried out almost continuously. Naturally, electrical testing must play quite a large part in such investigations, and the staff and equipment are in constant demand for this purpose.

All Material Tested

The Railways Department spends some millions of pounds per year on the purchase of stores and equipment, and in order to ensure that the required standard is maintained, all purchased material is subjected to a searching examination, and wherever possible, to rigid tests, also, before acceptance. All material used in connection with the electrified system must pass these tests, and an idea of the magnitude of the task can be gained from a survey of

the material tested.

Porcelain insulators, and other insulating material, copper conductors, stranded cable, electric motors, transformers, transformer and switch oil—the list includes such widely different items as samples of resistance wire at one end to a 15,000 kilowatt turbo-generator at the other. Test may occupy one man's time for five minutes, or half a dozen men's time for a week or more.

As might be expected, the equipment provided at the depot is of a very varied, and in many cases, of a costly nature. Certain instruments are located permanently at headquarters and are not allowed under any circumstances to be shifted. Other equipment is used both inside and outside, and some employed for outside work only.

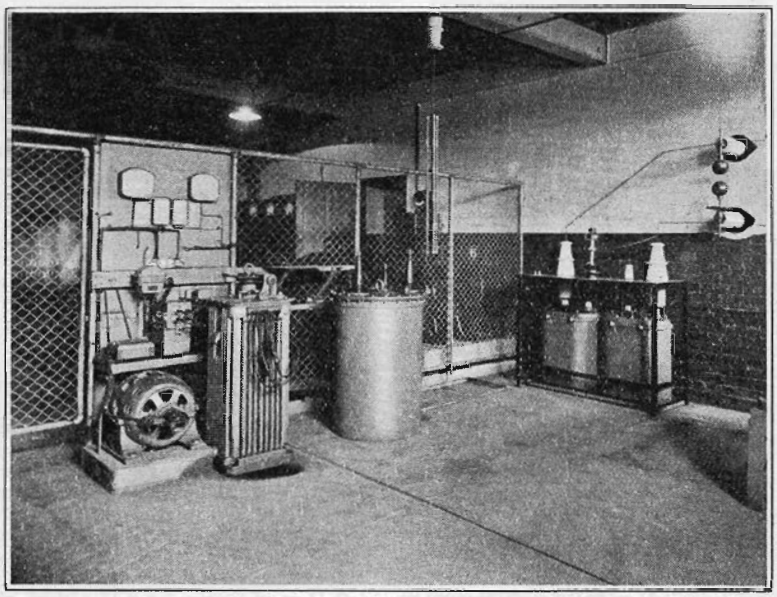
The section of the building occupied by the Testing Division is two storied, the lower floor comprising a machine room, a standards laboratory and a physical laboratory, while the upper floor is occupied by the instrument workshop and by the administrative offices.

Miniature Power Station

The machine room is, in itself, a miniature power station, being equipped with a number of motor generator sets and switchboards to enable a variety of electrical supplies to be available. It is possibly well known that the main power supply from Newport is three phase alternating current at 25 cycles. For lighting purposes in the main Railway buildings, portion of the main supply is converted to single phase at 50 cycles, and both these supplies are available in the machine room. Owing to the varying nature of the system load, the voltage and frequency fluctuate to some extent, and whereas such supplies are quite suitable for ordinary testing purposes, and are in quite general use, they are entirely unsuitable for meter testing.



A high tension line insulator being tested for "spark over." The white lines show the track of the spark. The voltage was about 100,000



The high tension testing bay with spark gap mounted on the wall. A 40,000-volt transformer is in the foreground and an 80,000-volt transformer in the background

How Current Is Supplied

The two main supplies are, therefore, used only for rough work, and in addition, are employed to drive the previously mentioned motor-generator sets from which suitable supplies for testing are obtainable.

Alternating current supplies are obtained from a 3-phase generator driven by a direct current motor. This set can supply both 25 and 50 cycle current, and its speed is kept constant by means of an electrical speed regulator. Direct current supplies are obtained from three motor generator sets, one at 600 volts, and two at 230/300 volts. A standard storage battery provides a steady voltage for accurate testing, while two transformers provide heavy currents up to 1,000 amperes and standard current at 110 volts for meter testing, respectively.

The motor generator sets are located along one wall of the machine room, while the switchboard consisting of eight enamelled slate panels occupies the other. The space between is used for the testing of motors, transformers, and such like electrical equipment.

The storage battery of 64 cells and 200 ampere hour capacity, is located in a separate room at the back of the switchboard. Groups of four cells are permanently connected in series, and by carrying copper conductors to a special section of the switchboard, the battery can be connected all in series, or alternatively, the four cell groups can be placed all in parallel, or in series parallel.

In all, eighteen different current supplies are available, and as far as possible, these are carried on separate panels, the wiring being laid out so that in the event of any supply failing, a duplicate can be obtained from another point. A one line diagram drawn in appropriate colors, and mounted above the switchboard, enables any operator to carry out the required switching operations without fear of mistake.

Test Certificate:

All electric motors above one horsepower are tested for efficiency and temperature rise against an electro-dynamometer. Smaller machines are tested by means of a water cooled Proney brake. Sets of old standard rails embedded in the concrete floor provide a good foundation for electrical machines under test, while a travelling block mounted on an "H" girder enables weighty apparatus to be easily handled. With such a variety of testing facilities available, it follows that the general test work carried on is of a most varied nature. Small motors ranging from ½ horsepower to the large traction motors of 140 horsepower are dealt with, and in the course of a year all classes of transformer motors, motor generator sets, automatic switch gear, and so on, pass through the machine room.

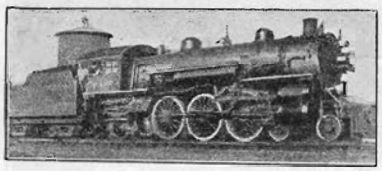
Certificates of test are provided for each machine tested, and the exact results obtained have placed this

(Continued on page 46)

Lines from Other Lines

536 MILES IN 509 MINUTES

RECENTLY, a special train on the Big Four (U.S.A.) consisting of locomotive, one coach and two official cars made what is believed to be the second fastest long distance run on record when it ran the 536.1 miles from St. Louis to Cleveland in 509 minutes, at an average speed for the entire distance of 63.2 m.p.h. Existing records indicate that this performance



The "Pacific" type engine that made the record run

has been exceeded on only one previous occasion when, in 1905 on the old Lake Shore and Michigan Southern from Buffalo to Chicago, a special train made a record of an average speed of 69.69 m.p.h. There was no advance preparation for this trip, and it is reported that the operating department was not certain until less than two hours before the start was actually made that the train would be run. The out-standing features of the trip were the uniform but not excessive speed maintained throughout the entire distance, and the efficient functioning of departments that were called upon without advance notice. No attempt was made to break any speed records, each engine crew being instructed to keep within the speed limit of 75 m.p.h. There were two engine changes, the same "Pacific" class of locomotive being used throughout. These engines were built in 1909, and have 22 in. x 26 in. cylinders, 75 in. drivers and a tractive effort of 28,600 lbs.

RAIL DEVELOPMENT IN MANCHURIA

WHILE the rest of China is passing through a period of economic disorder, the development of Manchuria is going ahead at an unprecedented pace. Thirty years ago, Manchuria had no railways, and its population was less than 2,000,000. To-day its railways total nearly 4,000 miles—about as much as the total length in the East of China—and the population numbers more than 27,000,000. Railway development has brought into Manchuria probably the greatest colonization movement that has ever taken place in history, in an area of similar size and in a similar length of time. In one month, March, of the current year, approximately 200,000 Chinese immigrants passed through the port of Dairen. Hitherto the movement has averaged about 400,000 immigrants per year.

WHEN "BIG" BILL TRAVELS

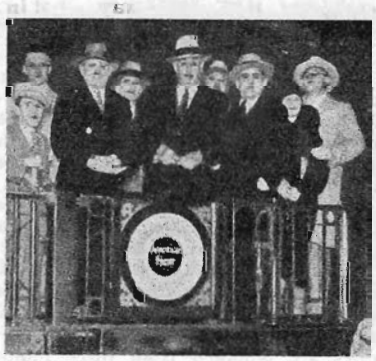
HOW "Big" Bill Thompson, Chicago's Mayor, whose anti-British outbursts have added to the gaiety of nations, travels in state in America is described in a recent issue of the *Illinois Central Magazine:*

"For the accommodation of Mayor William Hale Thompson and a group of 500 prominent Chicagoans, many of whom were accompanied by their wives, the Illinois Central operated three fourteen car special trains, Chicago to New Orleans. The trains, which consisted of the latest type of Illinois Central and Pullman equipment, left Central Station at 8.15 o'clock the evening of February 1 arriving in the Crescent City 8.0 p.m. the following day.

"At Jackson, Miss., the party was met by a delegation of business men.

"Miss Olga Menn, of Chicago, led the singing of the party's favorite songs, "America First," "Hello New Orleans" and "Big Bill the Builder."

"At New Orleans "Big Bill" and his followers were accorded an enthusiastic



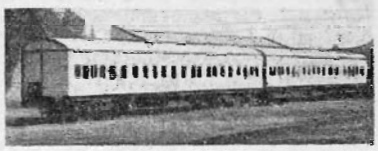
Mayor Thompson (centre) and his party

reception by the citizens' committee. The three big special trains were beautifully decorated with red, white and blue electric signs on the rear platform, American flags on the engines, and with banners flying in the breeze.

"Amidst the blowing of whistles, flashing of fire-works, and exploding of torpedoes, the party paraded by automobile to the Roosevelt Hotel."

AFGHAN KING'S INDIAN TRAIN

TWO special saloons, which were built in the remarkably short period of one month at the Lahore carriage works of the North-Western Railway of India, were used by the King and Queen of Afghanistan, between Chaman, near the Indo-Afghan frontier and Karachi, at the outset of their recent journey to Europe. The building of the two saloons and all other constructional work incidental to the preparation of the Royal train, was carried out entirely by Indian labor under European supervision. The cars have an overall length of 68 feet, and



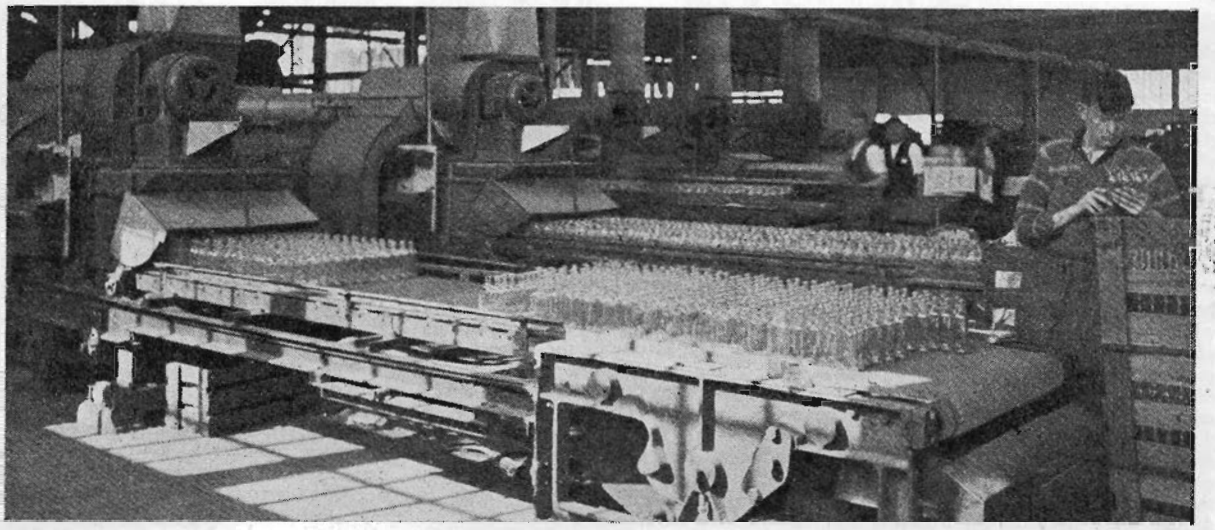
The two special saloons built for the King of Afghanistan

an overall width of 10 feet; luxurious interior appointments include bedrooms for the King and Queen, two bathrooms, a drawing room and a compartment with sleeping accommodation and bathroom for four ladies attending the Queen. In the second car were the dining room and a compartment for two staff officers, equipped both for day and night travelling, a boxroom for the storage of hand luggage and a servants' compartment. The bedrooms and the drawing room were decorated tastefully but simply. The bathrooms were tiled in white with silver fittings. The Royal train, which was 840 feet long and comprised 12 bogie vehicles, was hauled up the heavy-graded sections (1 in 25) between Chaman and Quetta by four 2–8–0 type locomotives. Hitherto, neither the King nor the Queen of Afghanistan had ever seen a railway track or railway train.

DIESEL-GEARED v. DIESEL-ELECTRIC

DURING 1926 and earlier, Diesel-geared and Diesel-electric locomotives were built in Europe for service in Russia. These engines have now been submitted to comparative tests, culminating in a long-distance run between Moscow and Baku in the Caucasus, a distance of about 3,000 miles. The two trains, one hauled by a locomotive with gears, and the other by one with electric transmission, followed each other from two to eight hours apart. Several side trips were made with the engines in order to test them on heavy grades. The test report showed that the locomotive with electric transmission made

(Concluded on page 42)



Inspecting a batch of finished bottles at the Australian Glass Factory, Spotswood

Where Bottles Are Born

By HUGH RICHARDS

BOTTLES of all shapes and sizes—beer bottles and medicine bottles, baby feeding bottles and whisky flasks, preserving jars and poison bottles, little bottles and big bottles, squat-shouldered bottles and round-shouldered bottles, bottles without necks and bottles which are all neck—the Australian Glass Manufacturers' Company makes them all at Spotswood, makes them all the same way if not in the same moulds, and makes them all with the same care and success.

BOTTLES, as is generally known, are made of glass. Glass, as is not generally known, is made of sand, soda ash and carbonate of lime. The mixture is stiffened with a dose of old broken glass—enough to ruin all the balloon tyres in the State. It is then melted into glass in a fireclay-block tank by a roaring furnace at a temperature of 2,500 to 2,600 degrees.

If colored glass is desired, different metallic oxides are added. At Spotswood, they make amber-colored glass and white glass. Green will shortly be included in the range. The peculiar thing about glass-coloring is that the same coloring agent can produce different colors in different glass mixtures, while different oxides of the same metal can display a similar disconcerting versatility.

Constant colorings are the purple blue of cobalt, the chrome green or yellow of chromium, the canary shade of uranium, and the violet of manganese. Lead produces a pale yellow. Selenites and selenates develop a pale pink or pinkish yellow. On the other hand, ferrous oxide will tint glass either olive-green or pale blue, according to the mixture with which it is mingled. Then, nickel stains potash-lead glass with a violet color, but soda-lime glass with a brown color. Copper floods a delightful peacock blue through glass, but gradually changes to a dark green as the proportion of oxide is increased.

Another influence in coloring is the amount of iron in the sand. White glass becomes greenish if as much of the iron as can be detected is not sifted from the sand. One thing, this difficulty is not present in the manufacture of green-colored glass.

The Genesis of a Bottle

Bottle making at Spotswood begins in an atmosphere of soda and the shadow of six stout silos. Inexperience sneezes its head off in the vicinity until it masters the art of breathing extensively through its mouth. Underneath these silos, an overalled workman travels gravely backwards and forwards on a machine which is a cross between a cement-mixer and a railway luggage trolley, with a strain of harvesting machinery included.

The operator halts his mixer at the base of the silos and regulates the flow of the different proportions of sand, soda ash and carbonate of lime into its sepulchre like interior. Each mixer holds something like 5,000 lb. of ingredients, of which roughly 20 per cent. is lost in manufacture. Whirled and shaken into a greyish-white and lumpy dust, the contents are spilled into a pit, raised by an elevator to an overhead runway, and shot into the blazing heart of the melting tank.

This tank is divided into two sections. From the melting end, the red-hot, simmering lake of molten glass drifts through a dividing wall which acts as a sieve into the working end. Impurities, floating on the top, are retained. The glass is ready to blossom into bottles.

That metamorphosis, however, is not as picturesque as it was in pre-war days. The blowers with cheeks masquerading as football bladders are a fast-vanishing race. The fundamental principle of blowing the viscous glass into the shape of an enveloping mould remains, but compressed air per medium of a mechanical blower has supplanted human oxygen (more or less) per medium of the distended lips of *homo sapiens*. Viscous glass, of course, is as pliable as soft-kneaded dough. It can be rolled, it can be blown into bubbles like soap from a pipe, it can be extended almost indefinitely as a solid rod or a hollow tube. It is possible to draw it out in a filament sufficiently fine and elastic to be woven into fabric.

The bottles take shape under a gloomy and spreading octopus of tremendous curved funnels and winding air-pipes. Black masses of machinery crash and revolve. A slow but eternal merry-go-round ride is the lot of the moulds in which the glowing, sticky "gobs" of molten glass are expanded into bottles. From an opening in the reservoir of fluid glass, the "gobs" drip into a sloping runway—fall as huge cigar-shaped drops of solidifying fire, and slither in glowing heat like ruddy comets into a mould which waits impassively for the arrival of each potential bottle, and then moves deliberately away in the wake of a filled mould and in advance of another empty one.

The red-hot "gob" becomes a red-hot bottle in two sweeping, semi-circular journeys, being changed from the mould on one machine to another mould on a neighboring machine by a long hooked arm which bends and hooks and straightens and bends and unhooks and straightens again. In the short time that it is in the two moulds, the gradually shaping bottle is upended, treated by gas, re-erected, expanded by a draught of compressed air and ejected, at last, in a dazed condition on a travelling belt.

From "Gob" to Bottle

Along the belt, the unending procession of glowing bottles moves stiffly towards two more mechano-human arms which bend just as stiffly, clamp on to the neck of each bottle and whisk it into the lehr, or coaling chamber. *En route* to the lehr, the bottles pass on the travelling belt through a tunnelled avenue of gas flames, which reheat their necks. The neck is formed first in the mould and there is a probability of it cooling while the body is still hot and, as a result, disintegrating forcibly in large pieces.

For glass is notoriously a bad conductor of heat. It is the unequal expansion of inner and outer layers which breaks bottles into which boiling water is poured. Accordingly, the annealing or cooling of the manufactured bottles gradually and thoroughly in the lehrs is of vital importance—of *smashing* importance. The annealing, which takes on an average from two to three hours, must be performed so efficiently as to settle all the constituent particles of the glass into a meticulously balanced equilibrium. Or, as one of the sorters who inspect the cooled bottles tersely puts it: "We don't stand for no blanky crook 'uns." "Crook 'uns" being bottles with flaws in the glass, light patches of thin glass, or tiny specks of clay which may have been absorbed into the embryonic glass from the sides of the melting tank.

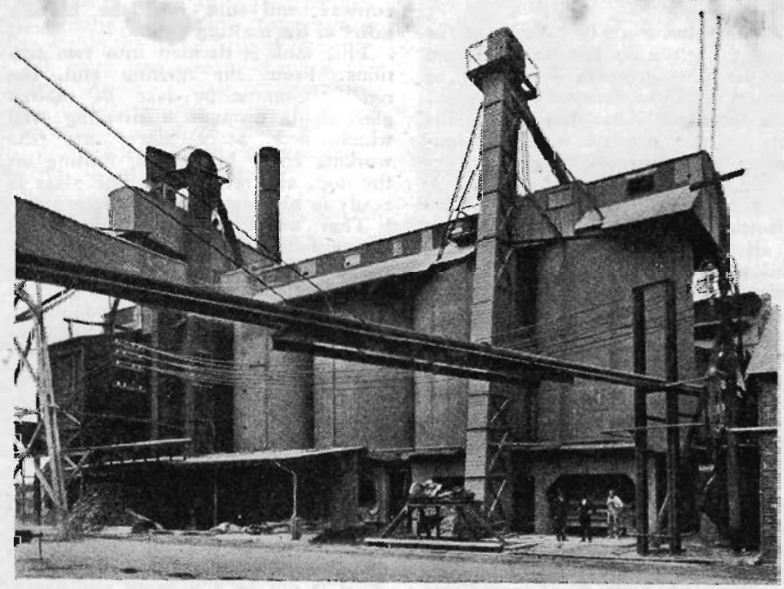
The Search for Flaws

Ceaselessly, keen eyes rake the dense arrays of bottles in search for flaws as they emerge in serried ranks from the lehrs—a glittering, reflecting, crystal clear profusion of glassware suggesting the crayfish nightmare of a bottle-oh.

Glass stoppers for bottles are literally gouged out of a soft chunk of glass in an iron stencil-like pattern. Each stopper is ground to the mouth size of the individual bottle which it will grip until breakage do them part. The bottle mouth is ground by a revolving iron cone, fed with sand and water, the similarly treated stopper peg is inserted in the bottle, and the two are ground together in a medium of very fine emery and water until an air-tight joint results . . . . . .

Spotswood bottle-makers work the

(Concluded on page 48)



Silos containing sand, soda-ash and carbonate of lime from which glass is made

Represe

AJAX defying the lightning, with an International motor lorry in one hand and a ladder in the other. Hercules tangled up in overhead cables with a stranglehold on a standard structure. . . . . .

Either description fits George Samuel Scott, Overhead Superintendent in the Victorian Railways Electrical Engineering Branch, since 1918, officially, but 1913 actually. He grapples with the task of keeping Melbourne's electrical overhead equipment in working order during the thunderstorm season as keenly and as confidently as he grappled with Hackenschmidt in London, some 16 years ago. Twice he tried conclusions on the mat with the gigantic Hack., and in 1911, as England's foremost heavyweight wrestler, he was runner-up in the all-world tournament at the Alhambra. He is also a good boxer and has played professional football with South-East United and Crystal Palace.

It is not suggested, however, that this physical prowess was the influence behind his appointment in the Victorian Railways. There is no evidence to show that Messrs. Merz and McLlellan, the department's Consulting Engineers, when searching for an electrical expert, were impressed with the romantic glamor — the aurora of popularity — enveloping the burly, broadshouldered wrestler - engineer. They just chose Scott, because he was the best man offering. He had been fed on volts and airgaps and insulators most of his career, he was as hard-headed as he was hard-muscled, he had specialised on electrical overhead work, he had supervised engineering contracts as resident engineer in different parts of the world, and so he got the job.

His very first job he got at the venerable age of ten years. His father died when he was nine, and young Scott had served two years of his apprenticeship with the Wallasey Ferries when a paternal House of Commons fixed the earliest apprenticeship age at 14. The Ferries told Scott to concern himself with marbles again until he was 14. Scott didn't have enough money to buy marbles. He went to sea as cabin-boy, steward, deckhand, bar attendant and convenient football for the skipper and the mate. For 12 months he sniffed the briny, hardened, and learned to look after himself and to avoid, with some measure of success, the collective boot of the crew. That hard, unsheltered boy-

entative Railroaders

No. 9—*Overhead Supt. GEORGE S. SCOTT, A.M.I.E. (Aust.)*

By R. H. JUNIOR - - - - - - - - - - - - - - *Caricature by Angus Mac*



hood laid the foundation of self-reliance, independence and determination on which the Scott career reared itself.

In 1899 Scott brought his 17 years of development into the service of Robert Blackwell and Company. Here he remained for two years, working on overhead tramway construction at Liverpool, Wallasey, Warrington, Chester and Birkenhead. The Corporation Tramways at Birkenhead brought him into their service to take charge of their overhead equipment in June, 1901. But he was destined to return to Blackwell's seven years later as a fully-fledged electrical engineer with varied foreign experience behind him.

Followed a year as Overhead and Permanent Way Superintendent—he was not then 21—with the Southend-on-sea Corporation Tramways, and late in 1903 appointment as resident engineer with the Brush Electrical Engineering Company of London and Loughborough, an engineering firm with a reputation even larger than its name.

Now was the time when the Scott travelling bag saw most service. He went to Spain to supervise the erection of transmission lines for the copper ore mines at Comargo and Santander. He went to India to see that Bombay's tramway equipment slung itself above the streets safely and securely. And he went to Brazil to carry out the Brush Company's electrical contract at Ceara.

Between times he crowded in local control of overhead tramway construction at, among other places, Northhampton, Derby, Pontypridd and Rhondda Valley, Bournemouth and Poole Harbour, Accrington and Oswaldtwistle, North Shields and Jarrow-on-tyne, Erith, Birmingham, Aston Manor and King's Heath. To him, also, was delegated the general reconstruction of, and provision of new equipment for, the line which is claimed to be the oldest electric tramway service in the world—a 10-mile link between Wedensbury and Darlaston in South Staffordshire. This had been in active commission for 21 years when Scott appeared on the scene with a new broom in 1906.

A return to Robert Blackwell's payroll in 1908 linked him up with his biggest job, and that a railway one—electrical overhead installation for the London, Brighton and South Coast railways. So impressed was the rail company with Scott's energy and ability that it appointed him overhead superintendent and gave him charge of equipment maintenance and construction.

But Messrs. Merz and McLlellan were equally impressed. And Scott accepted an offer to lend a helping brain in the huge electrical railway project in Melbourne. He travelled the Continent in 1913, and cast a piercing, probing and boring eye over the French, German and Spanish electric systems. With a cabin trunk full of notes, observations, ideas and sifted impressions, he landed in Melbourne and became first Overhead Superintendent in the Victorian Railways.

His experience and knowledge have since proved invaluable. It was his suggestion, for instance, which introduced "centre-bridling" to eliminate the danger of dropping contact wires. It was his design of a boltless clip for catenary and contact wires which

(Concluded on page 48)

WHERE CHAOS IS ORDER

By CHARLES CORBETT,
Officer-in-Charge, Railways Perishable Shed

WOULD you see the cornucopia give up its plenty? Then come with me to the Perishable Goods Shed where the fruit for Melbourne's thousands is received by rail from the Goulburn Valley, from Mildura and from tropical Queensland.

You will need to be afoot early to see everything. Meet me at 1 a.m. at the Spencer-street gate on, say, a Tuesday morning. And from there I will escort you along a paved roadway reaching westward through the darkness for a couple of hundred yards to where a long, brightly-lit shed bars our further progress.

We enter a wicket gate, and exchange the dark silence of the sleeping city for the bustle and din of truck discharging. Our eyes take in at one sweep a long vista of electric lights ranged on each side of the shed's thousand feet of length. On the left, bare-armed men—scores of them—are grimly trundling cases and cases of fruit from trucks and stacking them on the floor of shed. Their industry appears ceaseless. Above the rumble of their trolley wheels on the bare flooring sounds the occasional shouted direction of a foreman.

In and Out

At the opposite platform, a rake of discharged trucks lies in weary wait for the departure of the steaming engine which has just drawn in. A shunter waves assuringly, a whistle blows and the empty trucks roll heavily from the platform, clearing the way for another rake of loaded trucks. Shortly these arrivals will be dealt with by the gangs, and their contents will be placed on floor ready for delivery.

By this time the novelty of the scene has worn off a little. We look around at the vast accumulation of goods. Endless stacks of fruit, single cases of fruit in bewildering profusion, mountains of butter boxes, cheeses piled high like leaning towers of Pisa. You wonder dully how on earth these valuable consignments will ever be delivered to their rightful owners, and it would take a very long time, with much practical experience, for you to grasp the elaborate tagging system which ensures correct delivery.

It is now 3 a.m., and we are conscious of a momentary calm—the kind of calm that comes before the storm. The rumbling of hand-trucks has temporarily ceased. But, suddenly, it is succeeded by the clank of buffers, the hiss of steam, and the vibration of wheels. The storm has burst. The heavily-laden Goulburn Valley fruit special has arrived with anything from 20 to 25 trucks, packed to the doors with bulging cases of fruit.



Interior of Perishable Shed

"EAT More Fruit"—the snappy little slogan that probably has done more than anything else in the past few years to widen the grower's metropolitan market for the product of his orchard, grove and vineyard, is equally responsible for the daily growing buzz of distribution activity in the hive of the Railways "Perishable" Shed at Spencer-street. There, while grower and consumer sleep, truck after truck disgorges and piles in a mountain-high jumble its cases of juicy freight to be sorted and whisked into waiting lorries with confident, almost amazing efficiency. Where a glimpse of it suggests utter chaos, a knowledge reveals order.

With the arrival of this train, many fresh gangs augment the previous staff. This is what traffic managers call the peak period.

The energies of all the workmen are at their highest. The stacks of fruit cases grow. Sorters are directing truckers to the parts of the floor where certain consignments are to be placed. Tally-checkers are flicking hundreds of waybills with wet fingers.

Noise increases. Carters appear on the scene to take delivery. Shouts, whistling, scrape of nailed boots, continual tramping and rattle of truck wheels all combine to make you mildly apprehensive of a stampede. But you should remember that these are trained men. Each has his own appointed task to perform. Each is performing it. Inevitably organisation is winning.

You have been so engrossed in watching this animated scene and endeavoring mentally to tally the thousands of cases handled that it comes as something of a shock when a stray chanticleer in a crate nearby breaks into a shrill cock-a-doodle-doo! and brings you back to earth. You find the atmosphere oppressive, and move to one of the doors to obtain a breath of air. The dawn is well advanced, and the vehicular traffic in the outside street has already commenced.

You return, and with growing interest examine the kinds of fruit which have just come to hand. You are amazed at the vast range of tropical and temperate fruits, and traders of long experience will tell you that for quality our fruits are second to none grown in any part of the world.

Looking at the stacks, you glimpse various tropical varieties from Queensland, bananas and pineapples of course predominating. Goulburn Valley peaches cluster in pink profusion. The melon family is well represented in citrus, water, rock and cantaloup. All members of the plum fraternity are seen. Apples are now coming into their own, and one particular line of Gravenstein with its handsome striped jacket catches the eye.

Why Not Safety First?

There are some full truck-loads of grapes from the Mildura district. A group of truckers has clustered round one of them. You walk across to discover that some cases of fine Muscatels have been badly crushed. Hear what that grey-haired trucker with the murderous looking hook in his hand is saying.

"See, on the bottom tier. Why don't they use wire bound cases and guarantee safety."

He points with eloquent silence to some sturdy cases, wire-bound at the ends, in the same truck.

Then here is an harassed checker pointing despairingly to a single case of apples, addressed simply to—

"J. Brown, Melbourne."

You grasp the difficulty of unearthing the right Mr. Brown in this modern Babylon. You nod sympathetically while the checker plunges into a colored dissertation on the need for full postal addresses on single cases of fruit or, in fact, "on any blanky perishables." It seems, also, that the words "to be called for" should be inscribed when personal delivery is intended. "We know where we are then," says the checker clinchingly.

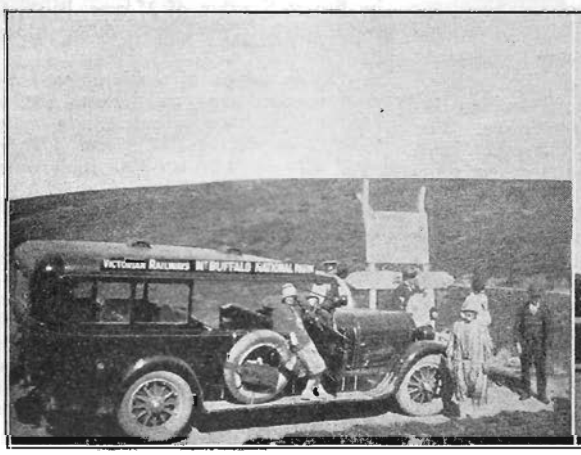
Wandering farther afield, you notice that quite a number of cases of fruit are addressed and waybilled to suburban stations, "under Suburban Fruit Conditions." The cryptic endorsement

(Concluded on page 39)

Where To Spend A Holiday

Mt. Buffalo—The Ideal Honeymoon Resort

By R. J. McDONOUGH



On the way



Starting out for a day's picnic

THAT Mt. Buffalo National Park is the ideal honeymoon holiday resort is the firm opinion of Mr. and Mrs. McDonough of Ivanhoe who, after their Mardi Gras Wedding at the St. Kilda Carnival, a few weeks back, were the guests of the Victorian Railways Commissioners at The Chalet for a week. . . Mr. McDonough here writes of "Australia's Playground" as he found it.

FOLLOWING our marriage at the St. Kilda Mardi Gras Carnival, we were invited to spend a week at The Chalet, Mt. Buffalo National Park, as guests of the Victorian Railways Commissioners. Entraining at Spencer-street for Porepunkah, it soon became evident that our journey was to be made as pleasant as possible, the various officials proving very kind in looking after the transfer of our luggage and so on. Leaving Wangaratta, where we were provided with a very excellent lunch, we began the really pleasant part of the journey, namely, the run along the Ovens valley with picturesque hop gardens flourishing on both sides of the line. Arriving at Porepunkah, we changed to the car and commenced the interesting journey to The Chalet, which was reached just before dinner. In passing, I would like to comment upon the skilful driving shown by driver "Fred" and the wonderful views obtained along the route, most particularly at Mackey's Lookout.

Registering, we were shown to our rooms, and were agreeably surprised to find both hot and cold water laid on. We quickly removed traces of our long journey, and made our way to the dining hall. The menu of six courses looked very promising, and my expectations of a really good meal were realised to the full, so much so, that by the time I had reached the nuts, I, for one, was sure of a good holiday. Coffee in the lounge, with the Panatrope playing in the Ballroom across the passage, gave us an opportunity of exchanging views, and I found that the table, services and appointment of The Chalet had been classified as "*tres bon*" by my wife, thereby coinciding with my own humble opinion. Dancing in the ballroom, with other novelties such as a "ladies' leg" competition made such an enjoyable evening that we regretted the fatigue which caused us to retire so early.

In the morning we commenced a week of jolly good fun. Walks to the Underground river, the Monolith and around the Gorge to Wilkinson's and Reed's lookouts gave us a series of views which it would be hard to equal, and our camera used up spool after spool of film. But no camera could ever depict the wonderful panorama spread beneath us, and show the Ovens valley in all its varied shading of greens and browns with the silver streak of the Ovens River winding amongst the trees, thousands of feet below. Nor coulp words describe the sense of remoteness from the bustle and clamor of the city.



Mrs. McDonough

And then there were swimming parties to Lake Catani. Nearly every afternoon a party would take a brisk walk to the lake, about a mile away, and enjoy a plunge in the deliciously cool waters. One afternoon the ladies joined us and quite a merry boating and swimming party partook of a picnic tea on the lawn-like grass bordering the lake. Riding parties vied with swimming to attract us, and one ride to Mt. Dunn will always be a pleasant memory. In charge of the capable Miss Mavis Avery, we wended our way through gullies, and over ridges to the foot of the Mount.

After climbing the Mount and having an extensive view of the whole of the plateau, we returned via Crystal Brook. Here the fast riders left the donkeys and those horses of a more sedentary nature, and we had a glorious gallop home. Another trip my wife and I enjoyed was a ride by ourselves to the Horn, eight miles away. Leaving my wife at the Bungalow at the foot of the Horn, I made the ascent, and, after a fairly strenuous scramble over the last stage, reached the summit. The view cannot be imagined. The summit was scarce four feet square, railed in, and I seemed to be suspended in mid air over a rolling sea of mountains.

One day well spent was a car trip to Mt. Hotham, via Mt. St. Bernard, where we lunched. Extensive views of Mt. Feathertop and the surrounding Alps were obtained.

Our evenings were always enjoyable,

(Concluded on page 48)

UP-COUNTRY

As Recorded by Railways District Superintendents

BENDIGO

THE Murray bridge at Robinvale was officially opened for traffic on March 14 by the Minister for Railways (Mr. T. Tunnecliffe). The district had waited long for this facility, and representatives from far and near made a large gathering when the ceremony was performed.

The optimism of the Minister on the future prosperity of the newly opened-up territory, is shared by everybody. One pioneer at the ceremony was convinced that in the near future Robinvale would rival Mildura, and that the settlers in the Murray Valley would soon reach the million mark.

The extension of the line to Leete has been temporarily postponed, and the subdivision and water supply held up. However, the latter is now progressing satisfactorily, and the constructional work will be recommenced early next year.

Favorable conditions point to a bumper harvest for the 1928–29 season, the acreage having been increased by about 30 per cent. over the 1927–28 season.

A committee, for the establishment of Boys and Girls Young Farmers' Clubs in the district, has been formed in Bendigo, with Mr. W. Tredinnick, Railways District Superintendent, as President.

BALLARAT

LOCAL activities last month included the opening of another up-to-date picture theatre, the bringing up to date of the Coliseum, the scene of many triumphs and disappointments by young Melbas, Carusos and Paderewskis, and the approaching completion of the new hosiery factory for Messrs. I. and R. Morley. The building is ready for the installation of machinery.

The Easter traffic arrangements worked very successfully throughout the District, the number of visitors to Ballarat and other resorts, and to the sports carnival at Stawell, being well maintained.

On the goods side business continues brisk, the general loading on the down and the live stock on the up lines, being very heavy.

GEELONG

THE prospects of the pastoral, agricultural and dairying industries are excellent following the satisfactory rainfall. The quantity of cream now being railed is far in excess of that usually despatched at a similar period in former years.

The Easter traffic to various holiday resorts was very heavy and was dealt with satisfactorily.

The development of Geelong industrially is still moving apace. The erection of a large distillery at North Shore is progressing, and when completed will provide employment for a large number of hands.

For years past the locomotive depot at Hamilton has been situated at the down end of the yard, but on account of the restricted accommodation it has been decided to provide a more up to date facility, and a new depot is in course of erection at Colĕraine Junction.

SEYMOUR

BRIGHT prospects continue, and a good season is now practically assured. The average rainfall throughout the district has been over an inch and a half, while in some areas upwards of two inches have been recorded. The subsoil has had such a thorough soaking in the main wheat belts that the seed will be put in under the very best conditions, and a good strike is certain. The appeal for a record acreage under crop is meeting with a splendid response. With abundance of green feed everywhere, almost unprecedented in growth and sweetness for this time of the year, farmers are not under the usual necessity of reserving every possible acre of stubble paddocks to keep stock alive through the winter. They are thus able to plough up pastures, which are rank with feed, for the purpose of sowing for a greater wheat crop in the coming season.

One effect of the copious late summer rains was the earlier shutting down of the fruit season, a percentage of the Pullar's Cling crop being affected with dry rot. Operations for the season were concluded at Kyabram Cannery on March 31, and Ardmona (Mooroopna) and Shepparton Companies are dealing with the last of the fruit returned from cool storage in Melbourne. The pack of the Shepparton Cannery alone is anticipated to be in the vicinity of 9,000,000 cans. As predicted earlier, the season generally has been very much heavier than last year, and all previous records have been broken. Up to March 31, 4,065 trucks of fresh fruit had been railed from the district, as against 3,238 trucks for the whole of last season.

The record hop picking in the Ovens Valley was marred by the destruction by fire at Eurobin of Messrs. Panlook Bros. drying kilns and other plant valued at £25,000.

The harvesting of the large tobacco crop in the King and Ovens Valley District has been completed, but not without incident. Mr. John Fisher of "The Glen" had the misfortune to lose by fire his flue curing tobacco kiln containing about half a ton of partly cured tobacco.

A new industry has been started at Upper Sandy Creek in the Huon district, where an up-to-date plant has been installed for the manufacture of axe handles. The timber used is blue gum, and the finished article compares very favorably with the imported handles, beside having the advantage of being much cheaper.

DANDENONG

IN the Traralgon district there has been a wonderful growth of grass, and cream returns are almost equal to those of spring. The Cowwarr Butter Factory is turning out more butter than it has ever manufactured before.

Cattle are in excellent condition and good prices are being obtained at stock sales.

Floods occurred in the Orbost district during the month and destroyed a large quantity of maize on the flats, and in addition, necessitated the urgent removal to other districts and markets of large numbers of stock.

The sugar factory at Maffra is now in full swing. Heavy rains caused delay in getting the beet out of the paddocks, but conditions are now good. It is noticeable that an increasing number of motor lorries is being used for transport to sidings and direct to the factory.

There has been a considerable drop in tonnage of potato loading, owing to disease and low market prices, and the outlook is somewhat unfavorable.

There is a proposal in the hill country near Traralgon to settle large areas by means of group settlement, and land is under offer to the Migration Committee.

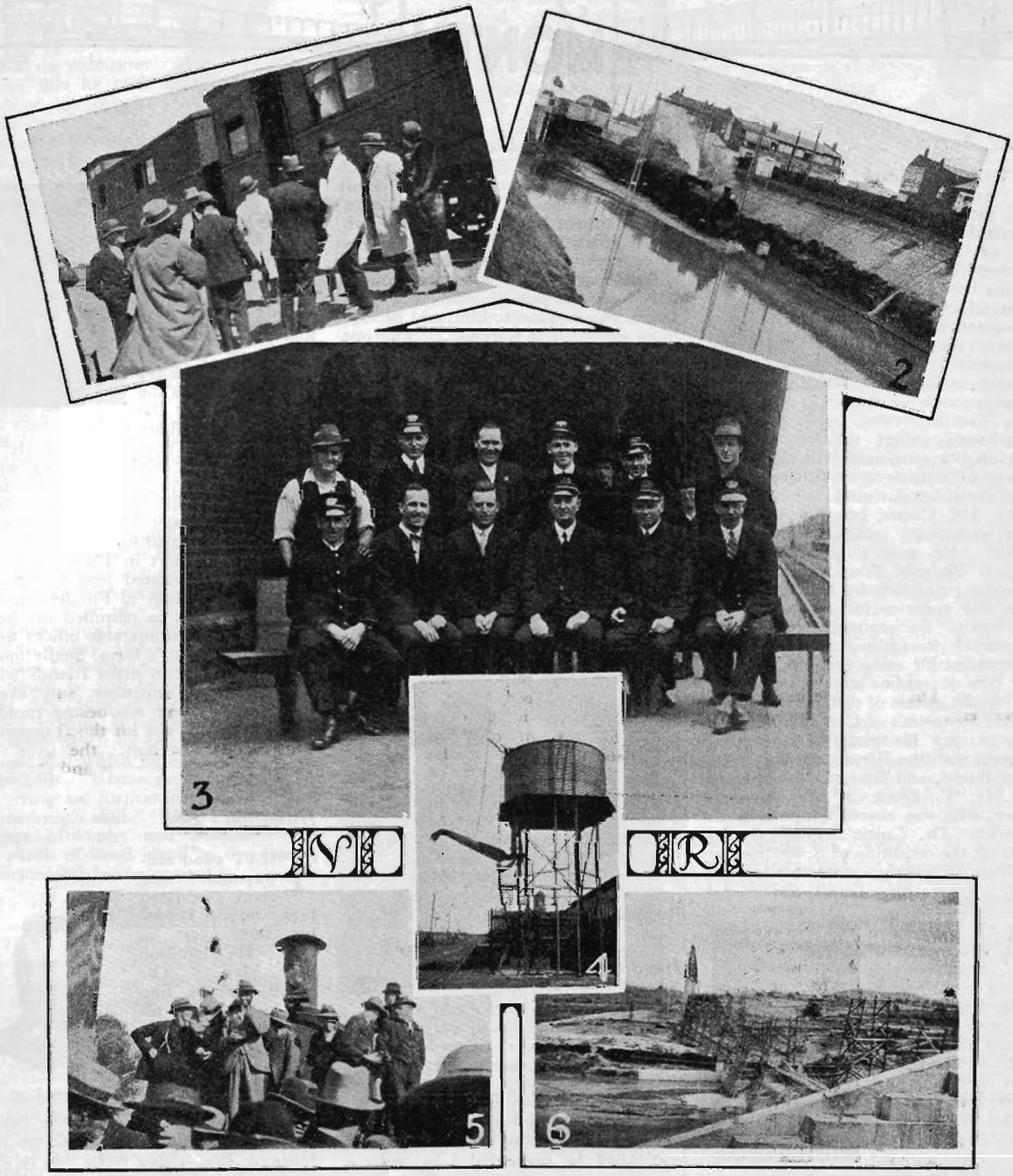
Peeved Citizen (trying to write a letter in post office): This pen is a darn poor joke!

Clerk: Why do you call it a "poor" joke?

Peeved Citizen: Because there's no point to it!

Snaps Round The System

SENT IN BY CONTRIBUTORS



1.—Boarding the first train at Poonboon on the new Stony Crossing line.
2.—The new Cutting between Footscray and Middle Footscray flooded after one of last month's heavy downpours.
3.—Benalla Transportation Staff.
4.—New 10,000-gallon tank, with steel stand and wooden deck, at Maryborough. The rate of discharge, when full, is 1,500 gallons a minute.
5.—The first train over the newly-built Euston Bridge.
6.—Work in progress on the Hume reservoir.

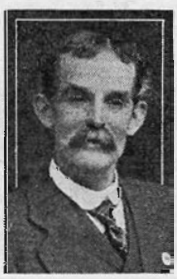
RAILWAYMEN of the MONTH

Head Surgeon



THAT eminent engineering medico, George Curtis, D.L.S. (Doctor of Locomotive Surgery) fills the chair on the board of surgeons which has been appointed to test the heart, lungs and "innards" of the Victorian Railways' latest recruit — S. 300. The lusty two-months-old infant weighs the best part of 190 tons, and will undergo a course of strenuous treatment before it is certificated sound in wind and limb. Dr. Curtis, however, has had long experience with this type of patient. He was a student at the Ballarat Phoenix Foundry, where he earned a reputation for his daring skill with the spanner in intricate boiler operations. Subsequently he opened as general practitioner at Newport, to be retained for some time on the railway tyre quarantine station, inspecting the regular quotas of cast steel migrants from Thompson's of Castlemaine. He then set up his plate as consulting surgeon with the Betterment and Publicity Board, and later acted as locum for Mr. T. Doyle of the Drawing Office, who was absent temporarily in America. Dr. Curtis's progress reports on the condition of S.300 have so far been distinctly satisfactory.

Forty Years



WITH two score years of loyal service behind him, Arthur Dellar has discarded his active interest in the gas side of train lighting and has gone into retirement. Train Lighting Inspector W. A. Chipper, on behalf of the staff, congratulated him on his length of service, and presented him with a handsome gold watch, and a travelling rug and box of handkerchiefs for his wife and daughter. Messrs. Tether, Phipps and Farmer also put in a word for the audience of fifty.

Sound Common Sense

THERE proved to be sound common sense as well as very nice sentiment behind the presentation which Morry Gow, shedman at Leongatha, received from the local people and railmen when he was transferred to Koo-wee-rup last month. A gold albert was handed to him, and Morry, in an appreciative response, pointed out that it was the very gift which he would have selected himself, as he could wear it with the gold watch which had been presented to him when he was transferred to Leongatha from Frankston.

"Chips" Leaves



"CHIPS," otherwise Carpenter Jack Hendricken of the Newport Power House staff, beamed through an atmosphere thick with good wishes and loud cheers one day last month, when he was farewelled before his retirement. The loud cheers, needless to say, were as regretful as they were appreciatory. George Semple made a good chairman of proceedings, and Maintenance Engineer J. H. Tulloch handed "Chips" a wallet of notes from his cobbers. Spokesmen on behalf of the said cobbers were Jim Bremner and Tom Purvis.

Hard Old Battler

A HARD old battler and a staunch railman of the best type, Con. Devitt, ganger at Broadmeadows, has claimed his pension after 45 years of strenuous service. He has earned a rest if ever man did. A.S.M. W. Hammond told him so, and hoped that he would have many years to enjoy his rest when he presented Con. with a travelling bag and rug for himself, a leather case for Mrs. Devitt, and a hand bag for Miss Kit Devitt. Any amount of nice things about Con. in particular and the Devitt family in general were said by Messrs. O'Sullivan Fraser, Beahan, Gregg and Lowe.

Ten Years in a Lift



FOR the last time Tom Griffin has told Institute members to "mind the step." After a decade in the lift at the Institute building, he has gone into retirement loaded with presents and good wishes from the staffs of the Institute and the Children's Welfare Department. Tom was formerly a repairer in the service, starting with pick and shovel in 1888 on the Heidelberg–Clifton Hill section. His first boss was ganger Jack McGinnis. Tom's progress road-foremanwards was, however, cut short in 1911, when an accident incapacitated him for heavy work and sent him to Flinders-street. For seven years he patrolled the long corridors and innumerable offices with a night-watchman's lamp, finally moving into the lift to make friends with every Institute member and every round-eyed kiddie who clung timidly to mother when the lift sailed upward. They'll all miss him.

Hamilton's Boss



THAT good railwayman and good fellow, Jack Boyd, begins his third year as S.M. at Hamilton this May. The month brings him also well past his 40th year on the job. Starting as a shunter in the Melbourne Yard, he passed on to the relieving staff and saw service all round the State. For 14 years he was T.S.M. on the Natimuk line, rising from 9th to 5th class. He had 12 months amongst the orange orchards at Mildura, and 18 months in the thick of the bleating, neighing, bellowing and grunting pandemonium at Newmarket live stock siding. A two-year term at Seymour preceded his advance to Hamilton.

More than Engineer



"WHEN it came to getting youngsters to go abroad, Mr. Smith was the greatest force that I know of in getting the proper kind of burrs on the hide of the youngster to see that he took hold of his opportunity and had the great adventure which so many of them have had." Thus Mr. Clapp the other week, when the administrative talent of the Victorian Railways gathered in the Chairman's office to farewell Chief Mechanical Engineer A. E. Smith on his retirement after 44 years service, and to present him with a gold watch and a fountain pen. "I don't regard Mr. Smith as an engineer only," continued the Chairman. "I have always looked upon him as an artist, an engineer, a scientist, and the dean of the locomotive designing profession. He has monuments to his skill running around the State of Victoria that stand out against any locomotives that I have ever seen for true lines of grace and strength. The last engine he has designed—the Pacific—fills the mind's eye of a railwayman as well as any engine that you can wheel up in front of him. Mr. Smith may be leaving the service now, but as far as we here are concerned, he will always be with us. We hope that he will have a most delightful holiday and a safe, happy and healthful return. Perhaps I shouldn't call it a holiday. No doubt he will be busy developing some new idea overseas which will appeal to him as an addition to the arts with which he has already busied himself and which he has mastered so thoroughly. I have no doubt he will be giving us further evidence of his engineering skill." And Commissioners Molomby and Shannon led the paean of hand claps by the dozen departmental heads present.

Who Designed the Pacific?

THAT was not the only farewell that Mr. Smith received. The apprentices at Newport Technical College presented him with an illuminated address, and at a smoke concert on April 12, every rolling stock man and a good many more who had not previously had a chance to say goodbye to him—300, all told—assembled to watch Mr. Shannon present him with a travelling case for himself, a wrist watch for his wife, and a bag for his daughter. Commissioner Molomby spoke, Commonwealth C.M.E. Gahan spoke, Mr. Smith's successor—Colonel Harris spoke, Chief Clerk W. A. Ryan spoke, and Metropolitan R.S. Superintendent W. H. Deasey spoke, and South Australian C.M.E. Shea, self-styled "one of Smith's lads," sent a letter. Then Mr. Smith himself spoke, plunged into reminiscences and, while 300 or more pairs of eyebrows rose incredulously, disclaimed the creation of the Pacific. "Nothing," he urged with his customary ultra-modesty, "nothing of it was mine except the general outline and the distribution of the masses. It was really the work of Mr. Doyle and his young men in the Drawing Office." Optimism was the keynote of his general remarks. "When good seasons come, the railways will prosper again. There is a spirit of teamwork abroad in the service. I am very proud of our drivers, firemen, motormen and depot foremen. Our service is the best managed in the world, and we have no fear of public criticism or commissions." Altogether, a simple and sincere, modest and straightforward speech—a characteristic Smith speech. And the demonstration that followed, as well as the shouts that greeted his rising, showed how well loved is Mr. Smith, the man. As Mr. Molomby said: "He is one of the most courteous, one of the ablest and one of the most gentlemanly officers, the Service has ever had, and the department is the poorer by his retirement."

Many Happy Returns

BIRTHDAY greetings to the Chief. His 53rd birthday on May 7 sees him well into his eighth year as Chairman of the Victorian Railways



Commissioners. These —rd anniversaries of his, incidentally, develop into an interesting procession. A march back along his birthdays in 10-year boots finds Mr. Clapp in varied climes and varied positions. On his 43rd birthday, he was vice-president of the Southern Pacific railroad in America; on his 33rd, he was somewhere in the States—"seeking and finding"; on his 23rd, he was with the Brisbane tramways in Queensland; and on his 13th, he was at Melbourne Grammar. Concerning the manner of his third birthday, nothing definite is known. While his 63rd . . . . .

—And Some More



Mr. Jeffers

BESIDES Mr. Clapp, quite a representative collection of S.Ms. and accountants and engineers and clerks and auditors celebrate their birthdays in May. A casual list includes: R.S. Accountant W. J. Bustelli, on the second; Supt. of Goods Train Service H. Clark, and Electrical Distribution Engineer W. Steiger, on the third; Jack Barrie, of the Transportation Despatch, on the fourth; Dave Blackie, the Tarpaulin King, on the ninth; Auditor of Disbursements D. MacDonald and Dave Hanna of Room 2, on the 10th; S.M. Ted Hally, on the 12th; Electrical Engineers Harry James and H. W. L. Forster, on the 13th and 15th respectively; Chief Telegraph Officer W. J. McCarter and Special Officer E. Hawken, on the 17th; A. McDonald, who signs all the rail passes, and ex-Safeworking Officer Tom Beary, on the 18th; R.S. District Superintendent J. W. Carter and Audit Inspector J.J. Black, on the 20th; Chief Clerk J. A. McTaggart of the Audit, and Block and Signal Inspector M. F. Baynes, on the 22nd; Work-Shops Manager P. R. Leslie, on the 24th; S. and T. Engineer J.O'Connell, on the 25th; Senior Foreman Jim Jeffers of the Melbourne Goods, on the 26th; S.M. F. F. Bobsein and Les Timewell, the Chairman's Secretary, on the 27th; Engineer J. J. Montgomery, on the 28th; and S.M. George Bruce and Overhead Superintendent G. S. Scott, on the 29th.

One of the Big Five

BACHELOR of Commerce is the degree which Jack Ward, who wades knee-deep in figures all day in the Accountancy Branch, will chase for three years at the Melbourne University. Jack has gained one of the coveted fine "free places" at the Uni., which are offered yearly to officers of the different State Government departments. An Accountancy Branch man since 1913, he passed his final examination for the Commonwealth Institute of Accountants last year. He got a nice word from his chief when he submitted his application. "Mr. Ward, who is a 5th class officer," said Mr. Brennan, "has satisfactorily carried out all the duties assigned to him in the office. The possession of increased education qualifications sought would be helpful in the work of, and advantageous to, the department."

(Concluded on page 39)



By "AERIO"

Cut Through the Locals with the V.R.I. Wave-trap!

PROBABLY the most difficult problem of present day broadcast reception for those who live within ten miles of a main Broadcast Station is that of interference.

WITH the device about to be described, the interfering station may be entirely eliminated. When attached to an ordinary crystal set, it permits of reception from 3UZ and 3 DB and when used in conjunction with even a broadly tuned valve set Interstate stations come through with little or no interference. Even 2BL and 4QG are received on such a set without undue interference. The same device is extremely useful on a set employing radio amplification with aperiodic aerial tuning, as it has the effect of reducing aerial resistance and actually increases the efficiency of the set to which it is attached.

The efficiency of the instrument itself depends entirely on the low-loss space wound coil kit (Fig. 1) and painstaking care should be exercised in its construction.

The Coil Kit

Full directions for making low-loss space wound coils with celluloid and acetone were published in the June 1927 and April 1928 issues of the V.R. Magazine.

A 2½ in. diameter former is used as the base on which this kit is constructed. Space wind 75 turns of No. 24 d.s.c. for the secondary coil. Then, commencing about 33 turns from one end of the secondary coil, wind on 9 turns of No. 26 d.s.c. or d.c.c. wire in the space between the secondary turns. This smaller coil is the primary.

Constructing the Trap

A .0003 variable condenser and 2 terminals are now mounted on a suitable panel (Fig. 2) and the coil kit placed in a vertical position directly behind it.

THE NEW SUPER-BOOSTER

ARRANGEMENTS have been made with "Aerio" for the publication, next month, of a constructional article and wiring diagram, describing for the first time the V.R.I. Super-booster, a remarkable one-valve accessory which, connected to the aerial and earth terminals and existing batteries of any valve set, boosts up weak signals to a remarkable extent. When attached to an ordinary regenerative detector, interstate reception is mere child's play. No details can be released before the Magazine is issued, and readers are advised to take special steps to secure their copies early.

The two ends of the secondary coil are to be connected to the two terminals on the variable condenser, and the two ends of the primary coil to the two terminals on the panel.

Using the Trap

With the wave trap connected (Fig. 2), tune in the unwanted station at full strength on the receiving set in the ordinary way. Then, without again touching the original dials, tune the station right out (or as nearly so as possible) with the eliminator dial. This setting is extremely critical and may take a few minutes to find, in the first instance. When once found, this dial setting should be carefully marked for future reference.

The desired station can now be tuned in on the set, but without interference.

By slightly de-tuning the trap, the local station will come in with greater volume than usual.

"Aerio," c/o Victorian Railways Institute, will be pleased to answer any questions in connection with this, or any other article published in these pages, provided a stamped and addressed envelope is forwarded. Arrangements can be made to obtain the coil kit ready wound and tested, if desired, at a cost of 7s. 6d.

Club Dance

The V.R.I. Wireless Club will hold its second monthly dance in the Institute Concert Hall on Wednesday evening, 23rd May, at 8 p.m. A first class orchestra and an excellent floor, together with numerous novelties, will add to the enjoyment of dancers. Tickets 2s. each (including supper) are obtainable from members of the Committee, or at the door.

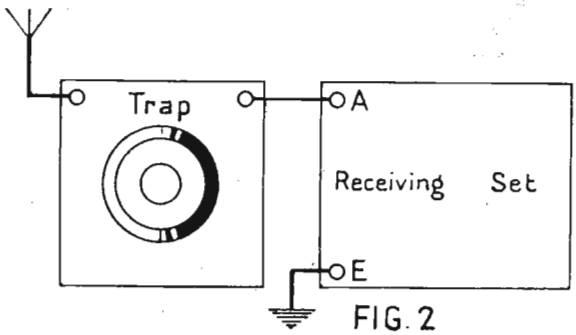


FIG. 2

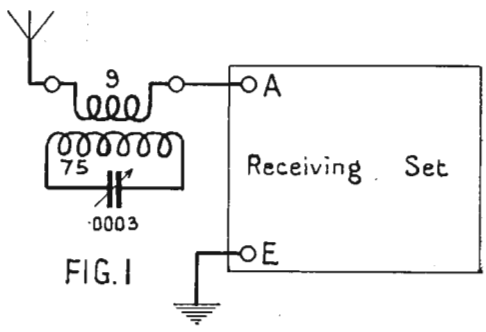
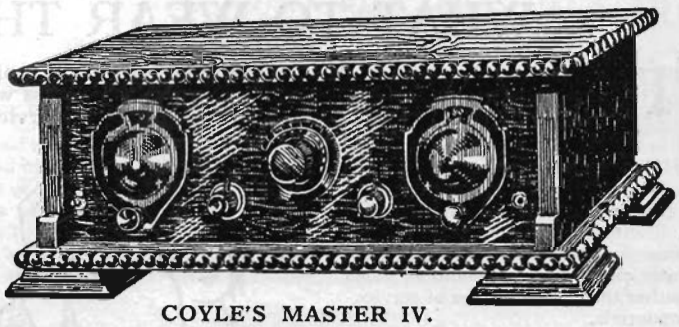


FIG. 1

Here's—
Real Radio Service

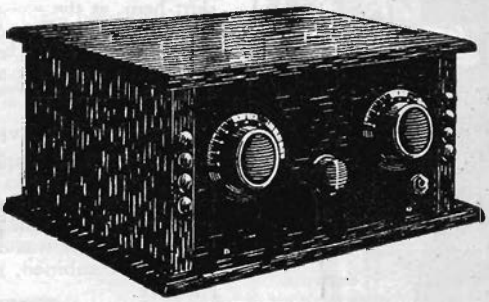
MELBOURNE'S Newest Radio Stores have proved an immediate success for they are meeting the needs of the city and country listeners alike. Special facilities are provided for Institute members, and a new mail order service for out-of-town listeners who can now enjoy the same pleasing service as those in the city.



COYLE'S MASTER IV.

A high-grade receiver—remarkably sensitive and selective. All interstate stations guaranteed. Mounted in attractive JACOBEAN CABINET—only best components used.

COMPLETE WITH ALL ACCESSORIES - - - - **£18-10-0**



TWO-VALVE SET

A popular two-valve receiver embodying best components. Selective—will receive all local stations on loud speakers.

COMPLETE WITH ALL ACCESSORIES - **£7**

BET

Specials

Here are but a few of them. Call or write to-day, for particulars of others–

	s.	d.
Viking Vernier Dials, will fit one hole mount condenser - -	5	0
Kellogg Anti Micro U.X. Sockets, 4/6, reduced to - - - - - -	2	6
3 in. Black Dial - - - - - - -	0	9
.00025 Variable Condensers - -	3	6
Red Diamond Semi-Fixed Detector, 3/6, reduced to - -	2	6
Kellogg Tranformers - - - -	7	11
Bakelite U.X. Sockets, with Terminals - - - - - - - - -	1	3
U.V. Metal Frame Sockets - -	1	3
E.Z. Toon Vernier Dial - - -	3	6

COYLE'S RADIO PTY. LTD.

Two Convenient Stores :

183 Bourke Street
CLOSE TO RUSSELL STREET
(where Robotham's was)

596 Collins Street
NEAR SPENCER STREET
(Mail Order Branch)



Conducted by EILEEN to whom all communications for this feature must be sent.

WHAT TO WEAR THIS WINTER

THE question of winter clothing is the most important topic amongst the womenfolk at the present time. Styles for this season must combine smartness with warmth, and, as winter clothes have to stand all kinds of weather, they must also be of serviceable materials.

THE question of winter clothing is the most important topic amongst the womenfolk at the present time. Styles for this season must combine smartness with warmth, and, as winter clothes have to stand all kinds of weather they must also be of serviceable materials.

Tailor-made coats are still being worn by the younger set, but the heavy cloth coats with fur trimmings are still holding their own. All styles of overcoats are being worn, and it only remains to find out which is most suitable for our own particular idea, and then to obtain serviceable materials.

Flares are coming into vogue again this year, and they are almost as popular as they were some time ago. The frock illustrated looks particularly well in repp and is eminently suitable for a tall girl. The straight tweed frock illustrated is mostly suited to the office girl, and combines grace with utility. Flares are also being introduced into overcoats with good effect.



Jumper Suits Popular

Jumper suits are becoming more popular every day, and many pretty flannel suits are to be seen. Striped flannel is being used at the moment for many becoming jumper suits. A new flannel, showing pastel shades in blue and rose on a navy ground is effectively worn with a red or blue jersey.

Little grey flannel suits are altogether charming, creating as they do, modes which can be easily adjusted to the growth of the wearer.

To-day's styles are easily adapted for the girl who is between ages : the girl who has outgrown her schoolgirl clothes, but who is not yet grown up. Undoubtedly the softly falling materials are the most delightful for these "young" frocks, and such fabrics as silk stockinettes, jersey materials, fine chenilles, foulards and washing silks come in this category.

For evening wear, beads still find favor as trimmings on dance frocks, and they are even used to decorate neat pull-on hats and the toes of satin evening shoes. These bead trimmings are a great help to the girl who makes her own frocks, for while she may not attempt embroidering with beads or introduce heavy designs, she can copy exclusive models by using bead trimmings to sew around the edge of her skirt-hem, at the waist, or on the deep neck-line. A taffeta dance frock, with scalloped hem, may be prettily finished by a bead trimming merely quarter of an inch in width.

Draping for Evening Frocks

Quite a lot of draping is introduced into evening frocks for the more mature age, and these designs look very graceful. One pretty frock I noticed recently was of lace and crepe-de-chene combined, and looked very effective.

Oriental evening shoes seem to be quite the thing, and are very useful in that they are suitable for any colored frock. Shawls for evening wear seem to be retaining their popularity, and no doubt many elaborate designs will be shown this season.

A change from the usual round, V-shaped and square necks is provided by the sloping square, sloping V-shape, and rectangular neck. These sloping necks look very smart in the heavier materials, such as repp, etc., and are becoming more popular every day.

Pearls continue to be worn as much as ever, notwithstanding the introduction of colored beads. They are being made up in short and long strings of different designs.

To remove grease from leather, apply white of egg to the spot and dry it in the sun. Repeat the application until all marks have disappeared.

ENGAGEMENT

The engagement is announced of Miss Ruth Edwards, of the Railways Printing Branch Duplicating Bureau, to Mr. C. Hooper of South Australia.

Camphorated oil gives instant relief if rubbed into the hands when they are smarting from rough work or cold winds.

IN THE HOME

To keep lettuce or celery fresh and crisp for several days, separate the leaves or stalks, wash well and tie loosely in a cloth, then place on the ice. If no ice be available, place in an earthenware dish with a lid on.

To remove machine oil from white garments or woollen clothing, cover with chalk moistened with ammonia.

To keep the hands soft and white when doing housework, wash them carefully after doing any dirty work and rub in a mixture of 3 oz. of almond oil and the juice of a lemon shaken together. This also keeps the nails in good condition. This quantity will last a long time.

When washing new sheets or table linen for the first time, soak them overnight. The dressing used in their finish will otherwise make the water hard and spoil the soapsuds. Add two handfuls of ordinary salt to the water used for soaking. This brings out the lime dressing.

Cornflour is excellent for polishing cutlery and silverware.

"So you think my boy will be a big executive some day?"

"Yes, it always takes him so long to at his lunch."

BEAUTY HINTS

BEAUTY is mostly a skin-game—just a matter of complexion. Therefore, in guarding our health and our skin, we have the first aids to beauty. Don't forget that health is the foundation of beauty, and she who builds her temple upon a less sound foundation must expect only the fragments to be saved from the ruins caused by neglect.

An Orange a Day——

An inactive liver is often responsible for a sallow skin. An orange eaten first thing in the morning, followed by a glass of hot water sipped slowly is good for both liver and complexion.

A good steaming with hot wet towels, followed by a brisk patting all over with the tips of the fingers is a splendid thing for the skin. The skin around and behind the ears and around the nose should be briskly rubbed and the cheek bones sharply patted in a circular movement. Don't neglect these facial exercises if you desire to avoid wrinkles and a dry looking skin.

Don't allow the muscles of your body to become flabby. Exercise them, for firm muscles greatly add to the appearance of youth. Women who from long years of inactivity have allowed themselves to grow podgy and out of shape, will regain the grace and slenderness of youth if they will take plenty of exercise, give up the lounging habit, and cultivate an erect carriage of body.

Care of the Feet

Sore feet hasten the advent of old age. Make it a bi-weekly rule to bathe tired feet in hot water, to which you have added a tablespoonful of ordinary common salt. When thoroughly dry, rub the soles of the feet, very gently, with a smooth piece of pumicestone for some minutes. This will bring immediate relief to tired, overworked feet.

To clean a sponge, add a tablespoon of salts of lemon to a quart of boiling water and soak the sponge in it for an hour; rinse thoroughly and dry in the sun.

If a rug be badly creased or inclined to curl at the ends, turn it upside down on a bare floor and damp the back with a wet broom. Then stretch it tightly, tack down with rustless tacks and leave till next day.

Mix black-lead with methylated spirits. It dries quicker, is easier to polish and gives a more lasting finish.

DON'T BUY BROWN OR FLAWED DIAMONDS!

Purchase from the D.S.J. Company, where every article is guaranteed in writing, under promise of refunding the purchase money if you are not satisfied - - The prices are at least 20 per cent. below any quoted elsewhere, because there are no huge shop rents, or middlemen's profits to pass on.

WRITE FOR A FREE 80 PAGE CATALOGUE



Four Diamond Coronet Ring, £12. (Sold at £16 elsewhere). Others, £5 to £50



Three Diamond Hexagon Ring, £4 10s. (Sold at £7 elsewhere). Others, £5 to £25



A Dainty Open Cluster Diamond Ring, £14 10. (Priced at £18 elsewhere). Others, £20 to £22 10s.



Five Diamond Coronet Ring, £18 10s. (Priced at £22 elsewhere). Others, £7 10s. to £60



Six Diamond Fancy Ring, £12 10s. (Price is £16 elsewhere). Others, £15 to £30

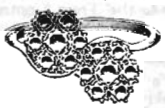


Seven Diamond Fancy Ring, £15. (Sold at £20 elsewhere). Others, £12 to £50



Seven Diamond Ring of Unique Design, £20. (Sold at £25 elsewhere). Others, £17 10s. to £25

Every Ring contains genuine diamonds set in 18ct. gold and pure platinum



A Magnificent Double Cluster Diamond Ring, £22 10s. Others, £15 to £50.

THE DIRECT SUPPLY JEWELLERY CO. Reg'd

(A. COHEN, Manager) **'PHONE, F. 3222**

Second Floor (Take Elevator), "Arlington Chambers"

229 Collins Street, Melbourne



A Dainty Open Cluster Diamond Ring, £17 10s. Others at £20

Railway Users Say—

"QUITE SATISFIED"

I WISH to write showing my appreciation of the efforts of the Railways Department in connection with our trip to St. Kilda. We were quite satisfied with all arrangements made and wish to especially thank Mr. Baldock, Traffic Superintendent, for his kind attention and courtesy.

—Mr. Carl Kubeil, hon. sec. Merton Progress Association, writing to the Chief Time Tables Officer.

PICNIC ARRANGEMENTS APPRECIATED

AT the request of His Worship the Mayor of South Melbourne (Hon. R. Williams, M.L.C.), I have the honor to convey to you his sincere appreciation of the manner in which the traffic in connection with the recent South Melbourne Children's picnic to Aspendale was handled.

No complaints whatever have reached the Town Hall in connection with this matter, and it is gratifying to know that the public were conveyed to and from Aspendale Racecourse in comfort and entirely without accident. Thanking your staff for their kind and courteous attention.

—Mr. E. C. Crockford, Town Clerk, South Melbourne, writing to the Chairman of Railways Commissioners.

SHOW TRAFFIC WELL HANDLED

AT the last meeting of our Society my Committee desired me to express to you their appreciation of your valuable services at their recent show in assisting with railway traffic. The committee recognise that the patriotic services of the Railways Department assisted largely in the success of the Agricultural Society's show, and it is with pleasure that I convey to you their thanks.

My committee desire me to specially mention the services of the local S.M. and his staff which were highly appreciated by myself and committee.

—Mr. W. H. C. Holmes, Secretary, Korumburra A. and P. Society, writing to the Secretary for Railways.

QUEENSCLIFF S.M. THANKED

I HAVE been instructed by my council to bring under your notice the good work and the past services rendered by your local stationmaster, Mr. Penrose, in the matter of the unloading and reloading of the heavy plant of the Country Roads Board at the Queenscliff station in connection with the bitumen surface work on the main Geelong Road, which assistance has been greatly appreciated by the council and its staff.

—Mr. G. W. Drosten, Town Clerk and Surveyor, Queenscliff, writing to the Secretary for Railways.

SMART WORK

WHILST travelling home by the 12.11 train from Flinders-street to Frankston on Saturday, what might have been a serious accident was only averted by the promptitude of the guard. A lady with a baby in her arms attempted to board the train after the guard had given the signal for the train to go. The way that guard jumped over a big tin trunk that was in the doorway astounded me. He had that air brake on instantly. I have never seen a smarter bit of work in my life. I am quite satisfied that we have some live men in the department. I do not know the guard's name, but I noticed the number on his cap was 470.

—Mr. C. H. Cornish, Point Nepean-road, Parkdale, writing to the Railways Commissioners.

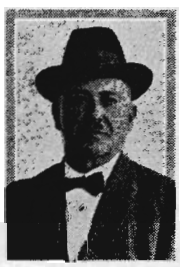
EAGER TO ASSIST

THE transportation of people from neighboring districts to the Mildura Grand Carnival, always presents many problems, mainly due to the difficulties of crossing extra trains. For some time, I have been going into this matter with Mr. Anderson, Station-master at Mildura, and have now received from the Chief Timetables Officer an increased service for that day, which proves in no uncertain manner the desire of your department to cater for its clients.

We are running a special from Ouyen, and desire to convey to you our appreciation of the valued and kindly assistance rendered us in our enquiries by Mr. Roscholler, Train Running Officer of the section, and of Mr. Anderson, S.M. at Mildura, who proved themselves only too happy to answer the hundred and one questions we put to them, and were very eager to assist even past the ordinary limits expected in the best of businesses.

—Mr. J. B. Grelis, Secretary, Mildura Grand Carnival, writing to the Chairman of Railways Commissioners.

"MAN TO MAN COURTESIES"



Mr. Dunstan

THE subject of my letter is not one of complaint, but one of appreciation and thanks. I have been a regular traveller on our railways during the last 23 years as Sorter - in - Charge of the Travelling Post Office . . . . . During my period of service, I have performed the duties of sorter on the T.P.O. on every railway line where the Travelling Post Office was in operation . . . . and during the 23 years, I have travelled considerably over 850,000 miles on the railways, and have had the good fortune, combined with the good management of the railways in never, on any occasion, receiving any unnecessary knocking about during the many journeys or shunting operations at terminal stations . . . . . As I have just relinquished my position on the Bendigo T.P.O., I would like, through you, to thank all the men on your railways with whom I have come in contact for their man to man courtesies and consideration, particularly at Bendigo—the S.M., Shunters, etc.

—Mr. Samuel Dunstan, 127 The Righi, Heidelberg, writing to the Chairman of Railways Commissioners.

RUBICON TRIP SUCCESS

WE are glad to be able to tell you that the trip to Rubicon, undertaken by us on Thursday and Friday, was carried out to the interest and enjoyment of all. The excellence of the transport and catering arrangements was largely due to the untiring energy with which the members of your staff, one and all, threw themselves into the spirit of things. Our programme was very full, and it was necessary for us to make big calls on your men, to which they unfailingly responded, and we trust that you will convey to them our appreciation.

We thank you personally for your interest in the matter which made the facilities of your department available. Without them it would have been very difficult to achieve anything like the successful results which were attained.

—Mr. Robert D. Elliott, Chairman, Civil Engineering Construction Coy., Pty., Ltd., Collins-street, Melbourne, writing to the Chairman of Railways Commissioners.

A WORTHY MEMBER OF THE TEAM

THIS afternoon, about 4.30 p.m., just as I was approaching by car the main Mordialloc Station gates, I was on my way to the Woodlands Golf Course, the gates were being closed against the road, but the signalman, noticing my nearness, immediately reversed the gates and allowed me to cross. His courtesy appealed to us all, and we were unanimous in deciding that he is a worthy member of your very fine railway team.

—Mrs. Gwen Alice Gordon, "Tetbury," Kooyong-road, Caulfield, writing to the Chairman of Railways Commissioners.

"ALWAYS MOST OBLIGING"

OWING to a rearrangement of our booking, we were compelled to despatch a parcel of film from Mildura for use at Bendigo on the same night, and in order to expedite delivery, notified the Station-master at Castlemaine requesting him to see that the necessary transfer was poperly and promptly made. We now wish to bring under your notice the prompt and efficient manner in which he attended to our request. We must say that at all times we have found all officers of the Railways most obliging, and this is one instance in particular of the service rendered us.

—Australian Films Ltd., writing to the Bendigo District Superintendent.

HONESTY AND EFFICIENCY

IT is my pleasure to be able to write you complimenting the Station-master at Geelong for his promptness in returning to me a bag containing a very valuable camera and other incidentals which disappeared from my carriage on the Camperdown train some days ago. I had given up hope of recovering the article mentioned, but I did put an advertisement in the daily paper on the following day. Immediately the bag and contents were forwarded to me from the S.M., Geelong, with a covering letter explaining the details of the case. Little affairs such as this show the honesty and efficiency which prevail throughout your staffs.

—Mr. V. McNamara, 143 Murrumbeena-road, Murrumbeena, writing to the General Superintendent of Transportation.

SMART LIVESTOCK HANDLING

EARLY this month, Mr. Sargood and I sent some yearlings from Raywood to Melbourne. I have been away most of the time since then, and have only lately heard that by your kind offices and help these horses caught the 11.40 Special from Bendigo instead of waiting till the 3 p.m., which makes a lot of difference in our favor. I want to thank you for this kindness, and to let you know that it is much appreciated. You have my sincere thanks.

—Mr. A. H. R. Wilson, Yarraberb Estate, Raywood, writing to the Train Control Officer, Bendigo.

CHALET COMFORT

ON behalf of a party of members of the English Speaking Union, Victorian Branch, who recently toured the Alps and stayed at the Chalet on the Buffalo under the auspices of the Railways Tourist Bureau, I wish to convey to you our thanks for the excellent arrangements which were made for our comfort at the Chalet and while we were touring. I am also asked to say that the assistance we received from Mr. Dickson of the Tourist Bureau who accompanied us was much appreciated. His zeal

and thoughtfulness helped to make our trip a complete success.

—Mr. Donald MacKinnon, Chairman, Common Interests Committee, The English Speaking Union, Scott's Hotel Buildings, Collins-street, Melbourne.

A GOOD WORD FOR ASPENDALE

I DESIRE to place on record my sincere appreciation of the kindness of your Station staff at Aspendale, where I had to leave the Up train from Chelsea at 8 a.m. on Tuesday, 13th March, owing to a sudden seizure; and by their assistance and thoughtfulness, I was enabled to return to Chelsea safely.

—Mr. T. C. Woodburn, Embankment Grove, Chelsea, writing to the Secretary for Railways.

WILL ALWAYS USE THE RAILWAYS

I HAVE been directed by the W.M. and Brethren of the Lodge of Ophir to express to you their appreciation of the provision made and the facilities granted for their trip to the metropolis on the 10th inst. We would also express our appreciation of the manner in which the staff assisted in providing for our comfort, particularly mentioning Mr. Maddern and Mr. Kitto. You may be assured that at any future time, when we are making such a trip, we shall avail ourselves of the services of the Victorian Railways.

—Mr. Dave A. Taylor, Secretary, Lodge of Ophir, Masonic Hall, Ararat, writing to the Chairman of Railways Commissioners.

CONVEYANCE OF FIREMEN

I HAVE been directed to acknowledge the Board's appreciation of the excellent arrangements made by your department for the conveyance of firemen to the demonstration at Geelong, and particularly the courtesy and attention shown by Mr. D. Hanna, an officer of the Timetables Branch, in supervising the suggested programme submitted by the Board.

—Mr. T. Sinclair, Secretary, Country Fire Brigades Board, Colonial Mutual Chambers, Market-street, Melbourne, writing to the Chairman of Railways Commissioners.

PROMPT RETURN OF LOST HAT

I desire to commend your department for prompt action recently. I was a passenger in the Maryborough to Melbourne train three weeks ago, and left a valuable hat in the train at Castlemaine. I wrote to the Station-master that night, and by return of post I had a letter from him stating that he had found the hat and was forwarding it on the same day. I am pleased to state that the hat arrived safely and in perfect order.

—Mrs. E. Charles, 14 John-street, Footscray, writing to the General Superintendent of Transportation.

EXCURSION SUCCESS

I DESIRE to express to you my hearty appreciation of the arrangements made and so efficiently carried out by the staff of your department in connection with the Hamilton State School Excursion.

First, the train provided was very suitable; the staff at the Hamilton railway station was courteous and obliging, rendering me every assistance possible, and the train crew did the journey efficiently. That the excursion proved so successful is due, in no small measure, to the co-operative spirit shown by the railway officers concerned.

—Mr. C. V. Cecil, Head Teacher, State School No. 295, Hamilton, writing to the Station-master, Hamilton.

BUFFALO APPRECIATION

MY wife and myself availed ourselves of your railway-conducted tour to Mt. Buffalo. I am writing to express our high appreciation of the excellence of the trip. I feel sure I am voicing the opinion of every member of the party in stating that each member had a most enjoyable time, and the trip is certainly all your department claims for it.

The Manager (Mr. Avery) and his good lady did everything possible for our enjoyment and to make our stay pleasant, and with the co-operation of the staff of the Chalet they succeeded, whilst the conducting officer (Mr. Jones) left nothing to be desired regarding information, etc.

"NOTHING ON" VICTORIA'S RAILWAYS

I HAVE travelled hundreds of thousands of miles in railway trains in most parts of the world—England, France, Belgium, Germany, Switzerland, Austria, Italy, America, Canada, China, Japan, Hawaaian Islands, The Phillipines, Hong Kong, Federated Malay States, Burmah, India, Egypt, Australia and New Zealand.

Nothing that I know of indicates that I have suffered through my travels, though long memories—and a birth certificate—compel me to think a bit. I ponder over the thoughts that have flown through my mind when travelling in a railway train, too many to enumerate. I have tackled almost every problem that assails the human mind—commerce, politics, social affairs, religion, industry, transit, all through a carriage window. I hate dirty coal, railway bandits and thieves, and long journeys without food or water, all of which I have experienced in various parts of the world—but NOT in Australia.

A friend asked me the other day what I thought of Victorian railways. I replied that in my 40 years travel in railway trains throughout the world, I consider that no system had "anything on" Victorian railway administration. I consider that Victorian railway service is the best in the world. Who will challenge me? Or who will deny that Mr. H. W. Clapp is the right man in the right place? The only gruntle that he has stirred is because of the fact that he refuses to swim with the mob.

R. J. COOMBES,
Building Reinforcement Ltd., Melbourne.

Your department, no doubt, receives letters regarding its shortcomings regarding staff, etc., but I feel that when arrangements are carried out so excellently, a note of appreciation should also be sent.

—Mr. W. Smith, 3 Nicholson-street, East Hawthorn, writing to the Secretary for Railways.

HELP IN SICKNESS

I BEG to return my sincere thanks to you for your trouble and attention concerning my invalid brother, for your trouble in arranging for the Sydney Express to stop at Euroa, last Sunday night, for the kind attention of the guard and porters. I regret to say that my brother died after his arrival here.

—Mr. L. Simpson, Euroa, writing to the Station-master, Spencer-street.

FURNITURE SAFELY CARRIED

THE furniture arrived safely, and, although I have travelled many times on the railways it never before came through with so little damage. One table was strained through faulty packing on my part, but the remainder of the furniture had scarcely a scratch on it. I am very grateful to the staff for the fine way in which they helped me, and met me in every way possible. In conclusion, let me thank you personally and the rest of the staff for the kindness and courtesy always shown me.

—Rev. W. Adams, The Manse, Woodford, writing to the Station-master, Heathcote.

A WORD OF PRAISE

WE think a word of praise is due to your staff for the manner in which they went about supplying 23 cattle trucks to load from our big clearing sale held at Yering on Monday last. All the trucks were duly loaded in time to be despatched at 7 p.m. The general public thought it was a good piece of work arranging the trucks on the holiday to load immediately after the sale, the result being the purchasers had their stock home in good time, and, with very little delay in transit. The Station-master at Yering was most obliging, and gave us every assistance both in loading the trucks and making out the consignment forms.

—Adamson, Strettle & Co., Pty., Ltd., 482–4 Bourke-street, Melbourne, writing to the V.R. Live Stock Agent.

354 MILES IN TWO DAYS

IN view of the adverse criticism that is hurled at the Railways, I hope it will please you to have a little of the other side. On Thursday morning I sent away a boot box (and I had to patch it up a bit with glue) to a place, Barraport. Well, I got quite a shock to get the same box back again on Saturday morning. It had travelled 354 miles in two days. The box contained some X buns on Thursday and a fowl on Friday. Now, Sir, will you please convey our thanks re the matter. It had passed through a number of hands—holiday time, too, and everything O.K. Thank you, Sir!

—Mr. Thos. R. Haslam, 201 Faraday-street, Carlton, writing to the Chairman of Railways Commissioners.

TROOP TRANSPORTATION

I WISH to express to you my appreciation of the work performed by the Station-master and his staff at Broadmeadows during the camp of continuous training of the 2nd Cavalry Division from 1st to 8th March, 1928. The knowledge displayed by the Station-master (Mr. McDonald) and his staff of the military system of entraining and detraining of the troops, and the general requirements greatly assisted the military staff in their duties. The Station-master and his staff were always courteous and painstaking, even in what were often trying circumstances, and the success of the camp was largely due to their efforts.

—Col.-Commandant W. H. Scott, Commanding 2nd Cavalry Division, Melbourne, writing to the Secretary for Railways.

TRADITIONAL SERVICE

PLEASE accept my best thanks for the courtesy extended to me in permitting me to open a case on Saturday. The young man who attended on me was most active and enthusiastic, and did his utmost to uphold the best traditions of the Railways Department for the consideration of a client's needs without any material gain.

—Mr. F. J. Pawson, 110 Flinders-lane, Melbourne, writing to the Clerk-in-Charge, Outwards Office, Melbourne Goods.

The Officer referred to is A. F. Baker, Acting Clerk.

Railwaymen in Sport

GYMNASIUM NOTES

The V.R.I. Boxing and Wrestling Competitions, open to all bona fide amateurs, will commence at the Institute on Friday, May 18, about one month earlier than usual.

Entries close with Mr. A. Galbraith, General Secretary of the Institute, or with Mr. H. R. Weir, hon. secretary V.A.A.A., not later than Tuesday, May 8.

Contests in all weights will be held. The entry fee in each division will be 2s. A guarantee fee of 3s. must also accompany entries, but will be refunded competitors on their final appearance in the ring.

Jim Delaney put up a record one-minute skip of 244 on April 3, but hopes to better his figures after a few weeks practice.

There are a number of Gymnasium records waiting to be broken, and skippers, jumpers and weight lifters, are urged to come along and try their hands and feet.

RAILWAYS HEAD OFFICE TENNIS ASSOCIATION

At a representative meeting of Head Office tennis enthusiasts last month, it was decided to form an Association to govern interbranch competitions and annual tournaments.

The following were elected members of the Executive Committee :—

President—Mr. T. F. Brennan, Chief Accountant.

Vice-presidents — Messrs. N. J. Lester, Accountancy Branch and E. F. McIver, Signal and Telegraph Branch.

Secretary—Mr. K. A. Carmichael, Accountancy Branch.

Treasurer—Mr. J. F. McDonald, Traffic Branch.

Committee—Messrs. G. A. Cobham, Accountancy Branch ; K. J. McIver, Accountancy Branch ; H. Urquhart, Auditor of Receipts ; W. H. Thomas, Auditor of Receipts ; H. J. Delaney, Electrical Engineers ; L. Coulson, Electrical Engineers ; W. Ahern, Rolling Stock Branch ; A. Gilmore, Rolling Stock Branch ; A. V. Stenning, Secretary's Branch ; J. H. Hennessey, Secretary's Branch ; L. H. Arnold, Signal and Telegraph ; A. E. Dunstan, Signal and Telegraph ; A. W. Cobham, Traffic Branch ; J. F. McDonald, Traffic Branch ; D. Campigli, Transportation Branch ; J. G. Peart, Transportation Branch ; K. McDonald, Way and Works Branch ; L. E. Barrow, Way and Works Branch.

At the first meeting of the Association a sub-committee will be appointed to draft a constitution.



Mr. Hunt

We take great pleasure in announcing that Mr. Reg. Hunt of the Railways Outdoor Superintendent's Office, has agreed to take full control of and edit the sports section of the Victorian Railways Magazine, commencing with next month's issue.

Mr. Hunt is well known throughout the State as an expert in matters of sport. On football, he is one of the front authorities of the Commonwealth. He was the first Chairman of the Victorian Country Football League ; he has represented the Victorian Football League on the Australasian Council and on the Junior Union ; he has been a delegate to the Victorian Football League for ten years, Chairman of the Permit and Umpire Committee for six years. Treasurer of the Carlton Club for three years, Vice-President for two years, Secretary for six years, and secretary of the Hawthorn Club for three years.

CRICKET ASSOCIATION

THE final round of the V.R. Cricket Competition has been reached, and Jolimont Yard, Newport, Way and Works and North Loco. will now play for possession of the Commissioners' Cup and the Premiership. Jolimont Yard as minor premiers has the challenge to the grand final if necessary. The position of the teams at the end of the home and home games is as follows :

Team	Pld.	Won	Lost	Drn.	Pts.
Jolimont Yard ...	18	15	3	—	60
Newport ...	18	14	3	1	58
Way and Works ...	18	12	6	—	48
Loco. North ...	18	11	7	—	44
Melbourne Yard ...	18	10	7	1	42
Telegraph ...	16	8	8	—	32
Coburg ...	17	8	9	—	32
Signalmen ...	17	4	13	—	16
Jolimont Shunters ...	18	4	14	—	16
Flinders-street ...	18	1	17	—	4

WHAT THE INSTITUTE HAS DONE FOR ME. *No. 10—Signalman Points a Moral*

THERE'S a moral to be drawn from my association with the Victorian Railways Institute.

A repairer in the Way and Works Branch, I had been a railwayman for nearly 11 years before I sighted the opportunities for promotion offered by the educational classes at the Institute. I joined up with the Safeworking class in March, 1924, and started on the A.B.C. of Electric Staff work. I studied the whole course by correspondence, was encouraged by an instructor whom I knew only from his sympathetic and helpful annotations on my lesson sheets, plodded determinedly through the 22 lessons and was ready for examination inside four months.



Actually, I qualified in September of 1924—qualified, thanks to the Institute, in a complicated technical side of Transportation work while holding an entirely foreign job in the Way and Works Branch.

Qualification brought me to the metropolitan area as a signal porter, and I was able to attend oral classes in Double Line Block at the Institute. I secured my certificate, and promotion duly arrived in the shape of appointment as 7th class signalman. I have better pay, better conditions and better prospects.

But I could have been a 1st class signalman had I joined the Institute 10 years earlier. As I said, there's a moral to be drawn from this little tribute of mine to the Victorian Railways Institute.

JAMES O'SULLIVAN,
Signalman.

Railwaymen of the Month

(*Continued from page 31*)

New Hall Officer



NEW Hall Officer in the little glass kiosk of inquiry at Head Office is square shouldered Reuben Fisk, late of the Transportation despatch room. He succeeds Tom Smales, who has been compelled to retire after a long stretch of illness. Reuben will face the day-long avalanche of queries with a confidence and serenity born of years on the platform in the limelight glare. He is a well-known entertainer and singer. His voice is the kind which delighted critics call a "rich baritone." And he knows how to tell a good story.

A Sydney editor, visiting Melbourne, decided to buy a new hat. Going into a shop, he asked the price of one. The assistant replied, "Three pounds."

"Where are the holes?" the editor asked, examining the hat critically.

The Shopman appeared bewildered for a moment, but managed to ask: "What holes?"

The editor replied: "Why, the holes for the ears of the ass that would pay Three pounds for a hat like that."

Victorian Railways Honor Roll

RECENT RETIREMENTS

As long as men shall live and build; as long as they strive for worth while achievement, there shall be honor and glory in work well done.

	Date of Appointment	Years of Service
J. D. Griffiths, E.S. Guard, Reservoir	1886	42 *years*
T. Kersley, Passenger Guard, Spencer-street	1886	42 *years*
J. Charles, Goods Checker	1886	41 *years*
W. Byrne, Shedman, Warragul	1887	40 *years*
F. S. Roberts, Signalman, Melbourne	1889	39 *years*
T. Griffin, Liftman, Melbourne	1888	39 *years*
E. Wangemann, Repairer, Maryborough	1889	39 *years*
A. Waters, Ganger, Edi	1888	39 *years*
W. A. Franzi, Office Cleaner, Flinders-street	1891	37 *years*
Mrs. W. E. Howes, Office Cleaner, Spencer-street ...	1893	34 *years*
G. Quixley, Road Foreman, Melbourne	1900	27 *years*
G. P. Goode, Storeman, Spotswood	1908	20 *years*
W. Melbourne, Motorman, Melbourne	1911	17 *years*
W. S. Sherwood, Carpenter, Melbourne	1912	16 *years*
R. Knight, Porter, Flinders-street	1912	16 *years*
H. L. Cochran, E.S. Guard, Flinders-street	1920	7 *years*
F. S. Nurse, Clerk, Spotswood	1923	5 *years*
V. M. O'Meara, Clerk, Melbourne Goods	1925	2 *years*
M. F. Fli her, Repairer, Mathoura	1927	1 *year*

Where Chaos is Order (*Continued from page 26*)

puzzles you. You appeal to a passing foreman for elucidation. He explains that fruit forwarded under that arrangement reaches a suburban station one day after it leaves the sending station. The long Mildura run takes two days. "And then you can call for the case yourself," continues the foreman, "and save all extra charges. A 30 lb. case goes 200 miles for ninepence only, and a 60 lb. case the same distance for a bob. That's cheap enough, isn't it?"

You glance at your watch and see that it is 7 a.m. Before the onslaught of the carriers, the cases of fruit and other produce are fast disappearing. Horse-drawn lorries and motor trucks rattle away for market and store.

And, with that empty feeling within which is the silent breakfast gong of the soul, you make for the awakening city, convinced that the Railways Department is doing its best—and a very good best—for the producer by its expeditious and efficient handling of the fruit traffic.

M.C.C.

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"You seem to be an able-bodied man. You ought to be strong enough to work."

"I know, mum. And you seem to be beautiful enough to go on the stage, but evidently you prefer the simple life."

After that speech he got a square meal and no reference to the wood pile.

THIRTY-FIVE YEARS AGO

Extracts from the Victorian Railways Gazette of May 1st, 1893 :

DURING the past month, meetings have been held in various parts of the colony in reference to railway construction. At Lilydale there is a proposal to have a line to Warburton and the Upper Yarra. Wyche-proof requires an extension to Mildura, the first section of which—to Kaneira—is being canvassed.

. . . . .

A SHORT time ago, a station inquired of another if a package "addressed to a Mr. Hutchison" had been received. The reply disclosed a unique conflict of names : "Package is addressed Hutchins ; waybill shows Hutton ; your memo. says Hutchinson ; and Mr. Hudson claims it." Even the writer of the reply fell into error by quoting "your memo. Hutchinson," whereas the word was written "Hutchison."

. . . . . .

RECENTLY there was received at Princes Bridge for despatch by an Assyrian hawker a parcel addressed to Stratford, which bore the request, "Please mind to brake (sic) the bottle inside." Such requests are easily complied with and can even be carried out in the absence of written instructions.

. . . . . .

A CORRESPONDENT, "J. C.," writes asking if porters are to receive their umforms from the department this year. We are able to reply in the affirmative, but we understand this will be the last free issue.

. . . . .

A REMARKABLE series of accidents attended the 2.20 p.m. Up Gippsland train on April 12. After leaving Traralgon, one of the axle boxes of the engine ran hot, and the Mirboo engine had to be substituted at Morwell. As this locomotive took the train down the Haunted Hills approaching Moe, the side rods snapped and crashed against the side of the cab, doing a great deal of damage. The engine became powerless and continued the sequence of misfortunes by overshooting the platform at Moe. A third engine then took up the running to Warragul without further incident.

. . . . . .

THERE was considerable discussion at the last ordinary meeting of the Central Council of the Union over the appointment of editor of the Gazette in succession to Mr. C. H. Barber, who has been transferred to the Secretary's Branch. Finally, Mr. John Arthur Russell, who has been sub-editor since January, was chosen as editor, with Mr. W. M. Wignall as associate editor.

. . . . . .

MINISTER of Public Works Seddon states that the policy of the New Zealand Government will be to levy a betterment tax on property holders adjoining railways which do not pay working expenses and interest on the cost of construction.

HEARD THIS ONE ?

There was once a man not unique
Who imagined himself quite a shique ;
But the girls didn't fall
For the fellow at all—
He made only three pounds a wique.

"I shall have to ask you for a ticket for that boy, ma'am."

"I guess not."

"He's too old to travel free. He occupies a whole seat and the car's crowded. There are people standing."

"I can't help that."

"I haven't time to argue this matter, ma'am. You'll have to pay for that boy."

"I never paid for him yet."

"You'll pay for that boy, ma'am, or I'll stop the train and put him off."

"All right ; put him off if you think that's the way to get anything out of me."

"You ought to know what the rules of this road are, ma'am. How old is that boy ?"

"I don't know. I never saw him before."

Murphy, newly-arrived in America, while walking through a cemetery, read the following inscription on a tombstone :

"Here lies Bill Jones, an honest man and a salesman."

"Sure," said Murphy, "This is a quare counthry where they bury two men in the same grave."

"Waiter, there is a button in my soup."

Waiter (an ex-printer) : Typographical error, sir. It should have been mutton.



Absent-minded Professor : "Flinders-street, first person, singular, please."

—Adapted from George Belcher

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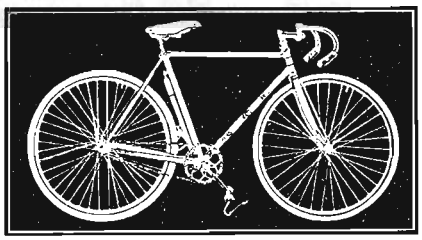
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Lines from Other Lines

(*Continued from page 22*)

a total of 3,306 thousand gross ton-miles and consumed 43,150 lb. of oil, or 13.05 lb. of oil per 1,000 gross ton-miles. The other locomotive, with magnetic gear transmission, made with trains of approximately the same tonnage and speed over the same distance and under virtually the same weather conditions, 3,455 thousand gross ton-miles, and consumed 40,780 lb. of oil, or an average of 11.81 lb. of oil per 1,000 gross ton-miles. This represented a saving of 9.5 per cent. in favor of the Diesel locomotive with gear transmission, and was in conformity with the figures for efficiency obtained from the stationary tests made with the same locomotives.

"What are the words to that song?"

"I don't know. I've only heard it sung."

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Spencer-street Railway Station
287 High-street, Northcote
627 High-street, Croxton
210 Victoria-st., North Melbourne

England's Road-Rail Problem

—(*Continued from page 13*)

absurd," says Sir Ralph Wedgwood. "A monopoly is an imaginary danger, but even if it were a practical policy, the bill itself now provides safeguards which would prevent the railways from doing anything of the sort. We have to submit to the Rates Tribunal figures showing our receipts and expenditure on the services which would be run under these powers, and if we were disposed to resort to a policy of cutting rates to an uneconomic level to drive our opponents off the field, the Rates Tribunal would soon call us to order. They would see that the services were run at a loss and could insist on our charging more.

"The fact is that motor transport within the last few years has shown that under certain conditions it can carry some classes of traffic, either passenger or goods, more economically than the railways, and it is desirable that that should be recognised, and that those facilities should be co-ordinated with railway facilities. Our object is to enable the railway companies to provide road facilities where they are not already provided, or to co-ordinate their services with the road companies where facilities are already provided, so that passengers can transfer as readily as possible from one method of transit to the other. That, we think, can only be done by giving us the modest powers for which we are asking.

"We have no intention of flooding the roads with motors and engaging in any spectacular policy of competition. We are simply out to fulfil what we regard as our natural function under the altered conditions of transport."

Remarks by the Southern Railway's chief, Sir Herbert Walker, are just as comprehensive as those of the London and North-Eastern's general manager.

"The extent to which operating expenses have been increased since the war," Sir Herbert explains, "is a matter over which the company has not had control—either of wages or the cost of material. The wages bill alone is 150 per cent. above pre-war.

"So far as efficiency of the service is concerned, no facts are given by the F.B.I. as a basis of the assertion made, but the companies cannot agree that, taken as a whole, the services are less efficient than before the war. For instance, 80 per cent of traffic from London to places as far apart as Liverpool, Glasgow and Aberdeen is delivered the next morning, and many accelerations have been made—for example, London to Birmingham 140 minutes faster, Leicester to London 97 minutes faster, Birmingham to Leeds 122 minutes faster, to say nothing of non-stop freight trains from London to Newport Abbott (194 miles) and Shrewsbury (153 miles).

"As to the diversion of the lighter class traffic from rail to road, which the F.B.I. feels will prejudice the position of the heavy traffic, these are the very conditions which the railways by their bills are endeavoring to remedy. The remaining customers of the railways are at present prejudiced by the diversion of traffic from rail to road.

"The companies could only obtain and afterwards keep such a monopoly as is feared by the Transport Committee of the F.B.I. at the double cost of running an uneconomic road service and of diverting traffic from their existing rail services. Is it reasonable to suppose that such a suicidal policy would ever be adopted?"

Behind this logic from the chairs of the rail administration stands the almost unanimous support of the press. Leading articles in most of the principal papers ridicule the monopoly bogey and support the railway companies' proposals on the grounds that they are equitable, that the present situation is anomalous, and that the proposed powers are in the public interest.

Trade unionism, on the other hand, is divided on the issue. The National Union of Railwaymen and the Railway Clerks Association, whose combined memberships embraces the bulk of organised labor in the railway service, are in favor of the companies' proposals. But the Transport and General Workers Union, another powerful organisation, is opposed to the measures. The latter, however, fails to make clear the reasons for its opposition. A resolution, which passed its Executive Council, declares vaguely "that Parliament should not grant to the railway companies the powers asked for," but adds that, if Parliament does decide to legalise the acts, "the Minister of Transport should be em-

(*Continued on page 46*)

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Medicinal Dry Gin, 6d. a Nobbler, with Squash, 7d.
For a hot day reviver—Preston's Gin and Squash
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Books and New Books

Thumbnail Reviews by J. D. MICHIE

Queen Anne Farthings.—By Catherine J. Dodd. There is a quaint charm about Miss Dodd's books that is entirely her own—a charm bred of her intimate knowledge of life and customs in the past, and a delicate sentiment that never degenerates into sentimentality. Her latest story is centred round an unhappy love affair. It depicts 18th century life most realistically.

Jannock.—By M. M. Brash. Dacre, the son of a Lancashire financier and a Spanish woman, is left at sixteen to make his way in the world, owing to the conviction and sentence to penal servitude of his father for fraud. He makes a success of life in spite of frequent reverses, and, finally, marries his chief's daughter, a woman who sees romance in his Spanish blood, but who ruins his life by petty jealousies.

The Moonstone Mystery.—By Antony Marsden. The author has given us a really ingenious mystery tale. Beverly, the hero, overhears a conversation between two highly suspicious characters, and, from a chance word he catches, connects them with a recent burglary. The situations which afterwards arise, keep the reader in suspense until the climax is reached.

The Dope Dealers.—By Lawrence Cross. In this work, the main character is a young scientist, who discovers the means of solidifying alcohol, while the scheme of a rival to capture the formula is worked out with ingenuity and thrills. Here is a book that cannot be laid aside until it is finished.

Connie Morgan In The Fur Country—By James B. Hendryx. Connie Morgan, stalwart, true and courageous, long a friend of countless readers, now wends his adventurous way into the land of the trapper. This is a story of the Great White North—the land of unmapped mountains and lonely trails, where men are rough but big-hearted.

Chained.—By Frank Hird. The heroine of Mr. Hird's new novel is chained and fettered, not only by the shackles of a hard inheritance, but also by the complications resulting from her own temperament in conflict with circumstances. How she makes her way, in the face of great difficulties, to happiness and success, is the theme of a strong and essentially human story.

Avarice House.—By Julian Green. There is scarcely a single gleam of humanity or decent feeling to be found in any one of the characters in this novel, and the book is persistently morbid; but the very intensity with which it is written compels the reader to go on with it.

Locomotive Management from Cleaning to Driving.—By Jas. T. Hodgson, M.I. Mech. E., and the late John Williams, London. The Railway Engineer, 33 Tothill-street, Westminster, S.W. 1. Price, 5s. net. The sixth edition of this handbook has been revised and brought thoroughly up-to-date. Every detail of the locomotive is illustrated and described, while there are special chapters devoted to the various regulations affecting the movement of engines and trains in traffic, signalling, and so on. The chapters consisting of questions and answers on the locomotive, breakdowns, brakes and rules are so arranged to assist the engineman in obtaining a thorough grasp of these matters.



One of the principal sources of revenue of the Ballarat Railway Institute is the weekly Saturday dance which, since June, 1926, has been productive of £350. The Broadway Orchestra, here pictured, which regularly supplies the necessary music, is comprised of Institute members. Left to right : Mrs. J. D. Trevethan, G. Smythe, J. D. Trevethan, C. J. Hewitt, C. Hitchcock.



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Electrical Testing

(*Continued from page 21*)

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(To be concluded in the June issue of the Victorian Railways Magazine.)

England's Road-Rail Problem

(*Continued from page 42*)

powered to establish suitable machinery to deal with the co-ordination and regulation of road transport services." The Council further expresses the opinion that "the issuing of licences of public service vehicles should be subject to recommendation by properly constituted transport bodies."

Most of this union opposition seems in the highest degree irrelevant. Moreover, it is inconsistent, since the Council on the one hand opposes the granting of Parliamentary powers to the railway companies, while on the other it advocates that the Ministry of Transport be given a free hand in the matter. As to the recommendations regarding the issue of licences, while it is true that the existing machinery is capable of improvement, especially in regard to private motor cars and motor cycles, the Council apparently envisages an increase of bureaucratic control, although this part of the resolution is so vague that one could doubtless read an entirely different meaning into it. Incidentally, the companies have already stated publicly that they will be unable to place a single vehicle on the road for passenger traffic until they have obtained a licence to ply for hire from the local authority concerned. It is difficult to see where the grouch of the Transport and General Workers Union comes in.

Political opinion on the subject appears as divided as the ranks of unionism. In many quarters it is considered likely that the Baldwin Ministry will refer the measures to a Joint Committee of Lords and Commons. Precedents exist for an arrangement of that nature, and the functions of such a Committee would be closely akin to those of a specially appointed Select Committee. Further, its constitution could be equally impartial, and it would have the added advantage that its proceedings would be part of the normal business associated with Parliamentary bills. As to the time that would be occupied in its deliberations, it remains to be seen how far the opposition will be local in character and, alternatively, to what extent the applications can be considered *en bloc*.

Admittedly, the over-riding factor in the fight must be the interests of the public. And here the views expressed by Colonel Ashley, the Minister of Transport, and others at the recent **World Motor** Transport Congress in London will find very wide acceptance—that there is room and need both for rail and road transport, and that there should be no antagonism between them. Colonel Ashley, in fact, asserted that whatever Government was in power would be obliged to tackle the problem and devise a system of co-ordination which would eliminate the wasteful competition which now exists, and enable both railways and road transport to carry on financially successfully.

This is an authoritative opinion which Victoria, interestedly watching developments across the sea, can endorse with an emphatic "Hear, hear!"

"I don't like these photos at all," he said, "I look like an ape."

The photographer favored him with a glance of lofty disdain.

"You should have thought of that before you had them taken," was his reply as he turned back to work.

The harassed-looking man was being shown over a factory.

"That machine," said his guide, "does the work of thirty men."

The man smiled glumly.

"At last," he said, "I have seen what my wife should have married."

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Where to Spend a Honeymoon (*Cont. from page 27*)

as concerts, dances and other amusements culminating in a fancy dress ball, proved a successful way of bringing the guests together, so much so that The Chalet assumed more the air of a private house, crowded with personal friends, than that of a guest house. The ball was a great success, fancy dress being the rule rather than the exception, and a unique touch was added by the guests wearing their costumes to dinner.

The nights were a revelation to me, being mild and balmy to a degree which I had hardly expected, and it was a wonderful scene that awaited those who regularly strolled across to Bent's Lookout every night. It was a full moon during our visit, and the effect of the moon on the valleys and mountains and silver thread of the river far below was beautiful to the extreme.

The day of our departure came, and it was with very keen regret that on the Sunday evening we said good-bye to the Manager, Mr. Avery, and his wife. They had been exceedingly kind to us and had made our short stay very enjoyable.

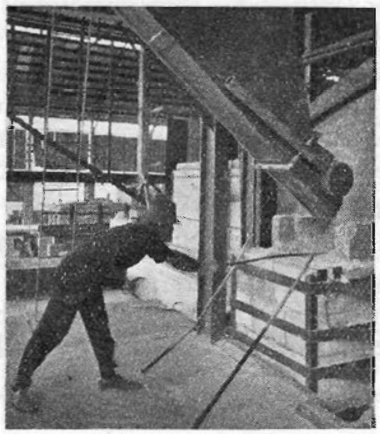
Looking back on our stay we can say that our holiday there was one of the happiest weeks we have ever spent. The comfortable appointments of the Chalet, with its most excellent cuisine and efficient staff, the grandeur of the scenery and the facilities for enjoyment all tended to a successful holiday.

Mt. Buffalo certainly has to be seen to be appreciated.

Where Bottles Are Born

(*Continued from page 24*)

clock round from 7 a.m. on Monday until midday on Saturday. The diverse



Feeding ingredients into the melting tank

range of bottle moulds is made on the premises. Drysdale supplies the clay. Most of the sand comes from Carrum.

Itself, the Australian Glass Manufacturers Company is just on half-a-century old. It has representation in every Australian capital, and, while its principal factory at Spotswood floods the Commonwealth with a fragile avalanche of bottles, a subsidiary factory in Sydney concentrates on cut-glass products, ornamental glassware and the like.

And a big bump is now in store for the imported sheet glass trade. The Company intends to undertake the manufacture, for the first time in Australia, of sheet glass. Success—which seems assured—will mean much to the Company, the State and the Commonwealth. And the railway, of course.

Representative Railroader

(*Continued from page 25*)

successfully ousted the contractors previous unsatisfactory bolt type clip. It was his idea of passing wires through a heated tank of tar which shook off the expensive necessity for protective painting after erection.

Simple enough ideas, all of them. When you've been told them. . . . .

But in electrical engineering, as in wrestling, it's the man who thinks first who succeeds. And George Samuel Scott has made a habit of succeding.

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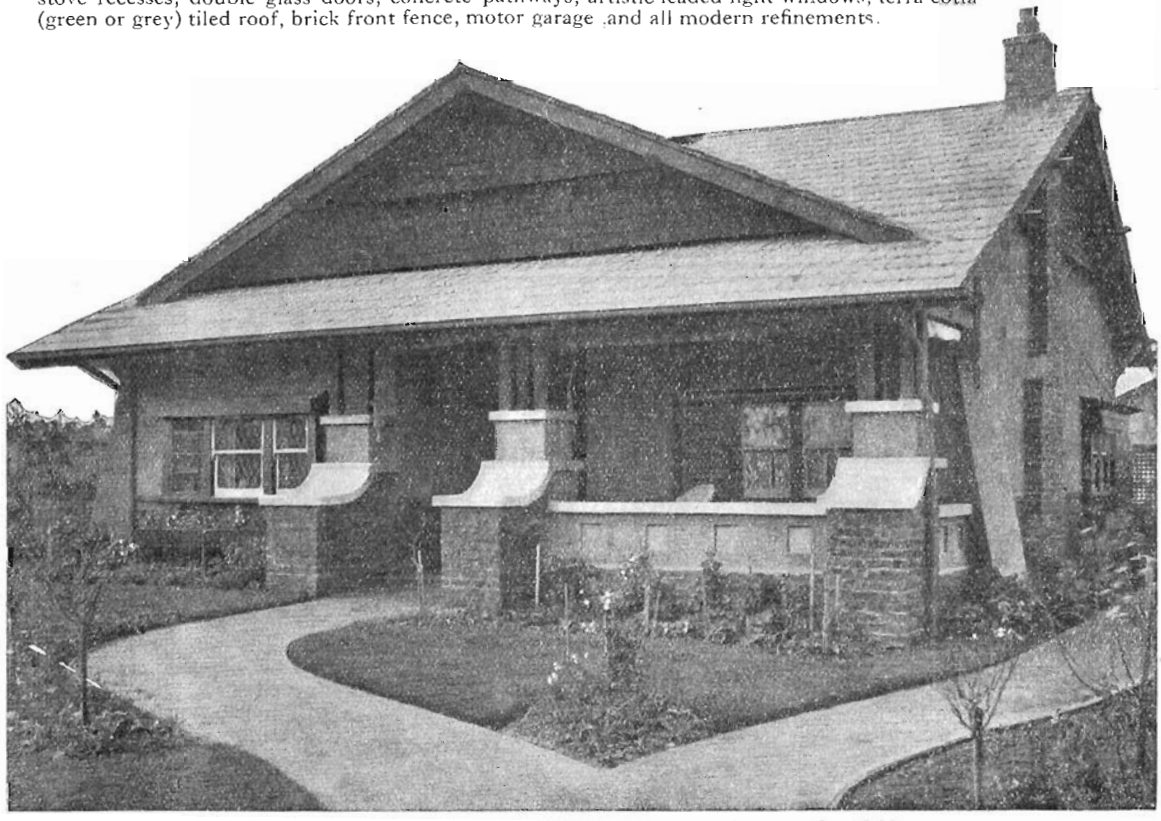
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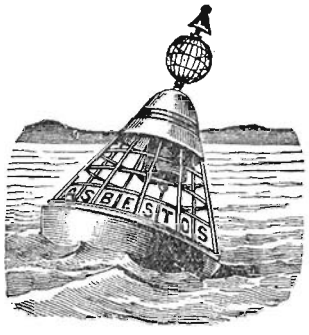
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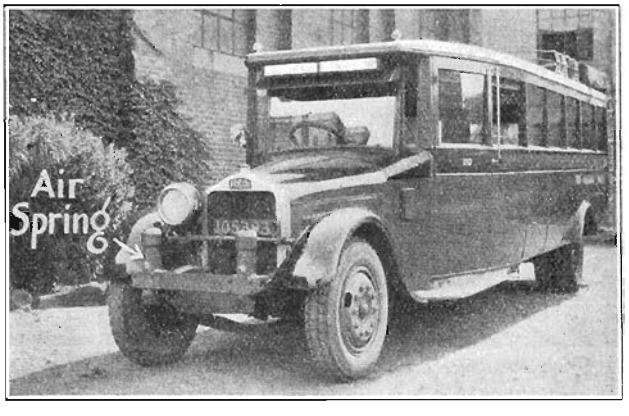
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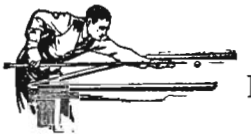
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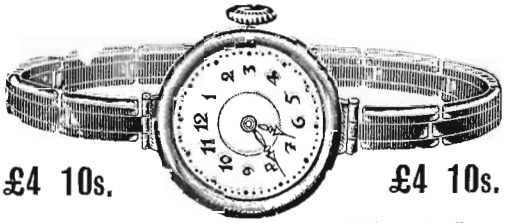
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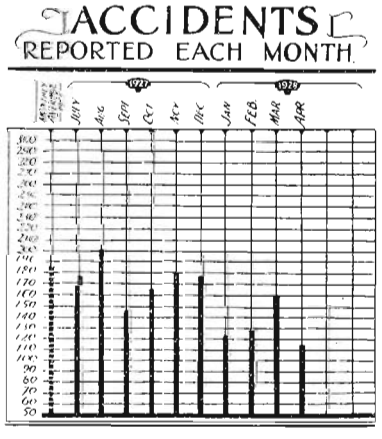
By Dr. A. E. STENNING, M.B., B.S.

THE following article by Dr. Stenning, of Onslow, W.A., is the fourth of a series specially written for these pages.

Food is one of the largest factors in personal hygiene. It builds, regulates, renews and repairs the human machine. A man's health is mainly the product of his eating habits, and, as I have stated before, most of our ailments can be traced to faulty nutrition.

Many of our discomforts may be cured by a reconstruction of our eating habits. It is vitally important that you grasp the fundamentals of nutrition. Do you swallow your meals without chewing? This puts a big strain on the digestive system. Do you hurry over your meal and rush away to work or play immediately afterwards? If so, remember that under bodily or mental tension or exertion of any kind the digestive function is interfered with and illness results sooner or later.

Normally the stomach takes four or five hours to empty, and so our hours of feeding are regulated accordingly. Sometimes we do not feel inclined to eat, but feel that we must on account of not missing a meal. This is a mistake. If you do not feel inclined to eat, refrain from eating. Do not force food on an unwilling body. Also, cut



out morning and afternoon teas. They are unnecessary and injurious.

Hunger should be the sole guide to eating. Animals retain their food instincts and are kept well in so doing. You know the old adage "You can lead a horse to water but you cannot make him drink." The principal questions that should concern us are what to eat, when to eat, how to eat. There are seven classes of material needed by the body daily:—

1. Proteins, or tissue foods, to repair waste and rebuild the cells.
2. Carbohydrates or energy foods to furnish power and capacity for work.
3. Fats, or heat-forming foods.
4. Mineral salts to build bone, nerves, etc.
5. Bulky food or fibrous food to stimulate process of digestion and regulate process of elimination.
6. Vitamines needed to preserve health in ways not yet clearly defined.
7. Water needed to assist digestion, dissolve waste matter and eliminate poison.

Eat Simple Foods

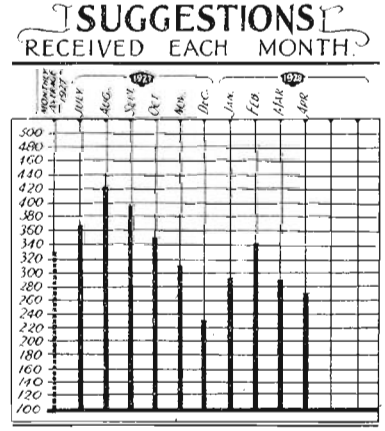
Endeavor to include in your daily dietary examples of each of the above foods. Eat the simple natural foods. The normal appetite craves fruits, vegetables, grains, legumes and pure dairy products. When you demand rich and highly seasoned dishes, stop eating, because you are really not hungry at all. In Australia far too much meat is eaten. Cut down your meat supply to, at the most, one dish per day. Eat one or more bulky foods, preferably raw, at each meal, such as raw or stewed fruits, vegetables, salads. Do not feed yourself in a way that a sensible trainer would not feed his horse.

Eat hard, crusty foods which promote mastication, stimulate the digestion and preserve the teeth. We are suffering from too many soft and mushy foods. Avoid monotony in foods. Eat only when hungry, and skip a meal now and again. A good test of hunger is when a slice of bread and butter makes your mouth water and appeals to you.

Avoid very hot and very cold foods and drinks. Eat when hungry, drink when thirsty, but don't mix the two performances. Confine your drinking at meals to one cup of hot beverage or one glass of cool water. If you drink more than this, you simply wash your food down.

Masticate every morsel until it becomes pasty and easy to swallow. No food swallowed should be large enough to *feel* as it goes down. If so, it clogs the digestive machinery and makes trouble sooner or later. Rapid eating wastes food, wastes money, wastes digestive power, wastes nerve and brain force in helping an over-worked stomach, wastes years at the end of your life, wastes time, annoyance and expense by illnesses caused by the fast eating that nearly always means excessive eating. Five or six hours should elapse between the close of one meal and the beginning of the next.

It is necessary to drink at least six glasses of pure water daily. Start with a glass immediately on rising. The drinking of plenty of good water helps digestion, promotes assimilation, washes out the poison of the system and purifies the blood stream. Each cell of the



body is bathed in fluids—hence the importance of a good supply of water. Avoid being a faddist. Let your

Continued on page 6

The King's Birthday

SUNDAY, the 3rd of June, marked the day when the whole of the British Empire celebrated the birthday of King George the Fifth.

The King spent the Sunday very quietly with the Royal family; but all British citizens, whose services could be spared, were granted a holiday on Monday, the 4th, to commemorate the birthday of "the highest in the land."

Glasses were clinked and toasts to "The King" were honored by those who celebrated the event by enjoying a day's relaxation from work.

Railwaymen in Victoria joined in the various sports and picnics which were organised and arranged by different loyal associations.



At each function it was not difficult to pick out the discerning ones who had chosen Byers, the well-known railwayman's Tailor, to fit them out for the occasion.

The style, cut and finish given to all suits to measure, made by hand throughout, by Byers, are such that no matter how important the engagement may be, satisfaction is felt by the wearer that admiration will be expressed for his excellent taste in attire.

The city Showrooms, over Stewart Dawson's, are most conveniently situated for those railway men, in the city, who will wisely wish to inspect the winter suitings.

Members of the Welfare Society are reminded that they may obtain discounts of 20 per cent. on hats and mercery, and 10 per cent. on suits.

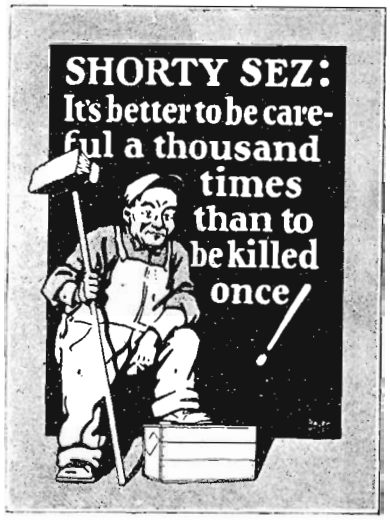
To those in the country who are unable to call we would advise that they write Byers' immediately and inform them of their requirements. Self-measurement forms with a variety of patterns will be sent by return mail to those who so desire—free. Just remember the address—Byers, High Class Tailors and Mercers, 101 Swanston-st., 1st Floor, over Stewart Dawson's, at their well known corner of Collins and Swanston-sts. [Advt.]

instinct and reason guide you in eating and drinking.

To keep well and strong you must preserve a clean body and a clean mind. If your food and drink are absolutely pure, if your skin, lungs, bowels and kidneys are active and effective, if you keep out of your system the contagious, infectious and other morbid matters from unhealthful surroundings, you will have a sound mind in a sound body. Train the bowels to move regularly and freely every morning, otherwise you will suffer from auto-intoxication followed by a train of maladies. Some of the best means of combating constipation are these:—A copious draught of water immediately on rising; abdominal massage; abdominal exercises; regularity in evacuating each morning; never neglecting to obey the impulse when felt; regular use of laxative foods, such as fresh fruits and vegetables, dried fruits, e.g., dates, prunes, figs, stewed fruits, e.g., apples, peaches and apricots, greens and salads of all kinds, coarse cereals like wheat and barley. Do not attempt to cure yourself by patent medicines; therein you will probably do a lot of harm to yourself.

If these methods do not produce regularity consult a physician who will soon remedy the defect.

Pay attention to your skin. By doing so you will reduce the work of your lungs, liver, bowels and kidneys. Have a daily cool bath and a weekly hot bath. Rub the skin with a good coarse towel after the bath. The value of the hot bath is increased if you drink a pint of hot water or lemonade just before. Do not expose yourself out of doors for half an hour after a hot bath.



Be sure of your barber. See that his shop is sanitary and his tools are sterilised for each customer. Many diseases are spread by means of the barber. Never use a towel or drinking cup that anyone else has used. The use of a common towel in public lavatories is a source of danger.

The grinding action of the teeth on hard food helps to keep them clean, but you must also use a tooth brush with some reliable tooth paste or powder. Brush the teeth at least twice daily, especially before going to bed.

In conclusion, remember the worst diseases begin with small troubles.

If you pay proper attention to rules of health, you will probably remain healthy and be able to give your best service to your employers. Our Safety First motto should be, *mens sana in corpore sano*.

JUNE SUGGESTIONS DRIVE

The subject chosen for the tenth suggestions drive, which will be held during June is—

"What suggestions have you to offer as being of value in connection with our Electric Locomotives."

Suggestions should be submitted to the Betterment and Publicity Board in the usual way.

BENEFIT BY YOUR IDEAS!

The following awards were made during April for adopted suggestions:—

Total amount £89 12s. 6d.
Highest award £20

Arrangements now exist for the placing of adopted suggestions of particular merit before the Railways of the various States, also the Commonwealth and New Zealand Railways.

Industry *Earns* Prudence *Plans*
Economy *Manages* Regularity *Saves*

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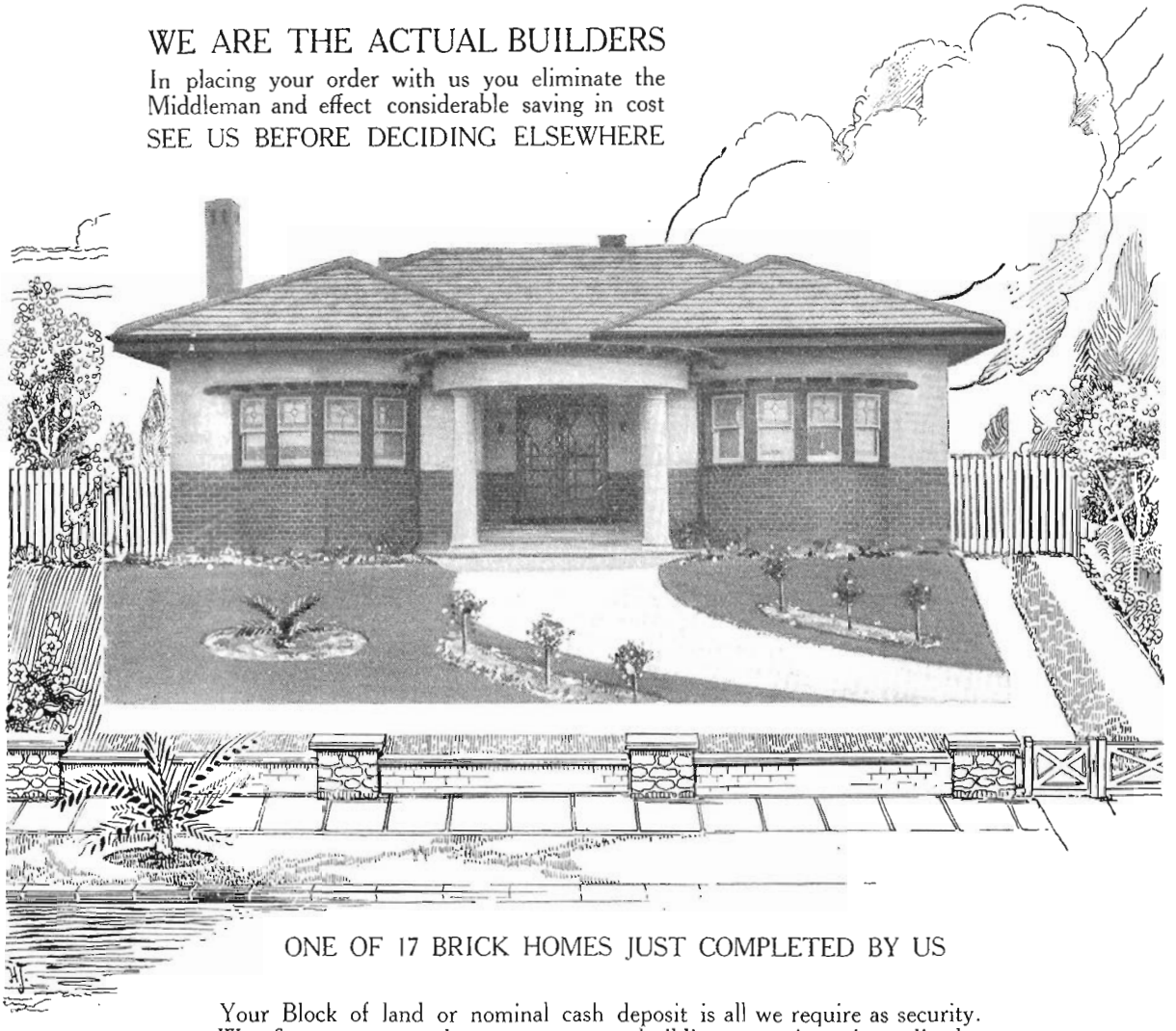
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V.R.M., June, 28



'Mid pleasures and palaces though we may roam,—
There is no satisfaction like Owning Your Home!

Apologies to J. Howard Payne

THE genuine joy of living finds expression in Your Own Home—the home built on the realisation of plans of long ago. Almost all of us want homes of our own—homes that are the culmination of our youthful dreams

Perhaps the question of finance has halted you; but when you realize that it is much easier to Own Your Own "Palace" than it is to pay rent year in and year out, you will hesitate no longer. Let us show you just how easy it is.

TWO TYPICAL EXAMPLES

A Brick residence of four rooms containing all the latest fittings and conveniences can be built for **24/-** per week. Complete Price, **£637.**

A weatherboard house of the same size and with the same conveniences can be built for **20/-** per week. Complete Price, **£525.**

To commence building your home at once, all that is necessary is a nominal deposit or a block of land.

We guarantee complete satisfaction—There are no red tape methods, no restrictions and No Extras.

Our Architects will be pleased at all times to assist you with your building problems. Call when next in the city.—Any day, or FRIDAY NIGHTS AFTER 7.30.

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The VICTORIAN RAILWAYS MAGAZINE



FLINDERS STREET STATION — MELBOURNE

For 7s. per annum, this Magazine will be sent, post free, to any address.

A copy is issued free to all permanent Victorian railwaymen, and to all temporary and casual employes with six months' service

Contributed articles, paragraphs, verse, and photographic prints (negatives are not required) must reach the Editor, care Betterment and Publicity Board, Railways Department, Spencer-street ('Phone Railways 393) not later than the 12th of each month. Correspondence relating thereto is carried free over the Railways.

Communications in regard to advertising should be addressed to the Manager, Railways Advertising Division, Savings Bank Buildings, corner of Spencer and Collins-streets, Melbourne ('Phone C. 6414 or Railways 139).

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Improvements Wanted!

"SUGGEST any improvement in railway practice, and I will tell you why it can't be done." That, tradition says, was the dictum of an old-school railwayman in the days of the railroad's infancy. Then, the *permanent* way meant something more than rails, ballast and sleepers.

BUT somehow changes crept in, even against the staunchest conservatism. Within the last ten years or so, they have come still more rapidly, whether, individually, we like them or not. Some new and far-reaching idea is possibly being evolved, in some part of the world, as we write this. Nothing is orthodox in accepted railroad practice except the principle of adaptability which the inexorable progression of circumstances demands.

EVERY railwayman in his own job, however humble, is bending his brains, even in a routine way, to some aspect or phase of a railway problem, but there come to him, sometimes, ideas for improvement outside the limits of his work. Public men and private individuals, too, often experience real brain-waves as the result of observation and experience. Why don't we hear more of these ideas, these suggestions for better transport, better railroading? There is a recognised channel for sifting them, weighing them and pooling them for the common good.

NEARLY all of them would involve some change, big or little. But nowadays, we welcome the change that brings improvement.

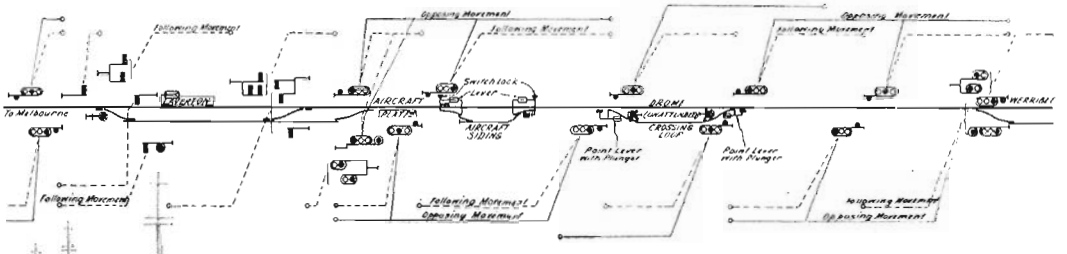
Automatic Signalling Gives Geelong Line Greater Capacity

By L. N. ARNOLD

Assistant Engineer, Signal and Telegraph Branch
Victorian Railways



Style R., color light signal, the first of the type used in Victoria



Typical example of the new layout of a signalling section on the Geelong line

WHEN the new Automatic Signalling System on the line from Melbourne to Geelong is completed, it will give the line a very much greater capacity by reducing the necessary headway between trains to 11 minutes. Already two sections—from Newport South to Laverton and from Laverton to Manor—are working.

The system, which is explained fully in the accompanying article, necessitates three-color light signals, two new crossing loops, and a complete set of selector telephones operating between the Chief Train Controller and every station and siding connection to the main line and both ends of unattended crossing loops.

FOR some time it has been the aim of the Railways Department to increase the traffic capacity of the 37-mile single line section of the Geelong line between Newport South and North Geelong. To do so it was necessary to consider the adoption of improved methods for the control of train movements. The first step was the introduction of train control by the selector telephone system which has now been in successful operation for some time. The second has now been taken by installing single line automatic signalling. This system supersedes the electric staff working and allows the trains to proceed at a minimum headway, thereby greatly expediting following traffic and facilitating opposing movements.

The main objects attained by the system, known as the Absolute Permissive Block (A.P.B.) are: (a) that following trains may proceed under automatic signals with the same facilities as exist on double line working; (b) that complete protection is afforded to opposing trains which cannot simultaneously obtain a proceed signal to enter opposite ends of the same section.

At the same time instructions issued by the Train Control Officer can be carried out more expeditiously, thus representing a further saving of time which is so essential on busy single line working.

The starting or departure signals controlling the entrance of trains to the single line section at attended and unattended crossing stations are three-position, absolute stop signals, and the arrival signals at unattended crossing stations, and intermediate signals between crossing stations are three-position automatic signals.

The system is a normal clear one for all intermediate or automatic locations, but the starting or departure signals at crossing loops and stations are normal danger.

Interlocked Stations

To obtain the maximum safety when crossing trains, or for shunting movements on the system, the Main line and No. 2 loop road at the six interlocked stations were completely track locked. A typical section of the line between Laverton and Werribee shows the signalling arrangements. Drome, an unattended crossing loop and switch locked sidings are also shown.

Power at 6,600 volts, 25 cycles single phase, supplied from the Newport sub-station is distributed by two 7/.064 S.W.G. bare copper cables, on a special pole line and transposed every mile to eliminate as far as possible any inductive interference with other lines. At all stations throughout the line, section switches are installed on the high tension mains in order to open circuit any section in case of emergency.

At every power signal location and interlocking, a 6,600/110 volt pole transformer of 1½ K.V.A. capacity, is provided for supplying the low tension 110 volt power used in the signal control circuits. The high tension mains are taken through isolating switches, lightning arresters and choke coils to the expulsion fuses, and the low tension mains are taken from the transformer through the distributing fuses, which are mounted in a special fuse box on the pole, to the various relay boxes at these locations.

No. 10 B. and S. copper weld wire

is used for the aerial 110 volt signal control circuits, and these wires are placed 6 ft. 6 in. below the high tension mains on the pole line to ensure safety for the maintainers. All low tension wires are equipped at each end with Neon Gas Lightning Arresters.

The rails throughout are bonded with No. 37/.044 square inch copper weld bonds, and the insulated track circuit sections range up to 7,500 ft. in length. The track circuits are fed from 110/6 volt transformers through regulating resistances. The whole of the relays used for the operation of the track circuits and the signal control circuits together with the color light signals were manufactured by Messrs. McKenzie and Holland (Aust.). Pty., Ltd. at Spotswood.

New Crossing Loops

To provide increased facilities for opposing movements than existed hitherto, two crossing loops have been constructed, one at Rock, midway between Newport and Laverton and the other at Drome midway between Laverton and Werribee. As no staff will be stationed at these loops, provision has been made for the train crews to make all the necessary movements of points and signals when entering or leaving the loop ; but such operations are automatically controlled or are controlled by all conflicting movements, and until a correct sequence of operations has been made, a train cannot enter or leave the loop.

When a train is not required to cross another at the unattended loop, the departure signal from the loop to the single line section ahead is automatically operated to give a clear signal when the train reaches the approach section, i.e., a point approximately 5,000 feet from the automatic signal at the entrance to the loop which is situated approximately 2,200 ft. in the rear of the departure signal.

In conjunction with automatic signalling there is a complete equipment of selector telephones operating between the train controller at the Head Office, Melbourne, every station and siding connection to the main line and both ends of unattended crossing loops.

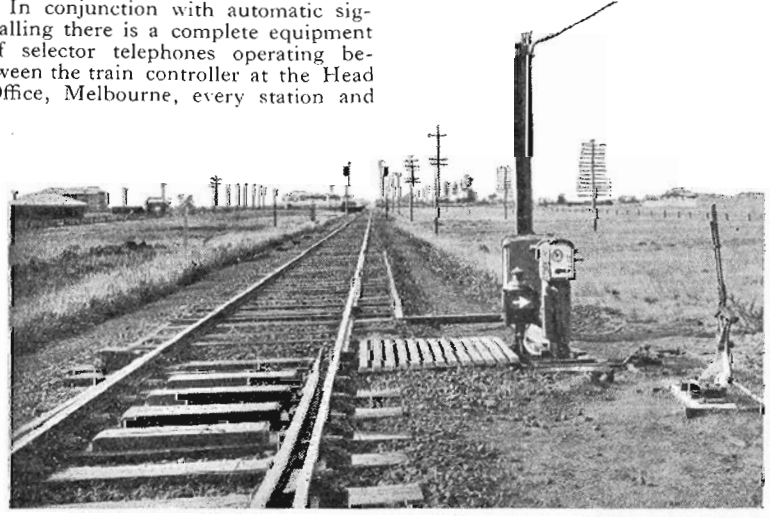


An unattended crossing loop

Before any action is taken by the train crew to move their train from the unattended crossing loops, authority must first be obtained from the train controller. The crossing loops have sufficient accommodation for trains of 2,000 feet in length, and the loop roads at Werribee and Laverton have been extended to give similar facilities. The points on these extended loop roads are operated by electric switch machines and are controlled from the mechanical interlocking frame.

How Sidings are Worked

There are several siding connections to the main line that are not adjacent to interlocked stations, and provision is made for these points to be electrically held by a switch lock which is controlled by the condition of the track, in either direction, on the main line.



Electric switch lock on siding points

A point indicator is also provided at these points to enable the drivers to see in which direction the points are set. In the event of the points not being reset to normal after a train has entered the siding, the electrical controls are so designed that it is equivalent to the train remaining on the main line, and consequently conflicting signals are held at stop. When the train has entered the siding clear of the main line, and the points are reset and locked, the main line signals will resume automatic operation.

When leaving the siding, after permission has been obtained from the train controller, the points can only be unlocked and reversed, provided there is no conflicting traffic on the main line. After clearing the siding, the points are reset and locked, and the train can then proceed in either direction.

5,000 ft. Light Beam

The signals used on the installation are of the three position color light type, displaying red, yellow or green, for stop, warning or proceed respectively. Ten-volt, 18 watt double filament lamps are used with double Fresnal type lens, giving a concentrated beam for 5,000 feet. A special deflecting lens is fitted centrally so as to give an adequate short range indication. The marker light, when placed 5 feet vertically below the signal light, indicates to the driver that the signal is an absolute signal. When placed on the diagonal to the upper light, it denotes an automatic signal.

The signals were first located theoretically on a specially prepared graph of the line, due consideration being given to gradients, curves and train running schedules, so that an eleven minute headway could be maintained between two trains travelling at normal speed in the same direction.



Things We Are Talking About

SUCCESS succeeds success in the progress of the Reso Train, and judging by the eulogistic references to it by Resonians, and particularly by the remarks of their chairman, Mr. T. S. Nettlefold, which appear elsewhere in this issue, the 17th tour, last month, which took in the Western District and Mt. Gambier, reached a new peak. Everybody was thoroughly comfortable, well-fed and happy, and everybody learned quite a heap more about his own State than he knew before. A distinguished newcomer to Resonia was Mr. T. F. Tallents, secretary in London to the Orient Line, who has recently been measuring up Australia with a keen eye and a penetrative mind from the tourist viewpoint. He was immensely impressed with the train and its possibilities, and told Mr. Clapp so. "I have never known a train more comfortable," he wrote. "The organisation is astonishingly complete and covers the most minute detail. The feeding and service are excellent. The staff go out of their way to anticipate our every want, and nothing is too much trouble for them."

ANOTHER RESO SUCCESS

AS one of the first overseas visitors to take part in a regular Reso tour, Mr Tallents was especially struck by the educational aspect.

"Day by day," his letter continues, "one has the opportunity of discussing every aspect of Australian life with men who view it from many different angles. It gives the overseas visitor an opportunity of meeting the men who are actively developing the country districts and who, in many cases, are so busy that they have no opportunity of seeing Australia. In the cities, it is easy for the stranger to see wealth freely spent, and such industrial unrest as there is, is constantly before his eyes. I know of no way in which he can be shown as effectively as by a Reso tour, the quiet, unostentatious work that creates the wealth and develops the resources of the Commonwealth. I have read and thought a good deal about Australia during the past few months, but nothing has helped me so much as this Reso tour has done to appreciate what has already been accomplished, and to realise what remains to be done. It was an unforgettable experience to stand at Portland looking at the first furrows that were ever driven in Victoria only a century ago, and to contrast with them the resources of the State today. The romance of Australia's development was there before one's eyes, and it made one eager to contribute what one can towards her future progress. I am firmly convinced that Reso tours are by far the best way for visitors to learn something of Australia. It remains to get them started in the other States and to make the unique opportunities they offer known overseas. I have seldom enjoyed anything as I have enjoyed the last two days, and I am more than grateful to you for having given me the opportunity of becoming a Resonian."

RESO'S APPEAL

Australian-wide Reso tours will, of course, soon be accomplished facts. This month, 60 Resonians from Victoria and N.S.W. will tour Queensland; in October 60 more will go to Western Australia, while it is probable that the first Reso party from N.S.W. will visit Victoria in November.

ONE outcome of the 17th tour was the enthusiastic formation of the Brotherhood of Resonians with Mr. Nettlefold as president, the chairmen of other tour parties as vice-presidents, and Mr. Lance Bromilow of the Betterment and Publicity Board, who runs the tours, nowadays, as secretary. Certificates of membership will be issued, and the Brotherhood will reunite once a year to dine and renew old tour friendships. Mr. Clapp has accepted office as patron of the Brotherhood, which should ultimately comprise some thousands of practical exponents of the See Australia First principle.

RESONIAN BROTHERS

ANOTHER brotherhood, which had its genesis in the Tourist Bureau's popular walking tours, has just been formed. The immediate instigators were the members of the party which tramped across the Baw-Baws last Easter. A recent reunion dinner at the Windsor clinched the matter, and the "Mountain Trails Club of Victoria," with a mandate to meet from time to time and to arrange week-end jaunts to Melbourne's nearer ranges, is an accomplished fact. Most of them will probably participate in the Bureau's official walk to Wilson's Promontory, next Christmas.

MOUNTAIN TRAILS CLUB

THE criticism of the Better Farming Train voiced at a recent Bellarine Shire Council meeting is possibly unique in the expression of an opinion so diametrically opposed to that of the State's leading agricultural and dairying experts, and of those farmers who have materially benefited by the sage counsel and help which the train exudes. "What is the importance of the Better Farming Train?" a councillor demanded. "What we really need is a better train service. If this was secured, farmers could manage their own business well enough." His remarks, however, which were not endorsed by the council, failed dismally to influence attendances at the subsequent visit last month, of the train to Drysdale, the shire centre. "Attendances," reported Mr. Mullany, the Commissioners' representative on the train, "were most satisfactory at every centre, and at Mortlake and Drysdale, remarkable, considering the inclement weather."

CRITIC FAILS TO IMPRESS

ON this tour, Colac and Camperdown were visited for the second time, and it is indicative of the growing popularity of the train that Colac's attendance was 750 compared with 250 on the first visit, and Camperdown's 1,200 against 500 formerly. More significant still was the change in the attitude of farmers. In 1925 most of them came to scoff; in 1928 to praise—and to seek information. By the way, a new and developing function of the train is that of bringing buyers and sellers of pure-bred stock together. The Agricultural Department has circularised all breeders

THE CHANGED ATTITUDE

through their organisations, asking them to supply lists and particulars of animals available for sale, and already about 200 have replied, most of them thanking the Department for the opportunity to get publicity for their stock. Many buying inquiries, too, were made on the last tour of the train, and as a result, 60 pure-bred bull calves, worth something more than £1,000, were sold. On the next tour it is intended to give buyers ready access to a comprehensive list of pure-bred stock for sale.

THE FRUIT HARVEST

SOME idea of Victoria's bumper fruit harvest is indicated by recent export figures covering the Victoria Dock and Port Melbourne. During March, four ships loaded 123,867 cases at Victoria Dock, and nine ships, 289,639 cases from Port Melbourne. The following month, ten ships lifted 220,350 cases from the latter port. In other words, 23 ships, alone, have taken 633,856 cases of our fruit—excellent fruit, too—to London, Hull, Hamburg and Rotterdam for the delectation of British and Continental tables and to the enhanced credit of the State of Victoria. Meanwhile the apple glut which succeeded the over-bountiful supply of soft fruits continues. No fewer than seven vendors of case lots called at our door one day last week.

ROOM OF SILENCE

THE present controversy on street noises and the activities of the newly-formed Noise Abatement League in Melbourne suggest the question : is absolute silence possible anywhere in the globe? A Dutch scientist, Professor Zwaardemaker, claims to answer it in the affirmative. He has just built a "room of silence" at Utrecht University by taxing the ingenuity and resources of half-a-dozen sciences. It is almost infinitely easier, he found, to keep out air or germs or light than tiring sounds from which the world is never free. Nevertheless, Professor Zwaardemaker's "room" is said to be quieter than any forest or uninhabited mountain peak, icy Arctic or Antartic waste, or the basket of a high-soaring balloon.

ELABORATE CONSTRUCTION

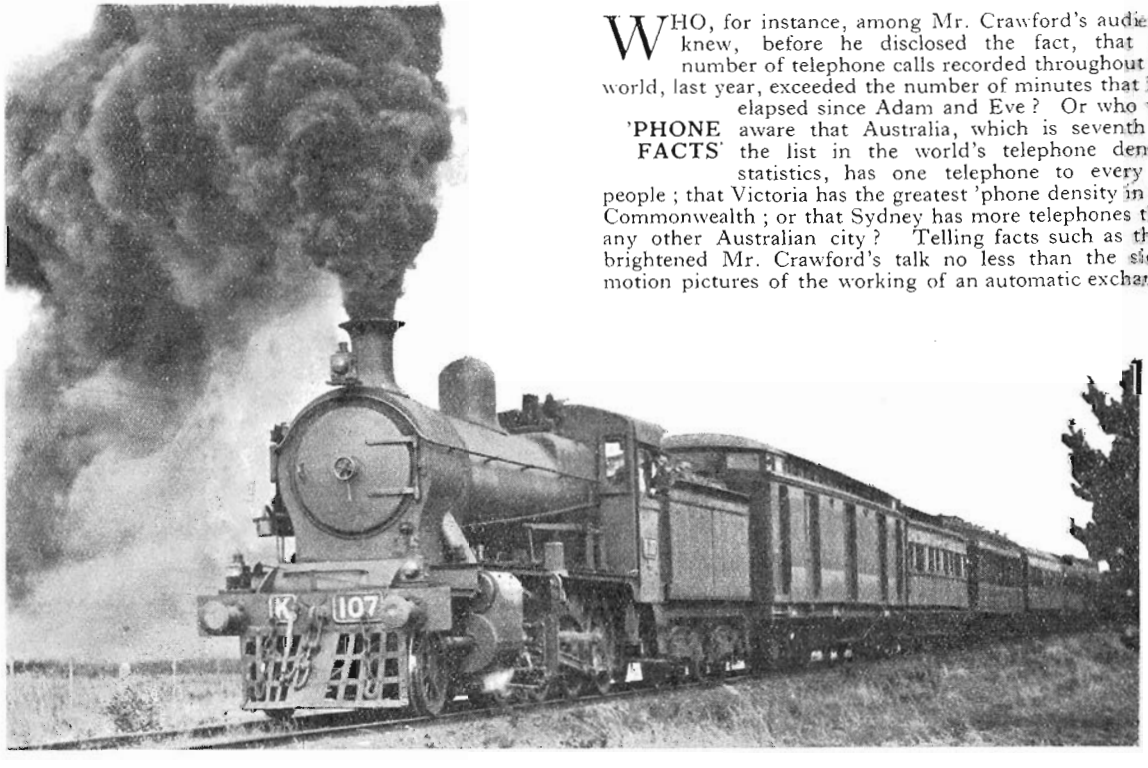
THE room is intended for experiments on the sense of hearing and the mental reaction due to things heard —experiments which would be ruined if the slightest accidental sound crept in. It actually comprises two rooms or hollow cubes, one within the other. All the air is pumped from the space between the two, and the walls of both cubes are built of layers of lead, wood, felt and other materials so that outer sounds cannot enter. The inner room is supported by small piers constructed of layers of artificial stone, wood and horsehair. No sound can be perceived by the most delicate human ear, although physical instruments still detect some very faint sounds. Perhaps Melbourne architects. . . . . ?

LECTURE SESSION STARTS

"FIFTY Years of the Telephone" was the subject chosen by Mr. J. M. Crawford, Chief Engineer of the Postmaster General's Department, for the first lecture of the Railways Winter Lecture Session last month. The hall at Jolimont was fairly full, but it could have held more. It's a pity that more railwaymen don't make a point of regularly attending these lectures, which are given by men who are acknowledged experts in their subjects. The other fellow's job is always interesting, and the more one knows about what people are doing outside, the less one is open to the stigma of being one-eyed. After all, there is a world outside the Railways Department, and it's every man's job to be well-informed, especially when knowledge can be gained in so pleasant and entertaining a way as a Jolimont Lecture.

'PHONE FACTS

WHO, for instance, among Mr. Crawford's audience knew, before he disclosed the fact, that the number of telephone calls recorded throughout the world, last year, exceeded the number of minutes that had elapsed since Adam and Eve? Or who was aware that Australia, which is seventh on the list in the world's telephone density statistics, has one telephone to every 14 people ; that Victoria has the greatest 'phone density in the Commonwealth ; or that Sydney has more telephones than any other Australian city? Telling facts such as these brightened Mr. Crawford's talk no less than the slow-motion pictures of the working of an automatic exchange,



The seventeenth Reso Train nearing Hamilton



New Zealand, like Victoria, is in the throes of a Road v. Rail war. This cartoon reproduced from the N.Z. Railways Magazine indicates that Railwaymen there are replying with some effect to the challenge

or slides showing the progress of the telephone since Alexander Graham Bell invented it 'way back in the 'seventies.

HELPING THE SHRINE FUND

PUBLIC interest in the new Pacific engine was turned to good account and hard cash for a worthy cause, on a recent Sunday afternoon, when it was exhibited at Jolimont in aid of the War Memorial Fund. About 3,000 people—more grown-ups than small boys, be it noted—satisfied their curiosity about the gleaming giant; and dropped £36 8s. 7d. into the collection boxes provided. All of which evoked an appreciative joint letter from the Lord Mayor, Sir Stephen Morell and Sir John Monash, who as chairman and deputy-chairman respectively of the War Memorial Committee, thanked the Railways Commissioners and staff not only for the exhibition of S. 300 but for other help, particularly in displaying 500 posters on railway stations. "The success of the appeal," they wrote, "is almost entirely due to such generous co-operation as has been accorded to this committee by your Department."

MORE NEW ENGINES

S. 300, by the way, is now in regular running on the Sydney Express between Melbourne and Benalla, is doing the work of two A2's and giving excellent service into the bargain. Time schedules on this run have not yet been cut down, nor are likely to be until one or more additional locomotives of the same class are put into running. Preliminary work on two new Pacific's is now under way at Newport. Material has been obtained and boiler plates are being prepared. As a result of experience with S. 300, minor mechanical alterations will probably be incorporated in the new locomotives, but no major difference will be made in the design which so far has proved eminently successful.

Frames have also been completed for the first of eleven new X type goods locomotives which will be similar in design and general details to the N class Mikado engines, although larger and more powerful. They will have a tractive effort of 36,138 lb.—the same as that of the C class engines.

INTEREST IN AMBULANCE WORK

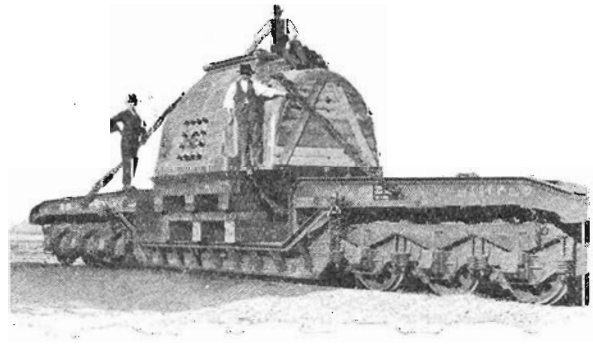
IT'S a curious human trait, but it is nevertheless a fact, that with greater interest and activity in preventive measures, where disease and accidents are concerned, correspondingly increased energy is devoted to curative measures. That, at any rate, is a possible explanation of the growing interest in ambulance work, among railway folk, concurrently with an increasingly vigorous Safety First conscience. This is especially noticeable—and commendable—in the Melbourne Goods staff, which, since the reorganisation of the Railways Ambulance, has formed its own energetic committee, and has arranged lectures by its instructor, Mr. C. E. Mitchell, who has held a corps competition. The corps had sufficient enthusiastic members to make up no fewer than six teams—"A" shed, West Bank, Shipping shed, Produce shed, Clerks, and Cowper-street. The competition was held a few weeks back under State Ambulance Competition conditions, on the old "Potato Platform" in rear of No. 5 Shed. "A" shed, led by E. Coughlin, won the contest with a performance well up to State competition standard, and secured a £10 prize, which was raised by the previously mentioned energetic committee. The second prize of £3 was carried off by Produce shed, under W. B. O'Malley. A report on the whole proceedings now on our desk is endorsed: "Noted with pleasure" and initialled "H.W.C."

GO-GETTERS

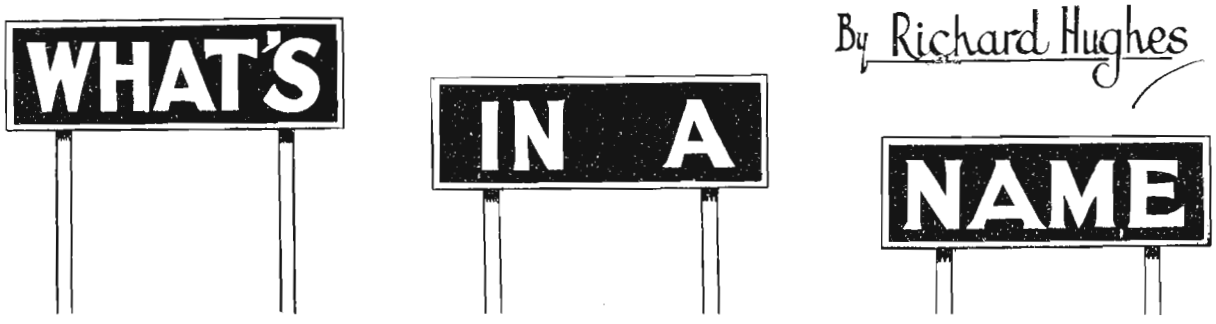
SMART work by two station-masters and the railways Commercial Agent recently dragged a big consignment of cement tiles from the very arms—or tyres—of a motor competitor which had marked the job for its own. S.M. George of Frankston heard that tiles for a Ladies' College, which was being built locally, were being obtained from the Rocla factory at Spring Vale. So he dropped a line to S.M. Robinson at that station. The latter made inquiry, discovered that the company intended forwarding the tiles by road at a quote of 15s. per ton, and pointed out that the rail freight through to Frankston was 7/8d. Staff work by the commercial agent then unearthed a Frankston carrier who was prepared to deliver the tiles from the Frankston yard to the college site for 4/8d. per ton. Promptly the business was transferred to the railways. Altogether, a very welcome display of keen salesmanship, which will stand many encores.

A 48-TON PARCEL

CLOSE on the heels of the article by Mr. Hugh Richards on heavy classes of freight carried by the Victorian Railways, which appeared in last month's issue of the V.R. Magazine, comes the photograph, reproduced on this page, of a 48-ton stator for the Electricity Commission. This huge parcel was conveyed on a specially fitted truck—13 QB—from shipside to Yallourn. It can fairly claim to be the heaviest one-piece consignment ever carried on the Victorian Railways. Three or four years ago a similar bulky machine was railed to Yallourn, which may have weighed something like the tonnage of this stator. It would not have been more, however, and was probably a trifle less.



The 48-ton Stator recently consigned to Yallourn



By Richard Hughes

"WHAT which we call a rose by any other name would smell as sweet," protested Will Shakespeare. And "Billo is just as good as Romeo," urged the Sentimental Bloke.
But research shows that there is more significance in Victorian railway station names than meets the eye——considerably more.

"WHO'S the oldest settler round about here?" a town surveyor asked an old Western District pioneer when the Melbourne–Port Fairy line was being built.

The pioneer stroked his beard. "Let me see, now. Why, of course, Duncan McNicol, to be sure."

"Duncan?" murmured the resourceful surveyor. "Duncan. H'm. Admiral Duncan won the battle of Camperdown, didn't he? Well, we'll call this place Camperdown."

That informal little incident of half-a-century and more ago is perpetuated today in the name-board on Camperdown railway station And the casualness of the christening ceremony has been reduplicated in the dim and misty past in every corner of the State's railway system. Interesting scraps of history, cheerfully irrelevant local incidents, colloquial comment, appropriate and inappropriate aboriginal terms, have all prompted many of the severely respectable titles on station boards, titles now worn by time and usage into prosaic familiarity.

A "Tempy" Siding

What, for instance, could have been more casual than the process which evolved the name Tempy for the station between Speed and Ouyen on the Mildura line? Originally a temporary stopping-point, the location was shown on railway waybills as "temporary siding," was abbreviated gradually to "tempy. sidg." and was finally christened Tempy when the station was born.

Then, Barpinba on the Cressy line was a synthetic substitute for its former name of Weering. Three shire councillors named Barnard, Pink and Bath bricked the name together by mustering the first three letters of Barnard's and Pink's name to the first two of Bath's.

A vicious scrap between two miners put Bendigo nominally on the map. The smaller man neatly knocked out his opponent, and the crowd of diggers greeted him as "good ole Bendigo!" Bendigo being then one of the most versatile and best-known prize-fighters in England. The name stuck to the locality, and, although it was officially altered to the more euphonious Castleton in December 1852, and a year later changed again to Sandhurst, it eventually reverted to Bendigo in 1891.

In the Malay dialect, *dookie* means "lament," and that lugubrious significance attaches to the name of the old station on the Katamatite line. A Mrs. Turnbull, who owned the large Major station in the locality, was continually complaining to the surveyor, one Wilmott, of the loss of that portion of her estate which he had appropriated for the township. Wilmott had lived in the Malay archipelago, and with sardonic appropriateness christened the place Dookie.

Gullifer's Lilliput

Just as keen an eye for the fitness of things was shown by James Gullifer, a pioneer settler in north-eastern Victoria. He called his property Lilliput, in allusion to his famous namesake's land of discovery. That was in 1844, and the name was afterwards adopted by the railway station.

Casualness in the extreme was responsible for the coining of the name Rushworth. In the gold-boom days it was known as Dry Diggings to distinguish it from a rival neighboring field, Wet Diggings. To emphasise the difference, a goldfields warden at Dry Diggings urged that the name be altered altogether.

"Let 'em pick us out straight away," he argued. "This 'ere is a rush worth comin' to."

His carelessly uttered "rush" and "worth" tickled the ear of one quick-witted digger, and the crowd decided unanimously that Rushworth was the very name for the place.

Again, there is the peculiarly named station at Sailor's Falls, between Daylesford and Ballarat. The station's godfather was literally a runaway sailor who fell down the rocky face of a gorge while endeavoring to escape from the police. The drop would have killed most men, but the badly bruised sailor was able to resume his precipitate flight and to get clean away, leaving behind him a recollection of his exploit which found expression in a name for the cascade in the gorge and, later, for the nearest railway station.

Another misadventure is said to have won Sea Lake its two-word name. The story goes that an Italian bullocky, riding in search of his team, discovered a stray sheet of water. Expecting the water to be the usual swampy depth of a foot or so, he unconcernedly rode his horse into the lake, to avoid a detour, and in a few steps floundered up to his saddle-flaps. His vociferous shouts, as he galloped back to camp, announced that he had found a "blanky lake as deep as a sea"—a sea lake.

Doting fathers have even been responsible for the names of some Victorian railway station names. Mellis, on the Hopetoun line, was so called by farmer-postmaster James Watson after his daughter—Elizabeth Mellis. Suburban station Noble Park derived its name from the parkland on which it was built and which had been christened Noble by pastoralist Alan Frank Buckley, who had a son with that inspiring handle to his surname.

Will and Laura

Willaura is said to have been coined by a surveyor in memory of his two children, William and Laura. And Bairnsdale, according to one account, had its origin in the fancy which some local children took to playing in a nearby dell or dale. Although it is more plausibly suggested that the name is a corruption of Bernisdale, which was the Island of Skye home of a Captain Norman McLeod, whose grandson pioneered the first pastoral station in the district. . . . .

There are at least two stations which have been burdened with misnomers. Condah, the 8th class station out Portland way, bore the name Lake Condon in 1849, but a newcomer, C. P. Cooke, was told in 1855 that *condah* was the native name for black



"Kate, am I tight?"

swans, which were very plentiful in the neighborhood. Cooke accordingly altered the name to Condah, and, although he discovered later that he had been misinformed, allowed the designation to remain. Prahran is a classic example of the possibilities of phonetic spelling. The word should be Purra-ran, a compound of two native words signifying "land partially surrounded by water." So christened by missionary George Langhorne in 1837, its name was passed on orally to surveyor Robert Hoddle, who interpreted it earnestly in his notebook as Prahran.

Incidentally, the varying meanings of the State's native dialect names have a weird, wide, wild and wonderful range. Their significance extends from tadpole (Poorneet) to "plenty of frogs" (Murgheboluc), from night (Burroin) and earth (Natya) to day (Karook) and sky (Morang), from woman (Yinnar) to young bachelor (Yan Yean), from fog (Cowangie) and frosty cold (Koetong) to summer heat (Kiata) and rising sun (Nowa Nowa), from sand (Colac) to salt water (Beeac), and from "wait a bit!" (Detpa), to "be off!" (Wendouree).

From Sour Plum to Sore Feet

Albacutya means a sour plum; Boinka is a flat black beetle; Karn and Cannie, a snake; Carrum, a boomerang; Leongatha, teeth; Werrimull a grey owl; Parwan, a magpie; Cocamba, a laughing jackass; Darnum, a parrot; Tallygaroopna, a large tree; Gheringhap, the yellow blossom of the black wattle; Almurta, mistletoe; Dilpurra, a flying squirrel; Koroit, a kangaroo; Meatian and Meeniyan, the moon; Dingee, a star; Benalla, big water holes; Boolarra, twenty; Moondarra, thunder; Mathoura, windy; Chinkapook, red water; Boorcan, deep water; Cudgee, a kangaroo-skin; Ninda clouds; Nandaly, fire; Walpeup, big smoke; Bruthen, a devil spirit; and Tarranginnie, a man with sore feet.

Goorambat is derived from *goorambatti* meaning "nonsense." Jung implies "making a mess of things." Mitiamo is a casual remark that "there's a fellow behind me." Irrewarra is a querulous "What's that?" Tinamba is an earnest exhortation to "pull my toe"—*tin-eyambo.*

Orange blossom scent and golden citrus fruit are the popular associations with the name of Mildura. To the abo. its simple significance is "sore eyes." Equally surprising is the knowledge that Minyip means "ashes, dust and dirt," that Tarwin's publicans are libelled by the native derivation "thirsty," that Woomelang means "very miserable," that Doroq is a "swamp," Murtoa "the home of lizards," Burrumbeet "muddy water," and Teddywaddy more bluntly "dirty water." Perhaps the most cold-blooded significance of the lot clings to Moama's station board—just the one sinister word "dead."

Comfort and ease, on the other hand, are suggested by Ballarat, resting on the elbow (not bending it); by Balmattum, man lying on his back; by Kiamil, to sit; and by Pimpinio, man sitting on his heels. Geelong has the choice of three interpretations and, embarrassed by riches, can't make a selection. One interpretation is "the place of the cliff," another "white seabird or curlew," and the third "swampy plains, the resort of native companions." Seymour was christened by Major Mitchell in honor of Lord Seymour.

The memory of William Buckley, the wild white man, is likewise honored in the name of Buckley station, on the Geelong side of Winchelsea. The name is in no way connected with the elusive Richard of the same ilk.

Joel, between Ben Nevis and Navarre, is near the site of the Tottingham sheep station which was managed by a Joel Pennington, who sought to dissuade the blacks from maiming and killing his sheep by presenting them with dressed mutton. Strange blackfellows who queried the locals as to the source of supply of their fresh meat were told "Joel Joel." The station name followed as a matter of course.

A separate trail of names has been left behind in the wake of ancient hotels. Old inn names were responsible for the christening of stations like Addington, Carlton, Cheltenham, Homebush, Morwell, Newstead, Ravenswood, Spring Vale and Tostaree. Dunnstown was named after a Robert Dunn, who was the original promoter of the district's distillery. Gould, on the Walhalla line, was not named after the colony's famous archbishop, but after "Roast Beef" Gould, who was the cheerful landlord of the Cecil Inn on the old coach road from Moe to Moondarra.

Katamatite's Origin

And it was a hotel—or maybe a series of hotels—which indirectly provided the name for a well-known town in the north-east. Out from Shepparton there was a creek called the Boosey, and the origin of the local railway station's present name is believed to have been connected with an interesting scene enacted on the banks of this creek. A very drunken surveyor staggered down to a group of locals by the creek and, collectively addressing them for some obscure reason as "Kate," demanded superfluously to know whether he "was tight." The answer is said to have been "Yes, you're on the Boosey," and the polished wit so appealed to the drunk that he subsided into wheezy chuckles and repeated the question and answer in accents which were as thick as they were appreciative.

"Kate, am I tight? Hic—yes, yer dern fool, you're—hic—on the Boosey! Kate, am I tight? . . . . . "

Katamatite that place is to this day.

THE PIONEER

THROUGH gorge and virgin forest,
Where silence reigned supreme,
The Pioneer undaunted
Urged on his tired team.

The unknown lay before him,
And in the dawning pale,
And through the twilight shadows
He slowly blazed the trail.

He fought with thirst and hunger,
That stalked him night and day,
For in the dim blue distance
His destination lay.

And in a lonely valley,
Beside a mountain stream,
He found his Eldorado,
And brought to halt his team.

And there he built a homestead,
And tilled the smiling land,
Whose breast became a garden
Under his strong right hand.

And with the changing seasons,
A village round him grew,
And from the distant seaboard
The welcome train passed through.

His was the brave old spirit,
Which in our land was first,
To conquer bush and desert
Through hunger, want and thirst.

And graves that mark the hillside
Tell their sad silent tale,
Of past days, when our fathers
Went out to blaze the trail.

—*HARRY TUNNECLIFFE*

Lines from Other Lines

ARC-WELDED RAILROAD BRIDGE

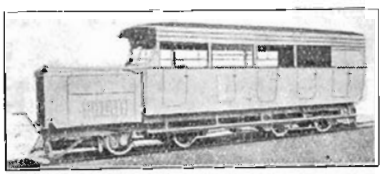
SPANNING the canal at Chicopee Falls, Mass., U.S.A., is the first railroad bridge in the world to be erected by the arc-welding process.

There is not a rivet or a bolt in this bridge, which was built by fusing the various members together. It is, therefore, actually a one-piece structure.

The outstanding advantage of arc-welding, compared with riveting, was a saving of approximately 33 per cent. in the tonnage of steel required. This saving was secured in two ways. In the first place, the sizes of many of the truss members, connecting parts, and floor stringers were reduced, although maintaining strength equal to that of an equivalent riveted job because of the absence of weakening due to rivet holes; secondly, a considerable amount of connecting parts and lattice bars, which would be needed for riveting, was omitted.

NEW RAIL MOTORS FOR INDIA

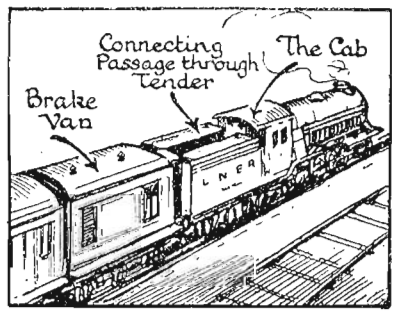
THREE internal-combustion rail motor cars have been supplied by an English Company to the North-Western Railway of India for service on the Kalka-Simla line, a line which presents unusually difficult operating conditions. The length of the track is 60 miles, and the gauge 2 feet 6 ins., with gradients of 4.5 per cent., allowing for compensation on account of curvature. The longest continuous grade is one of 24 miles. The curves



on running lines are of 110 feet radius, and on turn-outs there are curves of 90 feet radius. Simla, the maximum altitude of the line, is 6,880 feet above sea level. These conditions necessitate no less than 85 h.p. motors to travel at a speed of 20 miles an hour up the 4.5 per cent. gradient, although the seating accommodation of the new cars is for only 14 passengers and the driver. The six-cylinder engine of each car (5½ in. bore x 6 in. stroke) develops the necessary horsepower at 1,000 r.p.m. The gear box is fitted with three speeds of 5, 10 and 20 m.p.h. at normal engine revolutions, and, in a separate box, a reverse gives all three speeds in either direction.

"CORRIDOR" ENGINES

HUGE locomotives, connected to the rest of the train by means of a narrow passage through the tender and a flexible covered gangway, are under construction at the London and North-Eastern Railway Workshops. These engines have been designed for a record-breaking non-stop run of 395 miles from London to Edinburgh. A



double engine crew will be carried for this run, the relief men coming through the engine corridor from the forward brake van.

BRITISH RAILWAY FINANCES

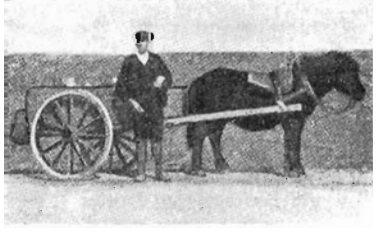
FROM all sources, last year's revenue earned by the English group railway companies totalled £211,892,756, or over £30,000,000 better than in 1926 and rather more than £1,000,000 in excess of 1925's, but still falling substantially short of the receipts in 1923 and 1924. In comparison with 1925 the L.N.E. had an increase of £1,300,000 and the G.W. £700,000, but the L.M.S. and Southern were each down about £400,000, according to the *Railway Gazette*. A more encouraging feature was the diminution in working expenses—in round figures £2,000,000 on the L.M.S. £1,200,000 on L.N.E., £600,000 G.W., and £400,000 Southern, with the result that all but the last-named company secured a gratifying increase in net receipts, a fact which hardly seems to have been appreciated by shareholders. For railway working alone the L.M.S. and G.W. reduced their operating ratio to just under 80 per cent., with the L.N.E.R. at 82.36 per cent. or nearly four points better than in 1925. A feature common to all the companies was the diminishing proportion of the revenue contributed by passengers. In the three years since 1924 the L.M.S. have lost over £3,000,000, the L.N.E.R. nearly £2,400,000, the G.W.R. £870,000, and the Southern £360,000—and this despite the strenuous efforts to encourage passenger traffic. During the current year the four companies have a capital expenditure programme of over £7,000,000. The L.M.S is to spend about £1,400,000 on ways and works, and over £1,000,000 on rolling stock and plant, which, with something over £300,000 in other businesses, make a total of £2,789,000. The L.N.E. programme totals £835,400, including £150,000 for the new marshalling yard at Whitemoor. The Great Western expects to spend £669,000. On the Southern system, out of a total estimate of £2,768,000, £860,000 is in respect of further electrification of suburban lines.

HOLIDAY ACCOMMODATION EXCURSIONS

THE English Great Western Railway has recently introduced an innovation in "holiday accommodation excursions" which enable the holiday-maker to visit one or more resorts before making a definite choice. When he finally chooses he can select and book his accommodation on the spot. The train fare is at the rate of three miles for a penny.

RAILWAY FOR ICELAND

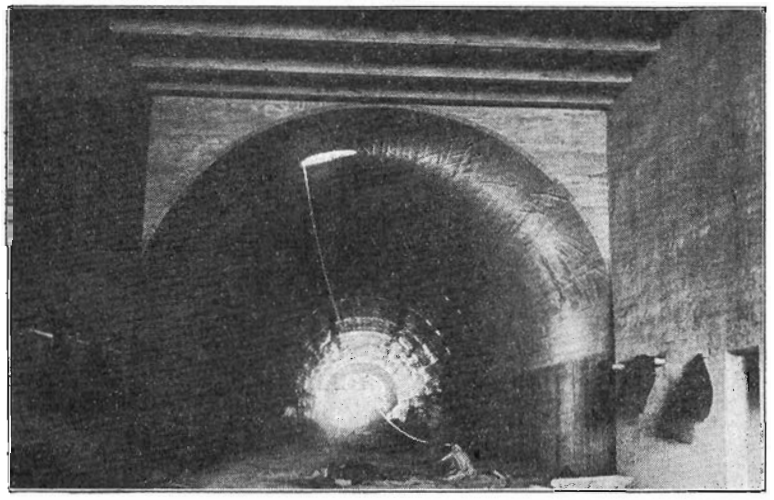
WITH the granting, last year, of a concession to a Norwegian concern, Iceland is on the point of losing its position as the only European country without a railroad. At one terminal of the proposed 41 miles of line will be Reykjavik, the capital, and the neighboring town of Hafnarfjordr, and at the other end are the fertile south-western lowlands, the best agricultural districts of the country. Reykjavik and Hafnarfjordr together



A popular form of transportation in Iceland at present

have a population of 25,000 and are largely dependent on the South-western districts for fresh meat and milk. The country between the proposed terminals is barren and hilly, and is, at present, crossed by a very unsatisfactory motor road which winter snows often make impassable. The cost of constructing the line will probably be in the vicinity of £2,600,000;

A NIGHT GLIMPSE *of a* HALF-A-MILLION-POUND JOB



Junction of tunnel arch and subway at Bunbury-street

By HANNIBAL JONES

THE Tottenham-South Kensington track duplication scheme is nearly completed. Only the finishing touches remain for the termination of a job which has cost £580,000. Bridges have been constructed, lines deviated and regraded, a tunnel constructed, embankments built, streets raised and lowered, and hundreds of tons of solid bluestone excavated.

This article sketches a superficial impression of features of the big undertaking.

SOLID black shadows slip quietly into the smooth cold surface of the river. Lights glint across the water, gleam reflections in the dark depths. Downstream, close to the lean shape of Sir John Monash's swing bridge, two red lights on the bank find two red lights in the river.

The wind's cold—bitterly cold—hand draws a filmy cloud curtain across the white glitter of the stars. The river laps. Back somewhere in the night an electric train whistles suddenly and noisily.

And, looming above all, dwarfing its surroundings, the sprawling new railway bridge straddles from bank to bank of the Maribyrnong. Firmly it plants one concrete leg in the river, leans huge plate girders on earthworks and throws a tangled spiderweb of steel into the inchoate blackness on the other bank. Lighted windows of a long, squat factory pattern a fretted background for the bridge masses.

"Concrete deck," says the muffled, overcoated engineer, the ash of his cigarette glowing. "No timber in any part of the permanent structure. See, there are the three concrete piers." He points across the silent river to where the smooth white surface of a slabbed support shoulders itself from the gloom into the cold glare of an unwinking light. Along the shadowed bridge sleeping on the water he moves his finger, past the mid-river monolith and over against the third pier close by on the roadside.

"Hundred and seventy five foot truss over the river," he continues. "And we have an 85-foot girder span over the roadway on each bank. This road here," he sweeps his hand before him and under the road span of the bridge, "we moved round on a made embankment. Our earthworks tower right above the roadway here and curve back through open land, over a drainage canal, across Dynon-road on a high level bridge and so into South Kensington."

Mystery Land of Shadows

Beneath the ponderous weight of the bridge span, he leads the way around to the left, scrambling up the steep slope of the embankment into the teeth of the chilly wind. Like a tremendous serpent, the embankment spreads heavily across a mystery land of shadows, across a jumbled indefinite landscape of blacks and greys, into darkness and the Milky Way of lights that is Melbourne. Along the serpent's broad back run shining rails which break off abruptly on the edge of the bridge.

"We have rails laid between here and Dynon-road bridge, and from the far side of Dynon-road into South Ken." The engineer rubs his hands and stamps his feet. "That Dynon-road bridge, by the bye, gave us some trouble. The ground is swampy and marshy and gives no firm foundation. There's a sewer, for instance, near where our piles were to go, and we had to feel for it when we were sinking. It had moved in the quagmire underground right out of its official location—a cast-iron sewer, six feet in diameter, mind you!

"The bridge itself went up beautifully once we had located something like firm ground 55 feet down. We had four huge plate girders to lift. Each one weighed 43½ tons. We decided to hoist them into position, rigged up special tackle and whisked the quartette into permanent position in approximately 10 minutes each one. Quite a collection of representatives from engineering firms came along to see the job done. . . . ."

Water puddles and yawning potholes menace unwary footsteps on the river-side road, but the engineer plunges confidently ahead. Monash's swing bridge leads to the far bank, and another five-minute walk ends on the scarred and deserted roadway of Bunbury-street.

That wide thoroughfare, with its two scraggy rows of deciduous trees rustling in the night air, looks solid and substantial enough, but its unmetalled surface hides a quarter-mile long tunnel, which carries the new line on from the Maribyrnong River and into Footscray.

"These trees," says the engineer, as he strides towards the distant lights on the Footscray station ramps, "roughly mark the width of the gap which we made in the street. Actually we didn't tunnel at all. We just ripped up the street as though for a cutting, carted away the excavated bluestone to use on the embankments, and then built up a reinforced concrete arch for the length of the cutting. Finally, we refilled the cutting around the arch to the level of the roadway."

Ahead, a faint but persistent clatter-noise steadily grows louder and louder, takes on a harsher and stronger note, becomes more of a crash than a clatter.

"That's the one stone-crushing plant we have on the night work now." A spluttering match flame illuminates the engineer's face as he lights another cigarette. "We haven't got many men on night work now that the job's nearly finished. At one time or another earlier, we've had 300 and more working between sunset and sunrise. The electric lights around here made a real white city of the place.'

Beside and beneath the wooden foot-bridge, day and night battle for supremacy. Blackness encroaches on pools of whiteness flooded by towering, sun-bright electric lights, is repulsed, flung back and piled in distorted confusion under beetling bluestone crags, behind workmen's huts, beneath square-cut bridges, and along the steep sides of the tremendous, gorge-like fissures which slash gaping wounds through the blue-stone.

Fine dust flies like spray in the blaze of light which envelops the thumping, clanking, crashing stone-crusher, two hundred yards or so away. Down below, at the bottom of the yawning "cut," which brings the new goods line from the shelter of the Bunbury-street tunnel, the splash and gurgle of steadily running water sounds.

"One of the mysteries of the job, that water," the engineer observes. "When we excavated this cut, we struck a flow of perfectly clean drinking water, running to waste and emerging from nowhere at all in particular. The men drank from it, and it has gushed ceaselessly and evenly ever since we broke through to it. The Board of Works people were up here, turning off all the water in the neighborhood and looking for leaking mains, but they couldn't detect the slightest fault in their system. The water is just there, there it is determined to remain, and we, unable to stop it in any way, have finally diverted it into a specially constructed culvert."

Casually the engineer goes on to talk of more remarkable things. "Before we could bring the new line from Bunbury-street tunnel to the gravitation yards, we had to lift the main Bendigo line and swing it back some two score yards to let the goods line pass underneath and then alongside it. And to pass underneath, incidentally, at an amazingly sharp skew. Ninety degrees, is, of course, the ideal angle for an intersection, but this one cuts round at 21 degrees. Walking underneath the Bendigo line's steel

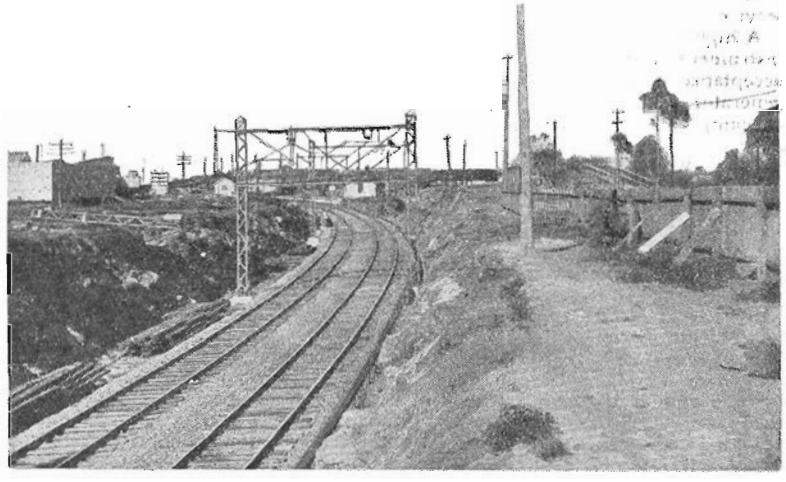
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The new bridge over the Maribyrnong river



Excavation work for the goods line between Nicholson and Albert-streets



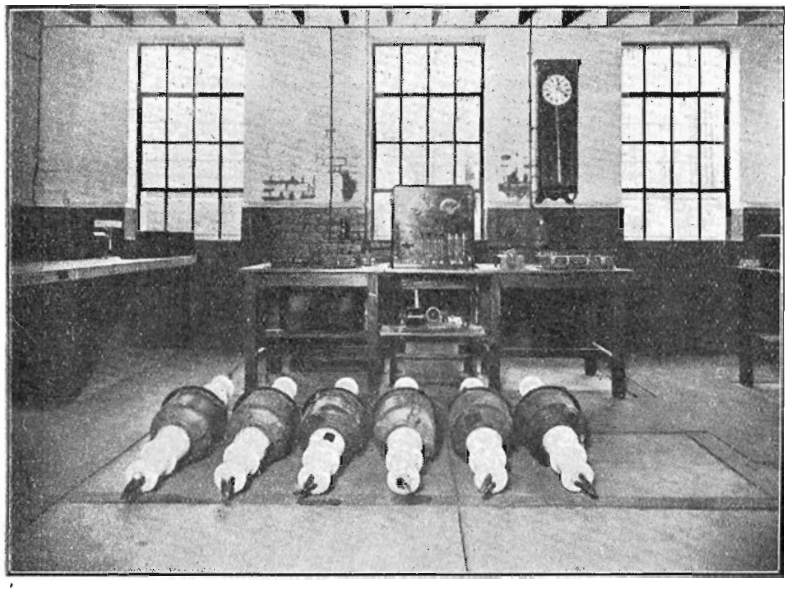
New Bendigo line, looking from Nicholson-street

The WHY and WHEREFORE of ELECTRICAL TESTING

(PART II)

By R. S. CONNOLLY

Assistant Engineer, Victorian Railways Electrical Engineering Branch



Standard equipment for testing current transformers. The standard clock is shown in the background, and high tension current transformers in the foreground

LAST month Mr. Connolly gave a general outline of the reasons for the accurate measurement and testing of all electrical equipment used by the Railways, and described the Testing Division's Machine Room and the work there carried out.

The concluding phase of his article deals with the work of the Standards and Physical Laboratories and that of general testing round the electrified system with portable equipment.

THE Standards Laboratory, the *sanctum sanctorum* of the Testing Division, is equipped for the calibration of the various measuring standards employed on the electrical system, and for the carrying out of all measurements of precision which form a necessary adjunct to such a service.

A higher class of portable measuring instrument is used for performing an acceptance test on a large turbo-generator than would be employed for checking up a substation indicating instrument. Notwithstanding this, all portable test instruments, whether indicating or integrating, are checked against three Precision sub-standard instruments which in turn are calibrated against the primary standards.

In general, all electrical measurements are referred back to, or compared with primary standards of resistance and voltage. Other standards, such as inductance and capacity, are also employed, but not in general power work.

To function efficiently, a Standards Laboratory must be equipped so that all measurements may be carried out, not only with a high degree of precision, but with high speed as well. This idea was uppermost when the laboratory was planned, and it is so laid out that a separate test bench has been equipped for each particular type of measurement. This arrangement enables portable measuring instruments to be checked at very frequent intervals, a process absolutely necessary if a high standard of accuracy is to be maintained.

Resistance measurements form a very important section of the work as well as a most varied one. The equipment must provide facilities for measuring the resistance of copper overhead conductor somewhere about fifty-millionths of an ohm per 20 inch length up to the insulation resistance of cables and porcelain insulators running to 100,000,000,000 ohms. As the conductivity of the copper overhead wire must comply with rigid specifications, the importance of such measurements cannot be over-estimated.

1/10,000,000th of an Ohm

Three complete benches are equipped for resistance measurements, one carrying a Kelvin double bridge providing for the measurement of extremely low resistance, such as the samples of overhead conductor just referred to. Measurements as low as one ten-millionth part of one ohm with a precision of one part in a thousand can be obtained on this bridge.

A Wheatstone precision bridge for the accurate measuring of moderate resistances from one ohm to 10,000,000 ohms is fitted up close by, the accuracy of measurement in this case being one part in 10,000.

A direct deflection equipment provides for the measurement of insulation resistances of such materials as high tension cables, porcelain insulators, etc. Measurements up to 2,000,000 million ohms can be performed on this set. A concrete tank erected alongside this bench enables cables to be completely immersed in water during tests.

From the standpoint of efficient operation, the calibration of power measuring instruments is the most important function of the Standards Laboratory, and facilities have therefore, been provided to enable such measurements to be carried out with the utmost precision and with the required speed.

The primary standard against which all indicating and integrating instruments are compared is the standard of voltage, i.e., the Clark standard cell, and by means of an instrument known as a potentiometer all other instruments can be referred back to this standard.

Conforming to established practice, four separate benches have been provided for the four main classes of testing involved.

The largest bench is equipped with three Precision indicating instruments of the dynamometer type, i.e., voltmeter, ammeter and wattmeter. These instruments are calibrated directly against the Standard potentiometer, and are then used as transfer instruments for the calibration of portable test A.C.

instruments, and of the single phase rotating standards which in turn are used to check the main output meters at Newport Power Station. A three phase bench erected alongside the main bench enables the same instruments to be used for the calibration of three phase meters sent in for repair.

So important is this section considered to be, that the current supplies used on these two benches are entirely separate from other supplies. Direct current is obtained from the storage battery, and alternating current is provided by a special sine-wave generator driven by a direct current motor. The generating equipment consists of two machines, one a voltage generator and the other a current generator. The stator of the current generator can be rocked through a considerable angle so that any power factor can be obtained. The driving motor is supplied with current from the storage battery so that constant speed is easily obtainable. The motor-generator is erected in the machine room, but all switching operations, as well as the rocking of the current generator, can be carried out by the operator at the standards bench.

A separate bench for the calibration of heavy alternating current instruments, and another for direct current instruments are also provided. In the latter bench the instruments are calibrated directly against a deflectional potentiometer instead of against an indicating standard. This method requires less time and is slightly more accurate.

Inaccuracies Sometimes Occur

Even when the measuring instruments are precisely calibrated, inaccurate results are sometimes obtained, due to the errors inherent in current and potential transformers, to which the measuring instruments are connected. An installation consisting of oil immersed, non-inductive, standard shunts, power transformer, etc., is provided in the Standards Laboratory to enable current transformers to be quickly and accurately checked. A portable Silsbee test set, which can be checked directly against the standard shunts, is used for checking up the current transformers permanently installed at power and substations.

It is not generally known that the accurate measurement of time is extremely difficult, and as it has such an important bearing on power measurements, special attention has also been paid to this point.

An electrical clock used as the primary standard is checked up at regular intervals against standard time obtained from the Melbourne Observatory. This clock is fitted with auxiliary electric contacts, and by means of a counting device a meter on test can be started and stopped automatically against any predetermined time interval.

The Standards Laboratory is also used to house the two oscillograph instruments, one a two-element and one a six-element instrument, which are largely used in electrical investigations. The six-element instrument is at present the only one in the Commonwealth.

It is interesting to note in passing that all the control rheostats, switches, etc., used on the testing benches, were designed by the testing staff and manufactured in the Division's Workshops.

The Physical Laboratory adjoins the Standards Laboratory, and is fitted up for the purpose of carrying out all physical tests necessary to electrical material.

A stone bench running along one wall equipped with electrical furnaces, draft cupboards, baking ovens, etc., enables pyrometrical and chemical tests to be easily carried out.

Testing Electric Lamps

A modern photometer equipped with Lummer Brodhun head for ordinary work and Flicker head for measurements involving color differences, enables tests to be carried out on electric lamps and other types of illuminant. This photometer is so equipped that all measurements can be carried out in ordinary daylight. A McBeth illuminometer for portable work completes this section of the equipment.

Some thousands of gallons of transformer oil are used around the electrical system, and for safe operation this must be kept in first class condition. When it is realised that one drop of water in a gallon of oil will render it quite unfit for use, the importance of accurate checking can be appreciated. Fortunately, electricity provides an easy method of testing. A sample of oil is subjected to a high voltage, and the point at which breakdown occurs (shown by the occurrence of a vicious spark between the test points) gives an accurate indication of the condition of the oil.

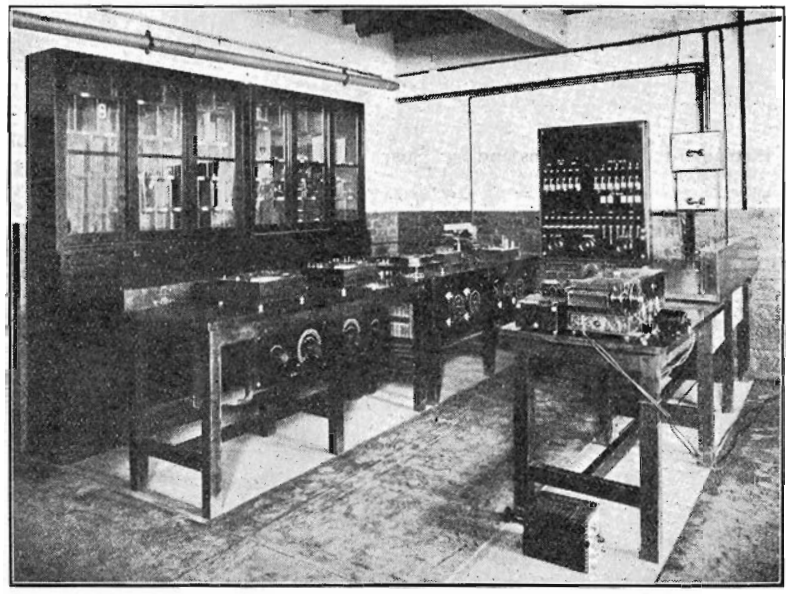
A complete equipment comprising high pressure testing transformer, controlling and measuring instruments, and so on, is provided for this purpose, and as might be expected, is kept in constant use.

Electric Thermometers

Electricity has penetrated to such an extent into industry that it will not come as a surprise to know that electrical thermometers are now superseding the familiar mercury and glass type to a very great extent. Particularly is this the case in power station work, where electrical thermometers are used for measuring the temperatures of steam and flue gas, and of electrical conductors in transformers and generators.

The Physical Laboratory is equipped with a very complete outfit for calibrating all types of thermometers and pyrometers. Standard rare metal thermo-couples, and standard platinum thermometers operating in conjunction with a Precision Mueller Bridge enable measurements to be taken between 0° C. and 100° C. with a precision of one part in 1,000, and from 0° to 1,400° C. with a precision of one part in 700. A number of mercury thermometers recently tested showed errors up to 50° Fah. in 600° Fah., so that the desirability of using electrical thermometers is very apparent. In the majority of physical tests, determinations of air

Concluded on page 44



Standard test bench showing Precision instruments and potentiometer on the left with six-element oscillograph on the right

RAILWAY OUTPOSTS

No. 1.—GISBORNE

DOTTED round, and sometimes far-flung from, the larger centres of railway activity in Victoria are the seventh, eighth, and ninth class stations that feed in revenue as the watchful outposts of an army feed in intelligence to the main bodies they protect.

This series of articles will attempt to summarise the work of a few of these essential railway outposts.

WHEN the main Bendigo line twists into a north-westerly curve at Digger's Rest, to wind tortuously through Sunbury, Clarkefield and Riddell and so back, at Gisborne, to its original straight path on to Castlemaine, it adds something like 10 miles to its length.

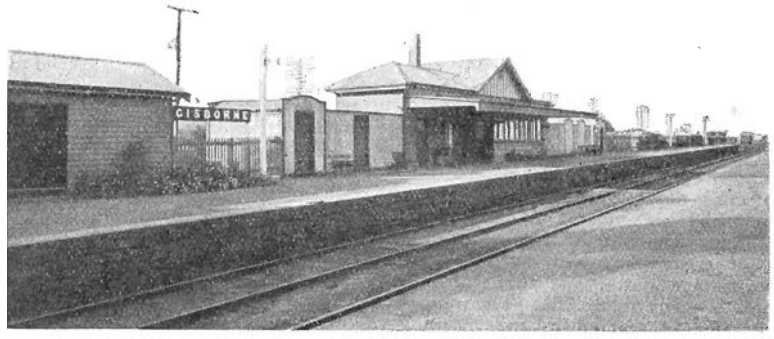
As witness the fact that Gisborne railway station is 40 miles from Melbourne, while the township of Old Gisborne, two miles away, is only 32 miles from the city by road. That additional mileage has tipped the transportation scale in favor of the district road motor competitor in the past, but now the weight of Station-master William Edward Martin has tilted the balance even more pronouncedly in favor of the railway.

Salesmanship has, in short, defeated geography. S.M. Martin has faced the competitor and beaten him. His weapons have been determination, a fluent tongue, a good head and the business instinct.

He came to Gisborne two years ago and found that, under the shelter of natural advantages, crippling competition had sprung up. The three local publicans received their supplies by road. Local storekeepers ran motor services for both goods and passengers. Railway business was decaying. S.M. Martin took his coat off and got busy.

In his first week in charge, he placated one of the hotelkeepers, who came up to the station with the intention of fighting him, but went home definitely committed to a future policy of rail use and road disuse, and also interviewed local business people in the railway interest. He put the department's case tactfully, pointed out to the tradespeople that in supporting the road competition they were making inroads on their own collective pockets, and made it clear that he was there to sell service—and good service.

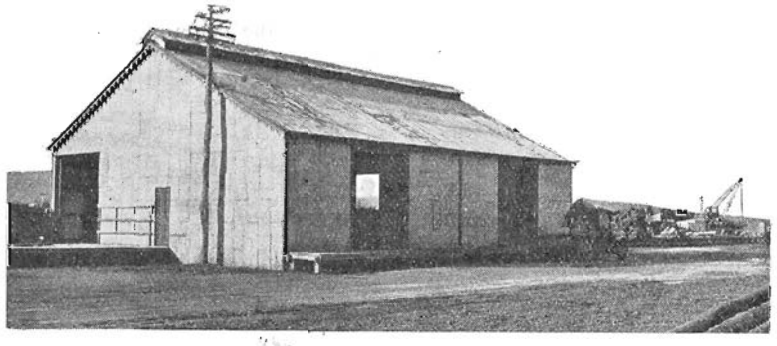
He induced the local carrier, working between the station and old Gisborne, to reduce his rates. He went to Melbourne and arranged for the quick despatch of Gisborne loading on nominated days, so that goods loaded in Melbourne in the afternoon were available for delivery in Gisborne first thing the next morning. He interviewed the Chief Time Tables Officer and succeeded in having the 7 a.m. up Bendigo Express stopped at Gisborne at 9.20 a.m. to pick up passengers. He kept the local press informed on railway matters. He identified himself with the local progress association.



The station



The S.M. at work



The goods shed

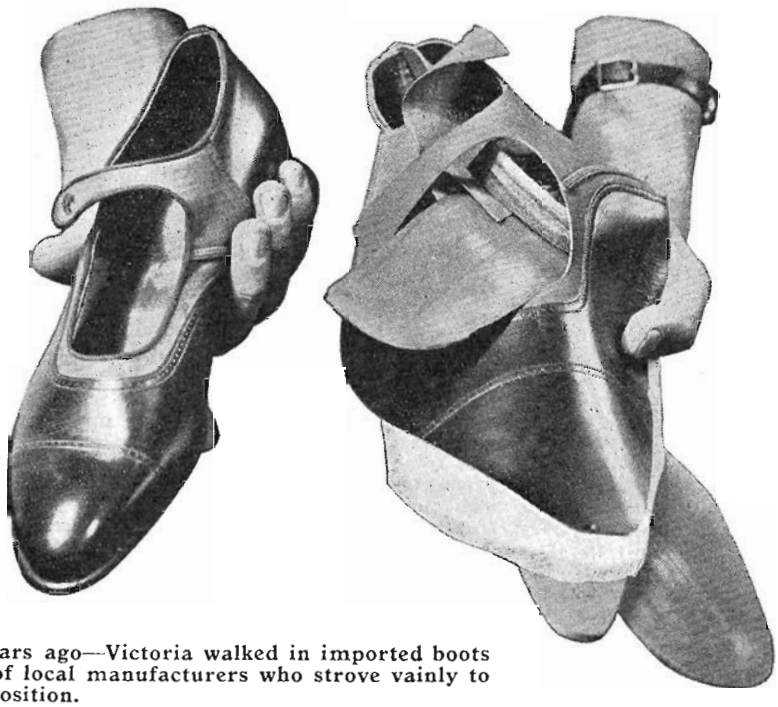
Supported by Mr. Slattery, proprietor of the motor feeder-service for passengers, he challenged any resident to take up the cudgels on behalf of the motor interests in a friendly debate on the merits or demerits of the motor-van act—a challenge which has never been accepted.

Inevitably his vigorous methods, coupled with the loyal support of his staff, have brought results. Compe-

Continued on page 42

Making Leather Walk -

By HUGH RICHARDS



ONCE upon a time—perhaps 20 years ago—Victoria walked in imported boots and shoes over the prone bodies of local manufacturers who strove vainly to lever themselves into an erect position.

Today the boot is on the other foot, and the feet in other boots—local boots. Imported footwear can show no points in quality or appearance to the best-made Victorian product.

"SHARWOOD" is just another and longer way of spelling shoes. And of spelling boots, too. Although Sharwood's people will tell you that fashion's ukase against the extra square inch or so of leather around the masculine and feminine ankle has reduced the boot demand to something like five per cent. of the shoe demand.

For 16 years now, J. H. Sharwood has been meeting that popular demand for quality footwear, encasing Victoria's and Australia's collective feet in leather, loosening year by year the importer's tenacious grip on the local market, and waging unremitting war on corns, bunions, metatarsalgia, ingrowing toenails, fallen arches and similar distressing and undignified concomitants of ill-fitting or ill-finished boots and shoes.

Thousands of Pounds' worth of Leather

He has his factory in Abbotsford, appropriately not far from the Victoria Park football ground, where Collingwood plays as good a brand of football as Sharwood makes footwear. Restricted at first to a very limited output, he doggedly persisted in the maintenance of a high-class standard which has never been lowered, and today the reward of his labors is seen in the quantity and quality of his all-Australian products.

Under the Abbotsford factory roof, thousands and thousands of pounds' worth of fine leathers slumber and doze in unpretentious rolls and bundles, awaiting the rude grasp of the hand that will shake them into wakefulness and set their halting footsteps on the fatal journey which begins under a pattern stencil, winds through a noisy jungle of sewing machines, braves the ceaseless blows of innumerable fitting hammers, and ends in a neat cardboard box ready for the railway and the shop window.

Stencil patterns cling by the hundred to the white walls of the clicking room, bearing mute testimony in zinc to personal taste's finical fertility and to fashion's faddish fickleness. Uppers are cut to the patterns of the multiversant stencils by the clickers. Just why the cutters are called clickers is a point which is as obscure as the cut shapes themselves are clear and definite.



Sewing linings to shoe uppers

Tied in tagged bundles of perhaps 36 dozen pairs of embryonic shoes, the patterns move into the machine room, where, amid the clamor of hammers and the whirr of sewing machines, waxed thread and bristling needles (piercing 26 stitches to the inch) unite caps, quarters, vamps, and the rest of the pieces which comprise a finished upper.

The number of those pieces varies with the different types of shoes. Besides the inside linings, the uppers of one pair of shoes may bind together as many as 24 separate pieces, or as few as six. Incidentally, the vamp has no Hollywooden significance. It is prosaically the front strip of the upper.

Almost Human Machines

Linings are next sewn into the assembled upper, and the soleless shoe masquerades as a sort of gigantic flabby spat, eminently suitable for a fashionable rhinoceros or a dapper elephant. Machines which are nine-tenths human—doing everything except sneeze and pocket a weekly wage—insert eyelets in, and stitch buttons on, "button-up" uppers with an unerring precision and efficiency verging on the diabolical. Woven ankle straps for certain kinds of shoes are plaited by a girl whose elastic fingers are otherwise wasted on neatly shingled hair.

Down below on the next floor, aproned and collarless missionaries, not

prepared to save souls, are industriously making soles. Their hallowed activities revolve around a row of presses on which the broad surfaces of solid leather are cut into sole shapes. A squat-shouldered, man-high piece of machinery stands back from the presses, with a black-lipped mouth opened hungrily for shoe and boot heels. Heels are built up from half-a-dozen or more thicknesses, held together by a coating of rubber solution. The mouth of the compressing machine forces these sixth-parts into one solid heel. Pressure of the heavy jaws is equal to three tons to the square inch.

Finally, on the ground floor, soles, heels and uppers meet in a triple alliance and the shoes are finished off, colored, dried, stamped with the "J. H. Sharwood" signature, and raked by an eye which is as keen as an oxy-acetylene ray. Pumps, with their single light outside soles, are always made inside-out, and then dragged into conventional outside-out condition by a mechanical arm which peels them off another arm in tug-o'-war fashion.

A Pair of Shoes in 3½ Hours

If necessary, Sharwood's could convert the customary two-and-a-half to three square feet of leather into a finished pair of shoes or boots inside 3½ hours. The shoes would not be properly dried, of course, and there would be a hustling of the unflurried craftsmanship which the firm likes to put into its work, but the shoes could certainly be created in that time.

And created in any style or size. Standard sizes range from ones to nines in ladies' footwear and from threes to 11's in men's. Even this wide range doesn't cover some out-sizes. A sturdily supported Melbourne youth of 18, whose career obviously lies in the floor-walker's profession, has size 13's specially made for him at Sharwood's. He should live to raise the firm's existing record of size 14 in boots, established some years ago by a late Richmond resident who, locals agreed, was able to fall asleep in a standing posture in perfect safety.

Another special line which Sharwood's put out is their Anatomical Arch Support Footwear, designed for those luckless tenderfooted folk who are ordinarily unable to take a stroll in new footwear without tottering into a taxi in a fainting condition, savagely wrenching their boots from their tortured feet, and returning home in stockinged feet, profuse perspiration and more physical relief than personal dignity.

A Brogue Boom

At Abbotsford a plentiful reserve of all styles of boots and shoes is maintained. The whims of fashion frequently sweep without warning in the direction of previously disregarded and even scorned styles. Thus, some little time ago an article appeared in one of the metropolitan papers, written by some correspondent who had a liking for Scotch brogues—those stout, square, sensible shoes—and who had rushed his liking into print. Within one calendar week, Sharwood's reserve stock of brogues—a line which had hitherto filled the role of a Cinderella among shoes—was walking around Melbourne outside stockinged toes and heels, and Sharwood's shingled machinists and aproned missionaries were going for their lives creating hundreds of additional pairs of brogues.

Suppose, now, a similar article on boots . . . or elastic-sided slippers . . .



Turning pumps, which are made inside out

Represen

AS is generally known, the interests of Chief Ticket Inspector George Johnson spread themselves fanwise over a wide field. They may, for the purposes of rough classification, be fenced off broadly into eight main divisions.

First and foremost, there are the Inspector's duties. These naturally occupy a fair proportion of his time. Then there is his work, which also claims a certain amount of attention. Thirdly, there is his full-time railway job; fourthly, his daily employment; fifthly, his regular occupation; sixthly, the practice of his profession; seventhly, the labors of his official position; and finally, his service under the Victorian Railways Commissioners.

The Johnson world, in fact, revolves around the Johnson job. The man himself does not exist on a staple diet of railway tickets, or sleep on a mattress stuffed with tickets, or place a pair of ticket-nippers beneath his pillow when he retires; but so completely saturated, skin drenched and soaked from ears to toes is he with the urge to plug any leaks in railway ticket-collection, that there would be a pleasing appropriateness in his cultivation of those eccentric habits.

And they certainly would develop into habits if Mr. Johnson had reason to suspect them of potential assistance in his official plumbing. The be-all and end-all of his official existence—and the adjective "official" could be very well omitted—is a stout well-lined and guaranteed leak-proof ticket collecting and checking system for every station and every train between the Murray and the sea.

That ambition has spurred George Johnson onward and upward since the day, early in 1910, when he took over from T. R. L. Sexton, present Goods Superintendent, the position of officer-in-charge of ticket collection, the latter going out as a special to supervise the grain traffic. Those were the days of organisation, planning, building, consolidation. Mr. Johnson, with a staff of four special checkers, ran a fine-toothed comb over the State, and set about devising ways and means of reducing the department's overdraft of non-collected tickets.

Bringing a keen, Transportation-trained mind to the task, he adopted the Sherlock Holmes method of putting himself in the place of an intelligent scaler, and determining, from that viewpoint, the obstacles which he would

ıtative Railroaders

No. 10—CHIEF TICKET INSPECTOR G. JOHNSON

By R. H, JUNIOR *Caricature by ANGUS MAC*



have most difficulty in surmounting without the aid of a ticket. Many were the 18-hour shifts—six a.m. to midnight—which he recorded in his tireless tours of suburban stations. Two of his quartette of assistants skimmed the surface of country traffic, and two sieved the fringe of suburban traffic.

Gradually the little staff was augmented, and correspondingly its usefulness increased. J's. 1928 staff comprises 27 members of the Flying Gang, 24 barrier checkers and half-a-dozen clerks and supervisors. All Spencer-street's checking men are under his control. . .

In a scientific excursion, he floated out on a sea of figures, supported by a ready reckoner and a bundle of timetables. Prolonged immersion, with constant deep plunging, at length brought him back to dry land, dripping with decimal points and squelching percentages from sodden boots. His reckoner and timetables were left floating on the waves, but in his right hand he clutched a neatly typed statement and his eyes glittered triumphantly behind his shining spectacles. Compressing the statement into a pamphlet, he issued to the staff his famous manifesto of 1922, in which he disclosed his carefully reasoned estimate of the department's direct annual loss through ticket irregularities. His alarming figure was £50,000. This, he pointed out, was equivalent to a loss of half-a-crown on every country train running in Victoria, and of one shilling on every suburban train.

As an apologia for the existence of a posse of special checkers to strengthen the cordon of ordinary ticket-collectors, the pamphlet was and is unanswerable.

Previously, J. had helped his predecessor, Tom Sexton, and Refreshment Supt. W. D. Bracher, then a clerk in Room 56, to compile the Train Conductors' Book of Instructions. He himself drew up a similar authoritative textbook for sleeping-car conductors, and in 1922 issued that masterpiece of lucidity, the Ticket Checkers' Catechism, a volume which has probably steered more lad porters into possession of their ticket-checkers' certificates than any other single influence. . . . .

Two factors push at this pronounced success which J. has made of the ticket-checking business. One is his unswerving determination and grim, fakir-like subordination of all matters of personal convenience to the needs of the job. The other is the hard practical training which he experienced in his pre-ticket collection days. He started as a booking clerk at Burnley in 1886, and within a fortnight was relieving his seniors in block-signalling and booking duties. Travelling and relieving, he passed through the ranks of A.S.M. and night officer to the position of Relieving Station-master by 1905. All that there was to know about tickets, therefore, he knew when he was thrust into Mr. Sexton's vacated chair.

In that chair he has earned a reputation for scrupulous fairness and honesty. He strikes without fear or favor, and no influence could induce him to waive a deserved prosecution. The gulf between him and "funny business" makes the poles appear next-door neighbors.

Today his wide-flung arms sweep the confines of the State and claim a 100 per cent. check of all country trains arriving in Melbourne. When they can claim a similar percentage for *all* trains in Victoria, he will very likely be satisfied.

UP-COUNTRY

As Recorded by Railways District Superintendents

RAINS enhance prospects in all districts—Hotel improvements and additions in the Wimmera — Settlement at Millewa proceeds apace — New industry at Deer Park—Gippsland beet harvest in full swing

BENDIGO

GOOD rains were fairly general throughout the section during April, and the prospects for the 1928–29 season are very bright, the estimated acreage under wheat having been increased by approximately 30 per cent. over that of last year.

Livestock is moving very freely in the Echuca district owing to the abundance of natural feed, and there is evidence of a much better season both from a grazier's and the departmental view points.

The output from the quarries has not been up to the usual loading, owing, probably, to the increase in the freight tariff.

Deniliquin now possesses a fine brick station in place of the old buildings recently destroyed by fire.

The innovation of the petrol-electric motor-train now running on the Deniliquin–Toolamba section has received commendation from those it serves. Boy-like, they want another. To date the new motor has run excellently, and has developed no troubles. The staff regard it as another milestone on the path of progress and a valuable weapon in the rail versus road contest.

The steady progress of the district has called for improved public accommodation, and at Wakool a fine new hotel of 28 rooms has been completed. At Leitchville another of 30 rooms has recently been opened, and at Moulamein the old hotel is now being rebuilt and modernised.

BALLARAT

BUILDING is fairly brisk in the Wimmera, and judging by the activities in the hotel line, publicans have little fear of the local option poll. Kaniva is having a fine hotel built which will be opened shortly. Hopetoun has had an up-to-date guesthouse built which is now in full swing. The old Victoria Hotel at Beulah has been remodelled and extended, while Beaufort has a new hotel. The National Hotel at Stawell has been rebuilt, and the Dimboola Camp Hotel is the next to be rebuilt. Altogether, about fifty to sixty thousand pounds is being spent on improved accommodation in the Wimmera district. Besides the new hotel at Kaniva, there have been rapid advancements in the building trade generally in that town, and a fine collection of up-to-date modern homes is to be seen. Dimboola is also building some fine homes. Most of them will have septic tanks, and all will have wireless, electricity and telephone installations.

Harvest prospects are particularly bright. One farmer in the Beulah district intends sowing 1400 acres of wheat, and he and his sons will work three shifts a day, with the aid of spot lights on the tractor, so as to get the work completed.

A new industry is being established at Deer Park under the management of Nobels (Australasia) in the manufacture of leather cloth, so extensively used in upholstering. A siding is being built, and before many weeks it will be in full swing. The new machinery has been received from England and is at present being installed in the company's new building, which is situated on 11 acres of ground.

The potato season at Newlyn promises to be a bumper, with 8 to 12 bags to the acre. Already, arrangements are in hand for the transport of the crop.

GEELONG

USEFUL rains have fallen during the past month, thus ensuring a good supply of winter feed in this district.

The Better Farming Train recently made a tour of a portion of the district and met with enthusiastic receptions. Large numbers took advantage of the opportunity to view the exhibits and the lectures given by the various lecturers on matters pertaining to the agricultural industry.

The long-looked for display of the new Ford Model took place at the company's works, North Shore, on May 14. A large number of people availed themselves of the company's invitation.

SEYMOUR

LAST month's rains were most opportune, and the season promises to be one of the most bountiful the district has experienced for many years. Ideal weather conditions prevailed for seeding, which commenced some weeks ago. Some of the crops, already above the ground, were in need of rain. In different parts of the wheat belt the area to be sown might be curtailed by the abundant self-sown crops which are growing in many of the stubble paddocks. Farmers who intend cropping paddocks which failed or partially failed last season are having difficulty in keeping the feed down. Many of the wheat paddocks display fairly dense crops in the ear, from two to three feet high. One farmer in the Nathalia district has cut his crop, and it is lying in shooks on the ground. Another farmer near Mulwala from his self sown crop has harvested 3½ bags per acre off 20 acres.

Stock are in good condition. Lambing has commenced, and both ewes and lambs are strong and healthy. Dairymen are obtaining the best returns for a number of years, this being accredited to the spring-like conditions prevailing in the autumn. On all sides there is evidence of a splendid season, the prospects being in striking contrast to those prevailing at the same period last year, when stock owners everywhere were seeking agistment. The sheep fly has been very troublesome since the wet summer, but the southern part of the district is almost free from it. Fine-wooled sheep are more troubled with it than the coarser types. In many instances sheep have been crutched more than once this year. Sheep carefully dipped have enjoyed greater freedom from the parasite. The trapping of the fly has been resorted to with much success.

The fruit traffic has now ceased, and operations at the canneries have concluded. The season has been satisfactory from every standpoint.

DANDENONG

GIPPSLAND is looking well at present, and the prospects for a good season are very bright.

The beet season has been a fairly good one. The crops made a good recovery after the setback caused by the dry spell in the early part of the season. The harvest is in full swing at present and the Beet Sugar Factory at Maffra is working at high pressure.

The manager (Mr. Williams) expressed himself, at a recent interview, as well satisfied with railway arrangements.

The potato season has been a fairly good one so far as yield and quality are concerned, but the low prices ruling have not been to the advantage of the growers.

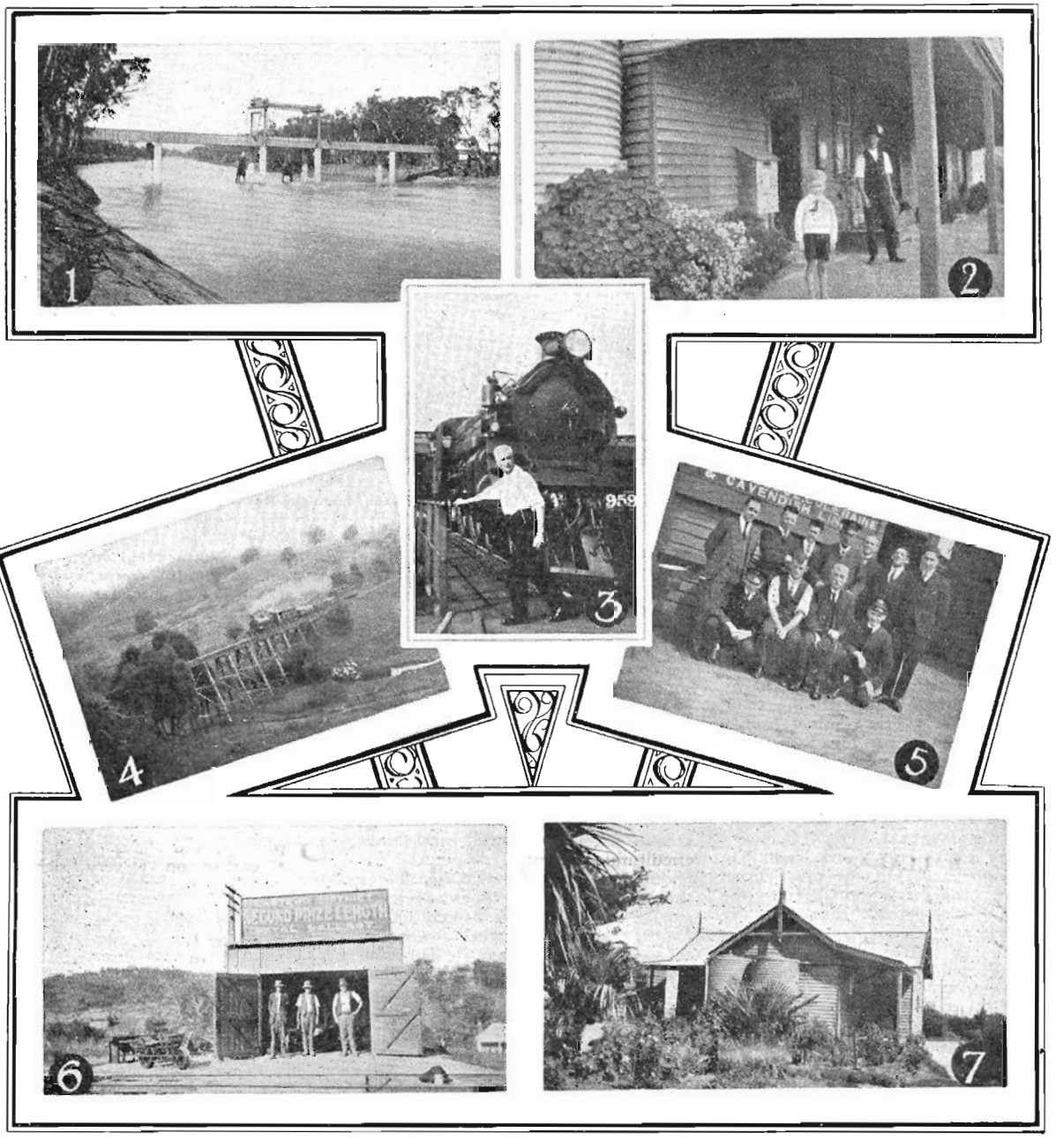
The extension of the sidings in Pakenham yard is now approaching completion, and the increased facilities for crossing trains will be of great advantage.

It is expected that the work of in-

Concluded on page 42

Snaps Round The System

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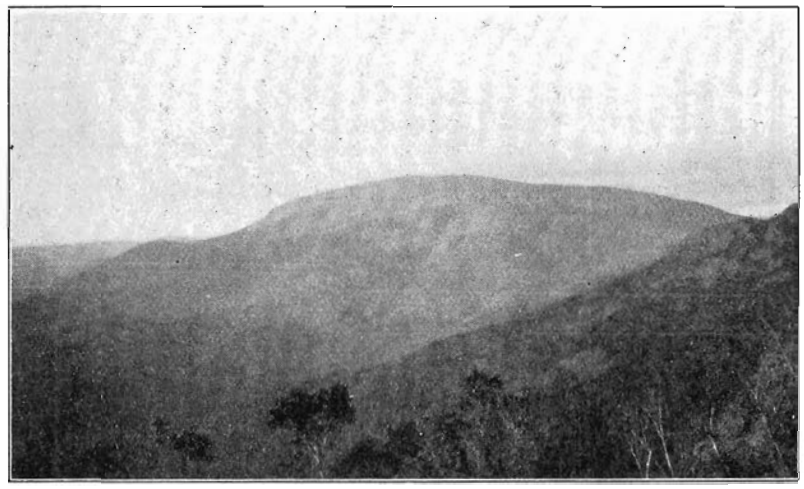


1. Robinvale Bridge over the Murray.
2. Chinkapook Station, a recent prizewinner in treeplanting and station decoration.
3. What can be done by perfect balance on a ball-bearing turntable. With the point of a lead pencil, Foreman White, of Geelong, is shown turning an A2 engine.
4. Yackandandah—Beechworth train crossing the bridge near Yackandandah.
5. The Staff at Hamilton Station.
6. Ganger's hut at Greensborough. The gang is very proud of its achievement as recorded.
7. Super-Repairer J. O'Connor's departmental residence at Pakenham East, which has won four first and one second prizes.

Where to Spend a Holiday

MT. WELLINGTON

An Eastern Gippsland Alpine Retreat



Mt. Wellington, from the Razorback

By
M. J. HARKINS

MOST Victorians have heard of Mt. Wellington, the alpine sentinel of Hobart town, but few are aware that, in the ranges of Eastern Victoria, stands a Mt. Wellington 1,000 feet higher than our southern neighbors' peak, and possessing the added charm of a hidden lake.

MT. Wellington, Victoria, is 5,300 feet high, and was named by Angus MacMillan in 1839. The choice of a title resulted from a fancied resemblance in the shape of the mountain to the features of the famous War Lord. For 70 years the top has been used as a stock run, but the grandeur of its scenery has remained practically unknown.

There are several routes leading to Mt. Wellington, but the most direct pursues a northerly course from the township of Heyfield. For 25 miles the way lies along a rough bush road, but thereafter a bridle track is all that exists to guide the stranger on his journey. After following the course of the Avon River for many miles, Miller's Track, as it is known locally, rises abruptly and commences a ten mile ascent to the Gable End, Wellington's southern extremity. The grade is steep, but from the top a magnificent panorama unfolds itself. In the north-east, far-off Kosciusko, The Cobberas, and Mt. Pilot are visible. To the south, the plains roll away until the Gippsland Lakes, like silver thread dividing earth and sky, arrest their onward progress, and in the east the rugged ramparts of the Baw Baws loom dark against the skyline. Here, however, is but a part of Wellington, for its top consists of a series of undulating snow plains 100,000 acres in extent.

This high country has but two seasons, a long winter and a short spring—the snow lying deep until late October. Consequently, when a summer sun has left the lowlands brown and parched, the snow plains are covered with a green mantle of waving grasses and a profusion of everlastings, clover, heather, and daisies. The region also teems with wild life. Larks, thrushes, quail, and other species of small birds rear their broods on the plains. In the tangled snow-gum thickets, the dingo has its lair, and, occasionally, a mob of brumbies, long manes and tails tossing in the wind, can be seen racing towards a distant hill.

The Hidden Lake

In a basin at the foot of the Gable End lies Tarli Karng, Wellington's hidden lake, but so well is it concealed by the slope of land that it was not discovered by cattlemen for 34 years. Tarli Karng (Little Lake) is about 20 acres in extent and is fed by the Nigo Thoruk (Yellow Snake) Creek. The level of the water is regulated by a stream which flows underground for half a mile before it discharges into a valley 500 feet below the lake's surface. Although the problem has been the subject of careful research by geologists, the nature of the force—whether from glacial action or from a landslip—that formed Tarli Karng, has never been definitely decided; but the fact that the water is kept in check by a barrier of rock which appears to have slipped from the side of the Gable End seems to lend color to the theory of landslip formation.

Aptly described as the gem of the Victorian Alps, Mt. Wellington may be reached only at the expense of considerable energy, for the tracks are impassable except on foot or on horseback. But the scenic reward awaiting the tourist with sufficient courage to embark on the excursion more than repays the arduous journey.

STENO. ABSENCE

My tYpust is on her vacatiɔn
My typist's away fpr a weck
My tYpudt us in hwr vscariɔn
Wgile thse damn Keys plsy
hude and secj.
cHoRus
Oy, breng goxk, bting dzck,
Brung becj Mub 'Onnie ti my,
tp mr;
B (&ng b$xj, b-6ng bic4,
Bjing bozk M% beInio-a my,—
oh helk!

Illinois Central Magazine

RAILWAYMEN of the MONTH

Spare Time B.A.



—Photo, Sarony

AFTER four years of continuous night lectures and study at the University, Charles Kenneth Lucas, tour clerk on the Chairman's staff, has mantled his shoulders with a fur-edged hood, surmounted his brow with a mortar-board, and tacked the sonorous title of *Baccalaureus Artium* to his name. Thus accoutered he now moves serenely along a three year path in pursuit of the degree of Bachelor of Laws. Considering that he was only armed with a merit certificate when he left school, and that he has contrived to compress all his cramming into his spare time, his achievement is somewhat remarkable.

Resonian Brothers



SINGULAR appropriateness marked the selection by the recently-formed Brotherhood of Resonians of the two Victorian Railwaymen who will be its patron and secretary. The body, which seeks members from all Reso tours and proposes to hold a reunion every year, inevitably chose Chief Commissioner Clapp as patron. And, with another eye to the fitness of things, the Brotherhood unhesitatingly appointed Lance Bromilow of the Betterment and Publicity Board as its official scribe. Nowadays, of course, Lance travels on all Victorian Reso trains as Officer-in-charge.

Off to America

FEW will cavil at the selection of Keith McGregor, telegraphist at Dandenong, as one of the Victorian railwaymen to visit America this year to study Uncle Sam's rail methods. Only 25, Mac has had a brilliant career. He is a qualified first class telegraphist, and holds a diploma in engineering, and three safe working briefs. With very little study, he securd 93 per cent. in safeworking for the Harold Clapp prize a year ago. Mac. has unlimited energy and boundless enthusiasm and should make good abroad. He pays his own expenses and has been assigned to a position with the big Southern Pacific railroad.

June Birthdays



Mr. R. McClelland

QUITE a lengthy queue of well-known railmen line up for birthday greetings this month. Some of them are : District Superintendent A. J. Morris, of Seymour, on the second; Charles Mullany of the Better Farming Train, on the third; Transportation Staff Officer, Robert McClelland, and T.R.O. Charles Wadelton, on the fourth; Chief Clerk, J. Ford, of the Signals and Telegraphs, on the seventh; Newport Workshops Manager E. W. Arthur, R.S Staff Clerk T. Coulthard, District Engineer A. K. Bartel, Les. Barrett of Room 2, and Acting Auditor of Receipts D. H. Falconer, all on the eighth; Tom Sullivan, assistant to the Metropolitan Superintendent, on the 10th; S. A. Rosier of the R.S. Accounts, on the 13th; Audit Inspector W. Davidson, on the 14th; Special Officer J. McDowell, on the 15th; T.R.O. J. T. Roscholler and Chief Clerk W. H. Tregoning of the Accountancy Branch, on the 17th; Engineer of Maintenance A. Goudy, on the 21st; Assistant Claims Agent P. A. Fankhauser, on 25th; Reg. Wotherspoon of the Tourist Bureau, on the 26th; Jim Hennessy of the Secretary's Branch, on the 27th; and Engineer Jack Fowler of the Betterment and Publicity Board, on the 30th.

Rocke-Built



FOR a lifetime, Works and Roadmaster Tom Rocke has built railways. From 1882 until his retirement late last month he was the Construction Branch's recognised expert in platelaying and ballasting for new lines. That is, with the exception of a brief term which saw him building railways in South Australia and New South Wales. His very first job was on the construction of the Branxholme-Casterton railway with Contractors Smith and Sutherland; and since the formation of the Department's own Construction Branch in 1892, he has helped to build practically every new line laid down in the State. He was, moreover, one of the engineering minds behind the construction of the electric street railways between St. Kilda and Brighton, Sandringham and Black Rock, and Black Rock and Beaumaris. Cheerfully and willingly, Tom has "fathered" many of the branch's junior members with kindly advice and friendly criticism. The staff's gift to him on departure was a gold chronometer and chain and a diamond brooch for Mrs. Rocke.

Knew the Kellys



WHEN Jim Crouch, patriarch of Ballarat goods checkers, retired the other week, with honors and a wallet of notes thick upon him, he terminated a career which extended over four decades, three of which were spent at Ballarat. As a boy, Jim knew the Kellys and their two lieutenants, Steve Hart and Joe Burns. He went to school with the illustrious Joseph. He joined the service as a traffic laborer and got in per medium of the old

ballot system. There were 20 vacancies, and the 120 applicants had to pick a number from a barrel, the lowest numbers getting the jobs. Jim picked No. 3. Incidentally, the story he tells of his railway medical examination presents a remarkable picture of professional etiquette in Collins-street in the late eighties. Jim travelled to the city for examination with seven other aspiring railroaders, and the octette were strolling casually up Collins-street when they glimpsed a stout, red faced, bare-headed man standing at a gate a block or so ahead and peering impatiently down the hill. As soon as he observed the wanderers, the stout watcher cupped his hands to his mouth and bellowed : " Come on, d—— you, and hurry up!" Then, with a peremptory wave of his hand, he stumped into the building, the startled visitors realising dazedly that he was the German doctor to whom they had been assigned. It seems that they then hurried.

Oranges

ANOTHER good story which Jim tells concerns an old lady who came into the Ballarat goods shed one day in search of a case of oranges which had been sent her. It was the height of the citrus season at the time, and the shed was half-filled with cases and cases of golden oranges. Jim filed through the mountains of orange cases, searching for the enquirer's consignment. After a long search for the missing waybill, he decided that the case had not arrived. " I'm sorry ma'am, but they haven't come yet," he reported. The old lady frowned suspiciously, peered along the packed shed floor and sniffed penetratingly. " Are you sure?" she demanded—sniff—" I'm sure I can smell oranges."

"A" Shed's Hiatus



IF the big clock-tower over "A" shed at Melbourne Goods vanished mysteriously in thin air one night, it wouldn't be missed much more than Senior Foreman Jim Jeffers was last month when he went into retirement after close on 44½ years strenuous service. Jeff earned his money at the goods sheds for 32 years, and has filled every position there from tally porter to foreman. He was a foreman at Bendigo, Ballarat and Geelong, and at the Melbourne Perishable Shed and outside platforms. He juggled with tons of freight at the Australian Wharf before Victoria Dock was in existence, and at Port Melbourne before the New Pier was built. His first railway job was with the Way and Works Branch. A repairer on the Tallarook–Yea line in 1884, he later helped to build the Dimboola–Serviceton section. Coming to the Transportation Branch in 1886, he collared all the available safe working certificates and was for some years stationmaster. A sound, solid railwayman, Jeff knew his job thoroughly. The only man he was ever hard on was the shirker.

Dignity in Underpants

JEFF., by the bye, made the acquaintance of Australia's most fastidious goods laborer while he was in charge of the big " outwards " shed. An elegant laborer came in with the afternoon gangs attired in a fashionable blue double-breaster and Oxford bags. Retiring to the workmen's lockers after being assigned to a gang, he divested himself of his coat, waistcoat and trousers, and, trundling his truck, emerged clad in shirt, underpants, boots and a dignified expression. Jeff's somewhat shocked query as to the reason for such a display of lingerie was met with the curt response that the laborer wasn't going to spoil his flaming clothes for any something job. Jeff insisting that a pair of trousers must be worn, the laborer cast his truck from him in disdain and went home in unsullied blue Oxfords.

Court and Track

LEAVING Trawalla for Banyena, last month, Ganger Dan Tynan was farewelled by the local staff and tennis club members with a pipe and tobacco pouch. Dan had been located at Trawalla for 18 months, and the good work which he put in on the permanent way was reflected in his active interest in the laying down of the local tennis court.

THE LAST MILE POST

GUARD W. HAYES

ARARAT is mourning the death of " Honest Bill " Hayes, the kindly, white-haired guard who had just retired on the score of ill-health after 40 years service. Institute General Secretary Galbraith has lost a close personal friend, local members have lost the chairman of their country centre area and the " father " of their fine branch building, and the Ararat sub-branch of the A.R.U. has lost a former president and a sound sane worker in union interests.

APPRENTICE FLYNN

DEEPEST sympathy is extended to Works Foreman D. Flynn, of Bendigo, and Mrs. Flynn, whose son Hayden has just died. Hayden was an apprentice fitter and turner at the Bendigo North workshops. His father is honorary president of the Bendigo country centre area of the Institute.

A large muster of branch representatives marched at the head of the funeral, the coffin-bearers being shop mates from North Bendigo.

ORGANISER E. CAMPBELL



EDWIN Campbell, organising officer at the Victorian Railways Institute, and formerly with Wm. Anderson at the King's Theatre as actor, stage manager and producer, has taken his last call, after a serious illness extending over 10 months. Good-natured to a fault, Cam. was known all over Victoria, and there are very few Institute members who have never heard him tell a good story. Right up to the day before his death, he cracked jokes with bedside visitors.

Both Institute Council and staff sent wreaths to his funeral and condolences to his widow, who is left with a two-year-old son.

Cam. was 60 when the curtain dropped.

KEEP SMILIN'

You got to keep on smilin'
However hard the way,
Altho' you're shy the cash to buy
Your three square meals a day.
You may have ketched the measles
Or else, perhaps the mumps ;
But just the same you must be game
An' never get the dumps.
A glum an' gloomy spirit
The brightest life kin spile ;
No matter what complaint you've got
You've always got to smile.
You got to keep on smilin'
An' never heave a sob
Or pull a moan or spill a groan
When you have lost your job.
If wife and kids have left you
Don't never shed a tear ;
Be gay and glad as ef you had
A heart plumb full of cheer.
Remember, livin' single
Ain't such an awful trial—
The clouds you'll find are silver lined
If only you can smile.
You got to keep on smilin'—
There's no sech word as fail—
Tho' by mistake the laws you break
An' get shet up in jail.
An' even ef they hang you,
The rope won't hurt you long,
So while you wait to meet your fate
Just sing a little song.
Keep readin' smilin' poems,
They make hard luck worth while ;
Our recompense for lackin' sense
Is learnin' how to smile!



By REG. HUNT

MR. REG. HUNT, who, with this issue of the V.R. Magazine, takes control of these pages, here surveys the field of sport, its triumphs and its possibilities, as far as railwaymen are concerned.

WHERE| RAILWAYMEN HAVE SHONE

ALMOST every railway man, right from the Chairman of Commissioners, takes more than a passing interest in some phase of sport, and further than that, there is no sport in which railway men have not played a leading part both as administrators and participants.

As an introduction, to the many readers of this Magazine, it might not be out of place for me to mention just a few who quickly come to my mind.

Starting off with bowls, I recall the names of Jack Hearle, Bill Hotchin (who have more than once won the championship of their greens), Sam Jones, Bob McClelland, and Bert Ninnes, who is one of the State's champions. Bert Lansdown has represented Victoria in Interstate baseball and with Keith Miller has appeared also, with success, in Interstate cricket. Jack Ford is secretary of the sub-districts Cricket Association, while almost every pennant and sub-district club boasts as its leading players some railwaymen. Harry Brereton, the present V.C.A. Secretary, was for many years in this department. Then there is Tom Bolger, our champion welter-weight wrestler, who has just left for the Olympic Games, as one of Australia's representatives.

RIFLE SHOOTING

In this branch, we have men who are world famous in S.A. Long and D. R. Davies (both of whom have been to Bisley), a King's Prize winner in Percy Phurlow, an Interstate representative in Percy Pearce, whilst among many other prominent "shootists" I can remember F. Ellis (Bendigo), D. McClure (Geelong) and the veteran Jack Sarsfield.

In football, however, we seem to be most prominent. and it is in this sphere, with the present acute motor competition that we can, especially in the country, really help the Department, and incidentally ourselves because railway patronage is our bread and butter. It is our business to see that football patrons use their own property in preference to the road. However, getting on with the subject again, we have three captains of senior clubs—W. Cubbins (St. Kilda), J. Lord (Prahran), and T. Hassett (Brunswick). Amongst umpires there are Jones, Barlow, Coffey, Alley, Jory, and many others (League), Blackburn and Lester (Association), while Harry Woolf has for 26 years been a goal umpire with the V.F.A. In every League, Association and Junior Club in and around Melbourne, and in country clubs, railwaymen are leading players. As administrators there are Cr. J. A. Roberts (mayor), president Maryborough Club, T. Flanagan, S.M., Beechworth, secretary and delegate of the local club ; W. J. Ellis, delegate for Sandhurst on the Bendigo League ; M. Heffernan, S.M., secretary of Stratford ; C. Lilley, on the committee of the Melbourne Club ; Stan. Thomas, secretary North Melbourne ; Cr. D. McCormack (mayor), vice president Footscray ; Ken. Donald, assistant secretary V.F.A. At one time, it is reported, the coach and 16 players of the Williamstown Club were employed at the Newport Shops. There are others, of course, too numerous to mention, but I have endeavored briefly to show what part railwaymen do take in outside sport.

CRICKET

The final match of the V.R.C.A. for the Commissioners' Cup was played between Jolimont Yard and Way and Works, the former winning by 114 runs (Barrett 30, O'Brien 21, Haughton 10, Kiniry 10, Ellis 4 for 28, Walker 2-11, and Tunne 3-5) to 102 (Morrissey 27, Furlong 18, McMillan 13, Prouse 2 for 28, and McMillan 2-20). The cup was handed over to the premiers at a social evening and dance held at the Institute. The association has had a most successful season, due in a great measure to the efforts of secretary Dan Elliston and the social secretary, Roy Kydd.

Over 200 supporters, with their lady friends, attended the Coburg Line Cricket Club's second annual complimentary social in the Brunswick Town Hall, last month, when a splendid musical programme was provided by Alex. Wotherspoon, Fred. Champion, Norman Leslie and other well known artists. During the evening no fewer than 16 trophies were presented, including a set of pipes and a tobacco jar to the energetic secretary (Billy Keppell) and a gold mounted fountain pen to Mrs. Keppell. The social was a huge success and reflects the greatest credit on the organisation of the social committee of which Fred. Salvana is president and Billy Keppell is secretary. The enthusiasm of the members of this club might well be emulated by all railway sporting organisations.

ROWING

The Public Service Regatta will be held again in July. Some difficulty has been experienced in the past years in getting a good Railway crew together, but special efforts are to be made to win the race this year. Mr. T. F. Brennan, Chief Accountant, is particularly interested, in this event, and Joe Keleher, a member of his staff, is the organiser. Further particulars will be published later ; but all interested in rowing are requested to bear this in mind and help to bring the honors to the Department in 1928.

FOOTBALL

The Interstate Carnival was held in Melbourne during Easter, when Victoria easily won the right to hold the Nash Shield for the ensuing 12 months. The scores in the deciding matches were—Victoria, 29 goals 16 behinds (Morrison, now playing with Footscray, 14 goals) ; South Australia, 9 goals 5 behinds.

This shield has been played for 11 times, Victoria having won on seven occasions and South Australia four. The visiting teams were welcomed by the V.F. League, and were entertained on a trip up the Yarra by motor boat, at the Stadium, at a Theatre Party, and at a Smoke Social. Bill Clifford, the secretary, looked after the comfort of the visitors who thoroughly enjoyed their stay in our city.

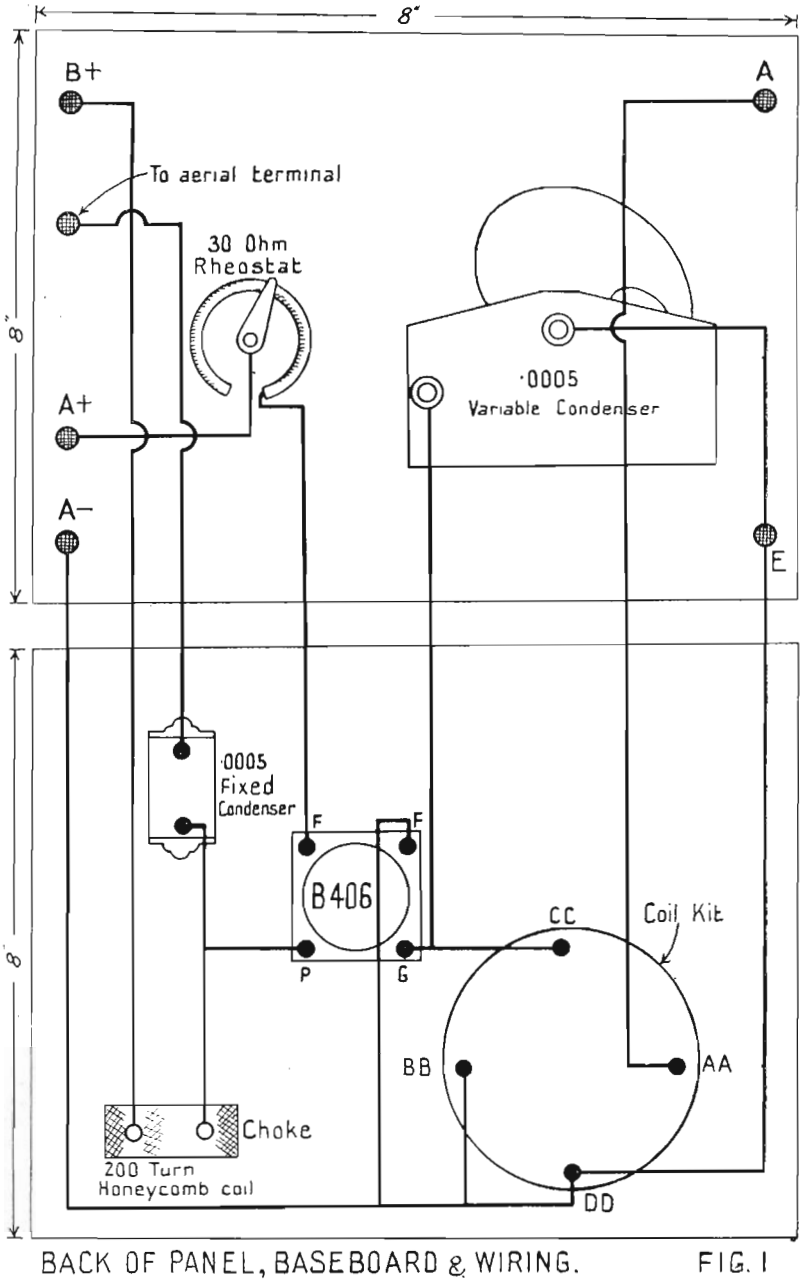
The Railway team, competing in the Wednesday League, looks like adding another premiership to its already long list, for in the three matches played, so far, it has had very easy victories, as

Concluded on page 46



By "AERIO"

The V.R.I. Super-Booster



BACK OF PANEL, BASEBOARD & WIRING. FIG. 1

THE new V.R.I. Super-Booster pulls in the weakest carrier you have heard on your existing set; it cuts through the locals at 3 miles; it improves tone quality; best of all, it entails no alteration whatever to your present receiver.

PROBABLY the most popular type of receiver among amateurs at the present time is the valve detector with reaction on to the aerial, frequently followed by one or two stages of audio amplification. The straightforwardness and ease of operation, combined with good sensitivity, are the principal causes of its popularity, and very considerable success can be achieved with it.

As the price of its simplicity, however, it has definite disadvantages, principal among which are the bad distortion which is produced by working on the very edge of oscillation, as is unavoidable when receiving distant stations, and the comparative lack of selectivity which limits its ability to separate stations on nearby wave lengths.

The super-booster may be connected to any valve set, but is particularly recommended for use with sets of the type just mentioned. Not only does it enable the same strength of reception to be obtained on distant stations with less reaction— resulting in very much less distortion—but by using the utmost reaction, very weak stations may be received which would otherwise be inaudible; while stations which have hitherto interfered may be easily separated, thus adding still more broadcast programmes to the list of those which can be listened to and enjoyed.

PARTS REQUIRED

1 Ebonite Panel, 8 in. x 8 in.
1 Baseboard, 8 in. x 8 in.
1 Valve Socket
1 Single Coil Holder
1 Variable Condenser .0005 (metal ends)
1 Rheostat
1 Coil Kit
1 Fixed Condenser .0005
1 Honeycomb Coil, 200 turns
1 Valve
6 Terminals

CONSTRUCTION

The lay-out and wiring are shown by Fig. 1.

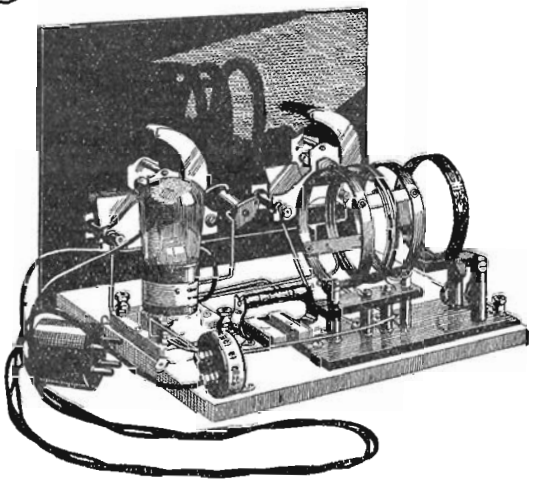
The coil kit consists of a primary coil of 20 turns of No. 24 d.s.c. wire wound on a 2½ in. cardboard former

Concluded on page 40

Radio!

B·E·T

Two Popular Coyle Lines



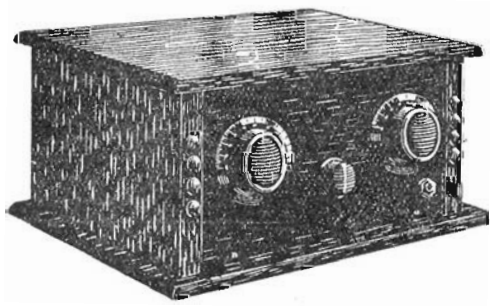
Showing wiring of Coyle Short Wave Set

A Better Two-Valve Set

Here's a two-valve set that really is better—comparison will prove it.

It's a set built of the best components—built by men who know their jobs—built to give the utmost sensitivity, selectivity and simplicity of operation.

Local stations come in clearly on a loud-speaker—and the price: **£7-0-0**, brings the set complete with all accessories into your home—see it to-day!



Coyle Two Valve Set—Complete with all Accessories
£7-0-0

A £6-6-0 Short Wave Set

that picks up World-wide Broadcasting

At Black Rock, Victoria, programmes from stations in the following countries were clearly heard on an absolutely standard Coyle Short Wave Set—YET THE COST IS ONLY **£6-6-0.**

India	Hawaii	Jamaica	France
Germany	China	Phillipines	U.S.A.
Ireland	Belgium	Japan	Chile
Canada	England	Portugal	

Its circuit is chosen after careful experiments by the builders, and is of a fixed tickler type with throttle condenser for reaction control, fitted with a Coyle Special Short Wave Kit (which alone costs 35/-)

Call today and see letters from the international stations a Coyle Short Wave Set has picked up.

25 per cent. DISCOUNT

will be allowed any Victorian Railways Employee when purchasing Radio goods (with the exception of "Mullard" and "Phillips" valves) at either of the Coyle Stores

COYLE'S RADIO PTY. LTD.

Two Convenient Stores:

183 Bourke Street
CLOSE TO RUSSELL STREET
(where Robotham's was)

596 Collins Street
NEAR SPENCER STREET
(Mail Order Branch)



Conducted by EILEEN to whom all communications for this feature must be sent.

How to Acquire Charm, Dignity and Grace

CHARM in a woman is as the perfume to the flowers, as the bloom on the grape. It is a quality bestowed by nature to attract, win and hold the love of others. Charm is gracefully expressed through the medium of speech, action, deeds, manners and clothes.

THE woman of great charm may stand secure in the morass of circumstances. Time may wash away beauty—your youth—but, if you possess charm of manner, dignity and grace, you will be able to hold your own with any woman with whom life throws you into contact.

The cultivation of an erect carriage of body, of the art of standing well, and of the correct sitting position, are moral as well as social duties.

There are many important reasons why grace of bearing should be cultivated.

Regaining Youth

The ancient Greeks, we know, idealised the grace of perfect symmetry—a type which demands the acme of physical fitness. Women who have, from long years of inactivity, allowed themselves to grow podgy and out of shape, who have adopted the habitually lounging attitude, the shuffling gait, can, by training to the attitude and movements of dignity and grace, regain the charm and slenderness of youth. They will also regain activity of mind and grace of soul.

Practise before a Mirror

A very helpful way of gaining the charm of dignity in your movements is to practise before a mirror. Watch your walking movement, the way you carry your body—and correct crudeness and awkwardness in your movements.

Charm is yours if you can demonstrate outwardly your inward grace.

Then your clothes: do they express charm? Harmony is charm. A fashionable frock may be charming, but only in its relationship to other accessories—the hat, coat, gloves, shoes, stockings, and so on. It, too, must express the personality of the wearer.

There is charm in the color of your clothes. There must be a harmonious assembling of color, not merely two or several different colors.

And your voice: if it be harsh, high pitched, or too loud you lose charm. Your voice should be soft and low and clear. Charm is yours if your eyes are bright and clear, and look directly, but not critically, at the person to whom you speak.

Mirrors of the Soul

It is an old saying that eyes are the mirrors of the soul, and from time immemorial a woman's eyes have figured in verse and prose as the most beautiful feature of her face.

When all these qualities are cultivated, then can we be said to possess dignity, grace and charm. These qualities are more essential to a woman than beauty itself.



Miss Eileen Gorry, who edits this feature of The Victorian Railways Magazine. She has just left for a six months' holiday in Great Britain and on the Continent. Articles from her pen, however, will continue to appear in these pages

Home Hints

When cooking beetroot, add a sprig of mint. It is delicious and makes a change from the old way.

When mosquitoes and flies are troublesome, mix kerosene and methyl salicyl in the proportion of one of meth. sal. to ten of kerosene, and use in a small spray.

To remove sealing-wax apply either alcohol or naphtha to the spots with a camel hair brush.

A cretonne hem on a rubber apron will prevent water running off and wetting the front of your dress or stockings.

For the tight-fitting door of the safe, insert a small cup-hook with which the door can be opened quite easily.



Congratulations to Miss Marjorie Shannon, a daughter of Commissioner Mr. Shannon, both on her recent engagement to Mr. G. P. Wischer, son of Mr. Paul Wischer, Cotham-rd., Kew, and on her success in gaining the degree of B.Sc.

CHARITY WORK AT BALLARAT

Infected by the spirit of enthusiasm that has characterised the charitable efforts of Ballarat railwaymen for many years past, during which they have raised some thousands of pounds, chiefly for the Orphanage, the ladies recently organised a Railway Ladies' Auxiliary Committee. Already the new organisation has raised £11 by various forms of entertainment.

At the Railway Institute last month, a musical and pillow-slip afternoon was held in aid of the Ballarat Hospital. The net result was the donation of six dozen pillow-slips to the Hospital authorities, which were received with much satisfaction.

In outlining the objects of the Auxiliary, the president (Mrs. T. H. Maddern) said that they were optimistic enough to hope that by banding together and working zealously they would be able to emulate the men's Railway Carnival Committee, and, perhaps in a lesser degree, organise money-raising schemes which would enable them to assist in a generous way deserving cases and institutions. Mrs. Maddern cordially welcomed Messrs. W. W. Harris (member of committee) and J. L. Eddy (secretary), who represented the Ballarat Hospital. Both these gentlemen, in response, congratulated the ladies on the commendable philanthropic work they had undertaken, and expressed confidence that they would be in a position to perform very valuable charitable work in the community.

An attractive musical programme was arranged by Miss Jessie Hogan, who was assisted by Messrs. A. Schlitzkus and J. D'Albora. Afternoon tea was also dispensed. The secretarial arrangements were capably carried out by Mrs. J. S. O'Haire.

CLEVER ELOCUTIONIST



Miss Doreen Robertson, A.L.C.M.

A daughter of Station-master Robertson of Cheltenham, who recently gained her London College of Music Diploma in elocution. She was a pupil of Miss Winifred Moverley at the Victorian Railways Institute.

Tourist: "Is the water at this hotel pure?"

Guest: "Not very. We frequently find traces of coffee and other substances in it."

Automobile Salesman: "This controls the emergency brake. It is put to use very quickly in case of emergency."

Sweet Young Thing: "I see; something like a kimono."



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The Cheapest Place in Town

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OPEN FRIDAY NIGHTS

Low—"What is it a sign of when your nose itches?"

Brow—"Going to have company."

Low—"And what if your head itches?"

Brow—"They have arrived."

Willie—"Pa, what's a parasite?"

His Pa—"A parasite, son, is a man who walks through a revolving door without doing his share of pushing!"

DON'T BUY BROWN OR FLAWED DIAMONDS!

Purchase from the D.S.J. Company, where every article is guaranteed in writing, under promise of refunding the purchase money if you are not satisfied - - The prices are at least 20 per cent. below any quoted elsewhere, because there are no huge shop rents, or middlemen's profits to pass on.



Four Diamond Coronet Ring, £12. (Sold at £16 elsewhere). Others, £5 to £50



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Five Diamond Coronet Ring, £18 10s. (Priced at £22 elsewhere). Others, £7 10s. to £60

Every Ring contains genuine diamonds set in 18ct. gold and pure platinum



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A Dainty Open Cluster Diamond Ring, £17 10s. Others at £20

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Jottings from the Institute

ENGINE WORKING

The Victorian Railways Institute among its many activities offers an excellent system of instruction in Engine Working and Westinghouse Brake, both orally and by correspondence.

Oral Classes are held at the Institute Melbourne, on Wednesdays, at 5 p.m., and on Thursdays, at 10 a.m., and at Ballarat, Bendigo, Seymour, Geelong, Stawell, Benalla, Maryborough, Dimboola, Ararat, Colac, Wodonga, Korumburra, Wonthaggi, Traralgon, Hamilton, Woomelang, Warragul, Donald, Mildura and Echuca.

When a student enrolls in a correspondence course, he is forwarded his first lesson with full instructions. When his paper is answered and returned to the Instructor, it is marked, recorded, and returned to him corrected with the next lesson. This plan provides for individual attention, and letters offering advice and suggesting further reading are frequently sent.

In view of the fact that the courses offered by the Institute deal with subjects specially developed to apply to the needs of a particular organisation, the text material is not of a general character and is not obtainable elsewhere.

The correspondence method, therefore, has an added advantage, in that the complete set of lessons of any course, becoming the property of the employe, constitutes an excellent reference text. Correspondence courses may be commenced and completed at any time.

In addition to Engine Working and Westinghouse Brake, other correspondence courses conducted from the Institute, Melbourne, include those in Algebra, Arithmetic, English, Permanent Way Construction and Maintenance, Shorthand, Safeworking, Station Accounts and Management.



Here pictured is 12 years old Mavis Geraldine Allan, who recently secured 94½ points in the competitive examination for the three years' scholarship annually awarded by the Bendigo branch of the V.R. Institute, in the subjects usually prescribed for Junior Scholarships. Mavis is the daughter of Foreman carpenter J. W. Allan, of the Bendigo North Workshops.

EDUCATIONAL CLASSES

The second term commenced on April 16. Intending students are advised to join the classes during this term, which ends on June 23, if they wish to be eligible to compete for the "Harold W. Clapp," "A. E. Hyland" and Institute Prizes at the close of the year.

By-law 4 bearing on this matter states :—"No Prize will be awarded to any Candidate who has not effectively attended the Institute Classes in the subject of the examination for such prizes at least three terms. Effective attendance to be secured by attending at least 45 per cent. of the class meetings held during the year in the subject referred to."

TELEGRAPH SOUNDING

Those who are desirous of studying for first and second class Telegraph Certificates are advised that classes are held at the Institute, Flinders-street, on Monday to Friday in each week from 9.15 a.m. to 5 p.m., and on Saturday from 9 a.m. to 12 noon. The latter is a special class for advanced students.

Although the class commenced only a short time ago, several members are now fully prepared for examination, and others are making good progress.

ACCOUNTANCY EXTENSION LECTURES

OF interest to Institute students of accountancy will be the Melbourne University's forthcoming series of four lectures arranged by the Extension Board in conjunction with the Department of Commerce. The lectures, which will be given at the Melbourne Wool Exchange, King-street, on June 13, 20, 27 and July 4, from 1.15 p.m. to 1.55 p.m., will embrace modern developments in accountancy, the published accounts of companies, control through accounts, and reserves and reserve funds. The lecturers will be Messrs. E. V. Nixon, F.C.P.A., and A. A. Fitzgerald, F.I.C.A., B. Com., lecturer and assistant lecturer respectively in accountancy at the Melbourne University. Tickets for the full course (10s.) will entitle holders to a published copy of the lectures. Single lecture tickets can be obtained for 2s. 6d.

This course will be followed by one (of four lectures) on marketing, which will cover the general problem of marketing, wheat marketing, and retail marketing.

CONVINCING ARGUMENT

Customer : "Are you sure this sealskin coat will be warm ?"

Salesman : "Yes, sir. The fur in this coat came from seals that died of suffocation."

What The Institute Has Done For Me

No. 11.—Promotion by Correspondence

THERE are, of course, several methods which can be adopted by operating porters who are trying to cram enough knowledge into their heads to earn promotion to assistant station-master.

One is to pick up wrinkles from the A.S.Ms. working at the stations where you happen to be located. This is a somewhat uncertain method. Another is to swat up the different technical books and to thumb the dusty pages of stale Weekly Notices. You find this is a trifle tedious after six months or so.

A third method is to send your name into the Victorian Railways Institute as a member of its departmental classes of instruction. I practised methods one and two with a remarkable absence of success before I gave method three a trial. If I had never known it before, I realised then that you learn as you live.

I made correspondence acquaintance with an instructor who knew all there was to know about station-mastering, and who had the facility of compressing his knowledge into marginal notes on the voluminous exam. papers of the Station Accounts and Management course.

And by this third method I qualified in turn for my Assistant Station-master and Station-master's certificates. Promotion by correspondence, I call it.

A. C. RITTER, A.S.M.

Railway Users Say—

LOST PURSE PROMPTLY RETURNED

I WISH to express appreciation of prompt and courteous treatment given me by your service.

I lost my purse on Glenferrie station at 7.20 p.m. Saturday evening to Upwey. The station Mistress at Upwey kindly helped me, also the staffs at Ferntree Gully and Glenferrie, to recover my property which had been handed in by a passenger.

—Mrs. M. Trice, Upwey, writing to the Railways Commissioners.

INSURANCE TOUR SUCCESS

THE annual railway tour arranged for the benefit of members of this Institute has become an eagerly anticipated fixture in the usual programme of events during the year, and on the occasion of the fourth tour to the Rubicon-Sugarloaf District, I am directed by the president, committee and members of the Institute to convey to you their very sincere appreciation for the very complete arrangements made by various officials of your department to ensure their comfort and to make the trip a most enjoyable and memorable one. This year, the tour was arranged on a more ambitious scale than previously, involving, as you are aware, in addition to railway transport to Alexandra, the arrangements of a fleet of cars to convey our members from Alexandra to the Rubicon and thence to the Sugarloaf Weir. Throughout the day, however, the arrangements were so complete that nothing was lacking to ensure the comfort and pleasure of all those participating.

The committee desire me to specially place on record their thanks to Mr. H. R. Gollan, Manager of the Tourist Bureau, for the great organising ability displayed by him in the very complete arrangements which were made, which, combined with the unremitting attention and civility of the whole train crew, made the journey, throughout the day a most pleasurable experience.

—The Secretary, Insurance Institute of Victoria, 60 Market-street, Melbourne, writing to the Chairman of Railways Commissioners.

NOTHING SO FINE AS MT. BUFFALO

WITH my wife I have just spent a fortnight at The Chalet, Mt. Buffalo, and so much enjoyed our stay that we intend revisiting it in September with the children for the school holidays. Although we have travelled a great deal we did not think there was anything so fine and interesting to be seen in Victoria as at Mt. Buffalo. Unfortunately my wife was not well for three or four days, but during our travels we have hardly ever received such courteous attention and kindness as shown to us by the management—Mr. and Mrs. Avery. We think so highly of Mt. Buffalo that we are advising all our friends to do the trip. I thought you might be pleased to know this.

—Mr. Julius Benjamin, 344 Little Collins-street, Melbourne, writing to the Chairman of Railways Commissioners.

"CANNOT PRAISE TOO HIGHLY"

I DESIRE to express to you my sincere thanks and appreciation for the kindness bestowed on me by Mrs. Poulter and those in charge at "Almurta."

While travelling alone to Gippsland I was overcarried, and stranded at that station late at night. These people went to endless trouble for me, even to the extent of making me a cup of tea and securing a car from a neighboring district to take me to my destination.

"I cannot praise too highly Mr. Clapp's efficient staff. One is met by courteousness and kindness on country lines as in suburbs. Thanking you

—Mrs. C. A. Sutherland, 47 Rothesay Avenue, East Malvern, writing to the Chairman of Railways Commissioners.

RESO APPRECIATION

NOW that the seventeenth Reso tour is drawing to a close, I do not want to let the occasion pass without conveying to you the appreciation of the Resonians of the splendid organsation created by t he Reso Train for their comfort.

The organising capacity of Mr. L. C. Bromilow, the officer in charge of the tour, was truly wonderful, and not the smallest detail was left undone. His sense of detail and remarkable ability in handling men impressed us all. I have also to refer with a great deal of pleasure to the work of the remainder of the staff who seemed to vie with one another in completing the comfort of the party.

If you could only hear the complimentary remarks of everyone of the 64 Resonians on the train, you would indeed feel proud in knowing that, by your keen foresight, you have instituted Reso trains and thus enabled many busy city men and also many country men to see Victoria's primary and secondary industries under the most comfortable and favorable conditions. You are the instigator of Reso trains, and to you must be conveyed the congratulations of the whole of the party.

I also desire to record our sincere appreciation of the kindness and courtesy of the various local people on providing transportation to enable us to see their respective districts under excellent conditions, and I should be glad if you would kindly convey our thanks to those gentlemen for their work in this direction. The presence of Messrs. Crowe, Mullett and Bowman, of the Agricultural Department was also greatly appreciated, as they were invaluable to Resonians. I think it is a splendid idea to have these gentlemen on the train, as by this means they are able to give short lectures in various phases of primary development, which were of the greatest interest to the members of the party.

—Mr. T. S. Nettlefold, Chairman, 17th Reso Party, writing to the Chairman of Railways Commissioners.

THE tour just closed has been a revelation of good management to me. Mr. Bromilow and his staff were actuated by one desire—the success of the tour. The spirit of willing service in the staff, and of good fellowship in the tourists, makes the holiday a memorable one for me. I have not had many opportunities of mixing, for six days, with so many men of such varied tastes and occupations, and my association with them will ever remain a source of pleasant memories to me. I have learned more of my fellow-countrymen in those few days, and more of the wonderful resources of our State than could have been obtained in a year of ordinary travel, and I compliment you on your wonderful thought in establishing this means of communion between men of different parts of the State.

I feel sure that Resonians will constitute a bulwark of sympathy and appreciation in railway users over the whole State that will help materially to solve some of the problems confronting railway management.

This is my first Reso tour, and I feel that fate will be indeed unkind if I am unable to take another.

—Mr. W. E. Kelly, Briagolong, Gippsland, writing to the Chairman of Railways Commissioners.

COURTESY APPRECIATED

ON leaving Seymour, I would like to convey to you and to the staff generally my appreciation of their courtesy and assistance at all times. Having to meet trains very frequently, I was brought into contact with your platform officials and would like them to know just how I have appreciated their help.

—Mr. P. R. Neilson, Seymour, writing to the Station-master, Seymour.

STOCK WELL HANDLED

NOW that our stock, which were on agistment, have all returned home, I am instructed by my Directors to convey to you their appreciation of the manner in which your department handled our stock and fodder railage during the late drought.

The sheep have arrived back in very good condition, and although our ewes were heavy in lamb they have suffered no ill effects from the long journey. This we attribute in a great measure to the efficient and expeditious manner in which they were transported by your railways. Had the sheep been side-tracked or badly handled in loading and unloading, considerable loss would have resulted.

In this connection we especially noted the efficiency and courtesy of the Deniliquin Station-master and his staff.

—Mr. Leigh Falkiner, Secretary F. S. Falkiner and Sons, Ltd., 103 William-street, Melbourne, writing to the Chairman of Railways Commissioners.

COURTESY COUNTS

I AM writing to express my thanks to a member of your staff for the manner in which he expedited the delivery of two cases of perishable goods. I have dealt with various sections of the Railways Department for years, and have come in contact with all classes of the staff; but I must say I was agreeably pleased with the attention given to me by the clerk on afternoon shift at Murrumbeena on Tuesday, 10th April. Instead of gruffly saying "Take them to the scales," he picked up one box and put it on the scales; then got the weights while I put the other box on. I told him the boxes contained perishables (plants in moss) so he immediately marked the boxes accordingly, and I received them from U.F.T.G. station next morning.

I am sure you and your staff must be a happy family if they are composed of other members of the same degree as the gentleman I mention.

—Mr. L. Faulds, Coonara Springs, Olinda, writing to the Station-master, Murrumbeena.

The name of the officer concerned is T. W. Llewelyn, Junior Clerk.

"PERFECTLY HANDLED"

I THINK I should be doing the right thing if I commended you on the running of our sheep special to Maryborough last Thursday night—6.25 p.m. departure from Ararat. I have travelled with dozens and dozens of such trains during the last 30 years, have travelled in a number of the Reso trains, and have travelled in famous expresses over half the world; and yet I very seldom have had a run which, of its kind, was so perfectly handled. The firing seemed to be as good as the engine handling, for all the time it was alight, at any rate 743 I think it was, had just the faint wisp of steam showing at the safety valve.

Such an experience makes the thing a pleasure trip to one who cares both for his charges and for good railroading, and I trust you will not think I am making an undue fuss about a small matter. I have little doubt that complaints are much more readily forthcoming than the compliment I am trying to pay.

—Mr. J. C. M. Rolland, Willaura, writing to the Loco. Foreman, Ararat.

FRANKSTON TRADERS' THANKS

I AM instructed by a unanimous vote of the Frankston Traders' Association to convey to you the following resolution:—

"The members of the above Association wish to place on record our appreciation of the help extended towards the Association on the occasion of the recent annual picnic by Messrs. George, our local S.M., Gray, and Meagher, and feel that much of the success of the day was due to these officers, and as patrons of the

Railway we record unfailing courtesy always received at the hands of Mr. George our local S.M.
—Mr. C. G. Parnell, Hon. Sec., writing to the Chairman of Railways Commissioners.

WALKING TOUR SUCCESS

THE members of the party who walked over the Baw Baws during Easter, under the guidance of officials of the Tourist Bureau, have requested me to convey to you their deep appreciation of the excellent manner in which the arrangements were carried out. The organisation of the party involved a great amount of detail work, and the fact that there was not the slightest hitch reflects great credit on Messrs. J. P. Anglim and M. Harkins, who created a most favorable impression on the members of the party by their zeal and efficiency. In undertaking escorted walking parties of this kind, the Tourist Bureau is showing most commendable enterprise, which cannot but result in the beauty spots of this State becoming more widely appreciated.
—Mr. E. J. Ingram, McEwan House, 343 Little Collins-street, writing to the Chairman of Railways Commissioners.

PICNIC TRAIN SERVICE

WE wish to again express our appreciation of the attention paid to our request for a special train for our annual picnic to Queenscliff. As before, the train was very comfortable and commodious, and the officials both at Geelong and Queenscliff stations, as well as the train crew, were courteous and obliging. This, combined with our picnic arrangements, assisted in making the outing a very enjoyable and successful one.
—Messrs. G. J. Wilks (president) and H. W. Boyceson (hon. secretary) Melbourne Electric Supply Co. Ltd. (Geelong Branch) Picnic Executive Committee, Geelong, writing to the Geelong District Superintendent.

FARMING TRAIN APPRECIATED

I AM desired by the President of the Council of the Shire of Wannon to convey the appreciation of the Council and the ratepayers of the Shire in the matter of the recent Better Farming train to Balmoral and Coleraine. We are quite satisfied that it was quite an education to our people. Our thanks are due to those in authority who gave us the privilege of seeing the exhibits and hearing the lectures. The Officers-in-charge spared no pains in giving all the information possible, and were very courteous and obliging. The Council was pleased that the residents turned out in good force at both towns, and availed themselves of the splendid opportunity of obtaining first-hand information.
—Mr. D. Walls, Wannon Shire Secretary, Coleraine, writing to the Secretary, Department of Agriculture.

LOYAL CO-OPERATION

I DESIRE to forward an expression of satisfaction from this Department in regard to the loyal co-operation of the Mildura and Merbein station staffs in connection with the recent experimental grape shipment to the United Kingdom. Unfortunately the factory which made the containers for the grapes failed to fulfil their promise to forward the empty cases to Merbein on the date agreed upon, thus causing considerable inconvenience. Had the station staffs referred to not risen to the occasion, the fruit must have missed the s.s. "Hobson's Bay," in which space had been reserved for shipment to the United Kingdom. I shall be glad if you will bring under the notice of the railways officials concerned our appreciation of their services.
—Mr. J. Ward, Superintendent of Horticulture, Department of Agriculture, writing to the General Superintendent of Transportation.

Thirty-five Years Ago

Extract from the Victorian *Railways Gazette* of June, 1893:

THE raison d'etre of the Union has been more than once assailed . . A prominent officer recently said that its actions were of small effect ; its influence nugatory ; that unions were organised for the purpose of coercion by strikes when they saw their opportunity . . . Such a view of an organisation of Government employes desirous of bettering their condition is an absurd and exaggerated fallacy . . . . . A strike has never been, nor is likely to be advocated ; nor was this Union founded for such a purpose. It would serve no good end, and we condemn it as being illogical . . . .

We cannot deny our motives are certainly to improve our common lot, to raise our present standard, to enhance our financial status. . . . . To disclaim these would be to stultify ourselves. But who among us desires to impose weighty obligations on the Department, to deplete the Treasury or despoil the State that we might survive the ruin and its concomitant evils ? . . .

The Traffic Union then is committed to a labor of pacific purposes. It boldly asserts its policy, deals open-handedly and marks "Candor" as its watchword . . . . . Let us trust that in our capacity we have a career of usefulness to serve, that our conduct may receive a generous interpretation, and a reciprocity of good feeling endure.—Editorial.

AT the monthly meeting of the Central Council, Mr. Lethlean moved "that a Co-operative Store be established in connection with the Union." Mr. Lethlean forcibly pointed out the benefits to be derived from such a store. Mr. Hart seconded the motion, and Mr. Woodcock, who spoke in support, said he thought the question was one properly within the province of the Federal Council. Several other members approved of the motion, which was carried. Mr. Woodcock's motion that Union delegates bring the question under the notice of the Federal Council at its next meeting was also carried.

ONE of the requests made by a recent deputation to the Minister of Railways (Mr. Patterson) was that passes be granted to old railway servants to enable them to visit different parts of the colony during their leisure. The Minister replied that he "thought pensioners should stay at home and not be rambling at their time of life"—(laughter)—but if some of their number called on him, he would see how far he could go.

PRAISE FOR MT. BUFFALO SERVICE

WE, the undersigned, desire to place on record our keen appreciation of the arrangements made for our pleasure and comfort during the recent holiday at the Buffalo Chalet, Easter, 1928. The service rendered by the staff under the capable management of Mr. and Mrs. Avery was all that could be desired. The tours and sports arranged by Mr. Olney of the Tourist Bureau, and ably assisted by Miss Mavis Avery and outdoors staff, were capably organised and thoroughly enjoyed. In conclusion, we trust that the pleasures and comforts of the Chalet will be more widely known and availed of in the future.
Joint letter, signed by 43 guests, addressed to the Superintendent, Railway Refreshment Services.

EFFICIENCY AND COURTESY

THE Committee of the Benalla United Friendly Societies' Association desires to express its appreciation of the courtesy displayed by the railway employes, and the splendid manner in which they handled the arrangements, etc., in connection with the special picnic train to Beechworth on March 7th, 1928.
—Messrs. W. J. Aitchison (President), and Jas. Ellis (Secretary), writing to the Chairman of Railways Commissioners.

"UNDER A REAL OBLIGATION"

I DON'T know to what special official I am indebted, but I am under real obligation to some one, and I want to acknowledge it.
The circumstances are these: Yesterday my daughter, who is a school teacher, went into town to travel by the express to Bendigo. A few minutes before the time for the departure of the express, a telegram came intimating that Wednesday was to be a holiday in that city. I immediately 'phoned into Spencer-street, and one of your officers was good enough to have the announcement made along the train, with the result that my daughter had an additional holiday at home. We so greatly appreciate this prompt and courteous action on the part of one of your officials.
—Rev. Samuel Scholes, Methodist Parsonage, Westley-avenue, Ivanhoe, writing to the Stationmaster, Spencer-street.

STATION DECORATION APPRECIATED

PLEASE accept my thanks for arranging to have the station decorated with bunting on the occasion of the recent Farmers' Convention. It all helped to give a good impression. I have already thanked your local S.M., Mr. Abrahams, for the many little courtesies he and his staff exhibited towards us.
—Mr. W. J. Trevan, Secretary, Kerang and District Agricultural Society, writing to the Bendigo District Superintendent.

CROSS CROSSINGS COURTEOUSLY

From "THE STAFF," N.S.W.

MOTORISTS' Associations have been conducting courtesy week to encourage road users in the ways of politeness.

Motorist ! When on the roadway
You are gaily speeding,
Don't forget to show the people
That you have some breeding.

Put the other fellow wise to
What you purpose doing ;
Don't stop dead and make him bump you
When you've signalled "slewing."

Stones maybe you have been using
'Gainst the wheels for chocking ;
Don't drive off and leave them scattered—
That is conduct shocking.

When you feel fed-up and peevish
At the sight of spanners,
What's thises, and nuts, and gadgets ;
Keep in mind your manners.

Have a care when you are coming
To a railway crossing ;
(It's no place to be engaged in
Talk that is engrossing).

Courtesy at level crossings—
That's the time to show it,
Every engine's "she"—a lady ;
Let her see you know it.

When a train is looming handy,
Pray, do not "step on it" ;
Ladies first !—and safety likewise—
Stop, and raise your bonnet.

Beggar—"Will you kindly give me tuppence for a sandwich ?"
Slightly inebriated Scotchman—"Shure, lesh 'shee th' sandwish !"

By Appointment to His Majesty King George V.

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Is the LEADING British Lorry and lasts longer

Models 2, 3, 4 and 5 tons. Apply to :—

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of
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in oneself is due in no small measure to a clear and easy vision.

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QUALITY—**ACE**—CYCLES
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ACE CYCLE WORKS
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and at 437 Church Street, Richmond

Bourdic's Skin Lotion.
For the relief of all kinds of Skin troubles:—such as Eczema (dry and moist), Hives, Herpes, Itch, Prickly Heat, Pimples, Acne, Freckles, &c. **Price: 2/6 per Bottle.**
B. G. LEWIS, Chemist,
BOURDIC'S PHARMACY,
98 Spencer St. (opp. Station), Melbourne.
Phone: Central 2475. Established 1886.

Victorian Railways Honor Roll

RECENT RETIREMENTS

As long as men shall live and build; as long as they strive for worth while achievement, there shall be honor and glory in work well done.

	Date of Appointment	Years of Service
E. Johnson, Passenger Guard, Healesville	1882	46 years
A. Mitchell, Signalman, Essendon	1883	44 years
E. M. Hoare, Block and Signal Inspector, Geelong ...	1883	44 years
J. Moloney, Signalman, Yarraville	1883	44 years
J. Jeffers, Goods Foreman, Melbourne	1884	44 years
C. Cummins, Signalman, Oakleigh	1885	43 years
D. Parker, Signalman, Melbourne	1885	43 years
F. H. Murray, Signalman, Clifton Hill	1884	43 years
E. Harris, E.S. Guard, Coburg	1886	41 years
J. McGregor, Stationmaster, Edithvale	1887	41 years
J. O'Donnell, Ganger, Albert Park	1887	41 years
L. Emery, Ganger, North Geelong	1887	41 years
H. Werner, Office Cleaner, Richmond	1888	40 years
M. J. O'Neill, Goods Guard, Melbourne	1889	39 years
E. Riordan, Goods Sub-Foreman, Geelong	1889	39 years
D. Collins, Goods Guard, Benalla	1889	39 years
R. Lethlean, Stationmaster, Spotswood	1889	39 years
J. Crouch, Goods Checker, Ballarat	1888	39 years
E. Shepherd, Goods Checker, Melbourne	1888	39 years
S. Shugg, Skilled Laborer, Richmond	1888	39 years
R. McKee, Repairer, Moe	1889	39 years
T. Nulty, Gateman, West Brunswick	1889	38 years
M. Flanagan, Repairer, Welshpool	1890	38 years
H. Kavanagh, Goods Checker, Melbourne	1889	38 years
J. Wilson, Conductor, Spencer-street	1890	38 years
E. Melen, Signalman, Maryborough	1889	38 years
R. Fraser, Assistant Stationmaster, Brighton Beach ...	1889	38 years
J. Noonan, Stationmaster, Royal Park	1890	37 years
J. O'Connor, Repairer, Coburg	1898	30 years
H. W. Hateley, Ganger, Lal Lal	1900	28 years
A. Moffat, Clerk, Abbotsford	1901	26 years
W. Dunkley, Signalman, Melbourne	1908	19 years
J. S. Thompson, Repairer, Horsham	1912	16 years
A. C. Elliott, Clerk, Elwood	1913	15 years
F. S. Mitchell, French Polisher, Spotswood	1915	13 years
J. Fisher, Sup. Laborer, Melbourne	1918	10 years
W. F. G. Griffiths, Casual Laborer, Melbourne ...	1920	8 years
H. V. Williams, Porter, Ballarat	1923	5 years

Wireless *Continued from page 32*

and secondary coil of 45 turns of the same wire wound on a 3 in. former. The primary is placed inside the secondary and both are mounted in a vertical position on the baseboard. The top end of primary is marked AA. Top end of secondary, CC. Bottom of primary, BB. Bottom end of secondary, DD.

For maximum efficiency, however, the coil kit should be space wound on celluloid strips as explained in previous articles, in which case an extra 5 turns on both primary and secondary will be necessary.

OPERATION

Place the booster in a convenient position, say six inches distant from existing set. Remove aerial and earth from set, and attach to A. and E. terminals respectively on booster. Connect aerial terminal on set to terminal on booster marked "to aerial terminal" in Fig. 1. No connection is made to the original earth terminal on the set.

Without disturbing present battery connections to set, make additional connections from batteries to appropriate terminals on booster. Stations are now tuned in by simultaneously adjusting dials on set and booster. The readings on original dial (or dials) will probably be a little higher than usual.

In conclusion it may be emphasised that the increased sensitivity to weak signals together with added selectivity is ample compensation for the little trouble involved in constructing this amplifier.

SAFETY FIRST DISPLAY AT MOTOR SHOW

For some time past it has been customary for the Railways Department to make a display of Safety First bulletins, posters and general safety matter at the Annual Motor Show.

This year, however, the Department, working in conjunction with the National Safety Council of Australia, exhibited a level crossing model, showing the consequences of a collision between a train and a motor car. Safety Bulletins were also displayed.

Mr. H. J. Book, Secretary of the National Safety Council of Australia, and his assistant, who were in attendance at each session of the Show, state that the demand for Safety literature was indicative of great interest in the movement which should become much more widely known and appreciated by the public.

PARENTS!



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Buy your **Boy's Clothing** direct from the maker at **WHOLESALE PRICES**

WE cut out middleman's profit, so why pay more in the shops?

IF your boy does not take a stock size, we cut to measure.

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THIS Overcoat in smart Velour, also in dark and medium grey warm reliable materials. Sizes 1 to 5 **27/6**

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Are YOU *a* WELFARER?

MEMBERS of the Victorian Railways Welfare Society obtain liberal concessions on almost every purchase—including Ladies' and Gent.'s wearing apparel, ironmongery, furniture, jewellery, radio goods, footwear, mercery, cycles, chemist supplies, etc., on presenting a coupon (book of 12 coupons costs 1/-).

MEMBERSHIP——————ONE SHILLING

Ask the representative of your section for all particulars or write for a catalog.

The Victorian Railways Welfare Society

J. D. BROUGHTON, Hon. Sec.
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627 High-street, Croxton
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Up Country (*Cotinued from page 26*)

creasing the siding facilities at Traralgon will be commenced at a very early date. This is a work badly needed and has been looked forward to for some considerable time.

MARYBOROUGH

DESPITE adverse conditions last spring, the wheat yield in the North-western District was much better than anticipated by the general public. Up to the end of April 896,317 bags had been despatched to the seaboard, while 273,575 bags were still stacked at stations Computing the number of bags of seed wheat held by farmers for the ensuing season at approximately 333,000 the total yield amounted to 1,502,892 bags.

The acreage under crop this season will probably be greatly in excess of that for any previous year, and with rain at suitable times a record yield should result. Relaying gangs are now busily engaged relaying the line to Mildura with heavy rails. This work will be completed before summer, when the use of high powered engines will greatly facilitate the transport of wheat to the shipping ports.

Settlement of the Millewa district has proceeded very rapidly, and at the present time the Redcliffs–Meringur line serves 1,000 farms. During the last four months the volume of traffic received at stations consisting of chaff, seed wheat, machinery, building material and general merchandise has been very heavy. The yield from this line for next season should be in the vicinity of 1,000,000 bags. A scheme is now under consideration for the construction of a series of roads at right angles to the railway line to afford settlers better facilities for getting their produce to the stations. About 40 miles of roadway is to be constructed at a cost of about £100,000. The Development and Migration Committee, which has been responsible for the placing of many settlers in the Millewa district, is, it is understood, to defray portion of the cost involved.

Until recently sheep were almost unknown on farms in the Mallee, but during last month a train load of 46 trucks or 4,500 sheep was received from South Australia for stations north of Woomelang.

Deliveries of new season's dried fruits up to May 12 to packing sheds within a radius of 20 miles from Mildura totalled 20,646 tons, comprising 3,451 tons of currants, 13,392 tons of sultanas, and 3,803 tons of lexias.

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For a Hot Day Reviver
Preston's Gin and Squash

ALEXANDER & PATERSON
HANSEN & COMPANY
MELBOURNE

Railway Outposts

(*Continued from page 42*)

tition weakened, sagged at the knees, and has tottered almost to a standstill. Gisborne's revenue mounted and kept on mounting.

In a notoriously slack season, Gisborne has shown a consistent revenue increase over monthly figures for last year. February's money this year was £390, compared with £365 in 1927; March's, £720, compared with £525; and April's, £462, compared with £406. A total increase for the quarter-year of £276. For a small eighth class station, these are healthy figures.

The hard fight has centred on a neatly-kept station, with scrupulously clean buildings and trim hedges. S.M. and staff demonstrate that cleanliness is next to salesmanship. Keith Lobely, S.M. Martin declares, is "one of the best lad porters in the State." Assistants Charles Banfield and George Watson—both potential S.Ms.—are, it seems, as deserving of as much credit as the station-master.

Although S.M. Martin himself denies that there is any credit attached to anyone. "We haven't done anything at all remarkable," he protests. "Just our job." . . . .

A very modest, as well as a very capable, railway outpost, Gisborne.

A Night Glimpse

(*Continued from page 19*)

concrete bridge, you got the impression that the cut was being made in the wrong direction.

"Then we built concrete pier bridges at Nicholson and Albert-streets, demolished old Middle Footscray station and substituted a brand-new island platform on the far side of Victoria-street, lowered that thoroughfare 13 feet beneath the line, lifted the Geelong-road 17 feet over the concrete abutments of the bridge which surmounts the four tracks, and, last and least, raised the fence of the Footscray football ground a foot or so."

Bump of tyreless wheels and springless chassis brings a lumbering motor truck from the hammer of the stone-crusher to the quiet of the station approach road. It is filled with fresh-broken bluestone.

"Excavated stuff, all of it. Altogether, we excavated between the river and West Footscray nearly 170,000 cubic yards of earth and solid rock, a big job, right enough. And an expensive one." The engineer chinks some loose change in his trousers pocket.

"Expensive. The new line is about three miles long. It took close on two years to build. And it cost more than half-a-million."

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Electrical Testing (*Continued from page 21*)

pressure are required, and a standard barometer capable of being read to 1/100th of an inch forms part of the equipment. A barometer vacuum gauge with a range up to 32 inches and capable of being read to 1/100th of an inch is also in general use for the calibration of vacuum gauges.

In addition to the plant installed at the depot, certain portable equipment is also in use. For high pressure testing around the system a 100 k.v.a. 60,000 volt testing transformer, familiarly known as Big Bertha, is permanently located in an H truck. Switching and control equipment, portable connecting cables, etc., are carried in the truck which thus forms a complete pressure testing outfit capable of being transported to any point on the system at a moment's notice.

A second truck is fitted with a motor-generator set capable of supplying direct current to a value of 5,000 amperes, such loads being necessary for the calibration of the high speed circuit breakers installed in certain substations.

In connection with the investigation of electrical faults and disturbances the oscillograph is playing an increasingly important part. For ordinary tests a two element machine is employed, but for more intricate investigations a six element instrument is in use. The oscillograph may be likened to the moving picture camera, except that it is a high speed machine and that it photographs electrical phenomena which are completed in some cases in less than five thousandths of a second.

Workshop Equipment

As previously stated, the Testing Division has its own workshop, where repairs to instruments and relays are carried out, and where the less important measuring instruments are calibrated. The workshop comprises two sections, one occupied by electrical fitters, and the other by testing electricians. All mechanical repair work to instruments and relays is carried out by the electrical fitters, while adjustments and calibrations are performed by testing electricians. Instrument repairs involve work of a very precise nature, and as might be expected, the various machines used by the fitters are of the precision type. Two precision lathes, three jewellers' lathes, and a high speed precision drilling machine are in constant use, while machine work of a less precise nature is performed on a 6 in. shop lathe and a double drilling machine.

The testing electricians' section is somewhat akin to the Standards Laboratory. Six test benches are provided for the rapid calibration of instruments used in power and substations, but whereas wooden frame benches are used in the laboratory, steel frames are employed in the workshop. Each bench is supplied with its own power and its own reference standard, so that instruments can be checked with great rapidity. Work benches are provided alongside each test bench, so that minor repairs can be easily carried out. In addition, a bench has been provided for the calibration and testing of relays. All current supplies available in the machine room are also carried to a central switchboard in the workshop. A 1,500-volt current direct from the main overhead has also been furnished, but this supply is carried to the relay bench only.

In a system carrying more than 1,200 instruments and 1,500 relays, it is obvious that a great amount of maintenance work is necessary, but in addition to this, practically all of the controls, rheostats, and so on, used in the layout of the divisional headquarters, were manufactured in the workshop. Various special measuring instruments, relays, etc., have also been designed and manufactured to meet the requirements of the system as such arise.

A Place for Everything

It has been found essential to carry a representative supply of spare substation and power station instruments, these being located in racks in the storeroom, which forms part of the workshop. Tools and workshop supplies are all carried in steel racks or steel frames, and the old motto "a place for everything and everything in its place" is here well exemplified. Portable recording instruments, which are in constant demand around the system, are kept in special racks along one wall and maintained in constant readiness for use.

In these days when manufacturing processes seem almost perfect, and when such keen competition exists, the need of such an extensive organisation as the Testing Division seems almost unwarranted ; but a very short acquaintance with the work leads to the conviction that it is not only desirable, but is an absolute necessity if safety is to be assured, and if the required standards are to be maintained. Cases have come under notice where whole shipments of insulators have failed to conform to ordinary standards, and have been rejected. In another case, a motor certified to have passed its tests quite failed to make good, and was subsequently proved never to have been run.

In addition to the work carried out within the Department, the equipment is also available to outside firms, and in fact, is continually being called upon. This is specially noticeable for such work as the calibration of sub-standard measuring instruments, and recording pyrometers, the equipment provided being the most up-to-date procurable.

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Don't forget that the Savings Bank is the best thrift aid.

Don't forget there is a Savings Bank Agency in every Post Office in Australia.

Commonwealth Bank of Australia.

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Railwaymen in Sport (*Continued from page 31*)

the scores show :—

Railways, 14.13 ; Air Force, 8.9.

Railways, 17.24 ; Waterside Workers (last year's premiers), 8.9.

Railways, 18.22 ; Telegraphs, 8.6.

This League has been in existence for 7 years, on four of which the Railways have been premiers and on the other three runners-up—not a bad record. It speaks volumes for the secretarial and organising ability of Bill Clifford. In the Railways team are several prominent League and Association players, viz., Baker, O'Brien and Morrison (Footscray), Millen (Fitzroy), Lovett, captain (North Melbourne), Malberg (Yarraville).

The Victorian Railways Football Association commenced its premiership matches on May 16. There are six teams competing this year, viz., North Loco., Yard, Car and Wagon Shops, Flinders-street, Williamstown Line and Sandringham Line. All matches are being played on enclosed grounds, and the association employs its own umpires. North Loco. were premiers last year and hold the Commissioners' Cup. Yard Foreman J. Cummins is president, and Geo. Broadbent, clerk, Flinders-street, is secretary, and a good season is anticipated.

Railway teams in Maryborough and Bendigo are competing in local associations. The Bendigo Club won the premiership last season and has, up to date, won the only match in which it has taken part.

TENNIS

The Railways Head Office Tennis Association has appointed a sub-committee consisting of Messrs. N. Lester, A. W. Cobham and E. F. McIver to draw up constitution and rules.

A tournament has just commenced amongst the members of the Telegraph and Train Running staff.

The activities of the various organisations will be recorded in the Magazine from month to month, and I should be pleased to receive notes from railway men in any part of the State concerning any sporting activities which might be of interest.

BOXING

Micky Fever made a welcome return to the fold last month after a twelve months' absence, and quickly showed he had lost none of his old brilliance. One of the ablest feathers in the State, he should prove a source of strength to the next Interstate Boxing Team.

Jimmie Lucas (light) and J. M. Maher (middle) are both showing good form and are developing into hefty punchers. Among the beginners, Jack McNaughton and T. Bell (lightweights) are coming along rapidly and should soon make their presence felt among the older brigade.

Since Frank Perry linked up with Instructor Larry Copeland the number of Newport lads in the boxing class greatly outnumbers the rest of the students.

What about North Melbourne and Jolimont? Surely there are a few budding champions who would like to test their skill.

WRESTLING

Billy Meeske and assistant Bert Potts have a number of very promising grapplers on their roll, and have hopes of again acquiring a few Victorian Championships.

HARRIERS CLUB

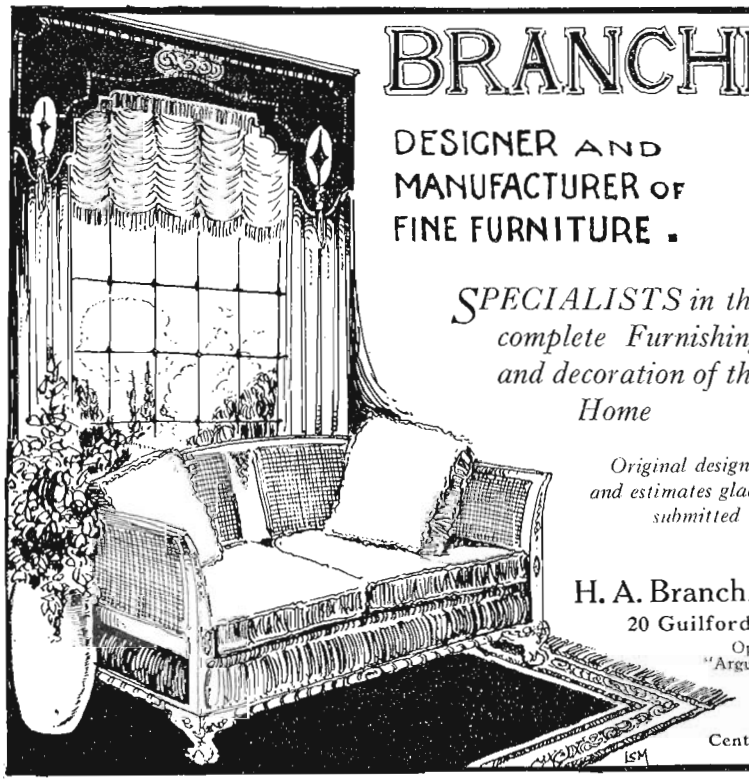
Secretary Jack Williams reports bright prospects for the 1928 cross country season. A couple of dark horses with no particular admiration for Nurmi, have joined up, and hopes of winning the Junior Five Mile were never so bright.

Roy Read, R. Walsh and Sid Leamon finished in that order for the President's trophy for regular attendance at practice. President Bert Guyot, who finished just out of a place himself, made the presentation at the Club's Dance at the Institute last month.

TOM BOLGER'S FAREWELL

The Institute Concert Hall was crowded on May 4, when Champion Light Wrestler, Tom Bolger, was given an enthusiastic farewell, prior to his departure with the Olympic team. Mr. B. Guyot, chairman of the Gymnasium Committee, occupied the chair, while Mr. T. F. Brennan, Chief Accountant, made the presentation—an open order for the purchase of necessary travelling requisites. Mr. J. Conlan, Vice President of the Institute, was also present. During the evening Ad. Santel gave an exhibition of wrestling, and Billy Meeske of physical culture. Count Zarynoff attended but took no part in the entertainment.

Tom recently received a letter from Mr. Clapp expressing gratification at his selection as one of Australia's Olympians. "I am keenly interested in Amateur Athletics," the Chairman wrote, "and have been privileged to witness some of the contests in which you have so successfully figured. I have always been impressed with the manly and thoroughly sportsmanlike way in which you have conducted yourself, and in expressing my conviction that you will worthily uphold the prestige of our Commonwealth, I would like to convey to you my earnest wish that you will add still further to your remarkable record of victories, and that you will thoroughly enjoy your trip overseas and return to Victoria safe and sound."



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GREY GEM - - 5/6

Books and New Books

Thumbnail Reviews by J. D. MICHIE

Life and Laughter 'Midst The Cannibals.—By Clifford W. Collinson, F.R.G.S. Mr. Collinson writes in a charmingly unaffected and descriptive style. So well is it done that the reader seems to become personally acquainted with the Government Officials, traders, natives, missionaries, seafaring people and others who pass through his pages. His Solomon Islanders are most graphically portrayed.

The Little Friend.—By Bruce Marshall. The author has in this, his latest work, given us a remarkable picture of the intrigues of a young Scotch theological student. Not only does he hold attention by his sincerity of characterisation, but he dominates by the utter frankness of his descriptive work, and we are compelled to see the doubts and fears, hopes and ecstasies of James Garrett, who is unconsciously seeking for something definite on which to place his whole faith and trust.

Prejudices. Sixth series.—By H. L. Mencken, well-known editor of the *American Mercury*, and author of several books, notably "In Defence of Women," "A Book of Prefaces," "Selected Prejudices," "Notes on Democracy." In the volume under notice, Mr. Mencken rings true to his character as an iconoclast, a scoffer at idols, a critic with whips and scorpions who does not hesitate to deal with literary, social and political humbugs in the one slashing manner.

The Age of Reason.—By Sir Philip Gibbs. The searchlights of the world are at present turned on the contest between science and religion. In The Age of Reason, Sir Phillip Gibbs adds his beam. A novel of excellent craftsmanship, it is constructed in the same delicately humorous style to which we have grown accustomed.

The Extra Passenger.—By Douglas Timins. Packed with thrills, with surprises at every turn and with an atmosphere of impenetrable mystery pervading the whole, "The Extra Passenger" is something quite out of the ordinary. It is one of those thrilling adventure-cum-mystery tales that stimulate as well as interest the romantically minded reader.

Blue Jungle.—By David C. Wilson. is a captivating story of the vicissitudes of a Scotch family who are bequeathed a share in a trading depot on the Tanyang River, near the borders of Siam, by an elder relative. Arrived there they immediately find themselves involved in a business intrigue between their niece Meriam Dorne, and the president of the King Ping gold mines. How they fare, their many adventures, and happy ending is realistically portrayed.

The House in Horton Hollow.—By Anna De Bary. An attractive story set in the period of the Napoleonic wars. The scene is laid in a Dorset village (England) with a background of smuggling, fighting and secret hiding-places appropriate to the period, and the book is touched throughout with a refreshing sense of humor.

Miasma.—By Wyn M. Watts. Anne's beauty and allure was at its height when, on board ship during her journey to Jamaica, she met Captain Donald Quin, a very gallant soldier. They marry almost immediately, at British Guiana, and leave for Quin's rubber plantations on the Orinoco. It was there that their troubles began, but the author's first-hand knowledge of the regions in which the novel is set lends an added interest to an already poignant story.

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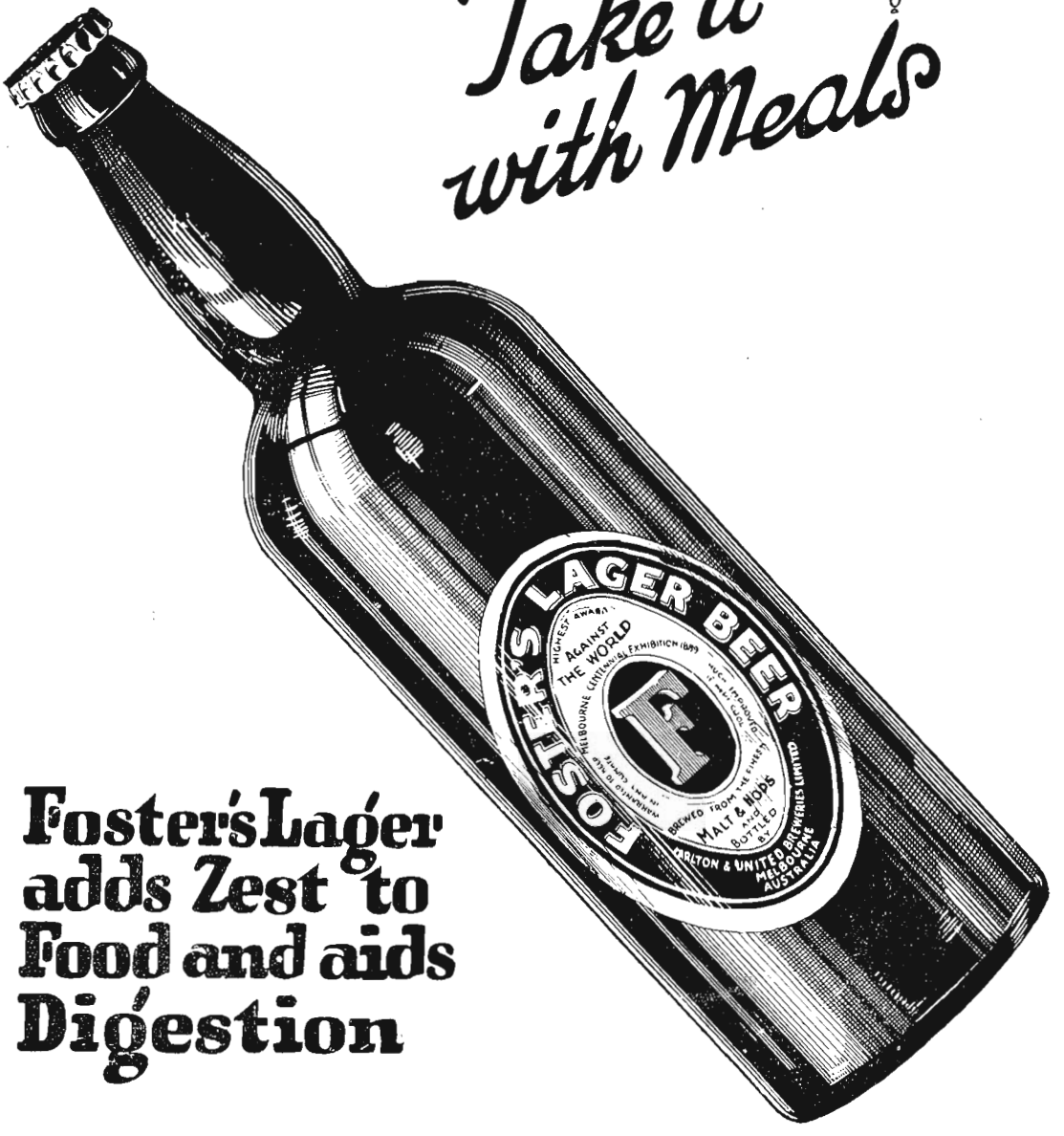
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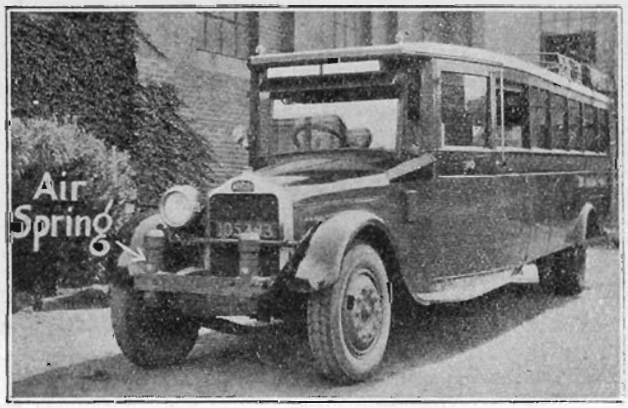
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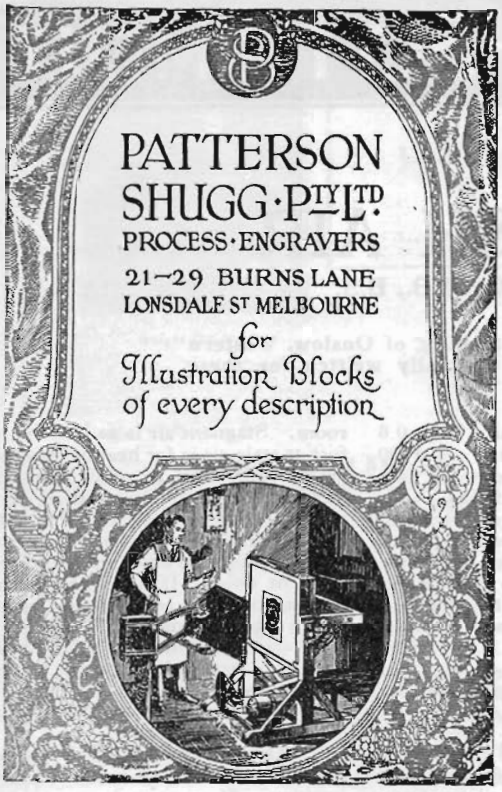


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No. 5—FRESH AIR

By Dr. A. E. STENNING, M.B., B.S.

THE following article by Dr. A. E. Stenning, of Onslow, Western Australia, is the fifth of a series specially written for these pages.

THE chief causes of ill-health are faulty living habits. Pure fresh air and sunlight are essential for good health. Civilised man, shut up in unhygienic clothes and hot stuffy houses and offices, has to plan to insure a continual supply of pure, fresh, clean air and sunlight.

It is unnecessary to enter into the physiological principles of fresh air and light to the human economy; suffice it to say that man was born to breathe fresh air every minute of the day and night. Scientists have shown the economic value of fresh air and light to be no less than the hygienic value. Good light and air help you to avoid mistakes, to do better work and feel less tired, to think more clearly and rapidly and to feel more energetic, calm, cheerful and contented.

Without abundance of fresh air and light plants and animals weaken and sicken, grow listless and prematurely die. A dark room is always a death chamber. The source of energy to the animal and plant worlds is the sun, and the best elixirs known to man are sunlight and fresh air. In modern health resorts, air and sun baths are now used regularly as the best means for renewing vitality, vigor and youth.

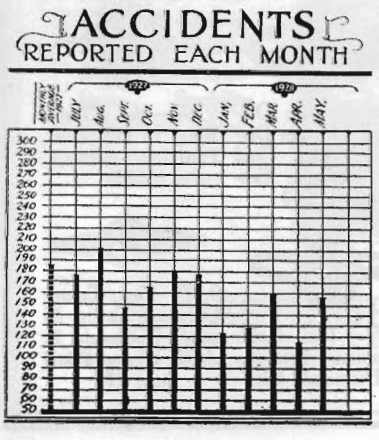
How much fresh air do you want every hour? It has been proved that an average adult exhales 0.6 cubic foot of carbon dioxide per hour. Now 0.6 cubic foot of carbon dioxide per 1000 cubic feet of air can be regarded as a standard of efficient ventilation. One thousand cubic feet of pure air contain 0.4 cubic foot of carbon dioxide, therefore this volume can take up or receive 0.2 cubic foot more carbon dioxide and not contain an excess over the standard limit of 0.6 cubic foot. Based on these facts, the volume of fresh air required each hour to keep the air of the room or office healthy is 3,000 cubic feet per person per hour.

Results of Insufficient Oxygen

Defective oxygen supply from shallow breathing or improper ventilation may result in any of the following complaints:—Headaches, drowsiness, faintness, cough, colds, poor appetite, excessive fatigue, irritability, insomnia, nightmares, confusion of thought, slow memory, nervousness, depression. To aid you to benefit to the fullest extent by fresh air and sunlight the following suggestions may be of value:

1. Breathe deeply. Practise breathing exercises daily. See that your chest expansion is over 2 inches.
2. Sleep with your room windows open, or better still sleep out on your verandah or in a special sleeping out compartment.
3. Keep the air moving in your work room. Stagnant air is as bad for comfort as stale air is for health. Keep the air of your room or office continually moving either by ventilation or by electric fans. Place the fans high enough and far enough from your centre of work to avoid interruption by draft or noise. If no electric current be available your office should be aired hourly by opening all doors and windows for a minute or so and swinging the doors back and forth to create an artificial breeze.
4. Use electricity in place of gas or oil for lighting purposes.
5. Do not allow tobacco smoke to poison the air of your home or place of business. If you smoke, smoke outside. Do not use tobacco while working, both from an economic and hygienic standpoint.
6. Stand, sit and walk as straight as possible. Hold your head up, chest high, shoulders back, abdomen in, body firm and erect.
7. Keep your skin as healthy as possible by sun and air baths. The best tonic for the skin is sunlight as well as fresh air.
8. Wear light, loose and porous clothing. Keep your hat off as much as possible. Wear low comfortable collars. Never support your trousers by a belt.

Continued on page 6



JUNE SUGGESTIONS DRIVE

The subject chosen for the seventh suggestions drive, which will be held during July, is:—

> **"How can we add to the comfort of passengers on Interstate trains?"**

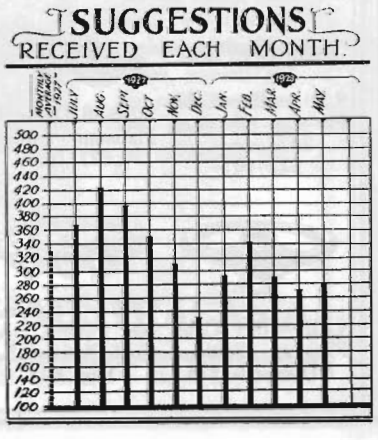
Suggestions should be submitted to the Betterment and Publicity Board in the usual way.

You can never do as much for Safety as Safety can do for you.

Just because you see its tracks is no sign that a train has just passed.

Don't get sore; Get the Safety Habit.

Watch your step Not the clock.





Weight 175 lbs.

AD SANTEL

UNDISPUTED CHAMPION LIGHT-HEAVYWEIGHT
WRESTLER OF THE WORLD

OPEN TO MEET ANY MAN IN THE WORLD, BARRING NONE

1014 FILLMORE STREET SAN FRANCISCO, CALIF

3rd October 1927.

R.J. Byers Esq.,
Tailor,
MELBOURNE.

Dear Sir,

I wish to express my appreciation of the high standard of the Clothes that you have tailored for me. They have given me every satisfaction. I have not yet worn a more comfortable suit than the last one you made for me.

Coming from a country where tailoring is such a fine art I am in a position to be critical, but I must say, that "Byers Clothes" rank with the best.

I thank you for your promptness in delivery, and assure you that I will gladly recommend your suits.

Yours sincerely,

Ad Santel.



AD SANTEL
Weight 175 lbs.

AD SANTEL

UNDISPUTED CHAMPION LIGHT-HEAVYWEIGHT
WRESTLER OF THE WORLD

1014 FILLMORE STREET SAN FRANCISCO, CALIF.



R.J. BYERS ESQ.,

101 Swanston Street,

MELBOURNE.

GOOD RESOLUTIONS FOR ANY DAY

I will study the language of gentlemen, and refuse to use words that bite and tones that crush.

I will practise patience at home, lest my temper break through unexpectedly and disgrace me.

I will remember that my neighbors have troubles enough without loading mine on them.

I will excuse the faults and failures of others as often and fully as I expect others to be lenient with mine.

I will be a friend under trying tests, and wear everywhere a good-will face unchilled by aloofness.

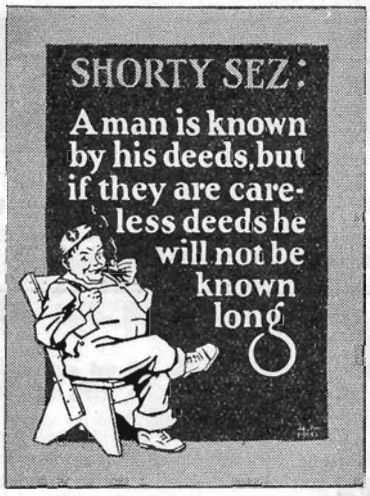
I will gladden my nature by smiling out loud on every fair occasion and by making my outlooking optimistic.

I will pray frequently, think good things, believe in men, and do a full day's work without fear or favor.

SMILE!

Don't be a grouch. If you can't smile there is something the matter with you. If there is nothing the matter with your body the trouble is in your disposition. Be courageous and you cannot be ill mentally. Smile, hit the line, face the enemy and perhaps your nervous trouble will vanish like magic.

(Life Extension Institute).



BENEFIT BY YOUR IDEAS

The following awards were made during May for adopted suggestions:

Total Amount ... £114
Highest Award ... £23

Arrangements now exist for the placing of adopted suggestions of particular merit before the Railways of the various States, also the Commonwealth and New Zealand Railways.

TAKE REST AND EXERCISE!

Exercise is needed to keep the body in good condition.

One form of exercise which everyone may take is walking. Walking jogs the sluggishness out of the liver, livens up the circulation of the blood, improves the action of the skin, overcomes constipation, and acts on the body for good in many other ways.

Children get their exercise through their play.

Rest is a very necessary thing. Every created thing mixes work with rest. The organs of the body rest at times.

A great deal of illness is caused through want of rest.

The best way of resting, other than sleep, is to lie down at full length and let every muscle relax; that is, let every muscle become as flabby and soft as possible. A cat asleep is as soft as a piece of putty.

Relaxing is especially good of women.

Try relaxing when you feel weary.

SLEEP IS BETTER THAN MEDICINE.

(From a publication issued by the Colonial Mutual Life Assurance Society Ltd.)

"I just got back from the beauty parlor. I was there three hours."

"Too bad that you stayed so long and then did'nt get waited on."

Industry *Earns* Prudence *Plans*
Economy *Manages* Regularity *Saves*

A thrifty man EARNS his income thoroughly—MANAGES to get along without spending all of it—PLANS his expenses so that he may SAVE

at the

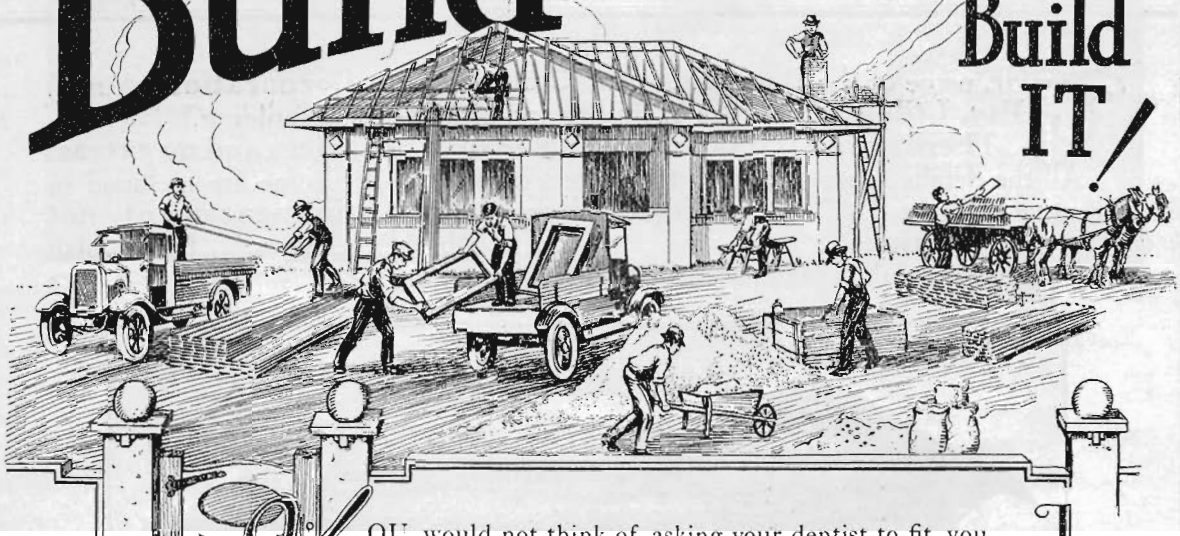
State Savings Bank of Victoria

Branches and Agencies throughout the State

HEAD OFFICE - 139-153 ELIZABETH STREET, MELBOURNE

GEO. E. EMERY, General Manager

Build - but let a Builder Build IT!



YOU would not think of asking your dentist to fit you out with spectacles, therefore, when contemplating building see to it that you consult a tradesman that knows his job.

Building is OUR Job.

Through our long and varied experience we are in the position to advise you about the construction of your home and build it to suit your most exacting requirements.

It is not necessary that you should own a block of land. We have choice positions available with beautiful Bungalows of different designs at present in all stages of construction.

The combination of our expert workmanship and the highest quality of materials displayed in these pretty homes will convince you of the wisdom of consulting a builder. Perhaps you may have already purchased a block of land and have your own ideas of the house you would like to see built on it. In this case do not hesitate to come and seek our advice, which will be given without obligation on your part. Our architect will draw plans from your rough sketch design FREE of all charge.

Should you decide to continue, the middleman will be entirely eliminated and you will be in direct touch with the men who are actually doing the job.

Why Pay Rent when you can conveniently own your own Home and pay for it on easy rent terms? BUILD!

Please send fuller particulars of your Home Building Offer without any obligation on my part.

NAME .....

ADDRESS .....

V.R.M., July, '28

KALMUND & HEBER PTY. LTD.

FAIRMONT AVENUE, [Golf Links Estate] CAMBERWELL

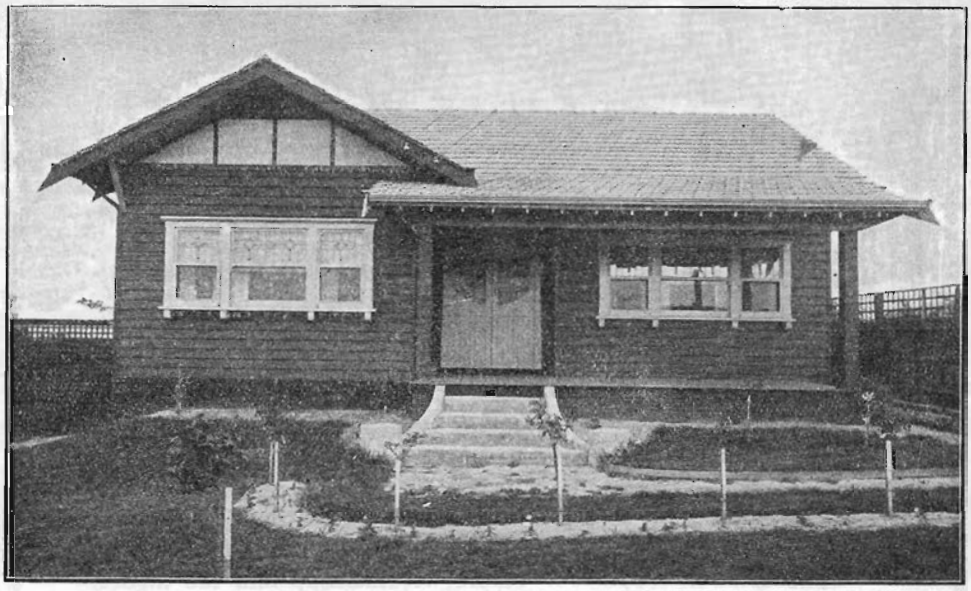
PHONE W. 2263

SAFETY FIRST!

THE name of the **Designing and Construction Corporation (Aust.) Pty. Ltd.** is a guarantee of quality and satisfaction in building.

There are no red tape methods—No catch prices and no extras.

All the details so necessary for the perfect comfort of the home are included in the price submitted. You know the total cost **before commencement, not after completion** . . . Moreover, we do not build "Types." Every plan receives the careful consideration that means distinction



The above in Timber—**£525** Brick—**£637**
(Contains 4 main rooms, complete with all fittings and conveniences)

GET away from the idea that it is only the more fortunate who can afford to own their own home. **Every man who can pay rent can more than purchase a home,** for our repayments are considerably less than present day rentals. A glance at the residence illustrated above will prove this contention. You incur no obligation by calling, and we shall be pleased to afford you sound advice on any matter appertaining to building.

Designing & Construction Corp'n

(Australia) Pty. Ltd. 'PHONE F 4976

Open Friday Nights 7.30 to 9.

5th Floor, Nicholas Building (opp. Cathedral)
SWANSTON STREET, MELBOURNE

Post this for further information
Address .....
Name .....
.....V.R.M., July

The VICTORIAN RAILWAYS MAGAZINE



FLINDERS STREET STATION — MELBOURNE

For 7s. per annum, this Magazine will be sent, post free, to any address.

A copy is issued free to all permanent Victorian railwaymen, and to all temporary and casual employes with six months' service.

Contributed articles, paragraphs, verse, and photographic prints (negatives are not required) must reach the Editor, care Betterment and Publicity Board, Railways Department, Spencer-street ('Phone Railways 393) not later than the 12th of each month. Correspondence relating thereto is carried free over the Railways.

Communications in regard to advertising should be addressed to the Manager, Railways Advertising Division, Savings Bank Buildings, corner of Spencer and Collins-streets, Melbourne ('Phone C. 6414 or Railways 139).

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Mass Production

THERE is a lurking distrust, here in democratic Australia, of the principle of mass production, even of the very term. Possibly it's because, as a nation, we overstress selling values and prefer to inflate prices rather than increase production efficiency to bring down buying values. Which is economically wrong. But we won't argue about that just now.

THE point is that successful transportation, as a commodity, must be and is produced in mass. And the greater the mass, the cheaper is the product, the more labor is employed to produce it, and the higher is the general level of prosperity.

BUT mass production which, itself, is economical, must stimulate buying co-operation. And that demands the elimination of wasteful and uneconomic competition. If rail and road transporters compete for a patronage which can support only one of them, the buying value of their product must necessarily be high for both to get a living.

THE moral is obvious.

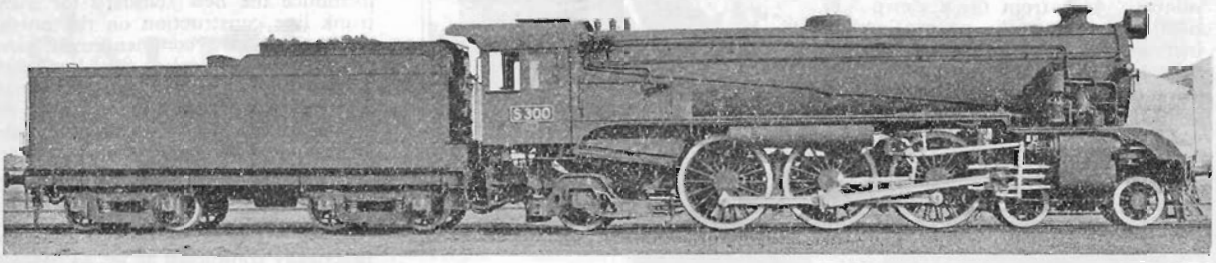
There's No Sport Like Snow Sport



July Scenes at Mt. Buffalo National Park

S. 300 Will Save Thousands

By HUGH RICHARDS



The latest photograph of S. 300 which shows to advantage the graceful lines of the locomotive

EMERGING successfully from its tests and passing smoothly into service, the new Pacific locomotive will not only improve existing train schedules between Melbourne and Sydney, but will save the Victorian Railways Department thousands of pounds.

TWENTY-ONE thousand pounds was the approximate cost of the first Pacific locomotive built in Australia. As a job, the locomotive was worth every pound expended on it. The workmanship could not have been excelled, the material was of the highest quality, and the 190-ton giant steamed out of the Newport workshops a gleaming, powerful monument to the skill of its creators. The familiarity which is bred of experience will keep the cost of each of the two additional Pacific engines, now under construction at Newport, below £16,000. Consequently the aggregate cost of the three locomotives will be somewhere in the vicinity of £53,000.

The work of five A2 type locomotives will be done by this trio of steam leviathans. And as five A2's could not be replaced for less than £55,000, a direct saving in production costs has been realised straight away.

Eliminating Double-heading

Here the saving merely begins. Once the three new engines are in service, each trip they make will swell the growing bulk of their collective economy bias in rolling snowball fashion. Double-heading will be eliminated on north-eastern express trains, there will be a quickening of the timetable schedules, and the overall time of the Sydney Limited will appreciably be reduced.

Under present conditions, the maximum express load for an A2 locomotive between Seymour and Albury cannot be hauled on the first stage from Melbourne to Seymour without the aid of a banking engine. Even when the climb to Seymour is negotiated and the load is brought within the capacity of the A2's 29,000 lb. tractive effort, no margin of engine power remains in reserve for eventualities on the run to Albury. The time lost in adverse weather, for instance, or against strong headwinds, or on account of local speed reductions where track and bridge repairs are in course, cannot be made up en route. There is then no reserve of energy behind the laboring pistons of the hard-pressed locomotive. And unregained time, of course, means disturbance of the timekeeping of other trains in the single line sections.

Too Heavy for One A2 Engine

Inevitably, moreover, double-heading sets operating expenses soaring. Every time a banking engine is needed between Melbourne and Seymour, £15 is added to the journey's operating costs. Insignificant at first glance, the amount becomes imposing when assessed over a six or 12-month period. Reviewing the 55 days between March 28 and May 21 last, the discovery is made that on 54 occasions it was necessary to double-head trains between Melbourne and Seymour, the load being within the capacity of a Pacific locomotive but too heavy for a single A2. The Sydney Limited was double-headed on 17 occasions between Melbourne and Seymour, and the 4 p.m. express on 12 occasions; while, in the "up" direction, the 8.20 a.m. express was double-headed on four trips from Seymour, and the 7.37 a.m. express on 21 trips. Making due allowance for the times when the trip of the banking engine was turned to profit on the home run, the double-heading expense for the 55 days totals £810. In a year this would reach an aggregate of £5,500.

On the other hand, the Pacific costs more to run than an A2, and allowance would need to be made also for the extra haulage of coal over a year by the Pacific, which would refuel at Wodonga instead of at Benalla. When those items are deducted, however, the net saving, each year, in favor of Pacific operation would be close on £3,000.

Estimated figures in detail are :—

Cost of double-heading under A2 operation	—	£5,500
Extra cost of Pacific operation	£1,500	—
Extra haulage of coal	£1,200	2,700
Saving per an. under Pacific operation	—	2,800

In addition, therefore, to representing a direct saving on the department's replacement programme, the Pacific will effect substantial and regular economies in operation, improve interstate rail services, and speed up time table schedules generally in the north-east.

Track Policy Goes Back to 1888

No proportion of the expenditure on track relaying and strengthening in the north-east can be charged against the Pacific, with the exception of an amount of £14,600 which has been spent in raising the standard of the track on curves where high speed is attained. And this sum is being expended merely in anticipation of the ultimate general relaying of the line on those sections. The money is being spent earlier than originally intended.

Itself, the engine has not necessitated the tearing up of light rails and their replacement by heavier ones, the

strengthening of bridges, or special preparations of the track.

In any case, dead weight is by no means the sole influence in permanent way wear and tear. Other important factors are the maximum regular pressure of the driving wheels and the lateral steadiness of the locomotive. And, from these viewpoints, S300's approximately six-ton weight increase over the individual coupled axle load of the A2 is minimised by the more even torque exerted by three cranks, and the greater steadiness of its trailing truck.

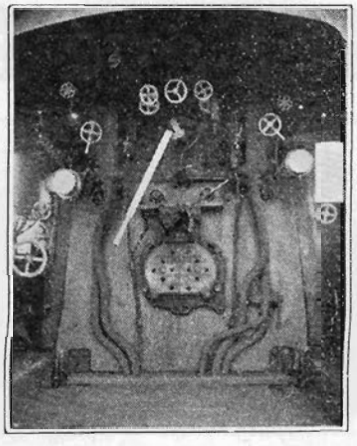
But, apart altogether from mechanical considerations, the Victorian Railways' carefully considered policy of permanent way construction and maintenance—extending back to 1888, in the case of rails, and to 1907, in the case of bridges—has been in no way altered by the decision to build one, three or more Pacific locomotives.

Living in the Future

Track policy in Victoria, as in other countries, has been in the direction of a gradual and progressive increase in standard. Steady and universal preparation has been made for the haulage of greater loads by heavier and still heavier locomotives. A virile railway administration lives just as much in the future as in the present.

The standard for future bridge construction and renewals, which was adopted in Victoria as far back as 1907, is still more than sufficient to carry the Pacific or any other locomotive running on the State's railways today. In those 21 years, all bridges on the main north-eastern line have been renewed and strengthened, year by year, at a total cost of approximately £130,000.

Similarly, the standards in rail weight and length have been evolving and developing on well-defined lines since 1888, when important lines like the interstate links with Albury and Serviceton, and the northern, south-western and Gippsland sections were partly relaid with 75 lb. rail, the 66 and 60lb. rail being released for developmental line construction. In 1888 the standard weight for rails on country lines was 75 lb. per yard, and the standard length 22 ft. 6 in.; by 1898 the standards had become 80 lb. per yard, and 31 ft. 9 in., and in 1925, 90 lb. per yard, and 45 ft.



The cab of S. 300

Displaced rails on main lines have always been reused on lighter lines. When the 80 lb. rail was introduced on the State's trunk lines in 1898, its 75 lb. predecessor was relegated to the Gheringhap–Maroona, Ballarat–Maryborough, Castlemaine–Donald, Traralgon–Sale, Nyora–Wonthaggi and Goulburn Valley lines, while the superseded 60 and 66 lb. rail reverted to lines with still lighter traffic. Incidentally, 25 miles of rail is used each year in Victoria for sidings alone.

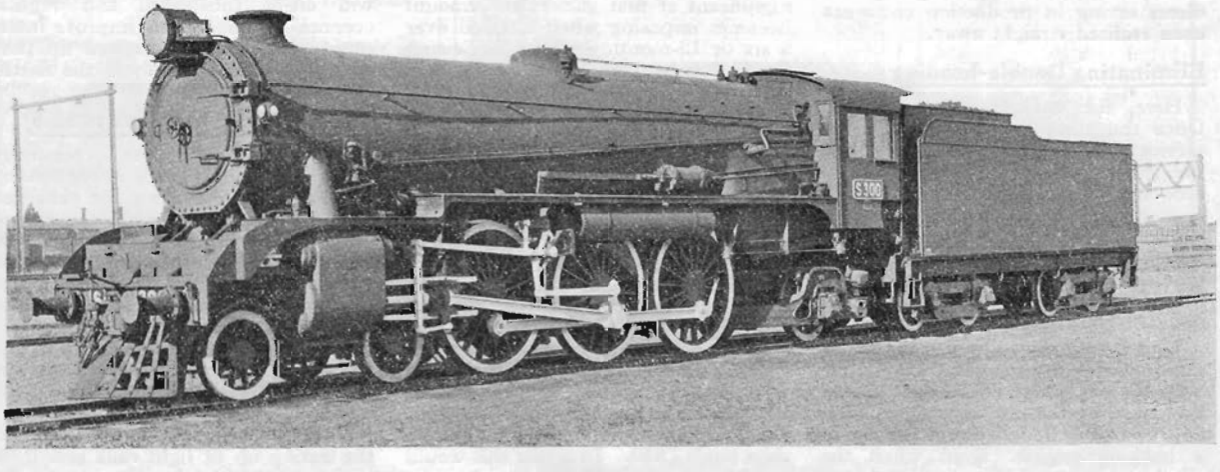
The 1925 standard for rails was adopted on the strong recommendation of the Assistant Chief Engineer of Way and Works (Mr. J. M. Ashworth), who visited Canada and the United States in 1924 specially to investigate rail weight and length standards as affected by axle loads and train speeds. At that time the relaying of the old 60 and 66 lb. rail on 80 miles of the Mildura line, and of the 75 lb. rail on 103 miles of the Goulburn Valley line was a job which loomed large on the Way and Works horizon. It was decided, therefore, to introduce the new standard for main trunk line construction on the north-eastern line as a commencement, and progressively to relay this line with 90 lb. rails. The existing 80 lb. rail so released thereupon replaced the 60 lb. rail on the Mildura section, and the 75 lb. rail on the Goulburn Valley line. And *that* rail in turn was relaid for new light lines and sidings.

At the beginning of June, the relaying of the Melbourne–Albury line was practically completed as far as Mangalore, and to that 115 miles of single track a further 19 miles of 90 lb. rail was to be added before the end of the financial year. This total of 134 miles of released 80 lb. rail has been relaid on portion of the Mildura and Goulburn Valley lines, and the balance of 101 miles, which will be released during the next two years, will complete the relaying of the remaining portions.

There will be no surplus of disused rail. The discarded 80 lb. rail from the north-east will barely finish the relaying of the Mildura and Goulburn Valley lines, and immediate use will be found in the same way for the 60 lb. and 75 lb. veterans displaced on those sections. . . .

An Expression of Service

Itself a gesture of economy and an expression of improved service, the Pacific locomotive fits appropriately into this long-settled policy of better tracks and stronger bridges. The new locomotive has not dictated the old policy, nor has the policy militated against the introduction of the locomotive. The one is the complement of the other. And altogether they spell quality service.



Another recent photograph of Victoria's new Pacific engine

AUSTRALIA'S LEADING SALESMAN

By VERITAS

PHENOMENAL success has attended the overseas publicity activities of Mr. A. E. Hyland, who was lent by the State Government two years ago to act as Director of Australian Trade Publicity in the United Kingdom. Mr. Hyland was chairman of the Victorian Railways Betterment and Publicity Board when he accepted the proffered position.

So striking have been the results of his campaign, that other Dominions—notably New Zealand, South Africa and Canada–have now followed Australia's lead.



Mr. A. E. Hyland

BRILLIANCY of pen and a penchant for organisation and publicity characterise Arthur Eric Hyland as one akin to genius. Of quiet imperturbable mien, never guilty of being flurried, and yet possessed of a restless unbounded energy, he represents an ideal and an inspiration to all railwaymen.

In the process of re-energising and re-organising the Victorian Railways, which took place with the advent of Mr. Harold W. Clapp as Chairman of Commissioners, and following the introduction of such features of great national value as the Better Farming Train, of Reso or Developmental tours, of publicity, of these and many other ideas, the spotlight of publicity became strongly focussed on the Victorian Railways. For these progressive innovations, Mr. Clapp required an able lieutenant, and this was where Mr. A. E. Hyland's public career really started under the guiding hand of his chief.

It was the spectacular success which he made of the Chairmanship of the Betterment and Publicity Board which caused the Federal Government, in February 1926, to pay the Victorian Railways Administration the highest compliment by stretching out a long arm and plucking A. E. H. from the Head Office and setting him up in Australia House as a sort of overseas commercial for the Australian primary producer. His principal lines are dried, canned and fresh fruit, butter, cheese and honey.

Now comes a two-year summary of his work and its results in the form of a report from the Victorian Dairy Produce Control Board. Representatives of that board and of the State's Dried Fruit and Canned Fruit Boards work with Mr. Hyland in London, and are linked with a Joint Publicity Committee in Australia, which embraces the three boards and the Department of Markets.

"Mr. Hyland," says the Produce Control Board's report, "has displayed originality, initiative and great organising abilities in his methods, with the result that the demand for Australian products has increased considerably, and many thousands of householders have been induced to become consumers."

Barrage of Publicity

Mr. Hyland, it is clear from the report, has swept Great Britain with a barrage of publicity. He has exploded his slogans in the front ranks of the retailers as well as in the van of the consuming army. He has fluttered his posters before grocer and householder alike. Shop and home have been raked with newspaper advertisement and letterpress fire.

In all large centres throughout the British Isles, Mr. Hyland addressed meetings of grocers and organised a series of "Australian Weeks." During those weeks, special displays of Australian products were made in the leading shops. Hundreds of 'buses bore large illuminated streamers, posters were exhibited in 600 prominent positions in London and suburbs alone, showcards were placed in the windows of thousands of shops, and newspaper advertisements cried "Australia!" in every home.

The response was remarkable. Demands for Australian products became so insistent that the Greater London Council of Grocers' Association officially sought Mr. Hyland's co-operation in a scheme of propaganda to stimulate, under its aegis, the interest of British grocers in Empire business, "with a particular bias to Australia."

Manufacturers in industrial centres like Birmingham and Manchester willingly assisted in the campaign. Posters flattened themselves boldly on workshop walls. "Tell your wives," they said, "if they buy imported goods to see that they are produced in Australia or New Zealand; they are our best overseas customers."

Exhibitions and shows supplemented this keen and active salesmanship. In

(Concluded on page 44)



Things We Are Talking About

BEFORE we become garrulous on other topics, let us hasten to add our sincere meed to the paean of congratulation that has been chorussed at Capt. Kingsford Smith and his intrepid co-fliers on their magnificent flight from San Francisco to Brisbane.

BRAVO, BIRDMEN!

As one transport organisation to another, we doff our hats metaphorically, as we did actually on Head Office roof and elsewhere, the day the Southern Cross circled gracefully over the city before landing at Essendon. Of the huge crowd that greeted the airmen at the aerodrome, by the way, more than 4,000 used the special train service from Spencer-street—and this on a week-day, when people who usually travel in other than motor cars are unable to get away from their work. The special trains from Ballarat and Bendigo were also well filled.

THE Pacific flight is just another demonstration of the growing development of air traffic—traffic that will play an important part in the transport systems of the future. Beyond such stunts as the race, reported recently between a 'plane and the London and North Eastern Railway's Flying Scotsman, competition is not suggested. The road motor cannot, on ordinary roads, rival the aeroplane's speed, and the aeroplane cannot economically handle passengers or freight in mass. But linked up with ground systems, the aeroplane which needs no roads or permanent way, will be enormously useful in the development of a country. This has already been shown in outback Australia.

NO COMPETITION

AS far as the immediate competitive phase of transport is concerned, people are beginning to modify their views on the "inequity" of controlling the operations of the commercial road motor. To quote from a recent leading article in the *Bendigo Advertiser*;

NOT SO DRASTIC

After all the agitation about the motor 'bus legislation and the action of the Country Roads Board in applying it, experience is proving that it is not so oppressive as it seemed at first. Following an interview between representatives of the motor passenger carriers' association and the roads board, the secretary of the association said that the board had met them fairly, and the position had been cleared up, and the licensing of six routes for each 'bus gave them plenty of scope. What a pity the parties involved in these controversies cannot come together at the beginning and learn exactly what is the position. Instead of that they rush into print and make all kinds of statements. It was even alleged once that Mr. Clapp showed his appreciation of the motor 'bus transport by having his furniture shifted by a motor 'bus to his home at Frankston. It was a good story until Mr. Clapp said it was not true because he had not had any furniture shifted, and he had not a home at Frankston. And this was not the only foolish story circulated.

ONE of the most efficient locomotive runs on any railway in Australia, and one that is possibly taken for granted by the general public, is that of the fast Interstate goods train which leaves Melbourne at 7 p.m. on Tuesdays for Serviceton. Taking coal and water at Ballarat, after a non-stop run, the "N" class locomotive subsequently changes crew at Stawell and Dimboola, and arrives at Serviceton at 11.15 a.m. the following day, where, after necessary shunting, it picks up the "up" interstate goods and departs two hours later. It arrives back at the Melbourne yards at 4 a.m. on Thursday, having covered 574 miles without going into the shed, except for coal and water.

AN EFFICIENT RUN

"EAT MORE *DRIED* FRUIT" is rapidly becoming the unofficial slogan of the Refreshment Services Branch, since Superintendent Bracher erected his new stall on the Flinders-street main concourse, last month. Raisins, sultanas, muscatels and nuts will be sold at this stall, and the concentration of dried fruit sales at the one counter is expected to assist in developing a sultana–raisin complex in the community. That that expectation is well founded is indicated by the fact that £70 worth of dried fruit was sold in sixpenny and threepenny cartons during the first fortnight the stall was open. The forerunner of the venture was the V.R. dried fruit stall conducted in the Government pavilion at last year's Royal Show. It sold no less than one ton of dried fruit in its nine-day life.

MAKING IT DRIED

WHEN a traveller in the Sydney Limited, a couple of weeks ago, opened the window of his carriage and absent-mindedly threw out a cardboard box containing two crystal decanter stoppers, he unwillingly provided an opportunity for Victorian railwaymen to provide willing service. The traveller was able to give the time the misadventure occurred, and when his story reached head office in letter form, a 'phone call through to Seymour sent a Way and Works repairer to the scene. The stoppers were discovered, sent to head office and then forwarded on to the gratified owner by registered mail.

STOPPERS AND SERVICE

TWO steam shovels and 80 men are engaged, just now, on the task of linking Glen Waverley by electric railway with Darling. The new line, which is approximately six miles long, follows the old outer circle line as far as its intersection with the disused Oakleigh–Ashburton track, and terminates at Spring Vale-road. There will be six stations along the line. A feature of the work is that, although the railway cuts across seven or eight roads, there is not one level crossing in the whole of its length.

GLEN WAVERLEY'S RAILWAY

100-FOOT PASSENGER

FIVE-FOOT-SIX to five-foot-eight is about the average height of railway passengers in Victoria, but a traveller who bought a ticket from Melbourne to Yarrawonga last month measured just on 100 feet from head to foot. He, or it, was a 27-ton girder, and was consigned by Charles Ruwolt to assist in the erection of a Construction Branch bridge in north-eastern Victoria. Three QR trucks were required to support his attenuated form, and he will be followed in due course by three equally tall brothers. Special permission was needed from the City Council before the road carrier was allowed to transport the lanky traveller by stealth and night through the city streets to the goods yards.

BUFFALO'S NEW ADJUNCT

ALREADY bookings are being made for the Mt. Feathertop Bungalow, which the Department has just bought for a comparative song, to run in conjunction with the Mt. Buffalo Chalet. The Bungalow, of course, will give The Chalet an added attraction as a winter sports centre, as snow can now be absolutely guaranteed, either there or half a day's delightful jaunt away at the Bungalow. The purchase will certainly direct a reinforced flow of tourists to the district. The Bungalow is a cosy little place comprising a living and a dining room with a big open fireplace, kitchen, bathroom and store rooms and six sleeping cubicles. It has an electric lighting plant, a hot and cold water system and sports equipment, and can house 24 guests comfortably.

RAIL MOTOR COMFORT

"THOSE hard rail-motor seats!" is a remark which bids fair to disappear from the tongues of Victorian travellers. Already it is unknown down Mornington way, and shortly it will be missing in the Yarrawonga and other districts. The old type wooden seats have been replaced by leather upholstered, air-cushioned wicker chairs, identical with those installed in the railway motor 'bus fleet. The change has converted the Mornington rail motor into a motor coach on rails. Passengers are very appreciative of the change which is contemplated for all the Department's small rail motors.

SHUNTING BY PETROL

TWO Fordson tractors are now helping to shunt railway trucks from station yard to ship's side at Prince's Pier, and from all accounts the petrol shunting is proving much more effective than the old horse variety. While a horse can move only two trucks in one operation, a tractor can shift more than 200 tons, with the further advantage that it can propel or haul at a speed of up to 12 miles an hour. It is, in fact, estimated that one tractor, a driver and a shunter will be able to perform the same volume of work as two horses, two drivers and two shunters. In which case operating costs will then be more than halved. A minor disadvantage, however, is that the tractors can of necessity be used only where a pier decking is flush with the rail level.



The new and more comfortable seats recently installed in the Mornington rail motor



Shunting tractor at work at Port Melbourne

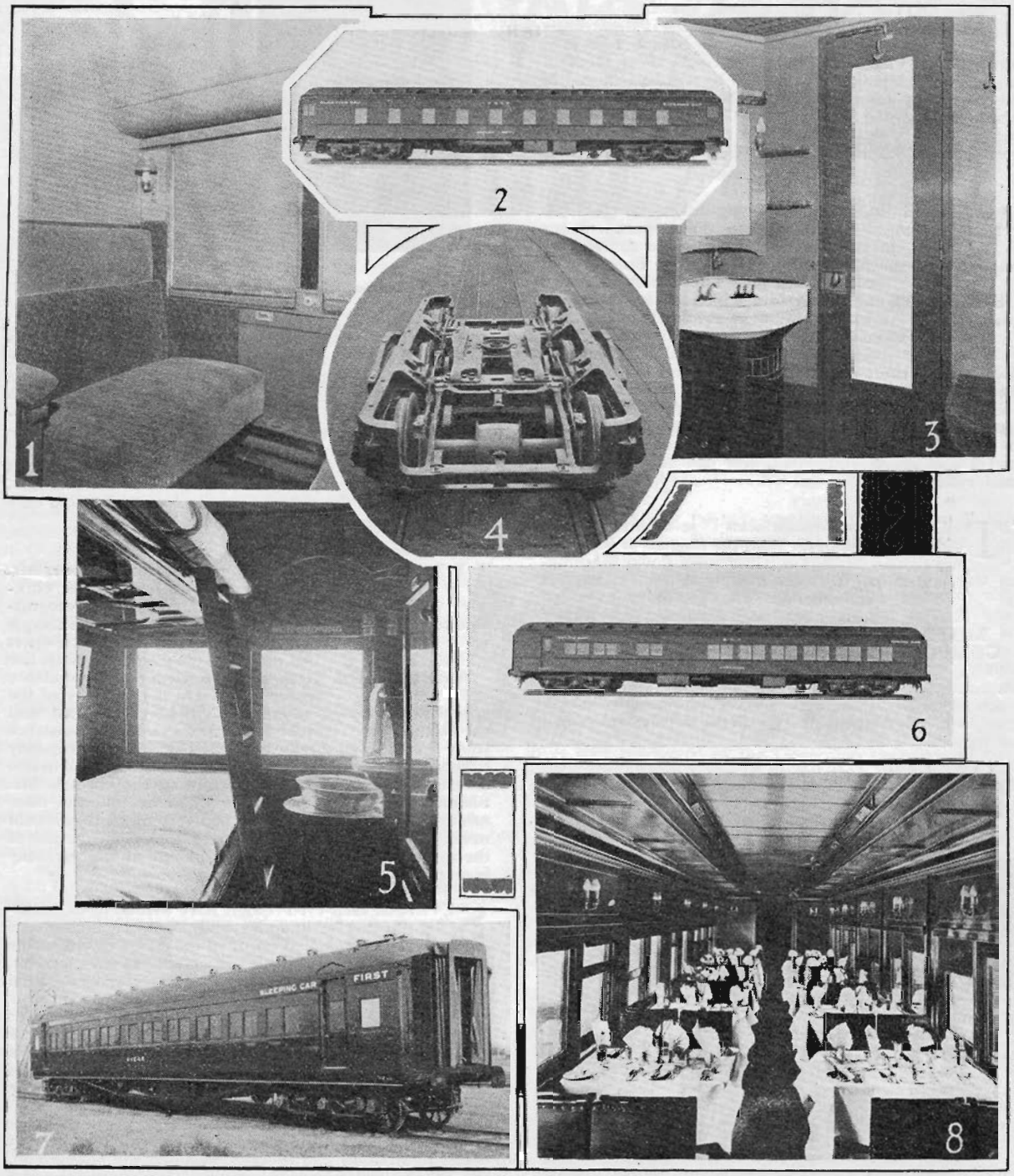
NEWPORT'S AMBULANCE

WHEN Newport shopmen handed Commissioner Mr. Shannon a cheque for £200 on June 18, the workshops' long awaited motor ambulance took recognisable shape and came within practicable reach. The cheque was the contribution which Newport had promised the Commissioners, late last year, as a nucleus for an ambulance motor fund. On the first day of the appeal in the shops, as much as £164 was collected, and the balance was secured by means of a raffle and assistance from Signal Shops railwaymen. The 2,880 threepenny tickets issued for the raffle—a gold watch—were sold *in toto* on the day they appeared. Accepting the cheque, Mr. Shannon struck the right note when he told the mass meeting of shopmen that he hoped very much they would never get anything like their money back from the use of the ambulance after it arrived A picture of the ceremony is on page 21.

WHEN THE CAMERA DECEIVES

SEVERAL keen-eyed readers have written to us, pointing out that last month's cover photograph showed a girder-mast planted firmly in the centre of one of the running tracks. "I suppose," observed one correspondent, "the trains would play snakey round this post." In hard fact, the post is that part of the overhead equipment which an electrical engineer calls a "bridge vertical," and its function is to support the steady arm which keeps the contact wires from swaying from side to side as a train passes. The optical illusion which leaves the impression that the vertical is rearing itself carelessly from the middle of the track is corrected by a little closer observation. Our earnest decision, after we had gravely examined the photograph, left the vertical suspended exactly as registered by the camera. We felt that any faking or masking of the photographed equipment would have justified a stern complaint from the Chief Electrical Engineer. The inescapable conclusion is that while the camera cannot lie it can at any rate deceive.

NEW ROLLING STOCK in SERVICE



1, 2 and 3—*Pullman V. and S.A. Railways joint-stock all-steel sleeping car recently put into service on the Melbourne-Adelaide run.*
4—*One of the two six-wheeled trucks of the same car.*
5 and 7—*New sleeping car built at Newport workshops for the Mildura line service.*
6 and 8—*Pullman all-steel dining car recently imported for the Adelaide-Serviceton run, by the South Australian Railways.*

The Traffic Inspector's Day

By RICHARD HUGHES

THE traffic inspector's day is a crowded one. Seldom does he know what time it will finish, or even where it will finish. Ceaselessly, winter and summer, rain and shine, it moves him along an eternal avenue of stations, checking, inspecting and examining.

MOTOR chattering excitedly, the little rail trike speeds down the rolling incline into the country station. Stolid cattle graze in open pasture. Acres and acres of wheatland, bristling with the first green shoots of the coming harvest, spread and ripple to the distant post-and-rail fence. Pleasantly warm is the smile of the morning sun.

The keen-eyed, overcoated man on the trike snicks back the tiny controls of his motor and coasts to a standstill. The little platform of the caretaker station is deserted: there is no train before the evening express. A fox-terrier appears from beneath a seat near the locked station office, barks twice in bored fashion and returns morosely to his shelter. Two unseen dogs commence barking behind the hedge of the departmental residence a stone's throw away.

Slipping from the back seat of the trike, the traffic inspector lights a cigarette and runs a searching eye over the station building. A white-aproned figure emerges from the departmental residence and hastens across to the station.

"Good morning, Mrs. Jones." The inspector doffs his hat. "You weren't cooking, I hope?"

"No, washing," briskly replies the caretaker, unlocking the office, "To-day's Monday, you know."

Fresh and Wholesome

The office smells fresh and wholesome. The inspector rubs a finger along the dustless ticket shelf, glances appreciatively at the scrupulously clean floor and, bending, drags a kerosene case from beneath the parcels counter. He scrutinises the address and date stamp.

"Been here a week, eh? Know the man?"

"The case was here when we came to the station last Wednesday." The caretaker bridles slightly, jealous of her reputation. "I've been so busy getting settled that I haven't had time to try to get in touch with the man. I believe he's an aboriginal. I'm going to ask the carrier to-day if he knows him."

"Good." The inspector is pulling open table drawers and prying into corners. He seats himself at the table with a stack of station books. "Everything O.K. and up-to-date, I see." He runs a pencil along the rows of figures and scribbles initials.

"And now, what complaints? Are you going to like the place?"

"Oh yes." The caretaker beams. "They seem a much nicer lot of people around here. But I do wish you'd get someone to fix our telephone. It takes me years to raise anybody. And we want another electric light globe near the booking window. And the rubber on this stamp is getting worn. And—oh yes! See how this door catches when it opens."

"Why, bless my soul," says the inspector, on his hands and knees. "Surely you wouldn't have us send up a carpenter specially for a little job like that. A handy man like your husband could fix that in ten minutes. Just get him to plane the bottom of the door."

Tact

The caretaker coughs. "Well, yes—I suppose he could. I never thought of that. I'll get him to do it. What with the furniture, you know, and the moving and the settling down and one thing and another, I've hardly had time. . . ."

"Of course you haven't." Tact and traffic inspecting are synonyms. "I'll get those other matters fixed, and by the time you get settled down this'll be one of the best managed caretaker stations in the district."

He raises his hat and turns to the trike. A push sets it rolling heavily, a lumbering trot along the awkwardly spaced sleepers kicks the motor into life, and an easy jump settles him in the seat. The fox-terrier reappears from beneath the seat, barks again with forced interest, and recurls himself on the platform.

Wind whips the inspector's coat tails behind him. The willing little motor quickens. A low monotonous droning roar mingles with the staccato detonations as the gleaming wheels find some "roaring rails." The inspector pulls his hat over his eyes and thanks his luck it isn't a wet day. He slows down as he nears a level crossing. One small stone on a rail is enough to bump the unweighted off-side wheels off the line. With a wry smile he remembers that spill he had last month rounding a curve. Pushing the control flat forward, he speeds up a stiff incline. Excellent harvest prospects, he notes as field after field of young healthy crop unfolds on either side.

He slips into another station. Burly, red-faced Stationmaster Bill Smith greets him jovially. "Haven't seen you since I got back from leave. Looking well on it. . . ."

They shake hands. The inspector points towards the galvanised iron goods shed and shakes his head. "Won't do, Bill, won't do. I'm surprised at you. You'll have to shift that pile of mallee roots. Don't they look bad, now, stacked like that against the shed?"

"Well, it did strike me that way when I first saw them there," Bill confesses. "The roots are our fuel supply. I'm not sure who dumped them there, but I'll get 'em shifted early this week."

"They're a dilapidated couple of advertisements you've got there too, Bill. I'd drop a line to the advertising manager if I were you. You've got your posters looking fine, though. Let's have a look at the lamproom."

Spick and span, with clean lamps and clean floor, the lamproom is duly passed with credit. Station books are checked, the goods shed is inspected, and the inspector is on the track again. Poling its way laboriously in the opposite direction, a Way and Works gang halts him, and the five railwaymen drag the motor trike aside, move the hand trolley along, and replace the trike on the line. Two of the gang lend four helping hands as he starts off once more.

More Tact

The bare, deserted platform of another caretaker station grows rapidly in size at the bottom of a gentle gradient. A small, solemn man in an ancient bowler and workman's overalls of generous proportions is standing outside a tin-roofed shed beside the station goods platform. He lights his pipe and inclines his head in a non-committal fashion as the inspector remarks on the pleasant warmth of the sun.

The inspector introduces himself. "I don't think I've had the pleasure of meeting you before. You're the local agent for Wheatflour Brothers, I understand?"

The small man admits that he is.

"Of course, I know you're a busy man," pursues the inspector, "but I couldn't help noticing as I came along

that you had rather an untidy collection of old tin and scrap wood under your grain shed. I was wondering whether you could find time this week to move some of it."

Gravely the agent surveys the tip which is accumulating beneath the raised floor of his shed. He expectorates with a judicial air.

" 'Aving 'ad the matter drew to my notice," he pronounces, " I must say there is room for some improvement. I shall 'ave immediate steps took fer to remove the debbrey. I am, I may say, always willin' fer to meet requests of this nature, 'specially in view of the good service which I receives 'ere at the capable 'ands of the local station mistress."

The inspector expresses pleasure at this cordial gesture of co-operation. The solemn man urges him not to mention it. There is a shrill hail from the station platform. Young Australia, healthy and bare-footed, addresses the inspector.

" Mother says to tell you she'll be down in two minutes. She's getting some scones out of the oven."

Cheerfully the inspector waves his hand and moves on to inspect the goods shed and platform. A long nail is protruding from the flooring. He hammers it into the plank with a handy shovel, notes that several boards need renewing, and records the name and address on six bags of salt lick which have been lying unclaimed in the shadow of the shed. Crossing the line to meet the station mistress, he smiles at the pleasing spectacle of the solemn agent industriously raking the old tin and rubbish from beneath the shed.

With the exception of such details as a half-empty fire bucket and an out-of-date parcels rate poster, the traffic inspector presents the station mistress with a clean bill. The little agent in the big overalls straightens himself and mops his brow as the inspector bends over the trike.

" Remember," he calls, resting on the rake with quiet dignity. " I am always willin' fer to meet sich requests as this 'ere. Always !"

The traffic inspector's features register polite appreciation of this courtesy. He mounts his reliable steed and tools out of the station. Twenty-five minutes later he tools across a maze of points and into the long station yard of one of the district's main centres.

S.M. John Brown's reputation stands so high that the traffic inspector runs only a superficial eye over the long platform, signal box, goods shed and offices. He had aimed at having lunch here, but time is pressing and he wants to interview some business people and move on to beat that fast goods through the next section if possible.

He doesn't clear up his business in the town as rapidly as he had hoped. The manager of the flour mills wants hard facts about interstate rates. The confectioner is grumbling about a claim. The general storekeeper wants a time-table of connecting trains plotted for him so that he can see how long it will take his consignment to reach the other end of the State. One of the hotel proprietors is harping on the old question of getting the early morning express to stop and pick up. The district's leading grazier stops him in the street to discuss the matter of leasing some railway land.

By the time everybody is pacified, soothed or satisfied, both hands of his watch are pointing to three. " You watch that down fast goods," S.M. Brown warns him as he pushes off. " She'll be into the next section before you can clear it. And don't forget to find out when on earth that new ladder is coming along. Solong."

The wind has turned cold. The sun sinks into the bleak arms of advancing clouds. Leaves of the tall gums are rustling. And somewhere ahead a heavy express train is thundering down on the speeding motor. The inspector is too old a hand to be caught off his guard by the express—expected or unexpected. He rounds curves in cuttings with ears strained for whistle or clamor of wheels and eyes strained for wisp of smoke.

Finally, with a glance at his watch, as the white posts of a level crossing appear at the top of a rise, he slows down and stops. His judgment has not been at fault. Down in the valley, less than a mile away, a " C " class engine, smoke flattened against its cab and a score or more trucks behind it, is roaring towards him. With an effort he lifts and drags the rear wheels of his trike clear. Another pull and he has the front wheels clear. He raises a reassuring hand as the " C's " chime whistle sounds.

Thunder of wheels, scream of wind and rushing echoes, hiss of steam . . . A white face stares down at him from the black sides of the huge engine. A hand waves. Trucks clank past . . . van . . . The rails shake and tremble, sweep again, empty and unbroken, into the valley.

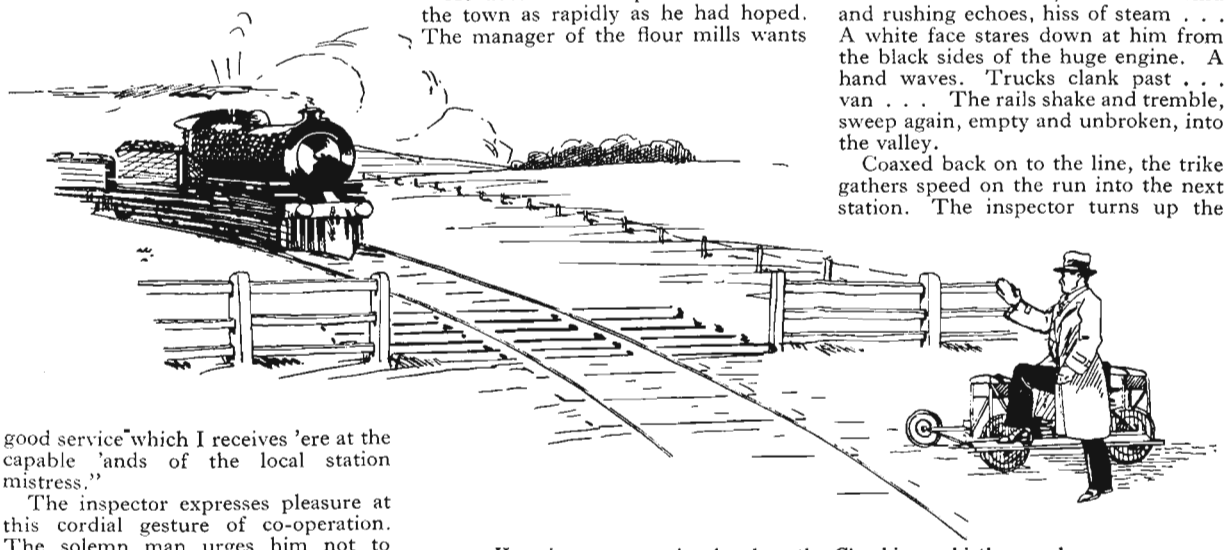
Coaxed back on to the line, the trike gathers speed on the run into the next station. The inspector turns up the collar of his coat and plunges one hand deep into his pocket. He stamps his feet when he dismounts, then springs on to the platform and discovers S.M. Robinson plotting his graph book at the office table.

" Cold it is," agrees the S.M., leaning back and regarding his work with much satisfaction. " And you'll be lucky if you beat the rain home." He bends over his graph, protrudes half-an-inch of anxious tongue and strengthens one line. Satisfied, he straightens himself to meet the accusing gaze of the traffic inspector across the station truck record book.

" It's no good, Tom. It's not a bit of good ! Two trucks standing out in the yard loaded with timber ready for pick-up tonight, and you haven't got a mention of their arrival here. They'll sneak out unentered too, I suppose. How long have they been here ?"

" Two days," replies the crestfallen S.M. " I don't know how I came to miss them. First time I've slipped on the truck records for twelve months."

"And that's what saves you," says the counsel for the prosecution, grimly recording the missing numbers under their correct date. " See you don't slip again."



He raises a reassuring hand as the C's chime whistle sounds

Concluded on page 42.

RAILWAY OUTPOSTS

No. 2.—NOWA NOWA

DOTTED round, and sometimes far-flung from, the larger centres of railway activity in Victoria are the seventh, eighth and ninth class stations that feed in revenue as the watchful outposts of an army feed in intelligence to the main bodies they protect.
This series of articles will attempt to summarise the work of a few of these essential railway outposts.

TWO hundred and seven miles easterly from headquarters lies the railway outpost of Nowa Nowa, ranked officially as a ninth-class station, but, from a scenic viewpoint, possessing strong claims to first-class rank. Crystal clear Lake Tyers meets a rippling stream beneath the towering railway bridge, two hundred yards from the station. Bellbirds tinkle all day long in the forest of tall gums surrounding the little platform and goods yard. The railhead is a jumping-off point for the Buchan Caves 20 miles distant.

All told, £5061 railway revenue was earned during the last 12 months by Stationmaster C. A. Board, who has controlled Nowa Nowa for two years, and his assistant, Operating Porter J.W. Haines, of Institute fistic fame. Timber, marble, wool, wheat, skins, live stock, butter, honey and wattle bark freight all swelled that revenue. The marble represents a yearly aggregate of approximately 500 tons and is brought from Buchan into the shadow of Nowa Nowa's 10-ton crane by eight-horse teams. Timber arrives as sleepers, blue gum logs or crossings from the local mill. One mammoth log loaded in the station yard some time ago tipped the scale at 8½ tons. It needed a single truck to itself and was railed to Newport Workshops. The average output of sleepers is about 2,000 a month.

The district's wheat yield last year was 2,000 bags. This year's figure may be double that total, with an average yield of 17 bags to the acre. Seven hundred and sixty bales of wool were railed from the station last season, after a competitor's bid for transport by boat had come within an ace of success. That it failed was due in great measure to the interest of a local road carrier. And thereby hangs a tale.

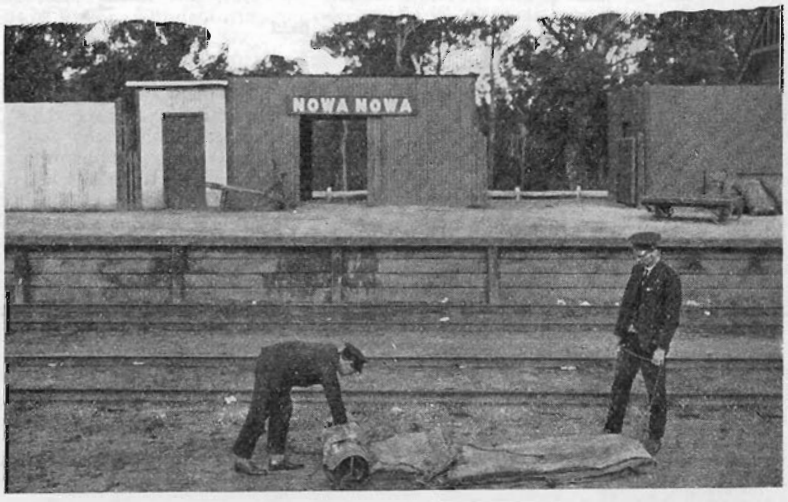
Stationmaster Board heard that transport of the wool clip from Nowa Nowa district had been captured by steamboat proprietors. He got into touch with the railways commercial agent. Mr. Middleton already had the matter in hand. He had visited the district to be informed that a signed contract, irrevocable and immutable, reposed in the pocket of a satisfied sea captain. He was afraid the wild sea waves had registered a victory over the permanent way.

Now S.M. Board's policy always has been to cultivate friendship with local rail users. He takes a personal interest in their needs and wishes. He was friendly enough with the local carrier

Concluded on page 48



Nowa Nowa Station



S.M. Board (right) and Operating Porter Haines on the job



Station yard, goods shed and 10-ton crane

COTTON—AUSTRALIA'S COMING WEALTH PRODUCER

By
S. C. JONES



A Queensland cotton field

COTTON-GROWING has been hailed as one of the coming industries of Australia, an industry that may yet help to turn adverse trade balances into export surpluses.

The little boll has a world demand; it has not, so far, been menaced with the competition of chemists; it is profitable to produce; and the Commonwealth has thousands of acres suitable for its cultivation. Already Queensland cotton is sought by English mills, which indicates that considerable progress has been made in growing and marketing.

In this article, Mr. Jones gives some interesting facts about cotton and its history.

COTTON, an indigenous product of all intertropical regions, consists of down or fine cellular hair attached to the seeds of plants belonging to the genus *Gossypium*, natural order *Malvacoe*. The plants which supply the raw material for one of our greatest industries, and for the clothing of most nations, may claim to be ranked amongst the most valuable of nature's productions.

The genus has occasioned no small degree of perplexity to botanists, and the genealogy of the different varieties is still involved in much uncertainty. Opinion is divided as to how many varieties there are. The cottons of the New and those of the Old World constitute the two great typical divisions of the kinds most known to commerce. These are the Oriental and the Occidental—the Indian and American cottons.

Distinguishing Features

The botanical characteristics though slight, are sufficiently marked to prevent the one being mistaken for the other. The seed of the Eastern plant is never black or naked, and the curvature at the base of the leaf lobes is compounded of two opposite curves, and not purely heart-shaped as in the case of the Western plant. Numerous varieties of each type are to be found constituting distinct races of the same species. These afford ample scope for experimenters in their efforts for the improvement of the plant.

All these, although the several varieties may be distinguished from one another, belong to the species designed by Linnaens (*Gossypium herbaceum*), There is one exception, however, to be made—the *Gossypium Arborem Liun*, which is held sacred by the Hindus, and for that reason is known also as the *Gossypium religiosum*. It is grown about the temples in India, and supplies the material for the sacerdotal tripartite thread of the Brahmans, the emblem of their Trinity. The plant has dark-green leaves, bears handsome red-purple blossoms, and produces silky cotton. Attempts have been made to improve its cultivation by hybridizing, and to bring it into general use, but hitherto without success, and it remains almost entirely unknown to commerce.

With the exception, then, of this curious species, the numerous varieties of Indian cottons are but different forms of *Gossypium herbaceum*. One of these is cultivated to a considerable extent in the Levant, and is known in the market as Smyrna Cotton. The Occidental or American cottons which have become known to the civilized world, since the discovery of America, consist of two great divisions, the Barbadensian or black seeded cotton, bearing pure yellow blossoms, with a reddish-purple spot at the base of the petals, and the Hirsute or hairy cotton, more or less covered with a distinct clothing of hairs, bearing white or faintly primrose-colored blossoms.

Western Cotton Most in Demand

The two cannot always be distinguished from each other by the appearance of the seed, as the black seeded cottons are occasionally found with a tuft of short hairs or fuzz at one or both ends; and the hairy, although generally downy all over, are also sometimes found with seeds black or naked.

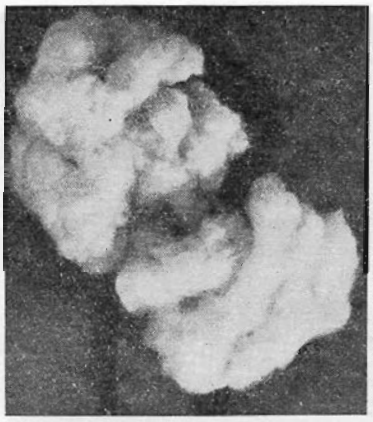
On this account some authorities have concluded that the two kinds belong to the same species—the Barbadensian; but carefully conducted experiments show that the variation in the seeds may be attributed to peculiarities of soil or cultivation, and that the specific characteristics of the

two kinds remain unaltered, generation after generation. The cottons, most in demand amongst manufacturers, are those of the Western world, namely: the Sea Island and New Orleans or Uplands varieties, which are unequalled by the products of any other part of the globe.

The Sea Island plant in the soft maritime climate of the low lying islands off the coast of Georgia, where frost is scarcely known, has surpassed all other descriptions of cotton in strength, length and beauty of its staple. The Georgian Uplands cotton, sometimes called "Boweds," is the result of attempts to cultivate Sea Island cotton in the Uplands of Georgia. Sea Island cotton has also been successfully introduced into Queensland, the Fiji Islands, Tahiti and Egypt.

Of the other great Western cotton—the New Orleans (which is probably of Mexican origin)—there are two principal varieties, one with green seeds and hardy constitution, and the other with white, tawny, or greyish seeds, longer and more silky in staple. The New Orleans and Boweds cottons constitute the great production of the United States, and are known in English and European markets as American Cottons.

The sowing time is March and April, and the crop is gathered from August



Typical cotton boll

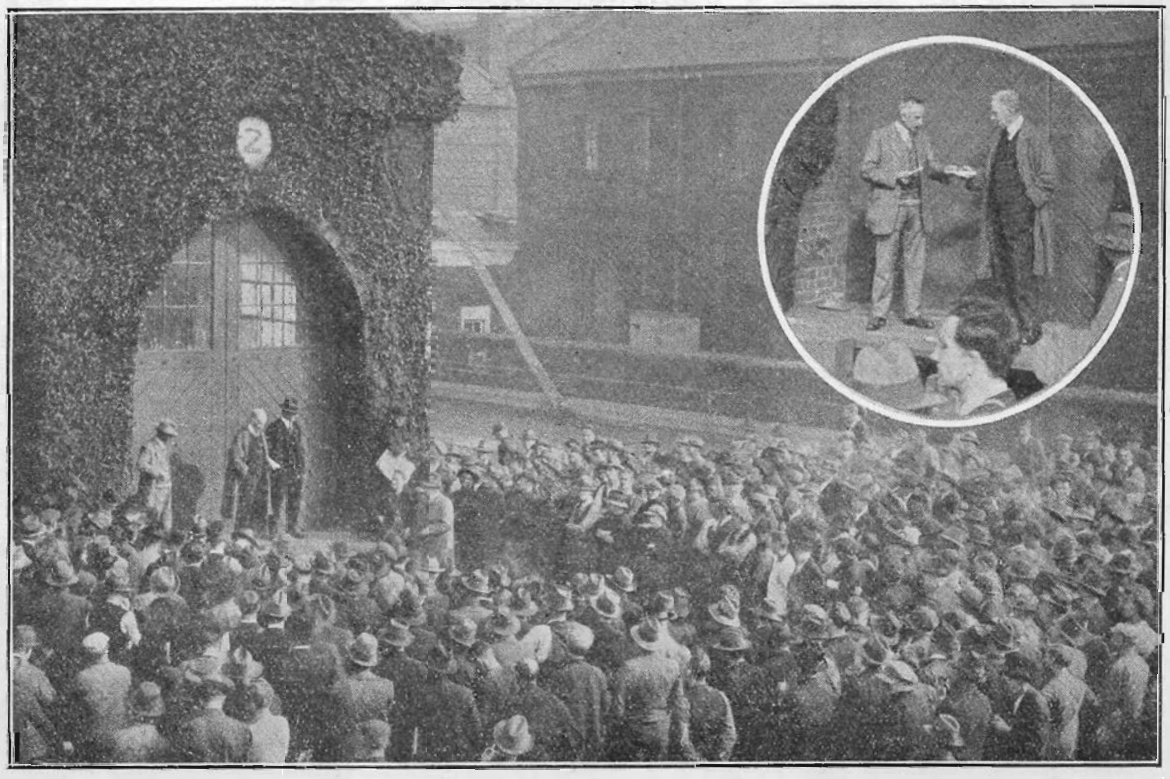
to the end of the year, or even later in the absence of frosts.

The lobes in every boll of cotton contain seeds which, except when covered with down, resemble the coffee berry, and which have to be separated from the fibre by a process called ginning. When this is done there remains of the bulk, as gathered from the tree, about one-third of clean cotton fit for manufacturing purposes, and two-thirds of seed.

The capability of the world to furnish in sufficient abundance the raw material required by this vast and ever-expanding industry has from time to time, under the pressure of dire necessity, been well ascertained. Happily it has been found possible to cultivate cotton over almost the whole of the intertropical and in many of the temperate portions of the globe, so that if from any cause there should be a deficiency in one part this may be compensated by superabundance in others.

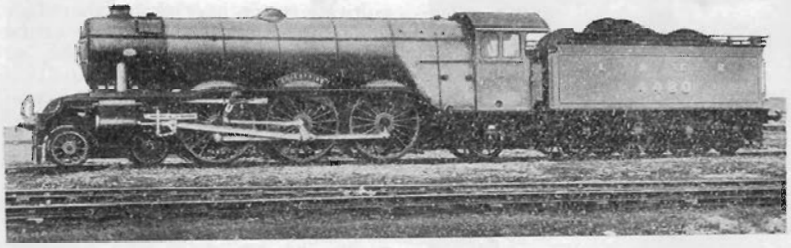
The most ancient cotton-growing country is probably India. For five centuries before the Christian era, cotton was largely used in the domestic manufactures of India; and the clothing of the inhabitants then consisted, as now, chiefly of garments made from this vegetable product. More than two thousand years before Europe or England had conceived the idea of applying modern industry to the manufacture of cotton, India had matured a system of hand spinning, weaving and dyeing which, during that vast period, received no recorded improvement. Possessing soil, climate and apparently all the requisite elements from nature for the production of cotton to an almost boundless extent and of a useful and acceptable quality, India for a long series of years did but little towards supplying the manufacturers of other countries with the raw material which they required.

Concluded on page 46



Two hundred pounds were recently subscribed by Newport Shopmen towards the purchase of a motor ambulance for the shops. The photograph shows the lunch hour ceremony, last month, of presenting the money to the Commissioners, and (inset) Commissioner Mr. Shannon receiving the cheque from Car and Wagon Builder J. H. Beere.

LINES FROM OTHER LINES



"The "Enterprise"

L.N.E.R.'s NEW PACIFIC ENGINE.

BY a recent mail the Chief General Manager of the London and North-Eastern Railway, Sir Ralph Wedgwood, kindly forwarded a photograph, which is reproduced on this page, of the company's latest Pacific engine "Enterprise." The leading dimensions are :—Cylinders, 20 in. by 26 in. stroke ; driving wheel 6 ft. 8 in. ; boiler pressure, 220 lbs. ; wheel-base, engine 35 ft. 9 in., engine and tender 60 ft. 10-5/8 in. ; weight in working order (engine and tender) 152 tons 11 cwt. ; weight on leading bogie 15 tons 16 cwt. ; weight on coupled wheels 66 tons 3 cwt. ; weight on trailing truck 14 tons 6 cwt. ; heating surface 2736.6 sq ft. ; superheating surface 706 sq. ft. ; grate area 41.25 sq. ft. ; tractive effort at 85 per cent. boiler pressure 36,465 lbs. Sir Ralph Wedgwood draws attention to the boiler pressure of 220 lb., which he says is higher than on the older type of Pacific, such as the "Melton." The change has increased the tractive power considerably.

SWISS RAIL TRAFFIC BOOM

NINETEEN - twenty - seven was an exceptionally good year for the Swiss Federal Railroads. Net operating receipts, which amounted to about £16,000,000, as compared with about £14,500,000 in 1926, were the largest in the history of the enterprise. Operating expenses decreased from £10,100,000 in 1926 to £10,000,000 in 1927.

Passenger receipts amounted to approximately £3,700,000, and show an increase of £80,000 over 1925, the highest previous year, and £200,000 over 1926. This increase is due largely to increased tourist traffic, the number of passengers carried reaching approximately 109,000,000, or the largest number ever carried on the Swiss lines. Freight receipts show an increase of about 7 per cent. over 1926. The rapidly increasing use of the motor truck is making competition much keener, and, says the *Railway Age*, it would not be surprising if the federal government followed the lead of the Canton of Berne in slowing up this competition by means of legislation.

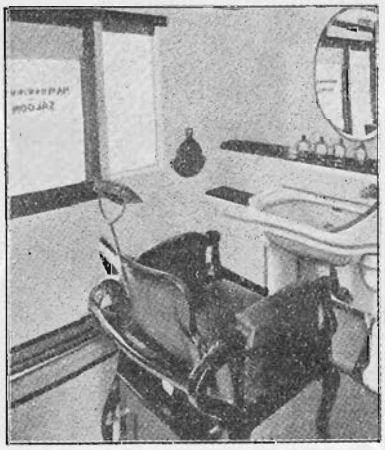
ELECTRIC ENGINE TO DO 85 M.P.H.

ONE of the latest developments in rail transport is a powerful electric locomotive, recently built by a Newcastle (Eng.) firm for the Great Indian Peninsula Railway. With a total weight of 111 tons, the 2,400 h.p. engine is 56 ft. 2½ in. long, and has been designed for a maximum speed of 85 miles an hour, the speed in service being given as 75 m.p.h. Power will be supplied through overhead contact wires. The locomotive has two leading bogies and three driving axles incorporating the B.B.C. individual axle drive. Each driving axle has two motors connected permanently in series, and there are six main motors. The three motor groups are arranged to be connected in series, series-parallel and parallel for starting the locomotive and for regulating its speed. Altogether there are nine economical speeds. The driving motor operates at 1,400 volts. The locomotive is not arranged for



multiple unit control, nor for electric braking.

DE LUXE TRAVEL ON THE FLYING SCOTSMAN



The Hairdressing Saloon.

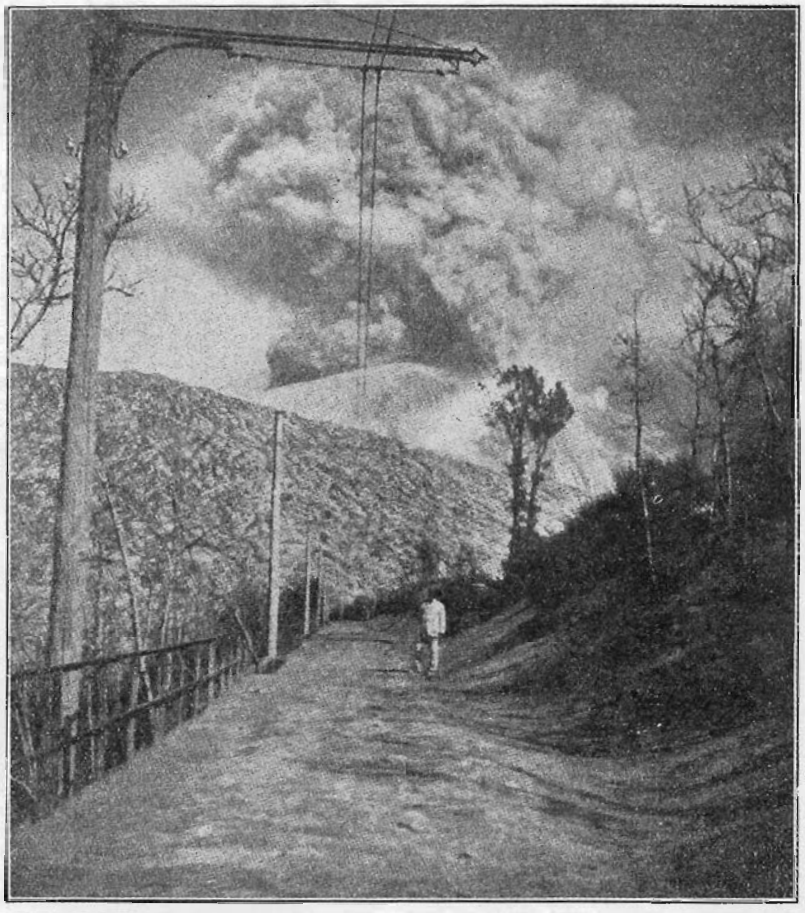
THE L.N.E. Railways famous Flying Scotsman train which runs non-stop between London and Edinburgh, now includes, for the first time in British railway practice, a hairdressing saloon, a ladies' retiring room, and a travelling salesman who supplies newspapers, periodicals and the latest books. The ladies' dressing room is equipped with dressing table, wash-basin, chair, mirror, and cabinets and drawers to enable the attendant to supply toilet requisities and perfumery. Next to this, but open only to the corridor, is the hairdressing saloon, and adjoining this again is a one-sided compartment designed to serve as a waiting room. The lastnamed opens to the corridor only so that a customer receiving attention is not disturbed, and in the case of ladies, has full privacy. The standard make-up of this train is : (1) 4–6–2 locomotive with "corridor" tender ; (2) brake van and three compartments (the first reserved for resting engine crew) ; (3) third class car ; (4) first and third class car ; (5) third class restaurant car ; (6) kitchen car ; (7) first class restaurant car ; (8) first class car ; (9) hairdressing saloon, ladies' retiring room, and five third class compartments ; (10) third class car ; (11) third class car ; (12) brake van. The length of the train (including engine) exceeds 700 ft., and its weight, 500 tons.



Hairdresser, Ladies' Attendant and Newsmen employed on both "Up" and "Down" runs.

RAILROAD THRILLS ON THE ASCENT TO VESUVIUS

By
ARTHUR L. STEAD



Lava streams and ash debris at times completely bury the tracks of the Mt. Vesuvius Railway. This photograph shows the obliterated track with the burning mountain in the background and the surrounding slope covered with ashes.

ALONG the only railway in the world that ascends an active volcano, a trip up the Mount Vesuvius Railroad is packed tight with thrills for the passenger. In this article, reprinted by courtesy of the New York Central Lines Magazine, Mr. Stead describes the journey and what he saw from the summit of the burning mountain.

EVEN for the most hardened railroader the trip up the Mount Vesuvius Railroad, near Naples, in Italy, is packed tight with rare thrills. This unique mountain road is actually the only railway in the world that ascends to the summit of an active volcano, and the round trip from beauteous Naples to the burning peak of Vesuvius is an experience to live long in memory.

The height of the Vesuvius volcano is 3,870 feet. The jumping-off point for the journey is the Naples station of the Circumvesuviana Railway, located in the Corso Garibaldi, to the south of the Central Depot of the Italian State Railways at Naples. A twenty minutes non-stop run brings one to the station of Pugliano, where the Vesuvius Railway proper commences. Pugliano is built over the site of the vanished city of Herculaneum, a short distance from the trunk highway leading to the buried city of Pompeii and the south.

The first section of the actual Vesuvius railroad is what is known as an "adhesion" system, the ordinary main-line type of electric traction being employed from Pugliano up to the generating station at the foot of Monte Cateroni, the hill on which stands the far-famed observatory. The maximum grade on this section is only eight degrees. The road winds through an attractively cultivated zone presenting rare contrast to the lava-filled lands beyond, through fair vineyards where grow the luscious grapes from which the bewitching "Lachryma Christi" wine is produced, and beside sweet-smelling orchards and blossom-sprayed gardens. As the gentle ascent continues the houses along the route gradually disappear, and wonderful views are obtained of the azure Bay of Naples, with its white-sailed yachts and fast moving motor craft. The cars on this section are comfortable vehicles, each having a seating capacity of thirty-two passengers.

The Rack Road

At the foot of Monte Cateroni there commences the second section of the Vesuvius Railway. This is a rack road, employing the rack and pinion system first devised by Matthew Murray on the Middleton Colliery Railroad, England, more than a century ago. It has a maximum incline as great as the Rigi Railway of Switzerland, namely twenty-five degrees, and the construction is similar to the Jungfrau road. The cars on this route are propelled up the steep ascent by means of an electric locomotive geared to the toothed wheels, which engage with the rack road.

The track ascends through lovely woods intersected by deep ravines, which reveal increasingly beautiful views of the Bay of Naples below. This section terminates at the Eremo (Observatory) Station, where there is located a most commodious guesthouse run on modern lines for the benefit of tourists.

So entrancing is the panorama displayed before the traveller's gaze from Eremo, that it may well be doubted if its equal exists the wide world over. The guest-house stands in extensive grounds, which have been laid out with shady walks and flower gardens, from which the tourist essaying the ascent of

Vesuvius may enjoy to the full the prospect of the Bay of Naples, gracefully curved, the hills of Posillipo dotted with the villas of wealthy Italians, the distant inlet of Baia, the Islands of Ischia and Capri, and the bold headlands of Sorrento.

After lunch at Eremo, the journey is continued over the Vesuvius railroad, which again becomes an "adhesion" system, with a maximum grade as before of eight degrees. The train passes the Observatory, and traverses enormous fields of lava en route to the lower station of the funicular, reached in about twelve minutes from Eremo. This journey takes one to the very foot of the mighty volcanic cone.

At the lower terminal of the funicular road, a change of cars is made, and ten minutes later the upper station is reached (3,698 feet above sea level), whence a gently rising footpath leads to the edge of the awesome crater, scooped out of the mountain peak by the gigantic forces of nature operating through countless centuries.

Year by year the crater of Vesuvius changes its shape and formation. The enormous crater resulting from the terrible eruption of 1906 is gradually filling up by successive outflows of lava from the central eruptive cone. Here on the summit, with dense smoke issuing out of invisible fissures and the imposing black column from the main crater in the background, the traveller has before him a spectacle not easily forgotten.

Vast Panorama

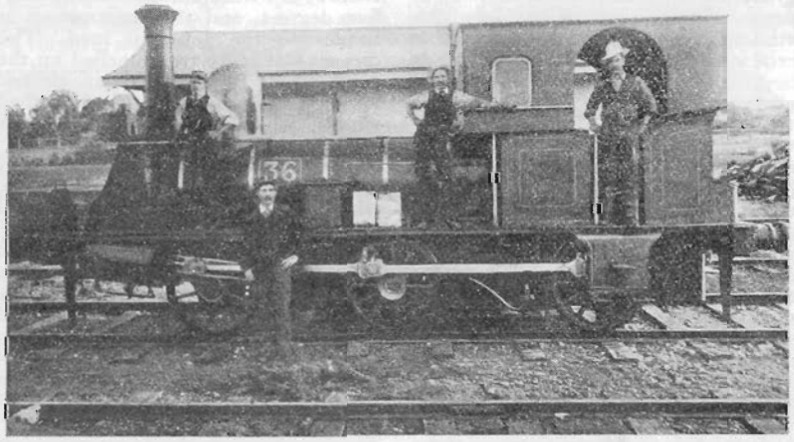
Spread out in a vast panorama are the ravines, valleys and fields of lava in all their fantastic formations, the white houses in the valley below scattered about singly or clustered snugly together in city and village, the blue sea rippling along the indented coast-line, and the fair countryside lying over the low mountains of the Campagna. Mounds and lava heaps rising up stark from the ground here and there form all that is left of noble cities and homely hamlets of past centuries. The long-drawn-out hollow, rolling in the depths of the mountain, more like a human moan than anything describable, comes as a reminder that the force is still alive down there in the depths of the volcano which buried these places and their peoples beneath the deadly streams of fiery lava, and that one day it may again destroy utterly the varied works of man and change a prosperous and smiling landscape into a desert of desolation.

The length of the Vesuvius funicular is nine hundred yards, and the grade varies between forty-nine and fifty-five degrees. The cars each have a seating capacity of twenty passengers, and they are fitted with brakes of great power to allow a wide margin of safety. The motors are fed by overhead line through a pair of pantagraphs fitted to the roof of the car, power being secured from the Monte Cateroni generating plant at the foot of the incline.

Compulsory Guides

From the upper terminal of the funicular to the crater, the Italian government has made the employment of official guides compulsory. Special military police are stationed on the crater, and great care is exercised by all concerned to see that no mishap mars the enjoyment of the tourist. By the adventurous the descent into the actual interior of the crater sometimes is attempted, but the majority of tourists are content to view this marvellous natural basin from above. For the patriotic Italian the cry "See Naples—and die" is commendable enough: for ourselves we would infinitely prefer to see Vesuvius—from above—and live.

It is the enterprise of the travel-house of Thomas Cook and Son, Ltd., that has rendered possible the ascent by railroad of this greatest of European volcanic heights.



AN OLD TIMER.—The first locomotive on the Wedderburn line which was opened early in 1887. Driver Spence and Fireman Jackson are at the cab, while standing between the tracks is Maurice Bourke, Wedderburn's first Stationmaster.

Repres

HE rides up on a ganger's trolley, sitting on a packing case filled with suggestions and ideas, a railway refreshment room sandwich in his hand, a trestle bridge under his arm, a shovel behind his ear, six sleepers in his waistcoat pocket, and the word "standardisation" pasted on his hat. Evan Richard, District Engineer at Oakleigh. Never Richard and seldom Evan—invariably Evanrichard.

A bluff, hearty, broad-shouldered man, gesticulatory, declamatory. The sort of man who says "bless my soul!" without being effusive or benevolent. The sort of man who should wear gold-rimmed spectacles. And the sort of man who doesn't. The sort of man who always looks at a clock apprehensively. The sort of man who illustrates his conversation by indicating the points of the compass with outflung arm and expressive forefinger. A blunt man, a shrewd man, a practical man, a Welshman . . . . . .

Essentially he is an engineer. He started in the railways as a junior architect, he was first chairman of the Betterment and Publicity Board, he organised the first Reso train, and he was Assistant Superintendent of Refreshment Services. But inevitably he wandered back to the engineering world. Rather, he *strode* back. An Evanrichard who wandered would be as conceivable as an Evanrichard who said "The answer is in the negative" when he meant "No."

Just where and how his engineering bias developed, mystify. His parents were on the land in Wales, he came out to Victoria at the age of 4½ knowing only two words of the English language—and they were "Get off!"—and incontinently he set out in pursuit of civil engineering qualifications. He was an engineering student when the Railways Commissioners called for applications in 1897 for four vacancies. Sixty-four youths applied. Evanrichard was among the sixty-four. And among the four.

First he went to draw plans for Railway Architect Purbrick. Next he started his University course for Bachelor of Civil Engineering. Then he went out for two-and-a-half years with the painstaking Von Steiger, who had the task, in 1908, of inspecting, surveying and appraising every bridge in north-eastern Victoria. And *then* he came back and finished his civil engineering course.

He glimpsed better opportunity

entative Railroaders

No. 11—District Engineer EVAN RICHARD

By R. H. JUNIOR

Caricature by ANGUS MAC



outside head office, followed it as a matter of course, and in 1910 was a roadmaster. He was acting as Superintending Roadmaster in 1913—substantially the job which is now known as District Engineer—and is thus doyen of all branch superintendents in the Victorian Railways outside head office. Save for an 18-month term in the empty chair of Assistant Engineer of Way J. M. Ashworth, who was temporarily on the Classification Committee, he ruled with fishplate and sleeper until 1916, when his title was changed to District Engineer. He was senior man of the department's first four D.E's. The others were J. J. Montgomery, T. J. Bye and M. A. Remfry.

Five years later he again changed his title, attaching to his official collar the impressive label of Regrading and Duplication Engineer. But Mr. Clapp came across the sea, and the Evanrichard brain was moved on to the Suggestions, Inventions and Efficiency Committee. The Welsh-engineer-turned-reformer signed the report which brought the Betterment Board into the world, and hastened forward to act as godfather at the robust infant's christening.

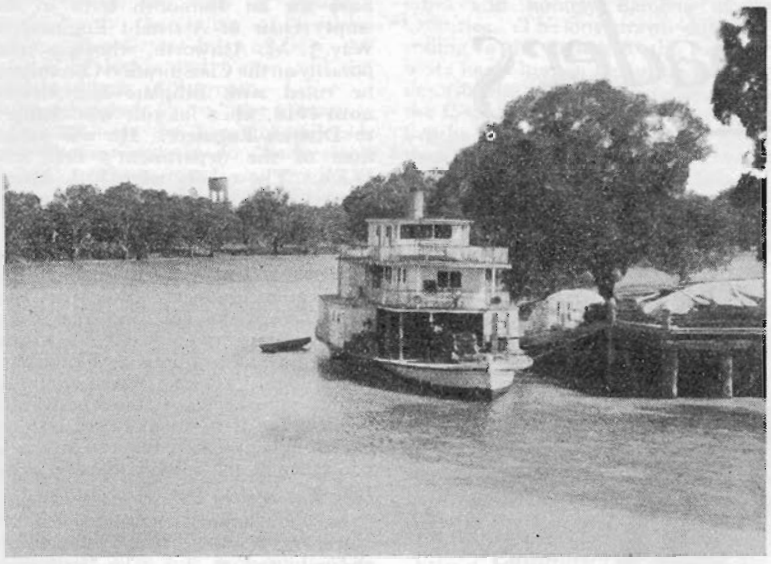
As the Board's chairman, his engineering training swelled his deep-chested appeal for standardisation. And the price of standardisation is eternal uniformity. Station notice boards, timetable sheets, railway forms and returns, writing paper and envelopes all passed beneath the snipping scissors of standardisation, as brandished in the collective grip of Evanrichard and colleagues Arthur Hyland and George Curtis.

Nineteen-twenty-three brought the sausage into Evanrichard's life, colored his outlook with soup. As Assistant Superintendent of Refreshment Services, he followed up his Betterment Board organisation of the first Reso train by controlling four successive trips of the See-Victoria-First caravan. But the call of the trestle bridge was sounding above the clatter of crockery, the sleepers were beckoning through the coffee, the track ballast was knocking at the kitchen door. Evanrichard slipped off his coat and trolleyed back to the land of pick and shovel. The prodigal engineer had returned.

For four years now he has looked after Gippsland's railway tracks and bridges, controlling anything up to 1,500 men, and spending half-a-million pounds a year. Wise in his administration, he rises superior to the fatal weakness of trying to do everything himself. Red tape is anathema to him. He never uses a pen when he can use his tongue.

He looks back along his career of bridge building, regrading, track duplicating, station yard remodelling, and permanent way engineering, and, with finger stabbing in characteristic Evanrichard fashion in the approximate direction of head office, insists that the most difficult job he ever tackled was the writing of the front page messages for the Weekly Notice.

Where to Spend a Holiday



Down The Murray

By E. RINA

DOWN the Murray—the expression is common enough, but is the experience?

It would be if holiday-makers more generally realised the potentialities for unalloyed rest and enjoyment that are packed into each of the comfortable river steamers that ply up and down the bush-fringed river at this time of year.

WINTER conditions have now set in, and those of us who, by choice or by the force of circumstances, are preparing to take our annual holidays, are faced with the problem of deciding to which of the popular winter resorts we will wend our way this year. For that holiday which is different, for that new experience, a lazy trip on a Murray River paddle steamer is hard to beat.

The Murray is the greatest of the Australian rivers, and for 1200 miles it helps to form the border between Victoria and New South Wales, before passing into South Australian territory. And yet so great is the variation of the flow of the river that it is only from July to November that the stream is navigable for more than the 170 miles below Blanchetown.

It was with the two-fold object of providing for all-the-year-round navigation, and of conserving the river's waters for irrigation purposes, that the huge Hume Reservoir, near Albury—to be supplemented by 26 weirs placed at intervals between Echuca and Blanchetown—was authorised. These weirs, some of which are completed while others are in course of construction, are each furnished with a lock for navigating purposes and form one of the many interesting and instructive features of a river trip.

The steamers are comfortable and well-equipped and afford every convenience for a restful journey in the sunshine and comparative warmth of the Riverina—a delightful change from the winter conditions of the south of the State. The cabins are large and electric lights are fitted throughout. Hot and cold baths are available. A chef and stewards are carried and first class meals are provided.

A happy feature of the river trips is the facility with which round trips may be made. The boats may be joined at Swan Hill or Mildura in Victoria, for down stream tours, and the river journey can be terminated at Mildura or at Morgan or Murray Bridge in South Australia. The trip from Swan Hill to Murray Bridge covers a river journey of 800 miles and enables the holiday to be conveniently extended to include Adelaide.

The Start of the River Journey

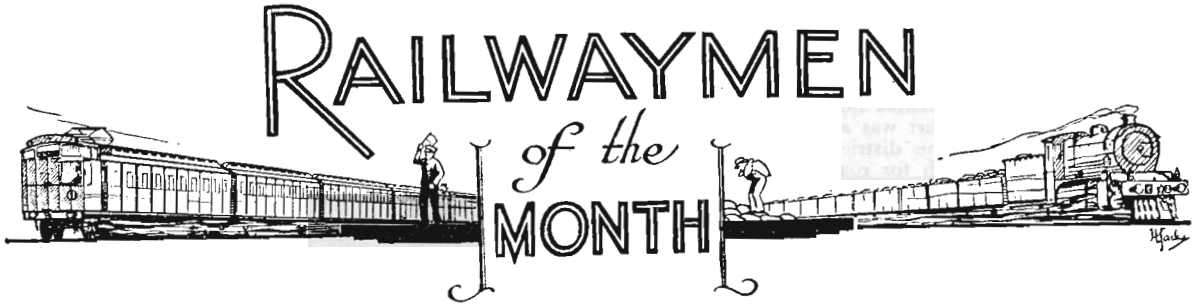
The thriving town of Swan Hill is the centre of a rich wheat, wool, citrus and vine district both in Victoria and in New South Wales. After leaving the wharf, the boat slips along between fringed cliffs which give way at intervals to grass-covered slopes. Huge gums line the banks and form stately avenues. Little islands split the main stream in two and seem to bar the way.

Many points are passed, points dignified with names, and which to the casual traveller provide interesting diversions on the river journey. Here and there are wood piles and landings, each having a significance to the river man that fixes them as landmarks on his course. Interesting stoppages are made during the progress of the trip; goods are shipped and stores put ashore at what appear to be uninhabited places.

Of the larger ports of call, the most interesting is perhaps Mildura, the earliest and still the foremost Victorian irrigation settlement. The waiting time at this point may profitably be spent in viewing Mildura and the adjacent settlements of Merbein and Redcliffs, which are prosperous citrus and vine-growing districts. At Redcliffs the pumping plant on the river is the largest in the Southern Hemisphere, having a capacity of 135 million gallons a day.

Passengers are also given the opportunity of inspecting Wentworth at the junction of the Murray and Darling Rivers. Renmark, South Australia's principal irrigation settlement, fringes the river bank, and the vineyards and plantations, for which the district is famous, rise on the sandy slopes overlooking the valley. Waikerie is a picturesque sight with its orchards standing back from the river on high ground. Morgan is the most important South Australian shipping town on the Murray, and is in direct rail communication with Adelaide. Murray Bridge, on the main Melbourne-Adelaide rail route, is the terminal point for river shipping.

And even if you do not travel the full 800 miles, you will unquestionably declare that no other trip you have done is more enjoyable than one in a well-appointed steamer on the Murray.



From Wimmera to Mallee

RELINQUISHING the Wimmera's hectic pleasures for the Mallee's mad whirl of gaiety, that hard doer and hard worker, Bob English, goes on transfer to Nandaly as S.M. For three years he has worked continuously by electric light as Dimboola's night officer, and he is in no way depressed at his opportunity to recommence early morning shaving.

And from Wimmera to Gippsland

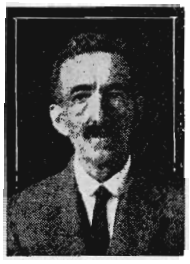


ANOTHER move from the Wimmera is the transfer of Stationmaster Tom Wanless from Kaniva to Tooradin. For two and a half years Tom has kept the V.R. flag flying at Kaniva, and his easterly migration evoked flattering regret from the host of friends he and his wife had made in the district. Townspeople farewelled them with a wallet of notes, and church friends with a cut glass fruit bowl.

Princes Bridge Identity

CHEERFUL George Dando of the rubicund face and rollicking laugh has ceased head-portering at Princes Bridge after a 12-year term. He has finished up at the same station which gave him his railway baptism as porter in 1890. When he joined up, Mr. Miscamble, later Railways Commissioner, was working in the big signal box nearby, and Mr. Privett was the Bridge S.M. From porter George moved on to shunter, suburban guard, acting parcels foreman and head porter. First aid and ambulance work was a fetish with him. He was at Princes Bridge at the time of the unfortunate Richmond smash, and, as soon as word came through on the 'phone, rushed from the office, collected a handful of men, a bundle of stretchers and a chest or two of ambulance equipment, and caught a moving train from Flinders-street in time to reach Richmond inside 15 minutes. George's promptitude was specially commended at the inquiry.

July Birthdays



Mr. F. M. Calcutt

THIS month two branch heads in Chief Engineer of Way and Works E. H. Ballard, and Chief Engineer of Signals and Telegraphs F. M. Calcutt, celebrate their birthdays (on the 15th and 17th respectively), Mr. Ballard's anniversary incidentally being his last on the job. Retired Auditor of Receipts G. K. Low, also, has his birthday on the 26th. Other railway celebrants include Chief Timetables Officer H. Cooke, on the first; Edmund Rosman, of the Secretary's branch, on the second; Block and Signal Inspector A. E. Colson, and Goods Agent W. N. Wortley, on the third; Chairman C. H. Holmes, of the Betterment and Publicity Board, and Chief Train Despatcher W. T. McConnell, on the ninth; Block Inspector A. W. Murfitt, on the 13th; W. Wotherspoon, of Room 10, on the 18th; Travelling Storekeeper H. Sergeant, on the 19th; Special Officer V. Letcher and Ex-Outdoor Superintendent J. Fitzpatrick, on the 22nd; Traffic Inspector J. S. O'Haire of Ballarat, on the 27th; Inspecting Engineer C. Fethney, on the 28th; Traffic Inspector C. Baldock of Seymour, on the 29th; and Electrical Engineer J. W. L. Avery, on the 31st.

Sevens



SO far as Traffic Inspector J. S. O'Haire's birthday is concerned, it is interesting to note how often the numeral seven has dogged his firm footsteps. Born on the 27th day of the seventh month, he was the seventh son of the O'Haire family and thus acquired the christian name of Septimus. He was married on a 27th, and his eldest son, like himself, was born on the 27th day of the seventh month. And Ballarat and district, of course, is hoping that it will hold the energetic and cheerful inspector for seven years—or 17. Sep. graduated from booking clerk to S.M., and had a term as train running officer. A great man with the gloves, he was one of the best middleweight boxers in the State 16 years ago. He fought the best middles, welters and heavies offering, lost only two decisions on points in his whole boxing career, and was never once knocked off his feet for a count in any contest. As a fact, he was nearly as good a boxer as he is a traffic inspector.

Fireman Guard



WHETHER Healesville knew Ted Johnston better as fire fighter than guard is a moot question. Certainly the alert and brisk guard's official enthusiasm centred on a green flag; but with equal certainty his unofficial enthusiasm centred on a red fire-reel. When he retired last month, with 46 years of solid service to his credit, he terminated a 15-year term as Healesville's knight of the flag. It will be peculiar, however, if Healesville allow him to terminate his 13-year term as knight of the fire hose, or to cut adrift from the position of third-in-command of the brigade, which he has held for nine years. On the score of advancing age, he has already sought to resign, but the brigade flatteringly refuses even to consider such a step. Into his railway career Ted crammed much pioneering. He ran the first special train on the Heidelberg line, and relieved on the Brighton Beach–Sandringham stretch immediately after its opening.

Go-getter Goes

BERT Jenner had been three years in charge of Drysdale station when he got word of his transfer to Dimboola as night officer. And Drysdale didn't wait three minutes to begin collecting a testimonial for the

popular and capable Bert when it got word of his departure. A sorrowful coterie of citizens and local councillors farewelled him, told him they had never had a better S.M., and presented him with a nice fat cheque. Bert was an enthusiastic go-getter in the district, and packed a shrewd punch for road competition in each hand. His success in winning green pea traffic from the road interests won him the regal if unofficial title of the Green Pea King.

Birthday Marriage

CHIEF Clerk Walter Kennedy of the Jolimont Electric Running Depot chose a good day when he selected a date last month for his second marriage, June 19 being his birthday. He combined the two happy events in one, and then left on a 56 day honeymoon at Boronia and over the Murray. His staff's birthday-wedding gift was a set of cutlery.

Hoots, Mon!

CRUINNEACHADE Gaidhealach aig se sraid Clissold an diguh aig lethuir an deidh a dha—



AND the answer's a Scot. Alex Shaw, Ballarat Goods checker, pleads guilty to the authorship of this effusion, which appeared in the *Courier* last month. The language is a disguise for the announcement that the Society for the Promotion of Gaelic will meet at the president's residence on a certain afternoon. Alex, of course, is the president of the society, which was formed just 12 months ago. One of those doughty Scots who are Australian born, Alex is well-known in the city of statues. His daughter, Miss Jessie Shaw, is a niece of the present Mayor, Cr. McKenzie, and has been acting mayoress during the past 12 months.

Legs and Handwriting

PERSONAL testimony to the more or less well-known scientific fact that there is no direct connection between a man's legs and his handwriting is kindly if unwillingly supplied by A.S.M. Bill Crouch of Nhill. Although hobbling around on a badly knocked football leg, Bill's station book entries remain models of perfect penmanship, evoking unstinted praise from General Superintendent Canny, when he visited the station a week or so ago. Indications are that there will soon be the same absence of room for improvement in the state of Bill's leg as there always has been in the quality of his caligraphy.

Tenth and Last



HIS 10th year as Chief Engineer of Way and Works will be Mr. E. H. Ballard's last year on the job. He was appointed branch chief on June 1, 1918, and he retires on the 31st of this month. Firm, outspoken and scrupulously fair, he was as able an administrator as he was a civil engineer. He was appointed permanent draftsman in the Victorian Railways in 1887, and was in turn assistant engineer, Superintendent of Signals, Engineer of Way, and Assistant Chief Engineer of Way and Works. He acted on the committee of experts which co-operated with the department's consulting engineers in the gigantic scheme for the electrification of the suburban railways. Greatly interested in standardisation, he is a vice-president of the Australian Commonwealth Engineering Standards Association. And, of course, he is also a member of the Institute of Civil Engineers.

The McGregor is Going

IN the absence of bagpipes, the vocal strains of Auld Lang Syne wafted Keith McGregor, Dandenong telegraphist, on the first stage of his journey to America's Southern Pacific railroad. Unity Hall was the scene of his farewell, and a leather suit case was the gift of his Dandenong and Spencer-street friends. President J. B. Johnston of the telegraphists' section wished him good luck and a safe return, and then the audience descended on Mac and endeavored to wring his right arm from its socket.

Money from Home



A PROUD man was Car and Wagon Builder Jack Beere last month when he handed over a cheque for £200 to Commissioner Shannon as a contribution from the Newport Shopmen towards the purchase of a motor ambulance for use at Newport and the Signal Shops. Jack was one of the ringleaders in the wide-spread plot to appropriate a rubber-wheeled ambulance for the shops, and Newport dug deeply when the collection sheets went round. A first-aid zealot, Jack secretaries for the Newport Safety First committee.

Siberian

AUBURN-HAIRED Patsy Clancy, prolific producer of dots and dashes at Serviceton, has served his third year as fifty-per cent. Victorian and fifty-per cent. South Australian railwayman at the Siberian border outpost. So well does he know the teeming Serviceton population (fully 150) that he calls locals not by their first christian name but by their second. His Siberian confinement, however, has not effected his old-time devilry with the boxing gloves. It's a pretty safe bet that, as soon as he gets to the city, he'll be across to the Institute looking for knuckle practice in the gym.

Off to the Uni.



FOLLOWING up his success in gathering in a departmental scholarship at the V.R. technical college, apprentice Electrical Fitter W. J. Johnston now goes to the University to take the department's free place in electrical engineering. Specially recommended by his branch chief, his record is perhaps best summed up in the letter which the principal of the Workingmen's College sent to Mr. Nilsson, principal of the V.R. technical college: "William John Johnston has completed the course for the diploma of associateship in electrical and mechanical engineering. His success has been extraordinary. In the first year he obtained credit in eight out of the nine subjects. In the second year he obtained credit in the whole eleven subjects. In the final year he obtained credit in seven out of nine subjects. He is one of the best students we have had." Principals could write no more.

LAST MILE POST.

GANGER JOHN CLARKE.

TRAGICALLY sudden was the death of Ganger John Clarke at Kaniva last month. He attended the farewell social tendered to the local stationmaster, and on sitting down to breakfast next morning appeared to be in the best of health. Without the slightest warning, however, he expired in his chair from heart failure.

Sincerest condolences from his host of railway friends in the Western district are extended to the bereaved widow and family.

SNAPS ROUND The SYSTEM

Sent in by Contributors

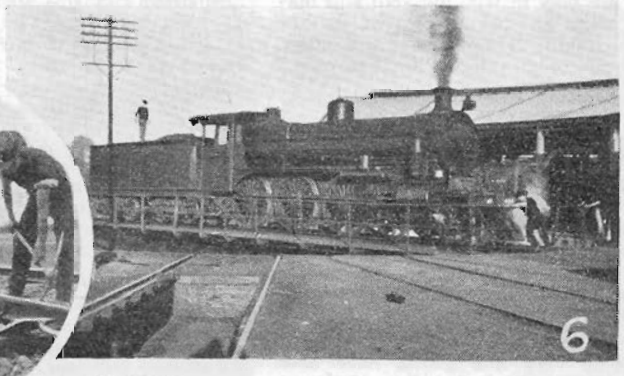
















1—*Benalla V.R. Institute.*
2—*Adelaide express on Rowley Bank, near Bacchus Marsh.*
3—*Goods train leaving Seaford.*
4—*Grafted red gums near Benalla Station.*
5—*Gang 32, under Ganger Wallace, at work near Bowser.*
6—*At the Loco. Shed, Traralgon.*
7—*Trucks ready for despatch at Catani (Strezlecki line).*
8—*A corner of Repairer Hollingsworth's departmental residence, at Kerang, which recently won a first prize in the Bendigo District.*



Conducted by REG. HUNT

RAILWAYS STILL UNBEATEN
In Wednesday League Football

THE Railways team is still unbeaten in the Wednesday League competition, and has won every match very easily, as the scores show :—

April 18—Railways 14-13 ; Air Force 8-9.

May 2—Railways 17-24 ; Waterside Workers 8-9.

May 9—Railways 18-23 ; Post and Telegraph 8-6.

May 16—Railways 17-24; Yellow Cabs 1-4.

May 30—Railways 11-11; Red Cabs 2-5.

June 6—Railways 14-3 ; Fire Brigade 3-11.

June 13—Railways 14-16 ; Argus 7-6.

The Waterside Workers who won the premiership last year started badly, but are now in winning vein and may yet make another bold fight for the premiership. However, at this stage, Railways seem well out "on their own."

ASSOCIATION
Melbourne Yard Withdraws

The Melbourne Yard club, which had been so successful in previous seasons, unfortunately found it necessary to withdraw from the association this year, after having joined, but the officials, ready for any such emergency, promptly included the Coburg Line team in its place.

Some very fine games have been played, the football being of a very fair standard, although one of the grounds used has been the cause of complaint by some clubs. The competition is exciting considerable interest amongst the outside running staffs, and with several of the clubs evenly matched, the finals will be keenly fought, the Commissioners' Cup being no certainty for any team this year.

The best match to date was that on June 6, between the Intra-Branch rivals, North Loco. and Car and Wagon Shops. The former narrowly won by 6-8 to 4-10—10 points. North Loco. has the leading goal kicker (McInnes), who has kicked 32 goals in the five matches played. In one match he scored 10 and in another 8 goals—both good performances. Ryan (Sandringham Line) on June 6, kicked 9 goals against Williamstown. He is the successful forward of the Carnegie Club, in the sub-districts League, and should soon be seen in senior football.

North Loco. and Sandringham are level on matches won and lost, but the former leads on averages—178 to 170.

The premiership list shows the positions of the clubs :—

Club.	Mhs. Pld.	Won	Lost.	Pts. For.	Scr'd Agst.
North Loco.	5	4	1	398	223
Sandringham Line	5	4	1	363	213
Car and Wagon Shops	5	3	2	329	215
Flinders-st. ...	4	2	2	231	241
Coburg Line	4	1	3	145	320
Williamstown Line	5	—	5	223	483

The Coburg–Flinders-street match, set down for June 6, was postponed owing to the ground being unfit for play. The match will be played on a date to be fixed by the Association.

Although Coburg and Williamstown are at the bottom of the list, they have played some good games, and have shown plenty of determination. Improvement will come with experience. Mr. Morgan, Coburg's secretary, is very keen, and if enthusiasm counts for anything, his club will do all right.

The Railways team, which is competing in the local Maryborough Association, has won only one match to date, but under the coaching of Parcels Porter Lin Chappell (who was selected on South Melbourne's list this year) much improvement is expected in the next round.

The Maryborough Club is leading in the Ballarat League, having suffered only one defeat. No fewer than seven Railway men are regular members of this team, while on the executive there are six, including the President (Cr. J. A. Roberts).

BOXING & WRESTLING
Tourney Competitors' Chances

Aspirants to athletic fame to the number of 125, entered the lists for this year's open tourney at the Institute. Up to the time this journal went to press, six of the nine evenings necessary to finalise the competitions have been completed, and some very fine contests have been witnessed.

The absence abroad of Tommy Bolger and T. Morris added interest to the welter and middle wrestling divisions, as Bolger particularly, has had a mortgage on his division for the past few years. Tom Greatorex, J. H. Muldoon and A. J. Streckfuss look like fighting out the welter-weight division, while among the middles, Muldoon and A. Donnett are favorites.

Heavyweight Champion A. LeFevre does not appear to be seriously troubled by the opposition, and is undoubtedly a class wrestler.

Among the lighter weights, Barney Nugent (Melbourne Goods) and N. McDonald (Newport) look like keeping the feather title in the Railways, while Vic. Zaremba and A. J. Streckfuss are in the semi-finals of the lightweight division.

Despite the wrestling boom, boxers are still popular at the Institute, and have provided plenty of thrills. Police Champion Barnes, a real heavyweight, has shown decided improvement on last year's form, and his final bout with L. Bandias, last year's middleweight champion, should be the best of the tourney.

Red McDonald is the only railwayman left in the middles, and will have to fight hard to beat D. Gallagher, the favorite ; however, Mac is still in the welter division also, and should go near winning.

The lighter boys invariably provide good bouts, and railwaymen in Micky Feaver and J. P. Smith look like fighting out the featherweight finals.

Recently Dr. McAdam and a party of Boy Scouts from Great Britain were interested spectators. They were welcomed to the Institute by Mr. J. Conlan, vice-president, who wished them every prosperity in their new country.

On a subsequent evening Messrs. J. A. Boyd, ex M.H.R., and Norman McCance, were present.

SUCCESSFUL GOLF DANCE

THE members of the V.R.I. Golf Club held the first of this year's series of dances at "The Palms," Alexandra Avenue, last month, and it proved a highly successful function. The President, Mr. T. F. Brennan, was present, and his efforts in looking after the enjoyment of everyone were much appreciated. A ladies' committee comprising Mrs. Blanchard, the Misses Ashworth, Carroll, Corkill, Jamieson, Lucas, Murphy, Sullivan, Stanley and Maughan worked hard to ensure the success of the dance, and the hon. secretary (Mr. Con Lynch) assures me that to this capable committee much of the financial success is due. The next dance will be held about the middle of July.

Interstate Golf competitions are held annually between N.S.W., South Australia and Victoria, in Sydney, Adelaide and Melbourne, alternatively, and funds are being raised for the entertainment of visitors when they come to our city. The matches this year will be played at Sydney in September.

CRICKET SOCIAL

The V.R. Association celebrated the conclusion of a very successful season with a social evening and dance at the Institute, last month, at which there was a very large attendance. During the evening the Commissioners' Cup was handed over to the premier team (Jolimont Yard) by the President (Mr. W. Donald). Three life-membership certificates were presented to Messrs. Shannon, Leslie and Deardon, for past services to the Association. It has been decided to hold these dances at intervals during the winter months. A cordial invitation is extended to all railway men and their friends to these dances.

T. and T. R. TENNIS TOURNEY

The Telegraph and Train Running Tennis Club has been conducting a single tourney, and the final is just about to be played between Messrs. Black and Foster.

In the semi-finals Black d. Jones 6-2 6-3, and Foster d. O'Brien 5-6 6-4 6-1.

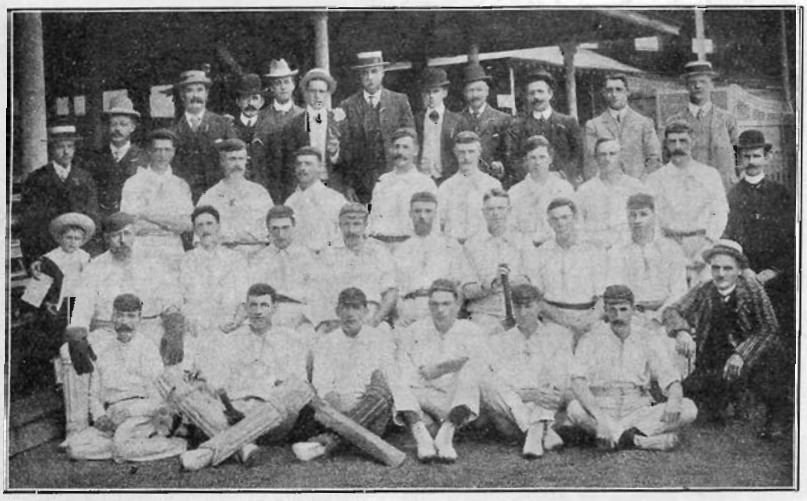
HARRIERS CHAMPIONSHIP

The first championship of the V.R.I. Harriers was held at the end of May over a 5-mile course, commencing and finishing on the Caulfield Racecourse. The winner was the Club Captain (Charlie McWilliam) who ran an excellent race.

The most gratifying feature of the race was that out of eleven novices, who started, nine finished. H. Millane and S. Leamon filled the minor places in that order. The Novice Handicap, which was run in conjunction with the championship, resulted in a dead heat for first between S. Leamon and A. Lindsay, L. Oates being third and H. Millane fastest unplaced.

INTERSTATE GOLF

The Interstate golf team selected to visit N.S.W. this year to play the usual interstate matches, will leave Melbourne on September 15. The visit will extend to September 22.



Here pictured are the teams (with supporters) which took part in the first cricket match between the New South Wales and the Victorian Administrative Officers. The photograph was taken at the Sydney Cricket Ground on 25th March, 1908. In the back row are the late W. R. Brown (Live Stock Agent), W. S. Fraser (late of Refreshment Services), J. A. Roberts (now at Maryborough, then Secretary of the team), Alex. Wotherspoon (Transportation), E. Laird (Audit), late E. Nicholson (Audit Inspector), Bert Ninnes (Audit), Will Elder (well-known humorist), Joe Keleher (Powers Machines) and J. Fitzpatrick (late Outdoor Superintendent) who acted as umpire. In the second row are W. Ellis (Audit), Fred Box (Engineer), Mat Doherty (Rolling Stock) and D. Blackie (now chasing trucks). Sitting (from left to right) are Geo. K. Low (Auditor of Receipts), Alf Mills (Rolling Stock), H. Beulke, Captain (just retired), and at the end Stan Hannan and Jim Beattie. In the front row, N. Fraser (Stores), and second from the right, the late Alex. Milne (Time Tables Office).

PROMISING ATHLETE



Wonthaggi is proud of Ted Coady, store boy of the State Mine Loco. He won the 440 yds. handicap at the recent Stawell Easter Meeting, and is one of the best footballers in the local club. He is a past chairman of the sub-branch of the A.R.U., an active member of the A.N.A., and takes an interest in everything for the betterment of the local town, the residents of which have in appreciation of his work, presented him with a valuable shield. As Ted is now only 17 years of age, Wonthaggi throws out a challenge to any other country town to produce a better performer at the age.

RADIO ON AMERICAN FREIGHT TRAINS

REDUCTION in traffic delays, safer train operation, and savings in fuel are some of the results secured by the use of radio for engine and caboose (or guard's van) intercommunication on long American freight trains, as shown by tests now in progress on the Chesapeake and Ohio Railways. For more than two months, engineers have been experimenting with the new communication system in actual service on the James River subdivision where ordinary signalling is very difficult under conditions that obtain in this mountainous region. The course has many curves and several bridges and tunnels, and is so tortuous that engine and caboose are rarely in sight of each other and are often on opposite sides of a mountain. Signalling by hand or lantern, therefore, is generally out of the question. Trainmen usually have to walk within signalling distance in order to enable trains to make the proper movements, and since the trains are upwards of a mile long, much time is thus lost, and a delay anywhere along the line upsets schedules for the whole subdivision. The use of radio signalling between engine and caboose obviates this trouble, and has shortened the running times.

The radio equipment consists of a transmitter and a receiver, with a loudspeaker, mounted on both the engine and in the caboose. Signals are used for calling, and complete vocal intercommunication is maintained on the entire trip.



By "AERIO."

The Prize Crystal Set

UNDER very exacting conditions a crystal set, employing the circuit here described, came an easy first for volume and selectivity in a recent contest conducted by the V.R.I. Wireless Club.

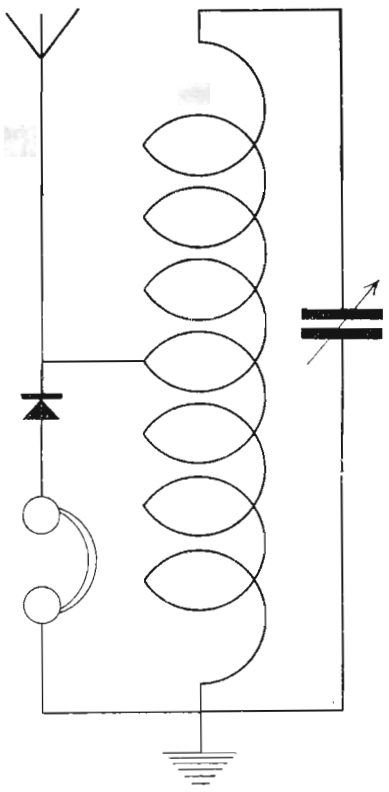
ELEVEN sets competed in the crystal set competition held recently at the Victorian Railways Institute Wireless Club. A variety of circuits was presented, and all but one were easily outclassed by Mr. N. L. Harris's cigar-box set employing the circuit illustrated on this page, the only runner up being a set employing two condenser-tuned coils and costing considerably more to build, but which failed to separate 3UZ so completely from 3LO.

Each set was, in turn, coupled to an aerial one hundred feet long, with an earth consisting of hundreds of feet of hot water pipes, almost in the shadow of the aerial of 3DB and less than a mile from 3UZ. Surely a severe test for any crystal set.

Nevertheless the winner was able to cut out 3DB in a few degrees and just to separate 3UZ from 3LO; 3AR being, of course, quite free from interference. All four stations came in at good volume, and sufficient tuning range was provided to reach down to some at least of the amateurs. The same circuit, since built by the writer, is giving excellent results at East St. Kilda.

The circuit, which is designed to place maximum voltage on the crystal, consists of a tuning coil of 50 turns of d.c.c. wire on a 2½ inch former. A tapping is taken off at the centre turn. This coil is tuned with a .0005 variable condenser. Any type of detector may be used, but the semi-fixed type used by the writer is giving splendid volume.

The construction of the set presents no difficulty whatever. The cabinet may consist of a cigar-box (the 100-cigar size) placed on its side. A piece of 3-ply fixed to a small baseboard, made to slide into the box, may be used to mount the components. The condenser, crystal and terminals are mounted on the panel. After drilling,



and before mounting the parts, the box and panel should be sandpapered and given two coats of ordinary liquid stove enamel, which gives a nice finish. The condenser should be mounted a little to the right of the centre of panel, so as to leave room behind the panel for the coil, which is to be fixed vertically at the extreme left, on the baseboard. The detector should be mounted high up and not far distant from the aerial terminal.

The wiring is as follows:—

1. Aerial terminal to detector; thence to centre of coil.
2. Detector to phones.
3. Phones to moving plates of condenser; thence to bottom of coil; thence to earth terminal.
4. Top of coil to fixed plates of condenser.

I consider that there are great possibilities for this circuit and will be glad to hear of any long distance reception (over 100 miles) with it. For long distance work it would, of course, be desirable to use an ebonite panel.

PROPOSED SERVICE FOR SHORT-WAVE ENTHUSIASTS

A number of our readers are now dabbling with short wave reception, and with the view of assisting a large proportion of these who have not the facilities for learning the morse code, or are not yet proficient in it, and are consequently only interested in broadcasts of speech and music, Aerio invites particulars of wave-length, date, Victorian time, nature of transmission, volume, number of valves used in reception, etc., from those receiving transmissions of this type below 100 metres. This information will in future be incorporated in these radio articles under the sub-heading of Short-wave 'Phone Reception and recorded for future reference.

The following short-wave stations have been heard recently transmitting on 'phone, all between 30 and 34 metres, and generally during week-ends, the receiver consisting of detector and 1 audio:—

P.C.J.J., Holland; 2 X.A.F., New York (relaying W.G.Y.); J.H.B.B., Japan; 3 A.R. and 2 A.Q., New Zealand. And the following Australian stations:—3LO, 3BY, 3OD, 3AL, 3BQ, 2FC, 2HM, 2DY, 2GQ, 2RC, 2TM, 5BY, 5DX, 5RJ, 6AG, 6SA, 7CW, 7DX.

American amateurs should be looked for on 22 metres.

Radio!

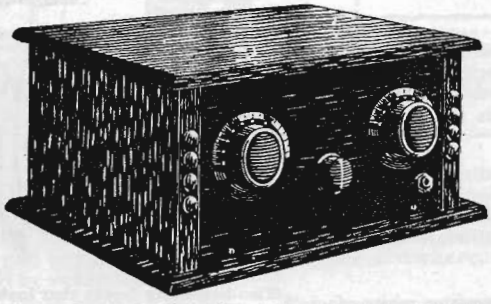
BET

A Better Two-Valve Set

Here's a two-valve set that really is better—comparison will prove it.

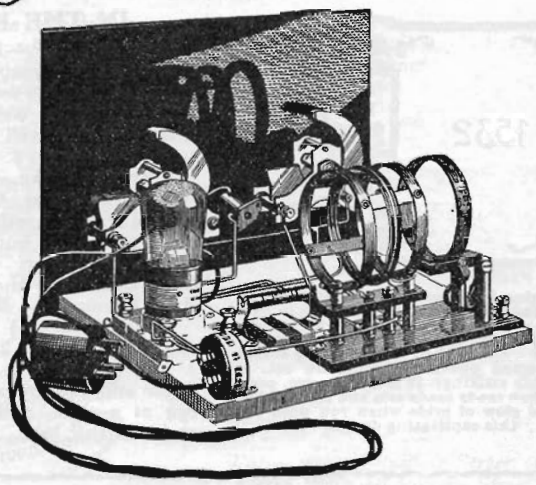
It's a set built of the best components—built by men who know their jobs—built to give the utmost sensitivity, selectivity and simplicity of operation.

Local stations come in clearly on a loud-speaker—and the price: **£7-0-0**, brings the set complete with all accessories into your home—see it to-day!



Coyle Two Valve Set—Complete with all Accessories
£7-0-0

Two Popular Coyle Lines



Showing wiring of Coyle Short Wave Set

A £6-6-0 Short Wave Set

that picks up World-wide Broadcasting

At Black Rock, Victoria, programmes from stations in the following countries were clearly heard on an absolutely standard Coyle Short Wave Set—YET THE COST IS ONLY **£6-6-0.**

India	Hawaii	Jamaica	France
Germany	China	Phillipines	U.S.A.
Ireland	Belgium	Japan	Chile
Canada	England	Portugal	

Its circuit is chosen after careful experiments by the builders, and is of a fixed tickler type with throttle condenser for reaction control, fitted with a Coyle Special Short Wave Kit (which alone costs 35/-)

Call today and see letters from the international stations a Coyle Short Wave Set has picked up.

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will be allowed any Victorian Railways Employee when purchasing Radio goods (with the exception of "Mullard" and "Phillips" valves) at either of the Coyle Stores

COYLE'S RADIO PTY. LTD.

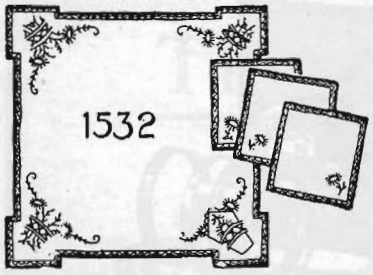
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(Mail Order Branch)



Conducted by EILEEN to whom all communications for this feature should be sent.



A Charming Luncheon Set—What could be prettier than a large cluster of daisies in harmonious shades of orange, yellow and black, embroidered on a toneful background of beautiful jade—the effect of this stunning design when worked out for a luncheon set, is remarkably striking. It is inexpensive, costs far less than ready made sets and you will feel a natural glow of pride when you work out this captivating design.

IN THE KITCHEN

Cream Cake.—1½ cups flour, 1 cup cream, 1 cup sugar, 3 eggs, 2 teaspoons cream of tartar, ½ teaspoon soda. Beat eggs and butter well, add cream, then flour and mix well together. Bake in small tin 1 hour.

Currant Cake.—1 lb. butter, 1 lb. flour, ¾ lb. sugar, 6 eggs, 1 wineglass milk, ½ teaspoon soda, 1 teaspoon cream of tartar. Beat butter and sugar to a cream, add eggs well beaten, then milk, then flour and currants to taste. Bake 1 hour.

Fruit Cake.—½ lb. butter, 1 cup sugar, ½ cup milk, 2 cups flour, 4 eggs, 1 cup sultanas, a pinch salt. Beat sugar and butter to a cream, add one egg at a time, add milk, then flour, and the fruit last. Bake 1 hour.



Two becoming frocks that look well in either repp or crepe satin

HINTS FOR THE HOME

When you have cleaned the stove, wipe over with vinegar before applying blacklead ; this heightens the final polish wonderfully.

Milk which has been burnt should be poured into a jug which is set in cold water ; the burnt taste will disappear.

When marking linen, write the initials with lead pencil and follow over the pencil mark with the marking-ink. The lead prevents the ink from running.

When pouring medicine from a bottle, always keep the label uppermost, and the mixture will not run down the side and obliterate the instructions.

When mashing potatoes use white of egg instead of milk ; it will make them much lighter.

After using petrol for cleaning, rub the hands with lard to get rid of the tingling and redness.

To make an effervescing draught for immediate use, put a tablespoon of castor sugar into half a glass of cold water, add the juice of half a lemon and a pinch of bicarbonate of soda. Stir well and drink at once.

A hook or a screw-eye screwed into the end of a broomhandle is useful for hanging the broom, for pulling down window-shades that are out of reach, and so on.

To prevent rust, all tins used for boiling clothes should be emptied while the suds are still hot, and set to dry without rinsing.

To remove scorch marks from georgette, sponge with onion-juice, then with clean water. When dry press with a warm iron over muslin.

If a paint brush become hard through neglect, soak in hot vinegar for a few hours ; this will soften the bristles.

If any tinned fruit has been left over and is not to be used the same day, bring it just to the boil.

A package or envelope sealed with white of egg cannot be steamed open.

Clean rusty or badly-tarnished curtain pins or picture hooks by soaking them in ammonia, and then boil them in water in which haricot beans have been cooked.


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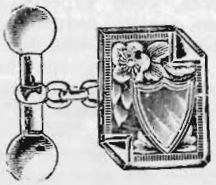


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This Watch has a Solid Silver Case with a Special Guard Front to protect the glass. The movement is a high-grade 15 jewelled Swiss Lever, with a luminous dial. Complete with a leather strap and guaranteed for 5 years. Others in silver (without guard) 30/- to £5. In solid gold £4 upwards - - **45/-**



Gent.'s Solid 9-ct. Gold Signet Ring,
Extra Heavy, 20/-
In 15-ct. Gold, 30/-



Heavy 9-ct. Gold Links
12/6 per pair.
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Initials engraved free.



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UP-COUNTRY

As Recorded by Railways District Superintendents

Increased Building and Trading Activity—Seasonal Prospects Continue Bright — Broom Factory for Wangaratta—New Textile Mills opened at Ballarat—High Lambing Percentages in Western District

BENDIGO

EVIDENCE of the growth of the district is apparent generally at Robinvale, the latest acquisition being a new hotel. At Pyramid, the hotel is being remodelled at a cost of somewhere around £9,000.

The rainfall continues to favor the estimated increase of 30 per cent. in the wheat harvest. Everywhere a better yield than last season's is practically certain.

The reduced fares on football trains have met with encouraging results, and many more passengers are availing themselves of this innovation.

The Safety First movement in this section is meeting with excellent results. For March and April the accident pay showed a clean sheet—the total payments to date from the commencement of the financial year being £63, which is £123 less than last year.

Passenger traffic over the King's Birthday week end was heavier than usual owing to the bad state of the roads and the heavier football traffic.

GEELONG

THE increased building and trading activity throughout the district is a reflex of the optimism displayed in regard to the prospects of the forthcoming season. The mild weather conditions which have prevailed have been favorable for the lambing season, and high percentages have been the rule. The area under wheat is much greater than that of last year, and the favorable conditions portend a good harvest.

Good progress is being maintained in the renewal and extension of the railway pier at Geelong, which it is expected will be available for the accommodation of vessels in the course of two or three months.

MARYBOROUGH

DELIVERIES of dried fruits to the various packing sheds within 20 miles of Mildura have been completed with the exception of a few tons. They total between 21,000 and 22,000 tons, a little more than half of last year's crop. The shortage is chiefly due to the frosts experienced during September last. They had little effect, however, on the tonnage of lexias, which amounts to more than 4,000 tons as compared with 4,500 tons last year.

During May, 9,258 bags of potatoes were despatched from the Trentham station compared with 3,833 tons last year. The total for the season is 16,975 bags, compared with 4,462 bags to the end of May, last season.

The Irymple Packing Co. has received advice that the first sales of the 1928 Sultana crop, forwarded by the Osterley, were of 100 boxes, four crown, temperature dipped, at 64s. per cwt., and of 140 boxes, four crown, cold dipped at 80s. per cwt.

The rains, this month, have had a wonderful effect upon the crops which were beginning to show through, and they should make good growth from now on. It has also entirely changed the outlook in the districts north of Ouyen, where the prospects were anything but promising. The acreage under crop this season is estimated at 993,000 acres, from which a yield of approximately 12,600,000 bushels is expected.

SEYMOUR

DURING June phenomenally heavy rains have fallen throughout the whole of the territory, and the position for the coming season is assured. It is several years since the subsoil has had such a thorough soaking, and inestimable benefit will result. So far no great damage has been caused through flooding, but further heavy rains at this juncture will give rise to serious concern in the low-lying country. Many crops are through the ground and are looking splendid. The growth is perfect in colour, and the prospects for the harvest are exceedingly bright.

With a wealth of winter feed available, stock is in splendid condition. The heavy loss of lambs last season was mainly due to the scarcity of feed for ewes, but the present lambing season promises to be a record.

A satisfactory season has, after many set-backs, been experienced in the tobacco growing industry. A total of 400 acres out of the 600 acres cultivated, last season, for the whole of Victoria, was grown in the Ovens and King Valley Districts. The yield was about 250 tons. Owing to the prevalence of blue mould in a new form, last season, the area planted was not so great as in previous years. The quality of the leaf generally is good, and on account of the favorable season, a fair proportion of heavy leaf has been produced. The guarantee price of 2s. 6d. per lb. will again be paid for leaf of good color, with an added bonus of 6d. per lb. for first grade quality.

It is worthy of mention that during the past season a total of 12,000 tons of rice was harvested in the Murrumbidgee irrigation area, or sufficient to supply the whole of the demand in Australia.

Practically the whole of the broom fibre produced in this State is grown in the King Valley District, and is of excellent quality. A movement has been inaugurated with a view of establishing a broom factory at Wangaratta to deal with the local product.

The transport of last season's pack for export is now in progress, and, to date, approximately 100,000 cases have been railed, representing 3,000,000 two-pound tins. This quantity is only a very small proportion of the output from the Shepparton, Mooroopna and Kyabram Canneries. The position of the industry is far from satisfactory at present, as it is reported that the co-operative companies are faced with a certain loss of 8d. a dozen tins, after making allowance for the government bounty of 1s. 6d. a dozen. The increase of this bounty to 2s. 2d. per dozen, to cover the loss, is being advocated.

BALLARAT

ANOTHER new industry, The Schempp Textile Mills, which has its plant in Lydiard-street, has commenced operations in Ballarat. It is no unusual thing to see the plant in full operation well into the late hours of the night, in order to meet the demand for its products. Excellent quality articles are being manufactured, and should keep many hands employed.

On Saturday, June 16, another page in the history of Ballarat was written when the Governor of Victoria, Lord Somers, officially visited Ballarat to open the fine new textile mill of I. and R. Morley Pty. Ltd., England and Ballarat. Since the company acquired 11 acres of ground in Ballarat North, work has been steadily progressing, until today one sees a fine modern structure embodying a pleasing architectural design, and all the modern healthful surroundings of gardens and lawns which go to make work pleasant. The management has been inundated

Concluded on page 48

BOOKS *and* NEW BOOKS

Thumbnail Reviews by J. D. MICHIE

British Railways, 1825–1925.—The Locomotive Publishing Co., Ltd., 3 Amen Corner, London E.C. 4. Seldom has such a comprehensive and profusely illustrated volume appealing as much to the man in the street as to the professional railwayman, come under notice as this 124-page publication, issued at 3s. 6d., to commemorate a century of railroading in Great Britain. With the help of several recognised railway historians, the publishers have attempted successfully to trace briefly the history of each of the component sections of Britain's four great trunk lines. Sixteen composite monotone plates, four colored plates and several line diagrams are included in the publication, which should find a place on every railwayman's bookshelf. The publishers have also forwarded an illustrated (in color) booklet on the Southern Railway's "Lord Nelson" locomotive with full descriptive matter, and a set of excellently printed color postcards of well-known British locomotives.

William Cook, Antique Dealer.—By Richard Keverne. This is a well wrought tale of crime and detection on the Suffolk coast. Amid the flood of ingenious thrillers it is refreshing to come across a volume in which character drawing plays as much part as incident. There is no want of adventures and of thrills in this story.

Wild, Wild Heart.—By Rosemary Rees. Miss Rees owes her wide popularity both in Great Britain and the Dominions to her splendid scenes of the open-air life, her understanding of the manly types of manhood and of lovable and unaffected women. Her men are true men, and her women true women. "Wild, Wild Heart" is typical of her fresh, invigorating outlook.

Suzy Falls Off.—By Cecil Barr. An amusing and well-written story of the experiences of Suzy Trim, an English girl living in France. She acts as secretary to a novelist in Paris; makes a lot of money at the races, finds she is suspected of associating with a gang of thieves, hires a car with a charming chauffeur, and dashes off across France. A cheeky story of her adventures and how she kept her head until the last moment.

James the Second.—By Hilaire Belloc. Many regard the last of the reigning Stuarts as more sinned against than sinning, but nobody will deny the power of Mr. Belloc's presentation. Mr. Belloc writes as he has always written, smoothly, but with sparkle. He wakes up history, and his procession of memorable images is unforgettable.

The Open Road in Victoria.—Quite a record in Australian publishing has been established by the ready sale of Croll's Open Road. It was an excellent book by a popular man, and the author's popularity, the book's excellence and public interest in the subject of walking all combined to clear the first edition in three weeks. There are not many books anywhere in the world which are published one month and go to press again, the month following.

The Madness of Monty.—By Robert Keable, author of Simon Called Peter, Peradventure, and many other novels and some works of Theology. This is Keable's last novel before he died in December last, in Honolulu. It is the story of Monty, a school teacher, who, opening his eyes to the absurdity of the modern methods of teaching, violates the conventions, thereby achieving a real success with students, but upsetting all established shibboleths. The novel fascinates.

An Emergency Husband.—By A. M. Gwynne, another Australian author who has achieved a London publisher and a world-wide audience. Her earlier works, The Master of Greylands and The Mystery of Lakeside House, were well received by the limited audience available to locally published books, and served their purpose of attracting the attention of London to this Australian writer. Clearly A. M. Gwynne has, in An Emergency Husband, achieved a first-rank mystery novel.

Beau Ideal.—P. C. Wren's forthcoming novel is to have an Empire publishing date, July 19, which fixes some idea of the importance of this contribution to Wren's Foreign Legion Triology—Beau Geste, Beau Sabreur, and now Beau Ideal.

Rich Man, Poor Man.—By Hulbert Footner. It challenges, disgusts and hurts, but life is often like that. You will not easily forget Mr. Footner's realism. The whole book has vigor, intelligence and interest.

Love in the Saddle.—By J. Courtenay Locke. The plot concerns a young man, Harry Hawkshaw who is in love with Drusilla Cope. He is a man of family with £500 a year and some £1,500 in cash, the balance remaining to him after the sale of the family estate. The attempts of Drusilla's uncle and his friends to frustrate Hawkshaw's plans, and their ultimate downfall, are well told.

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WE desire to express our pleasure at the admirable way in which Railway transport facilities were handled by yourself and staff on Monday last, upon the occasion of our showing of the new Ford Car. There is no doubt whatever that the ease with which these arrangements were carried out contributed in a very large degree to the remarkable success of the showing. Please convey our appreciation to all those who assisted in making this possible.
—The Secretary, Ford Motor Co. of Australia Pty. Ltd., writing to the District Superintendent, Geelong.

COURTESY HELPED TO SAVE LIFE

I DESIRE to express thanks to your staff, especially the Assistant Stationmaster at Drouin, who kindly held up the train this morning, to enable a patient from the West Gippsland Hospital to be taken on to Melbourne, as the train had left Warragul before he could reach the station.

The patient who was an employe of the State Electricity Commission, had been seriously ill in the Hospital for some considerable time, and was on his way to the Alfred Hospital for further treatment when the incident occurred. The Matron rang up the Drouin Stationmaster, and it was through his courtesy that the patient was enabled to go on to Melbourne, where arrangements had been made to have him sent.
—Mr. H. Copeland, Secretary and Collector, West Gippsland Hospital, Warragul, writing to the District Superintendent, Dandenong.

MT. BUFFALO TOUR SUCCESS

WE the undersigned, being the full complement of Buffalo Tour, No. 10, desire to express our appreciation of the manner in which the tour has been conducted under the escort of Mr. Jordan. He has proved himself an admirable conductor, and has done everything possible to make the trip a success. His unfailing courtesy and constant endeavor made all the party feel comfortable, and we desire to express our appreciation to you for providing such a man of Mr. Jordan's capabilities.
—This letter is signed by the 22 members of the party, and is addressed to the Chairman of Railways Commissioners.

FRUIT TRAINS APPRECIATED

I AM enclosing you a letter from three well-known and progressive fruit growers of the Goulburn Valley who have requested me to convey to yourself, your brother Commissioners, Stationmasters and staffs their high appreciation of the assistance given them in running fruit trains in various country districts. As the representative of the Goulburn Valley, I would like also to thank you for the great assistance you and your staffs have rendered to the Fruit Industry in matters of transportation of the various fruit trains to country districts. Citrus growers are also highly appreciative of the action of the Railway Commissioners in establishing Citrus bars for the consumption of orange and lemon drinks which have proved a boon to the grower and public alike.
—Col. M. W. J. Bourchier, M.L.A., writing to the Chairman of Railways Commissioners.

Enclosure addressed to Col. Bourchier.

I AM writing on behalf of Messrs. H. E. Bailey, E. W. Beckham and myself to ask you to convey to Mr. H. W. Clapp, Chief Commissioner of Railways, our genuine appreciation of the services rendered us by him in running fruit trains into country districts and hereby providing an outlet for fruit that would otherwise have gone to waste. Every possible assistance was given us by every member of the Railways that we came in contact with. The Stationmasters and staffs along the lines traversed were splendid, also Mr. Russell, District Superintendent at Maryborough, and the District Superintendent at Geelong, whose name I do not know, Mr. W. Thomas, Assistant General Superintendent and his staff, and Mr. J. T. Roscholler of Maryborough—those gentlemen went out of their way to help us, hence the success we are so pleased with.
—Mr. T. C. James, "Urrin Lodge," Grahamville, via Shepparton.

"SPIRIT OF GOOD FEELING"

I HAVE just completed a trip from Sydney to Perth, W.A., and return, and through your Magazine, which I have posted to me each month, I wish to express my appreciation to all concerned for the courtesy and the spirit of good feeling extended to me while in your State by the Victorian Railway employes. The Victorian portion of the trip is very interesting and the train arrangements are of the best. The staff were at all places only too eager to render any assistance, and being a stranger to your system, I was interested and was willingly given any information. I hope shortly to revisit your State and to see more of the system.
—Miss Peggy Watts, 68 Station-street, Newtown, N.S.W., writing to the Editor.

THE "HELP YOU" SPIRIT

ON Saturday last, 12th inst., I had occasion to avail the use of a stretcher from Benalla Railway Station to convey my mother (who was seriously ill) to Colac. Right from the commencement of the journey to the end, every care, attention and courtesy was given us by the men in the Victorian Railways, and I must say that if I wrote for a week, words could not express the appreciation that is felt for all concerned. On behalf of myself, brothers and sister, I would be much obliged if you would kindly convey our sincere thanks and appreciation to Stationmaster Price, Head Porter Lyons, Porter Ackerly and two other porters at Benalla whose names I do not know; the guard on the train, the Stationmaster and staff concerned at Spencer-street, for their splendid arrangements and attention given, and staffs concerned at Geelong and Colac, not forgetting the guard on that train also.

When the doctor informed me that my mother was a stretcher case, I dreaded the idea, but never will I do so again if the occasion arises. I have told dozens of people of the treatment received, and they were greatly surprised, and I am satisfied that your staff is living well up to your slogan of "Help us to help you." The train we travelled on was the usual 10.20 a.m. from Benalla, which happened to be running late that morning.
—Mr. Stan Thwaites

AN INSTRUCTIVE EVENING

I WISH to express to you the appreciation of the members of the Kappa Sigma Pi Boys' Brotherhood in regard to the arrangements made by you for them to visit the Signal-box at Kyneton. Mr. Saunders, who explained the working of the various signalling devices, was most interesting and instructive. He evidently not only knew his work, but he also knew how to make a technical subject both clear and interesting to his audience, in spite of the lack of previous knowledge on the part of his listeners. We wish to thank both you and him for the resulting fine evening that we experienced.
—Rev. Rupert J. H. Crocker, Chaplain, Kappa Sigma Pi Boys' Brotherhood, Maxwell street, Kyneton, writing to the Maryborough District Superintendent.

KINDNESS TO THE AGED

I WOULD like, through your Department, to convey my thanks and gratitude to the tall dark official who is on duty in box, No. 7 Platform, Flinders-street Station, for courtesy and kindness extended to my aged parents who, by mistake, boarded the wrong train on May 25. They were saved a great deal of worry and inconvenience by the thoughtfulness of the above, who kindly rang through to Caulfield and arranged their transfer to Oakleigh train required. Interest of this kind shown to aged folk is much appreciated by
—Miss Mamie Griffiths, 24 New South Head Road, Edgcliffe, N.S.W., writing to the Railways Commissioners.

COURTESY AND PROMPTNESS

Many thanks for your letter this morning advising me that my umbrella had been handed in and sent to Kew railway station. I got it safely there this afternoon, and feel very grateful to you and to the officers of your department for your courtesy and promptness. I am only sorry that my carelessness should have given you all extra trouble.
—Mrs. A. Todd, Konetta, Parkington-street, Kew, writing to the Stationmaster, Geelong.

COMFORT FOR AN INVALID

ON behalf of my nephew—an invalided stretcher case—I wish to tender my sincerest thanks to your Department for the arrangements made for his comfort on his journey home to Garvoc on Tuesday last. Especial thanks are due to the Stationmaster at Spencer-street, who kindly authorised the arrangements, and the train staff for the carrying out of the arrangements for his comfort, which left nothing to be desired.
—Miss Clarice C. Morgan, 24 Wellington-street, Coburg, writing to the Chairman of Railways Commissioners.

EVERYTHING POSSIBLE DONE

I WISH to thank you very sincerely for your kindness and help. In getting our dear brother home, although we lost him, we had the happiness of knowing that everything possible was done for him, and yet, without your assistance, things might have been otherwise. Therefore you have our earnest gratitude.
—Mrs. A. Ahern, "Reedern," Templeton-street, Euroa, writing to the Stationmaster, Spencer-street.

SELDOM EQUALLED, NEVER EXCELLED

PERMIT me to add my appreciation to the many others you have received concerning the manner in which your railway system is conducted and run.

My wife and I left Melbourne for Sydney, on May 23. We had secured a seat in the parlor car. From the time we entered the train to the time we left it at, I think, Albury, about ten-thirty that night, everything possible was done to secure our comfort and convenience. Not only was a most delightful attention and courtesy extended in the parlor car itself, but the same happy expression was found in the dining car. I have travelled rather extensively on all the principal railways in Europe, America, South Africa and India, and rarely have I found the service you give equalled, and never has it been, to my knowledge, exceeded. This is the first letter of its kind I have written, and I am glad it is going to you, for I feel you thoroughly deserve it.
—Mr. P. Fennelly, "Montpetier," Brisbane, writing to the Chairman of Railways Commissioners.

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PERCIVAL *and* I *at* MT. BUFFALO

The Joys and Perils of Ski-ing



(With apologies to London "Punch")

PERCIVAL and I, together with the girl in blue, are now having lessons in ski-ing from a guide. We had our first lesson this morning and are all feeling very tired, particularly the guide. We ski more or less independently, I am relieved to find. The guide has assured me that it is only in mountaineering that the party is roped together.

The guide taught us several things, the first being the correct way to get up from the prone position. We have practised this quite a lot. We then learnt an operation known as "stemming," used to reduce speed or to stop. Briefly, "stemming" consists in sliding downhill with the points of your skis close together and the backs far apart. If you can do this at all you are practically bound to reduce speed somehow, if only by getting the points of your skis crossed. Another reason for this position, as far as I can make out, is that, if you meet a casual tree *en route*, you glance it off to port or starboard, whereas, if the points are apart, one ski goes on one side of the tree and one on the other. Of course you reduce speed quite effectively this way too, but it is not such a good way. The consensus of expert ski-ing opinion is against it.

The best way of reducing speed, however, when you descry anything peculiar in your path, is simply to sit down. I can stop in two feet using this method. The measurement of course refers to depth. You must be careful, by the way, not to sit on the back part of your skis, or you will notice but little difference either in speed or force of impact.

The next thing the guide taught us was what he called a "Telemark" turn. To accomplish this you get up speed and then sink on to one knee in an attitude of prayer. Personally I find that it is advisable actually to pray. When the flying snow has settled you hear the guide say, "No, sir, not like that; you crossed your skis." He is quite right; you did. This variation is called the "Tishymark" turn.

He also taught us a "lifted star turn." In this the first thing is to lift one foot, having, you hope, previously transferred your weight to the other. I have not yet learnt exactly what follows; but sometimes you find you have turned, and sometimes the doctor says you didn't.

Later in the morning the guide took us for a trial run. We were followed for some distance by several people with cameras. One gentleman, who engaged me in conversation after an incredibly unusual sort of fall on my part, very kindly offered to come out with me one day and help me ski. I discovered afterwards that he was a well-known humorous artist. I am still thinking this over and shall probably demand a royalty.

MINING CO.'S MIDGET LINE

A TWO-FOOT gauge railroad seems pigmy in the extreme to be serving as an industrial utility, especially in rough, outdoors work, but that size road, the smallest so far known to be operating, has solved the transportation problem for a gold mining company in the United States.

The mining operations of this company are carried on at the top of Pinos Altos Mountain in the Silver City district of New Mexico, and the smelter where the ore is treated is located at Silver City, distant about 7 miles in a direct line from the mine.

The problem of transporting the ore was given considerable thought. An aerial trolley was found impracticable, while a standard gauge road was out of the question.

Engineers finally decided that a railroad of the narrowest possible gauge—2 feet—would serve their purpose, and it has. However, there was no attempt to mount the declivity in a straight line. Instead, the road winds around the mountain for 15 miles, and is capable of taking care of 7 or 8 unloaded cars on the upgrade, and can manage about twice as many loaded cars on the down grade.

This road has been in successful operation for some time, and does not attempt to haul passengers, although the powerful little engine and small open cars are features which attract those passing through the district.

CARRIAGE CLEANER

A NEW rotary carriage washing plant has been set up at York by the London and North-Eastern Railway. The installation, which is operated electrically, consists of a series of vertical brushes on drums so fitted on both sides of the track that they will rotate at high speed, and thoroughly wash and cleanse carriages as they are shunted through the plant.

"Look, Papa, Abie's cold is cured and he's still got two boxes of cough drops left."

"Oi, oi, vat extravagance. Tell him to go out un get his feet vet again!"

THIRTY-FIVE YEARS AGO

Extracts from the Victorian Railways *Gazette* of July 1, 1893:

DURING the absence of Mr. J. M. Coles on annual leave, Mr. T. B. Molomby is carrying out his duties in Room No. 8, Traffic Manager's Office.

AT the Athenaeum, Collins-street, on June 7, the Signalmen's Association conducted its annual ball, and a very enjoyable evening was spent by the large attendance. Owing to pressure on our space, we much regret that the description of the ladies' dresses, kindly forwarded to us, is crowded out of this issue. According to our correspondent, Miss H. V. Desmond was acknowledged to be the belle of the ball.

"THE other day I was standing on the Princes Bridge platform, waiting for my train—the Darktown Express, as the Glen Iris train is called—when I overheard one of our country cousins explaining to a friend the seeming discrepancy in the times of the three indicator clocks which denote the departure time of trains. 'You see, Bill, that one on the right-hand side is Adelaide time; that one in the centre is Melbourne time; and the one on the left is Sydney time, so that a fellow, if going to one of the other places, can set his watch right to agree with the time over the border.'"

TO the Editor.—"Recognising that economy is imperative in the working of our railways, I will, with your kind permission, briefly point out where a considerable saving can be effected. Abolish present suburban tickets, and, instead, print them in sheets with station names printed on them as at present. They could be dated with a small stamp just as quickly as at present, and also issued quickly. The saving would be very large, and there would be no necessity for numbering sheets, the issue being exactly similar to that of parcels stamps."—Yours, "Green Light."

RAILWAY employes have established a Victorian Railways brass band, which was formed on June 23, under the presidency of Stationmaster W. Smith of Prince's Bridge, and with Messrs. E. Phillips and W. M. Wignall, as treasurer and secretary. Bandmaster Alex. Wallace promises to make the combination second to none in the colony. Entrance fee is 2/6, and contributions 2/- monthly.

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Victorian Railways Honor Roll

RECENT RETIREMENTS

As long as men shall live and build; as long as they strive for worth while achievement, there shall be honor and glory in work well done.

	Date of Appointment.	Years of Service.
F. G. Kendall, Clerk, Flinders-street	1883	45 years
J. Dunn, Passenger Guard, Ballarat	1884	44 years
W. A. Jeffs, Hostler, North Melbourne	1883	44 years
A. E. Smith, Chief Mechanical Engineer, Head Office	1883	44 years
J. Derbyshire, Driver, North Melbourne	1885	43 years
J. Brennan, Driver, North Melbourne	1886	42 years
J. Dwyer, Driver, Stawell	1886	42 years
D. Kennedy, Driver, North Melbourne	1886	42 years
D. McGregor, Workshops Manager, Ballarat North	1886	42 years
W. H. Randles, A.S.M., Westgarth	1887	42 years
W. D. Miller, Clerk, Spencer-street	1886	42 years
R. P. Craigie, Ganger, Maryborough	1887	41 years
T. E. Hickson, Driver, North Melbourne	1887	41 years
W. H. Backwell, Train Examiner, Stawell	1886	41 years
J. Burke, Driver, Traralgon	1887	41 years
J. J. Anderson, Driver, Geelong	1888	40 years
H. Pottage, Driver, Geelong	1888	40 years
J. Farrelly, Ganger, Werribee	1888	40 years
E. J. Mewett, Ganger, Wycheproof	1888	40 years
W. G. Hill, Repairer, Seymour	1888	40 years
J. Holloway, Driver, Geelong	1888	40 years
J. Morrison, Conductor, Spencer-street	1889	39 years
J. Nicholls, Leading Porter, North Melbourne	1889	39 years
G. J. McPhail, E.S. Guard, Flinders-street	1889	39 years
J. J. Morrissey, Conductor, Spencer-street	1889	39 years
A. J. Murray, Goods Checker, Melbourne	1889	39 years
J. Heenan, Stationary Engine Driver, Newport	1889	39 years
A. J. Deller, Gasman, Car and Wagon Shops, North Melbourne	1888	39 years
W. T. Clark, Iron Moulder, Newport	1889	39 years
B. J. Downey, Clerk, Head Office	1889	39 years
J. Doney, Striker, Ballarat North	1889	38 years
E. J. Yates, Lighter-Up, North Melbourne	1890	38 years
G. Dando, Head Porter, Flinders-street	1890	38 years
P. M. Fay, E.T. Driver, Jolimont	1891	37 years
M. Lyuskey, Signal Adjuster	1890	37 years
J. Taylor, Skilled Laborer, Newport	1897	31 years
G. Lockwood, Asst. Signal Adjuster	1900	28 years
T. J. Larkin, Striker, Newport	1901	27 years
R. T. Thomas, Repairer, Gravedale	1901	27 years
J. Meaney, Boilermaker's Help, Ballarat North	1904	24 years
D. Clydesdale, Skilled Laborer, Spencer-street	1905	22 years
R. B. Phillip, Boilermaker, Newport	1907	21 years
J. J. Conlon, Signalman, Melbourne	1907	20 years
A. Burke, Skilled Laborer, Flinders-street	1908	20 years
A. B. Russell, Electrical Fitter, Newport	1908	20 years
C. Milne, Sup. Porter, Flinders street	1910	17 years
J. Forbes, Sub. Laborer, Melbourne	1912	16 years
M. Lawler, Goods Checker, Ballarat	1912	16 years
P. Stewart, Works Ganger, Korong Vale	1912	16 years
M. J. Cotter, Gatekeeper, Bell	1912	16 years
J. Kelly, Repairer, Yea	1912	16 years
T. Flannagan, Repairer, Moonee Ponds	1912	16 years
D. Carroll, Lineman-in-Charge, Spencer-street	1912	16 years

The Traffic Inspector's Day

(Continued from page 18)

The inspector motors into a slight drizzle of rain. He speeds up, but he must watch the slippery outside rail on curves. The little motor wakes echoes in a steep cutting. The drizzle eases off temporarily. The inspector spares a wistful thought for his missed lunch, and involuntarily quickens the motor's chatter as he remembers the hot dinner waiting at his destination.

Dusk deepens. Rain drips from the shadowy trees beside the line. The scent of gum, pure and sweet, is in the air. Through a blue gap in the wall of cloud behind, the setting sun flings solid gold. The traveller clatters over a crossing, waves to a railway ganger and his wife standing at the door of their honeysuckled cottage, and passes across a high, narrow trestle bridge spanning inkblack water.

Signal lights glint ahead. The trike jolts over points, passes a row of loaded, tarpaulined trucks, and slithers under the handbrake to the end of the junction station's attenuated platform. The inspector rubs his cold hands, wipes the rain-glisten off his overcoat, and drags his trike clear of the track.

"Just been speaking to the D.S. on the 'phone," calls the night officer from the platform. "He wants you back at headquarters by midday tomorrow to supervise that race traffic."

"Goodoh," says the inspector, studying his watch. The time is nearly a quarter to six. Now for dinner. . . .

The night officer falls into step beside him. "About these new rosters. I can't see how you're going to fit in that man on early shift. Could you step into the office and have a look at the shift times? Won't take more than half-an-hour."

"Goodoh," says the traffic inspector.

Specialization

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Nowadays it is only the Specialist who "gets there," it is a "man for his job" age; therefore when you have an

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Price, 1/6 per tin.

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Phone: Central 2475. Established 1886.

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THE NIGHT EXPRESS.

By W. M. FLEMING.

(Courtesy The Bulletin)

IN these days of dangerous decadence,
When all is measured in pounds and pence
And men on opposite sides of the fence
Are facing each other in bitterness,
It is well to consider the night express.
To make you think as an optimist can
That the world is as good as the day it began,
To fill you with faith in your fellow man,
Consider the night express.

With pick and shovel in rain and sun
The fettlers toil on their length of run,
And the work that they do is honestly done;
They ask their wages, no more, no less,
On the treacherous track of the night express.
The cleaners down in the loco. shed
May talk in a language that's startling red,
But they do their job on the engine-bed
For the sake of the night express.

The driver steps to his engine plate
With a nod to his junior-fireman mate
And never a thought that their work is great,
As with gentle word and a soft caress
He lays his hand on the night express.
There is faithful work in wood and steel,
From cabin roof to the driving wheel,
And he knows the temper from head to heel
Of his idol, the night express.

The guard has counted his bags of mail
And glanced to see that the brakes won't fail
Should there happen to be a twisted rail,
A stone the more, or a bolt the less
On the sinuous track of the night express,
Or a signalman somewhere along the line,
Weary with watching from nine to nine,
Who has left his points a shade too fine
For the thundering night express.

At ease in their bunks the sleepers lie,
While the sitters watch as the night slips by
With perfect trust in their hand and eye,
However sudden may be the stress
On the well-tried crew of the night express.
She roars to the rise and goes ripping through
With a shout to the hills as if she knew
That is just what they waited for her to do
And whisper "The Night Express."

As day comes up like a rising tide,
The dew of night on her glistening side,
She swings to the turns in a glorious pride,
Which scorns to admit that weariness
Could ever come down on the night express;
With sparks aglow in her tossing crest,
Till, breathing softly, she comes to rest
Like a sleeping babe on its mother's breast—
The work-stained night express!

For proof supreme that our men today,
Whatever the dismal croakers say,
Are as good as the men who paved the way,
Just look at the clean-cut thoroughness
That is shown in a run of the night express.
Whenever you're feeling that things are wrong,
That the rotten old world has lived too long,
That there's nothing in work and there's less in song,
Consider the night express.

I WISH to live without hate, whim, jealousy, envy, fear. I wish to be simple, honest, frank natural, clean in mind and clean in body, unaffected—to say "I do not know," if it be so, and to face any obstacle and meet every difficulty unabashed and unafraid.

I wish others to live their lives, too, up to their highest, fullest, and best.

To that end I pray that I may never meddle, interfere, dictate, give advice that is not wanted, or assist when my services are not needed. If I can help people, I'll do it by giving them a chance to help themselves; and if I can uplift or inspire, let it be my example, inference, and suggestion, rather than by injunction and dictation.

—*Elbert Hubbard*

Australia's Leading Salesman

(*Contd. from page 13.*)

one month special displays of Australian goods were made at the Grocers' Exhibition at Islington and Norwich, at Liverpool's Exhibition during the Commerce and Industries Civic Week, at a Manchester commercial show, and at a Food and Cookery Exhibition at Olympia.

And it was a typical Hyland touch which put the All-Australian Cake on the market, a quality cake made exclusively of Australian flour, raisins and sultanas. The idea was one of those novel ones which tickle public imagination and memory, make newspaper copy, and, in a word, feed publicity on publicity.

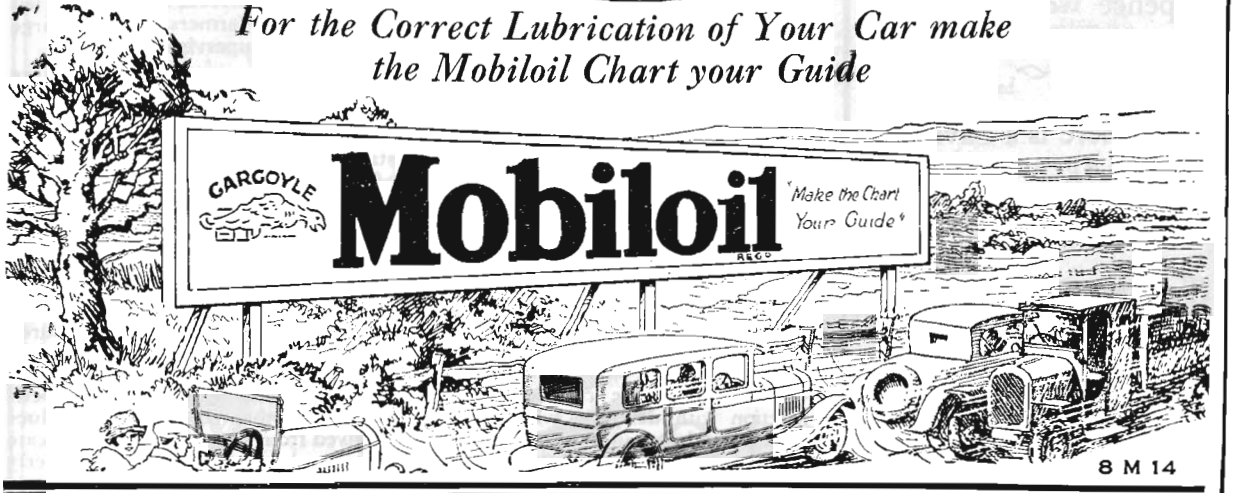
Finally, there was the spoken word behind the steadily climbing sales. "I have never," said Lord Riddell, speaking from the president's chair at the annual dinner of the British Commercial Travellers' Club, "I have never heard a speech which made a greater impression upon me than Mr. Hyland's address just now on the advantages of trade within the Empire." And Lord Riddell, as a publicist, is a man whose opinion counts.

A. E. Hyland, has, in short, blazed the trail of Dominion trade publicity in the United Kingdom. Where Australia leads, New Zealand, South Africa and Canada now follow. The Canadian Minister of Customs recently visited England, ran an appraising eye over the Hyland methods, and urged his government immediately to provide a substantial grant for a similar Canadian campaign. And New Zealand, with another gesture of sincerest flattery, has spent £20,000 on butter and cheese advertising in Great Britain during the past year.

It is fitting that through this journal I should record the sincere universal esteem and appreciation of the great national service which a brother railwayman is rendering Australia.

More Motor Manufacturers approve Mobiloil than any other lubricant

For the Correct Lubrication of Your Car make the Mobiloil Chart your Guide



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Buttoning Up the Purse

is an out-of-date phrase, but the principle holds good, yet there is a better way of saving money than by merely refraining from spending it.

Money in your pocket, or your purse, is practically money spent, for it is too readily available for every whim to buy this or that unneeded trifle.

Save in the modern way. Open a Commonwealth Savings Account and let the pounds and the shillings and the pence work for you.

There is a Savings Bank Agency in every Post Office.

Commonwealth Bank of Australia.

(Guaranteed by the Commonwealth Government)

Cotton (Continued from page 21)

In Australia, the cotton belt lies mainly in the valleys of the Queensland series of rivers which run to the sea from the Great Dividing Range, starting with the Brisbane River basin in the south and extending northward as far as the Dawson River and eastward along the Fitzroy River.

This area contains many of the more closely settled agricultural districts and most of the large towns of the State. The cotton grower, therefore, is close to sources of labor for the picking season, when the greatest amount of labor is required.

There is plenty of good agricultural land in this area, however, which is used mostly for grazing purposes now. This land is very suitable for growing excellent crops of cotton in conjunction with dairying, maize growing and other established agricultural industries. Such land may be purchased as freehold property for £5 to £12 per acre, or may be drawn under the perpetual lease system in the resumed Crown Lands area.

The variable climatic conditions existing in Queensland necessitate that the best methods of dry farming be applied. Experiments on Government stations and the experiences of good farmers have demonstrated that by planting on long fallowed, well prepared seed beds, and practising the proper methods of thinning and cultivating, good yields may be obtained even under very adverse climatic conditions.

The more experienced farmers during this past season have obtained excellent results, and many yields of 1200 lbs., and upwards, of seed cotton per acre have been recorded. Such yields under the system of government guaranteed prices, which expired with the completion of last season's crop, have returned from £25 to as much as £40 gross per acre.

The cost of picking is a penny three farthings to two pence a pound, which approximates about two-fifths of the value of the pound of seed cotton. This is excessively high as compared with the cost in other countries; but it is anticipated that, as the growers become more experienced and produce higher yields, the cost of picking may be reduced. A good picker can pick from 120 to 150 lbs. of clean cotton a day in properly grown cotton, so that one can compute the wages that pickers may obtain.

Twenty acres of cotton appears to be the maximum amount of crop that one man can take care of in conjunction with dairying, which is the principal industry in most of the cotton growing areas. With proper implements on the average soils of the cotton districts, one man can do everything in the twenty acres short of picking. Hired pickers will be necessary on a crop of this size.

The seed cotton is forwarded to the ginneries in wool packs averaging 450 lbs. in weight or in chaff sacks. The ginneries are owned by the British Australian Cotton Association, and are of the modern saw gin type. The company owns six in Queensland, but only three are operating at present, namely at Rockhampton, Gladstone and Whinstanes. An up-to-date oil mill is located at the latter ginnery, where all of the seed not needed for planting purposes is treated. The total capital invested represents some £287,000.

The largest crop in any one season was that of the 1924–25 harvest, when approximately 18,000,000 lb. of seed cotton was forwarded to the ginneries. This represented a return of £353,000 to the growers. Seed sufficient to plant 50,000 acres was supplied to the growers, who numbered between six and seven thousand; but it is questionable if the acreage harvested was up to 40,000 acres.

The Department of Agriculture, aided by a grant from the Empire Cotton Growing Corporation and the Commonwealth Government, has established a Cotton Research Farm at Biloela in the Callide Valley, which is one of the largest cotton growing areas and fairly central to the rest of the larger districts. Here, uniform strains of cotton are evolved, and the seed is increased sufficiently to plant some 2,000 acres every year. The growers are thus assured of receiving only good seed which is kept up to a certain standard of uniformity. In addition to maintaining the standard of the seed supply, the Farm is used for conducting various investigations relating to the many problems connected with growing cotton. The results obtained from these experiments are used as a basis for investigations conducted with selected farmers in each large district under supervision.

The Department of Agriculture maintains not only a field staff for assisting the growers in solving their individual problems, but has had a staff of graders under the supervision of a trained cotton classer obtained from England. These graders, who were trained wool classers before being trained in grading cotton, have carefully graded the seed cotton according to standards compiled on a basis similar to the World's Universal lint cotton standards. This has insured that our cotton has been prepared in a manner that will allow of its sale on the world's cotton markets in competition with other cottons. The values received from season to season indicate that we have succeeded in properly preparing the finished bale, as our types are becoming well known and sought after by the English mills.



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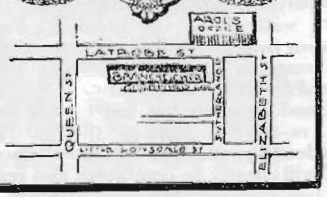
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SMART styles and becomingly fashionable, are the two stiff collars to match in high-class cambrics, poplins and woven repps.

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Guaranteed.



Pelaco

Shirts
Collars Pyjamas

Up Country (*Contd. from page 36*)

with applications for employment. Two to three hundred hands will be employed from the start, while employes from the company's English Mills have already arrived preparatory to instructing the new hands.

DANDENONG

FURTHER seasonable rains have fallen throughout Gippsland, and the agricultural and dairying prospects are most promising.

Although the low prices ruling for potatoes have had an adverse effect on the quantity forwarded by rail this season, the total tonnage hauled and the revenue derived for the financial year will, it is anticipated, be quite equal to that of the previous year which was a record one.

A very heavy business has been done in live stock and fodder, due principally to the bad season in the northern districts.

The season has been a satisfactory one for the sugar beet growers, and the quantity forwarded to the factory has been well up to the average. From present indications it is considered that the season's operations will be completed by the end of June.

Good progress has been made with the re-arrangement of the yard at Dandenong, and the additional facilities will shortly be completed and ready or use.

At Traralgon the provision of additional siding accommodation and general alterations to the yard have been put in hand. This work, when completed, should be of considerable advantage in the handling of the traffic at that station.

The out revenue in this district for April showed an increase of approximately £2,000 over that of April, 1927.

Railway Outposts

(*Continued from page 19*)

between Buchan and Nowa Nowa, Mr. Tuck, of Tuck and Ramsay, to discuss the whole matter with him. Mr Tuck thought that the commercial agent had been misinformed. That day he spoke to the leading pastoralists, convinced them as a road man that the railway was the best way, and triumphantly brought the wool into the station in his wagons. A shining example, if ever there was one, of the possibilities of co-ordination between road and rail.

And already this season's wool has been earmarked for the railway.

It would take more than that long 200-mile stretch to stop Nowa Nowa from getting the business.

RAILROADS—DEVICES OF THE DEVIL

Records of the school board that served in Lancaster, Ohio, U.S.A., in 1828, tell of a proposed debate as to whether railroads were practical. Permission was asked to hold the debate in the school house, and the minutes of the school board contained the following :—

"You are welcome to use the school room to debate all proper questions in, but such things as railroads and telegraphs are impossibilities and rank infidelity. There is nothing in the word of God about them. If God had designed that His intelligent creatures should travel at the frightful speed of 15 miles an hour by steam He would have foretold it through His holy prophets. It is a device of Satan to lead immortal souls down to hell."

ILLINOIS CENTRAL'S ENGINE GROWTH

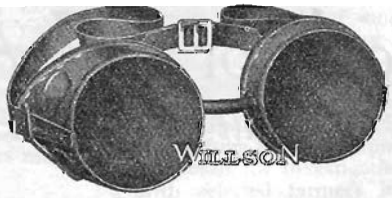
SINCE the beginning of 1920, the Illinois Central Railroad, U.S.A., has spent nearly $40,000,000 (£8,000,000) on the purchase and modernisation of locomotives, the maintenance of which now costs about 16,000,000 dollars (£3,200,000) a year. In 1856, the year in which its charter lines were completed, the Illinois Central had 83 locomotives. To-day it owns more than 2,200, of which about one-fourth are less than seven years old. These 2,200 engines are equivalent in power to more than 10,000 of those used in 1856.

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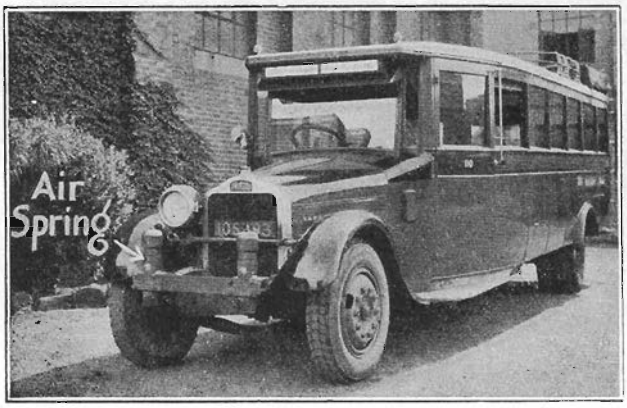
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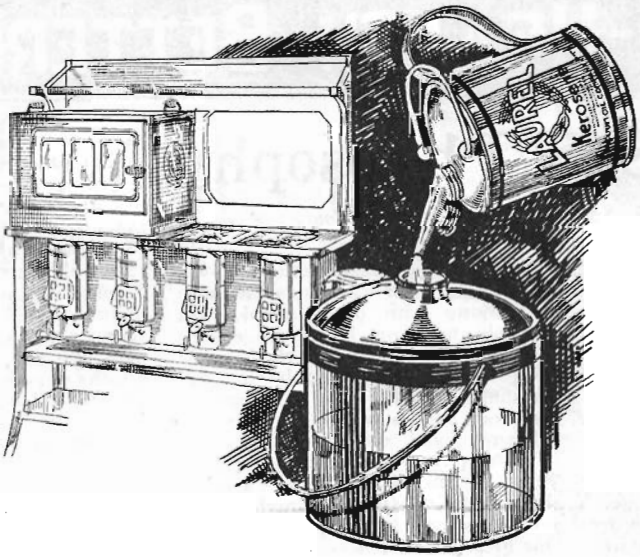


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Laurel "feeds" steadily and at just the proper rate for best results. It burns without smoke or odour, thus ensuring cleaner operation and pleasanter cooking conditions.

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Don't Say "Kerosene"—Say "LAUREL"

LAUREL
Kerosene

The Soft WHITE Light

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By A. V. STENNING, *Secretary, Railways Safety Council*

A RIGHT mental attitude towards his job is the first thing every man must have if he is going to become an efficient or safe worker, if he is ever going to get out of the ruts along life's great highway and over to the middle of the road where the way is smoother and where the way to success is direct and sure.

But before you can expect him to get there you must first change his viewpoint on life, and make him feel reasonably sure of himself. You must make him realise that he cannot fairly expect recognition and advancement until he has actually earned it, but that, having earned it, recognition is sure to come to every man who is ambitious. He must also be made to realise that the secret of real happiness or success lies not in doing the things he likes to do, but in liking the things he has to do, regardless of what those things may be. He must be made to realise the limitation of a man does not lie in what he wants to do and cannot, but in what he ought to do but doesn't because of indifference or laziness. While it is easy enough for a small man to make a big job shrink, it takes a big man to make a small job bigger. He must realise that doing only what is necessary is not doing enough.

A Man's Best Friend

As boys we were taught that our best friend was our mother, but as we step out into life our views change with the passing years, and, by force of circumstances, we are compelled to recognise our job as our greatest friend. Friends, however numerous, cannot do a fractional part as much for a man as his job. If, therefore, his job is his best friend, isn't it a matter of common decency and fair play for him to treat his job as he would a friend?

The Spirit of Co-operation

We hear a lot, these days, about co-operation, but do we actually realise what this word means? To my mind the first essential towards the development of a spirit of co-operation between others and myself is for me so to fit myself that others can find pleasure in working with me. Don't look for faults in others until you have rectified your own. If you follow this advice you will probably find your time so taken up in remedying them that you will not see the other fellow's faults. The man who finds difficulty in working with other people will probably find, on honest reflection, that the real trouble lies in the fact that other men find it difficult to work harmoniously with him. Let us remedy our own faults and those in our fellowmen will disappear.

"Learning is everything," said Mark Twain, "the peach was once a bitter almond, the cauliflower is nothing but a cabbage with a college education." One great lesson I have learned in life is that other people meet me on the level I myself have created. Whenever I go out looking for trouble, I invariably find it. Time has also taught me that the Golden Rule is the sum total of all wisdom for getting on with the world.

Service

Service is a word common to all of us, but have you ever stopped for a moment to think what it means?



Our dictionaries tell us it means, among other things, duty performed, but to me there is a deeper, broader meaning than will be found in any dictionary. Service is a modern symbol for countless human virtues that have been known since the beginning of time. It is the mother's solicitude for her children; it was the motive of the long hours of toil your father and mine gave for us; it is the promise kept and the burdensome debt honored. It is all of these and a million other things. But the meaning I wish to stress is that service is the one thing that every man must put into his job and his life if he ever expects to take anything worth while out of either of them.

John Burrows, the world's greatest naturalist, said that "a man's life may stagnate as literally as water may stagnate, and just as motion and direction are the remedy for one, so is purpose, activity and determination the remedy for the other."

A higher, safer, standard of living to my mind, can only come from the establishment of a wider and less selfish viewpoint, the creation of a little fairer mental attitude towards our jobs, the awakening in men of an ambition to be somebody and to do something worth while. Therein lies the panacea for most of our troubles.

CARE OF A TOOTHBRUSH

WM. M. GARDNER, an American dentist, writing to the *Pullman News* declares that a toothbrush not properly cared for not only fails to bring about effective mechanical cleansing, but defeats the very purpose for which it is used.

He states that a new brush should be placed in a strong cold salt solution for at least two hours before using so as to set and clean the bristles and take away their original harshness. It should not be boiled, as every brush of good quality is thoroughly sterilized before leaving the factory.

Mr. Gardner also says that a toothbrush should be thoroughly rinsed with cold water after using, and that it should not be kept in a container as it prevents the brush from drying and encourages the growth of bacteria. If, he says, a brush is allowed to dry completely, most of the bacteria will die, since the bacteria of the mouth almost always require moisture and darkness for growth.

"Above all," he declares, "do not use a wornout brush, but obtain a new one every four months."

AUGUST SUGGESTIONS DRIVE

THE subject chosen for the eighth suggestions drive, which will be held during August, is:—

"Have you any suggestions to offer regarding electrical equipment, circuits, etc., of electric trains?"

Suggestions should be submitted to the Betterment and Publicity Board in the usual way.

Concluded on Page 6

Meet the Hall Officer!



HUNDREDS A DAY stream into the big, solemn, grey-stoned railway buildings at Spencer-street. All manner of people enter the doorway with all sorts of complaints and queries.

The slow walk of the mother wishing to see her son, the quick stride of the business man seeking information, the dainty step of the flapper, the ponderous tread of the policeman,—all these and many others pass through the portals of this building.

Thousands a week file through wearing a weary, troubled look. Once inside they encounter the Hall Officer, who, moving swiftly to their side, politely enquires the cause of their presence, and, with charm and clearness, directs them to their correct destination.

To advise and direct all these personalities one must himself be blessed with more than the average amount of tact and diplomacy.

Hall Officer R.E. Fisk embodies all the necessary qualifications for this position, and presents an efficient appearance when one first glimpses his dapper figure in the hall.

Away from his departmental office Rube still remains the same alert-looking figure, although the gold-braided cap and uniform are temporarily discarded. He has delighted many a musical ear with his melodious baritone voice, and admiration of his well-tailored appearance has often been expressed by people when he has been touring with vaudeville shows.

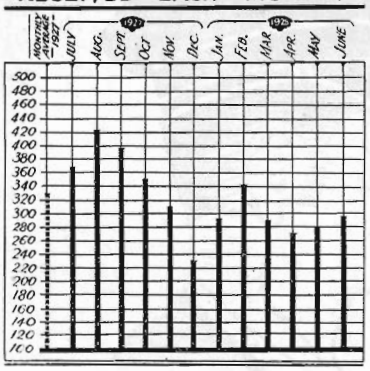
It can be appreciated that such a man in such a position would only allow a high-class tailor to attend to his wardrobe, and Hall Officer Reuben Fisk showed great discrimination when he chose his tailor. For years now this railwayman has been receiving complete satisfaction in all his tailoring requirements from Byers, the well-known tailor and mercer.

The same satisfaction that is felt by this client can be yours if you decide to make Byers your tailor. Special discounts are available to railwaymen who are members of the Victorian Railway Welfare Society, and new suitings await your selection; also a large range of the newest styles and shades in men's hats and mercery.

The city showrooms are upstairs over Stewart Dawson's, at their well-known corner of Collins and Swanston streets; but should you be stationed in the country and unable to call, patterns and self-measurement form will be posted you immediately, without cost or obligation, on receipt of a letter outlining your requirements.

When writing for patterns be sure to state the color you fancy and the price you wish to pay.

SUGGESTIONS RECEIVED EACH MONTH



BENEFIT BY YOUR IDEAS

THE following awards were made during June for adopted suggestions :—

Total Amount ... £154
Highest Award ... £40

Arrangements now exist for the placing of adopted suggestions of particular merit before the Railways of the various States, also the Commonwealth and New Zealand Railways.

Safety is the finest thing. Make it a rule in everything.

Life is short—don't make it shorter by boarding or alighting from moving trains.

SAFETYGRAMS

Keep your fingers out of danger, and you'll always have a full hand—That's a hard hand to beat.

Don't leave loose material aloft—It may fall and kill someone.

Say it with Safety—save the flowers.

The way some fellows act, they must think they have as many lives as a cat.

Make your head save your body and limbs from injury.

Keep your mind on your work and your fingers on your hand.

Chance travels on crutches.

Yes, we'll have no accidents today.

Boarding after the train has started is one way to commit suicide—Alighting before it has stopped is another.

Taking a chance works every time, but the last time.

Better to grow up than blow up. Explosives are dangerous.

A.B.C.—Absolutely Banish Carelessness.

Look before you weep.

Better be fired with enthusiasm for safety than fired for recklessness.

The careless man may be happy—but not for long.

Stop to think but don't stop thinking.

Step when the train stops—not before.

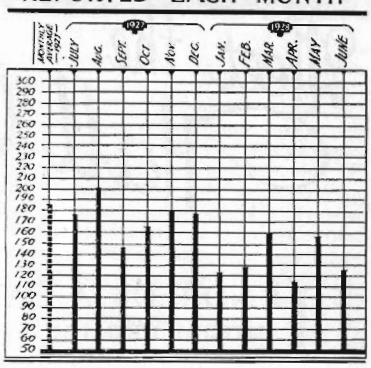
Any time may be train time at a railway crossing.

Short cuts don't always take you where you want to go.

Don't touch a live wire—be one.

Be fore-sighted—not short-sighted.

ACCIDENTS REPORTED EACH MONTH



Lean out and be knocked out.

Do your thinking in the shop—not in the hospital.

Ever alert—never hurt.

Better safe than sorry.

Cover that sneeze—Cut down disease.

Look both ways—Safety pays.

The chance-taker is the accident maker.

One good leg is worth a pile of crutches.

Don't become acquainted with the ambulance.

Your family wants you back home every night—"Safety First" will get you there.

A minute for safety beats a month for repairs.

Industry *Earns* Prudence *Plans*
Economy *Manages* Regularity *Saves*

A thrifty man EARNS his income thoroughly—MANAGES to get along without spending all of it—PLANS his expenses so that he may SAVE

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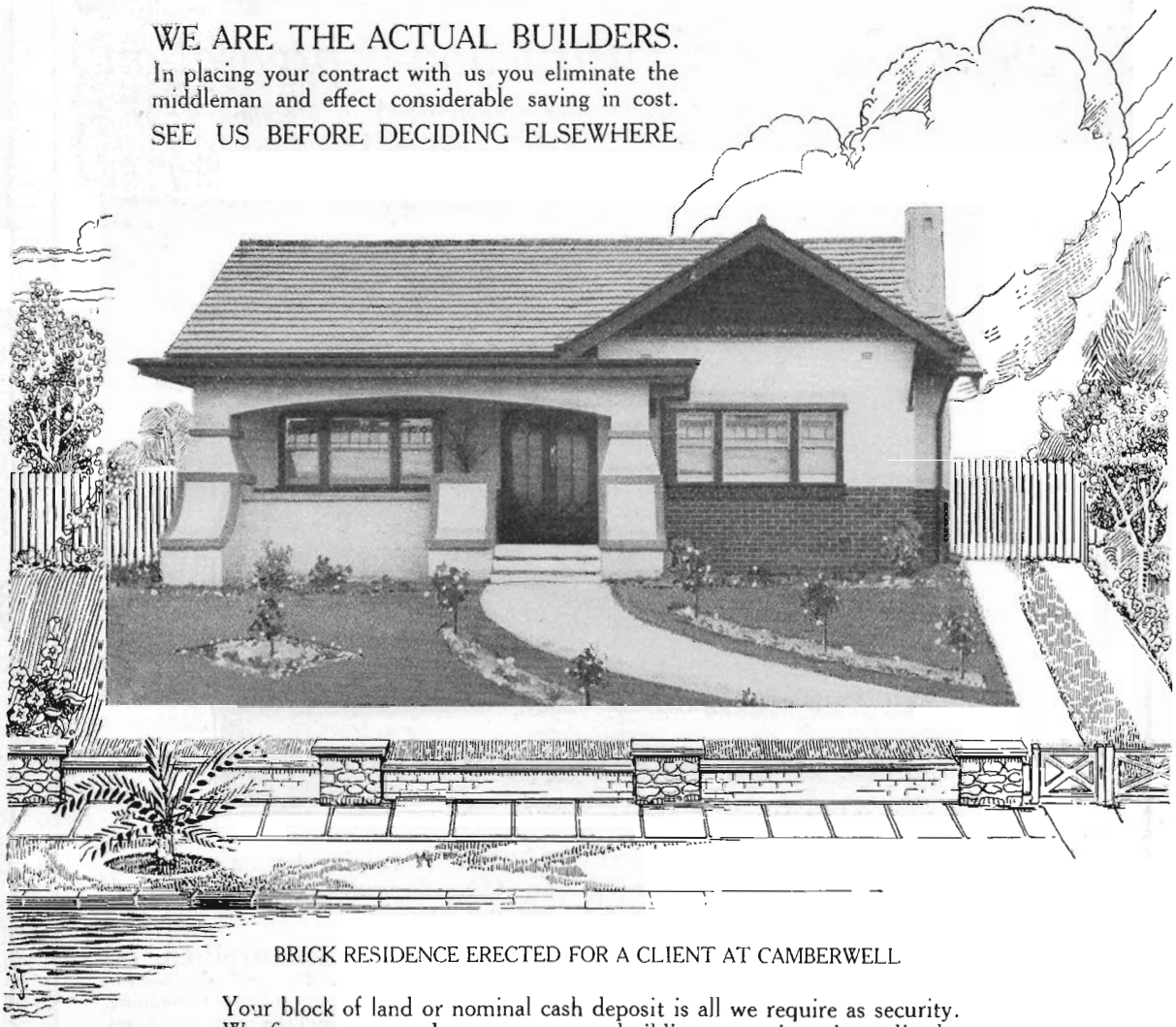
GEO. E. EMERY, General Manager

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Your block of land or nominal cash deposit is all we require as security. We finance you and can commence building operations immediately.

WE do not restrict you in any way—you may sell or let at any time. Inspect our model homes and buildings in all stages of construction on Golf Links Estate, CAMBERWELL, then let us know your requirements, and our architect will prepare sketch plans and estimates for you free of cost. It will absolutely repay you. Our specifications provide for everything necessary in the model labor saving home.

Our office, on the estate, is open for enquiry every day—week ends included—9 a.m. to 9.30 p.m.

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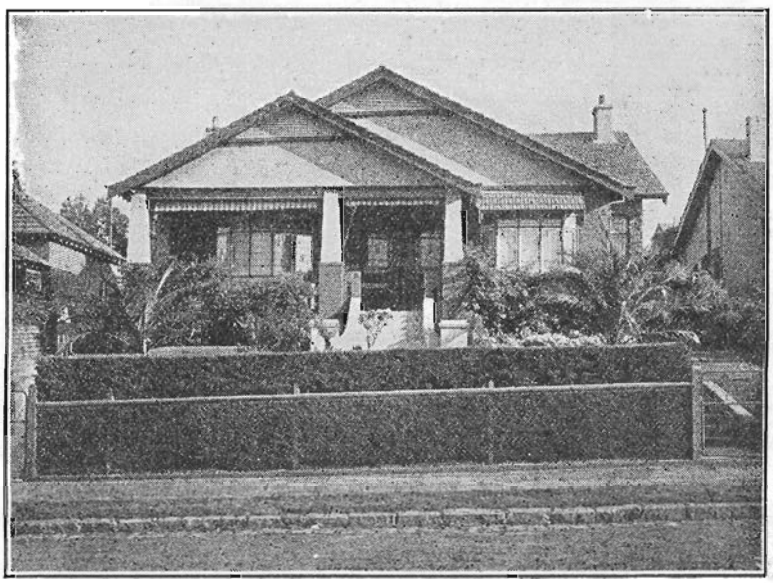
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The VICTORIAN RAILWAYS MAGAZINE



FLINDERS STREET STATION — MELBOURNE

For 7s. per annum, this Magazine will be sent, post free, to any address.

A copy is issued free to all permanent Victorian railwaymen, and to all temporary and casual employes with six months' service.

Contributed articles, paragraphs, verse, and photographic prints (negatives are not required) must reach the Editor, care Betterment and Publicity Board, Railways Department, Spencer-street ('Phone Railways 393) NOT later than the 12th of each month. Correspondence relating thereto is carried free over the Railways.

Communications in regard to advertising should be addressed to the Manager, Railways Advertising Division, Savings Bank Buildings, corner of Spencer and Collins-streets, Melbourne ('Phone C. 6414 or Railways 139).

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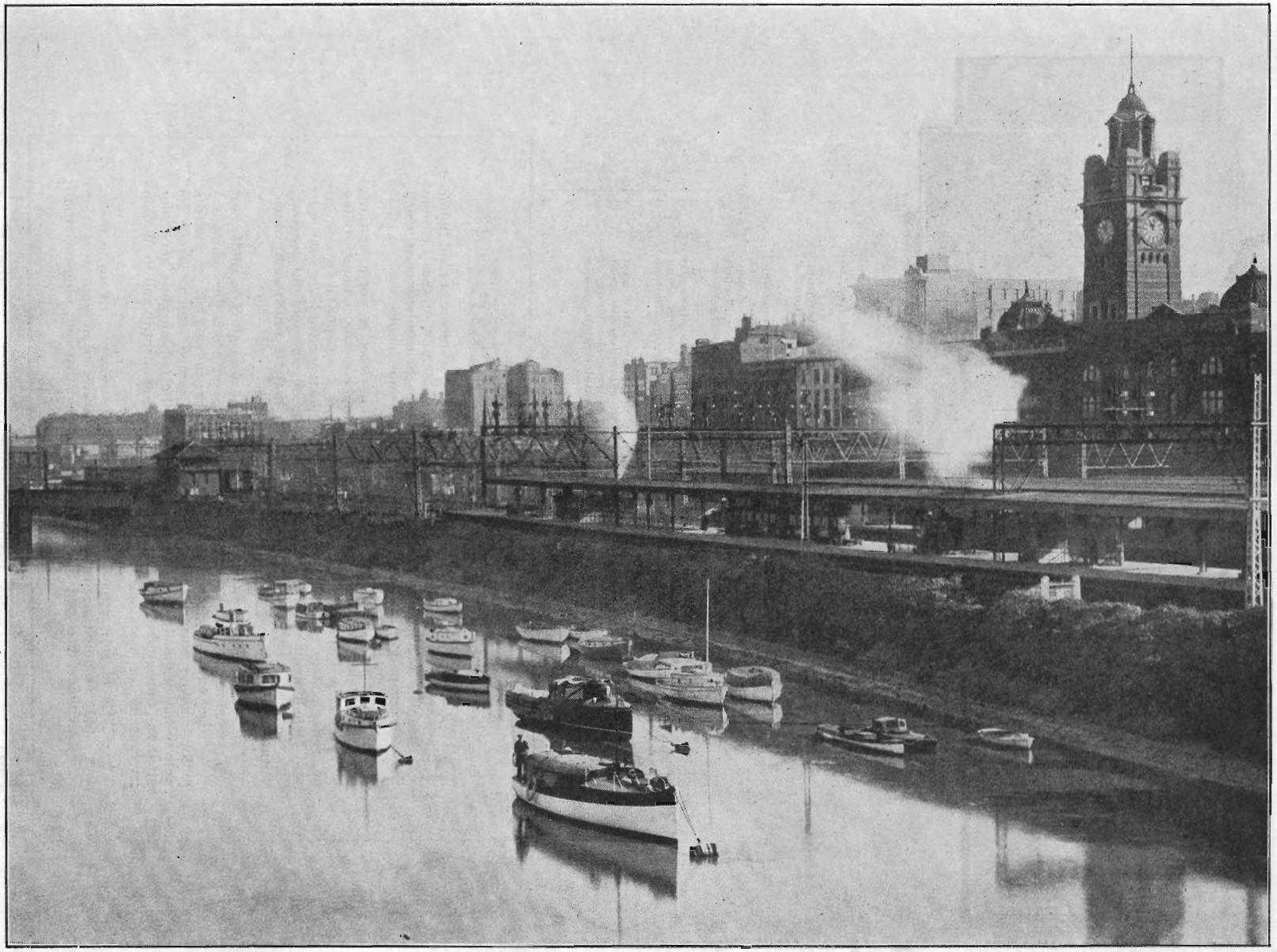
THE RAILWAY ASSET

PROTAGONISTS of the unrestricted use of the commercial road motor are wont to brush airily aside serious consideration of the Victorian people's interests, financially and otherwise, in their railway asset which the road competitor is trying to turn into a millstone liability.

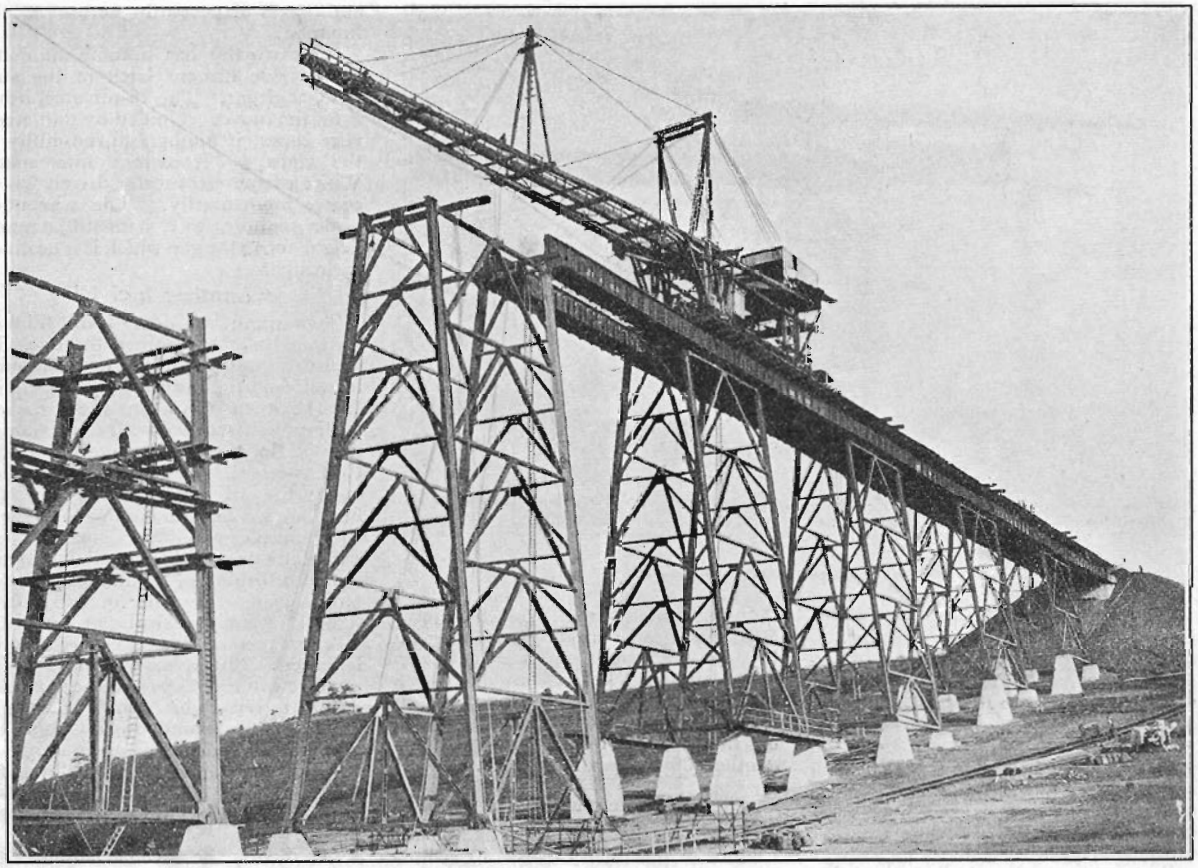
YET the point is of prime importance. The asset is worth upwards of £70,000,000 which, taking into account tracks, stations, rolling stock, workshops and all other equipment, represents an investment of approximately £15,400 for every mile of line operated. It's all very well to talk about cutting losses in the interests of very doubtful progress, but you can't scrap, sell or give away an asset of these dimensions, which, world experts have agreed, isn't even obsolescent.

VICTORIA'S railway, therefore, must remain not only a tangible, but, what is just as important, a developmental asset which the commercial road motor, in the real sense, has never been ; nobody has yet started a motor carrying business without some sort of assured custom which the railway has originally created. And, asset-like, the railway must have adequate and unhampered earning power to preserve its identity and to develop its capacity for usefulness.

AFTER all, it was bought with the people's money. It's up to them, quite as much as to the professional railwaymen, to preserve it from prejudice, disregard and uneconomic progress that isn't progress at all.



THE WORLD'S BUSIEST RAILWAY STATION—*A new photograph of Flinders-st. taken on a recent winter morning*



Building Victoria's Highest Bridge

By RICHARD HUGHES

ACROSS a precipitous gully in the empty, windy world of green rolling meadows, wire fences and bad roads, which sprawls between Albion and Broadmeadows, the Maribyrnong River viaduct is taking definite shape.

Destined to be the highest railway viaduct in Victoria, the structure is now one year from completion.

FROM a distance the half-finished structure glitters like a neat, fresh-painted Meccano model. Spindle legs, clustered together as towers, straddle across from one side of the quarter-mile valley and halt half-way to the bare white abutment on the other side. The Maribyrnong River, a narrow, winding stream, sluggishly follows the deepest fold in the valley. Projecting as far as the fifth leg-tower, the new viaduct girders slash a slender crimson weal across the green of the rolling hills in the background. The crouching shape of the traveller crane might be part of the viaduct itself.

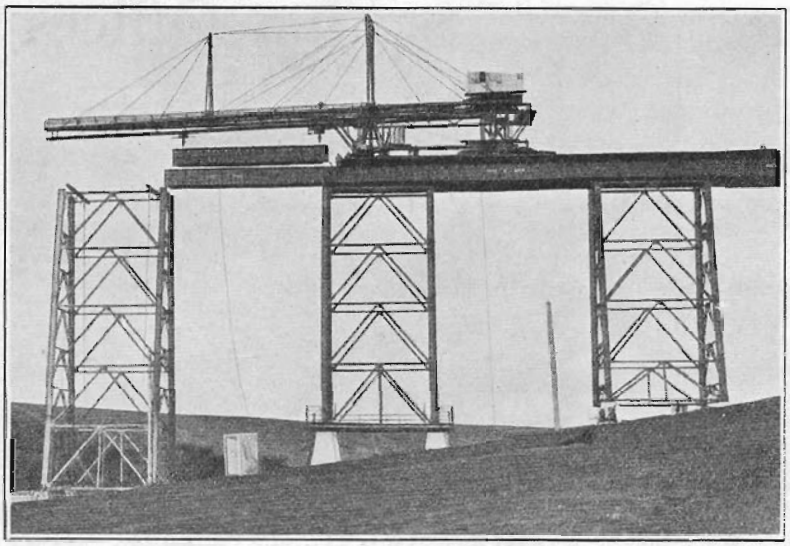
But, standing on the very top of the viaduct, under the shadow of the travelling crane, you correct your first impression of size and appearance. Colossal, not neat, is the adjective that springs to your lips. Far below, the workmen's huts are tiny toys. The solid concrete pedestals, on which the leg towers will be erected, are spread like a row of white matchboxes across the river and up to the slope to the face of the opposite abutment. Seven more towers will be needed to bridge the remainder of the gap.

Steel Spiderweb

A tangled spiderweb of steel beams staging and ladders hides the curling thread of the Maribyrnong. The sixth and seventh leg-towers ahead are climbing to the level of the out-jutting girders. Lanky and ungainly, a guy derrick rises loftily beside the seventh tower and rears itself as high as the extended arm of the traveller crane.

Away on the south-western rim of the world, the house-roofs of Sunshine are spilled in a red and white jumble. Elsewhere rolls a wilderness of grassy meadow. Silver-tipped in the light of the afternoon sun, an aeroplane hovers in the blue sky somewhere over unseen Essendon. A wider world, a world with expanded horizons is spread round the viaduct. . . .

"When we get over the river," the hard-faced, keen-eyed foreman beside you says, "we'll be so high that you could push the Flinders-street clock tower underneath without brushing the flagpole. We'll be 180 feet above the river bed. And a quarter of a mile long—about as far as from Princes Bridge to Queen's Bridge. Come here now."



Lowering a 15-ton girder into place

He leads you past the motionless 60-foot, 15-ton girder suspended from the overhead rail of the traveller crane some six feet above the bridge decking, skirts the monstrous wheels of the crane and pauses on the very end of the viaduct. Ahead on the left, one red girder bridges the chasm to the fifth leg-tower. The right side gapes bare and sheer. Twenty feet above our heads heavily stretches the traveller arm.

The foreman balances himself on the extreme edge, and rests his hands on his hips. "That girder back there," he says, "will be run out on the right by the traveller and will be dumped between here and the next tower on that side. Then we'll brace it up like we already have the left-hand one, rivet it into position, throw our decking across the two girders, and move the traveller along to place two more girders in the same way on to the next tower. And so on until we reach the other abutment."

60 Feet Below Ground Level

"See here."

He steps down casually from the edge of the decking on to the studded foot-wide plate of the precariously balanced girder and stares reflectively into the abyss. "We had to sink for 60 feet below the surface before we struck firm foundation for our concrete pedestals," he remarks. "At the Moonee Ponds viaduct, too, they had to grope for a matter of 40 feet. Their bridge down there is not as big as this one though. Trifle over a thousand feet long, and 120 feet high. I fancy they will have something like 1,100 tons of steel and 4,300 cubic yards of concrete against our 1,600 tons and 7,000 cubic yards. Besides, they haven't got a traveller crane on the job there. They're able to do all their lifting by guy derrick.

"How many men on the job? Well, about a hundred are working on this viaduct, and I suppose there's as many on the Moonee Ponds viaduct. Then there must be fifty or more on platelaying and ballasting work, say 30 on minor road bridges and perhaps another 30 on earthworks. . . ."

A Tense Moment

There is a lusty hail from behind us. Clamor of machinery breaks in, grinding and chattering. A bare-armed workman clambers easily up the frail-looking ladder which clings to the tower on the far side of the abyss. He walks in tightrope fashion along the empty steel lip of the open structure and gazes expectantly across at the foreman.

That worthy has become suddenly active. He hastens back to the suspended girder. The 15-ton steel beam is on the move. Guided by taut steel-wire ropes, it lumbers purposefully to the right. It swings into space. Whirr of the electrically driven winch ceases momentarily. The suspended girder trembles to a standstill, a man's height above the gap which it is destined to bridge.

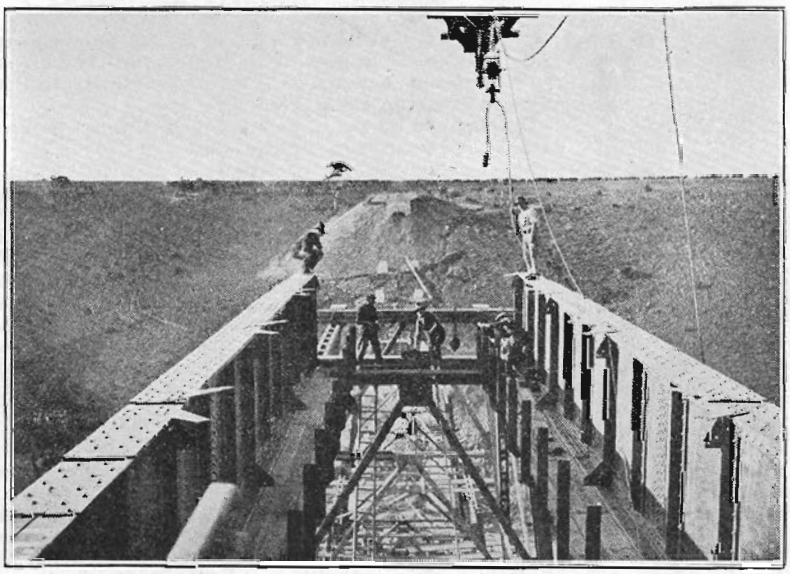
"Another Inch!"

Two more workmen have shinned up the ladder and joined the one who is already waiting on the tower summit to welcome the lowering girder. They balance themselves on their narrow footing as unconcernedly as though planted in the middle of a deserted Collins-street. Beneath the viaduct end of the hovering girder crouches the foreman, his head craned upwards, one eye screwed anxiously, and his feet balanced dangerously on six square inches of bridging. Intelligent anticipation is in every line of his twisted figure. He blows shrilly on a whistle. Clamor recommences. Steel ropes lengthen. Fifteen tons of steel descend another two feet. One of the workmen opposite raises his hand warningly. The whistle sounds again and the girder halts and hovers again.

"Forward an inch!" bellows the foreman. He is on his knees now, both hands firmly pressed against the girder.

Obediently the traveller supplies the extra inch. The girder lowers, jars a little as the kneeling foreman hastily withdraws his fingers, and then with a scarcely perceptible bump settles its sturdy 60-foot length across the gap.

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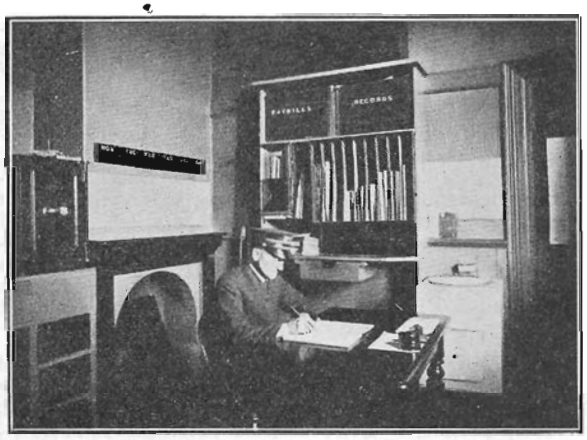
The girder in place

Bigger, Brighter, Better Station Offices

By JOHN DIX

HARCOURT and Taradale, two twin stations on the main Bendigo line, at present offer an interesting contrast in interior office arrangement, now that a dividing wall has been removed at the former station.

Immediate and remarkable improvement in lighting, ventilation and accommodation has been the result.



Taradale Station Office



Harcourt Station Office

EXTERNALLY the two stations are practically identical in appearance, style and type. True, Harcourt building is constructed of red brick with yellow facings, and Taradale of severe and solid bluestone. But here, superficially, the difference in the station exteriors begins and ends. Each building hunches one gabled, two storey shoulder above its slated roof. Each points four chimneys to the sky. Each rests its wide, galvanised iron verandah on six tall posts. Harcourt is a red replica of Taradale, Taradale a sombre duplicate of Harcourt.

Behind the office doors, however, the resemblance ends. Exterior similarity becomes interior dissimilarity. The actual differences seem trivial enough, on paper. A dividing wall, still in evidence at Taradale, has been removed at Harcourt, and the fireplace formerly planted in the centre of that wall has been shifted back to the main office wall. That is all. Yet in the wake of those trivialities has come transformation.

One Large Office

Simply, Harcourt now has one large office, well-lighted and well-ventilated; while Taradale still has, as Harcourt once had, one small separate office or enlarged cupboard, considerably less roomy than a railway carriage compartment, and another separate office which appears to be one-third the size of Harcourt's single undivided office. Neither the super-cupboard nor the cramped office on either side of the utterly unnecessary wall is nearly as well-ventilated as Harcourt's main office. The cupboard-office itself is too small to be put to any advantageous use, and its retention curtails markedly the value of the adjoining office.

At Harcourt, all these faults have accompanied the partition-wall into oblivion. The transplanted chimney-place, from its new location, impassively surveys a revolutionised and regenerated interior.

Extra Space Invaluable

Taradale may not need a larger office than the existing one; but prosperous Harcourt has found its additional square feet invaluable from two standpoints. One is, directly of course, the increase in accommodation for the Station-master and his two assistants who work the three-shift roster at the station. And the other is the appearance of a long, smooth-topped desk, specially designed for waybill writing, which can now be placed in the enlarged office with ease, although actually it occupies about half the space formerly wasted on the far side of the dividing wall. A heavy traffic in apples and granite keeps an edge on Harcourt's voracious appetite for waybills, and the new table-desk has proved a real boon.

The original design of both Harcourt and Taradale stations followed the general lay out of the standard old English station. Double doors led direct from the street into a main lobby, which was also a sort of waiting room. Two small booking windows, more like a dwarf's dinner servery than the present type of booking window, faced the doors, and the Stationmaster had his office in the cupboard-office behind this wall. Eventually, however, it was found advisable to give the Stationmaster the entrance lobby for his office by sealing the double doors and converting them into windows. Passengers then entered the station through a barrier gate and purchased their tickets from the platform side of the booking office. At once, automatically, began the cupboard-office's role of millstone round the neck of station office economy. . . . .

Partitions Doomed

The direct action which merged small office and semi-office into one large office at Harcourt will be followed, as opportunity offers, at any similar stations where business is consistent. Generally speaking, these days, official policy frowns darkly on the superfluous, space-swallowing partition or dividing wall. There are uses of course in some offices for airy, head-high, semi-glass partitions, but the day of the old-fashioned, gloomy and dusty erection has definitely passed. At Dimboola and Ararat, for instance, plans have already been drawn up for the economic removal of unnecessary partitions.

In short, the road to bigger, brighter and better stations in Victoria is paved with demolished office partitions.

Things We are Talking About

NOT SO BAD

ALTHOUGH figures have not yet been worked out to four places of decimals and sorted into balance-sheet nicety, it seems quite clear that Victoria's Railways have weathered the severe depression storm of 1927-28 very much better than was popularly supposed. Comparatively recent talk of £800,000 and even £1,000,000 deficits have now been modified to a figure of little more than £500,000. There has been a lot of hard work, extensive usage of wet towelling, and real co-operation within the Department to minimise losses from a poor harvest and diminished spending power. As a result, the State's aggregate deficit has been announced as approximately £204,000, or less than a third of that for the previous and more normal year, which was £641,000.

A PROMISING NEW LEAF

AND we turn over a new financial leaf with the best outlook for years. Railways District Superintendents are sending in glowing reports of agricultural and pastoral prospects, and the Department is basing its truck requirements on a possible wheat yield of 56,000,000 bushels apart from a big wool haul. Bankers in town talk of the early easing of the money stringency: in fact the doldrums of a few months back seem everywhere to have been blown away by the fresh wind of optimism and confidence.

THAT WHEAT ESTIMATE

A CERTAIN amount of criticism has been levelled at the Department for publishing its estimated wheat yield because of its possible effect on markets, particularly overseas markets. It is quite obvious, however, that Railways must early have some sort of an idea of what they will be called upon to haul to the seaboard. In no way, as Mr. Mullett, the Superintendent of Agriculture, pointed out, is the estimate intended as an actual forecast of the yield. It is a purely private and preliminary computation, and differs no whit from those made by the big railroad systems that serve the huge Canadian and United States wheat belts. The latter may influence the sensitive futures markets of Chicago, Winnipeg, and to a lesser degree, Liverpool, where operators gamble in every rumor about a big crop, but the prospects, good or otherwise, of a relatively small yield like Victoria's, doesn't affect them half a cent a bushel, either way.

SUNDAY TRAIN SUCCESS

SUNDAY trains between Melbourne and Geelong and Melbourne and Ballarat are, so far, an unqualified success. The specious argument of a few oppositionists that if trains didn't pay in six days of the week, they couldn't possibly pay on the seventh when running costs were higher, crashed badly on the first Sunday's showing which, despite showery weather, pointed to actual profits, given the same patronage on subsequent Sundays. No fewer than 1750 passengers travelled by train between the three cities, and on the second Sunday the patronage was considerably greater. The truth, disguise it as some may try, is that people want to get about on the only free day of the week, as witness the regular Sunday stream of motor cars on all roads radiating from the cities. The Department, far from corrupting people's morals which, incidentally, have precious little to do with Sunday train travel—either to or from church or to or from Geelong—is merely supplying a real demand for facilities which, after all, the people own, and is, moreover, attempting to compete on a level footing with the road pirate who has always worked his motors seven days a week. As Mr. Clapp has already pointed out to deputations, it is a question purely of hard solid facts.

A MILE OF RAILROAD

FIGURES recently compiled in the Railway Accountancy Branch disclose some interesting facts about the cost and usage of an average route mile of railroad in Victoria, which, including tracks, equipment, stations, workshops, rolling stock and all facilities, represents an investment of about £15,400. In the country, 3.1, and in the suburban area 98.8 passenger trains moved over that average mile each day last year. The number of goods trains was 4.3. The 3.1 passenger trains comprised 17.4 cars and carried 356 passengers. The 98.8 suburban trains comprised 523 cars and carried 12,871 passengers, and the 4.3 goods trains comprised 130 vehicles of which 95 were loaded with 834 tons of paying freight.

REVENUE AND COSTS

THE total revenue for the average mile of line operated was £9.4 for each of the 313 working days, and was made up as follows: freight transportation £4.3, country passengers £1.9, suburban passengers £2, parcels, horses, cattle and dogs, and mails £.5, miscellaneous operations £.4, and miscellaneous revenues £.3. Direct operating expenses took 74.07 per cent. of this revenue, or £7.2 per day. Of this amount £4.7 represented labor costs, £1.4 maintenance and £1.1 maintenance of rolling stock. Apart from these costs pensions, gratuities and superannuation absorbed £.2, and interest charges £1.9. With about 5,000 route miles, it is obvious that Victoria's railway asset is responsible for free circulation of a considerable amount of money, apart from its principal benefits to the community.

N.S.W. FRUIT PROBLEMS

FIRED by the success of fresh and citrus fruit marketing in Victoria, and spurred on by difficulties in quitting their own products, New South Wales fruitgrowers are making a determined effort to organise their local market. The whole thing was thoroughly thrashed out at the recent growers' conference in Sydney which, *inter alia*, resolved "that having in view the deplorable condition prevailing at present, and realising that, if the industry is to be saved from disaster, immediate and decisive steps must be taken, conference to appoint a committee of five to make a comprehensive review of the method employed in the distribution and marketing of fresh fruit in N.S.W., to prepare suggestions whereby such methods may be amended so that a fair and reasonable return shall be available to the producer, and devise plans for facilitating distribution and lessening costs as between producer and consumer."

MR. CLAPP SPREADS FRUIT GOSPEL

CONFERENCE paid Mr. Clapp the compliment of asking him over to tell them how a local market had been built up in Victoria, and the Chairman of Commissioners made the most of the opportunity to spread the fruit gospel, which is just as important to N.S.W. and the rest of Australia as to Victoria. Mr. Clapp, who is first an Australian and then a Victorian, well knows that. Delegates punctuated his address with rounds of applause, and finished up with cheers. It wasn't so very long ago, by the way, that Mr. Clapp received a request from N.S.W. for a sugges-

tion to overcome a threatened fruit glut. His reply was short and to the point—"eat more fruit."

WHERE THE 40-TON TRUCK SHINES

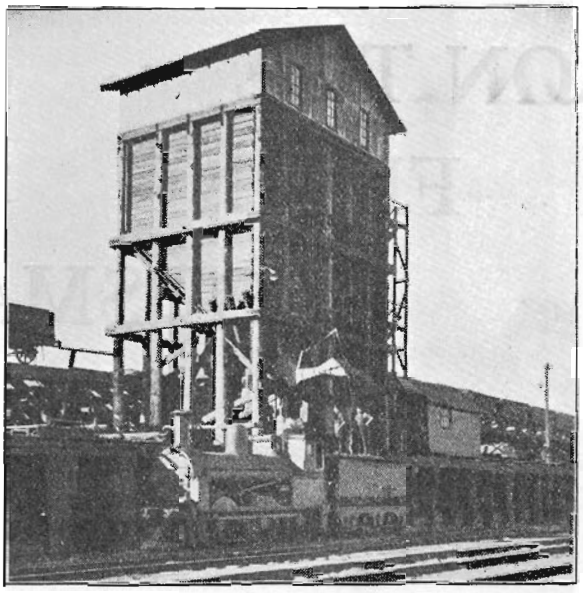
STATE Mine coal has found favor with the Melbourne Harbor Trust Commissioners, who have just ordered a considerable quantity to be supplied in weekly 500-ton lots. Forty-ton trucks are being used to transport the coal from Wonthaggi, each parcel making one trainload of thirteen trucks, headed by an N class engine. The first trainload which arrived at Victoria Dock on June 13 was the subject of much favorable comment, not only from the transport efficiency point of view, but as an object lesson in the usefulness of the 40-ton truck. The weight of the entire loaded train was, with engine, 871 tons.

NEW COALING PLANT

MENTION of coal brings to mind the new mechanical coal-handling plant erected by the Department's Way and Works Branch at the North Melbourne loco depot, which is reported to be working very satisfactorily. Besides reducing the manual handling of coal to a minimum, it cuts down the time for refuelling a locomotive to a few minutes. An A2, in fact, can be coaled in less than five. The plant is of the bucket-elevator type, with an elevating capacity of 50 tons an hour, and a storage capacity of 250 tons in its two timber bunkers. The power unit is a 20 h.p. electric motor, and all the machinery is Australian made. The actual loading of coal is done through balanced chutes equipped with rapid cut-off undercut gates. The plant, a photograph of which is reproduced on this page, is the forerunner of several more. A second of similar type but of smaller capacity is already being erected at Wodonga.

AN OLD TIMER

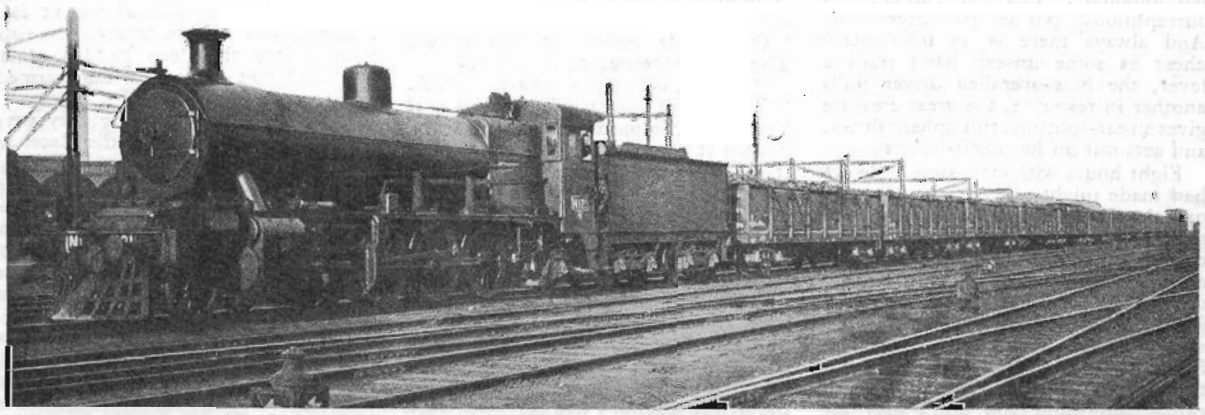
PUBLICATION in last month's issue of a photograph, taken in 1887, of the Wedderburn line's first locomotive, No. 36, has brought to light some interesting facts about the engine. A correspondent tells us that it was originally the Geelong Railway Company's "Oberon," and was built in England in 1855 for the opening, in 1857, of that company's line. It was subsequently taken over with others by the Government which purchased the line in 1860, and later used on the new lines to Ballarat via Geelong, and to Bendigo via Castlemaine. For some years it headed the monthly "pay" train which comprised a small four-wheel guard's van. When the railway was built to Echuca and Wodonga, the "pay" train was withdrawn, and No. 36 was used on the Essendon line to haul two small cars and a van about 13 trips a day. It eventually found its way to the Wedderburn line.



The new coaling plant at North Melbourne

A UNIQUE BROADCAST

ONE of the most successful radio broadcasts on railway subjects, and one vibrant with the romance-of-the-rail atmosphere, was recently given by Chief Train Despatcher McConnell from his room at Head Office where 3LO had fixed up microphones and other necessary gadgets. His explanatory discourse on train-control was vividly punctuated, by way of illustration, with actual conversations between the train despatchers on duty and various stations which passing trains had brought into the picture. The whole thing was so impressive that no sooner had Mr. McConnell finished than an enthusiastic listener-in in the suburbs rang him up with congratulations and a request for permission to bring along half-a-dozen senior boy scouts to see train control in action, a request that was readily granted. Nine other parties, including St. Kilda scouts, the Ivanhoe C.Y.M.S., the East Kew Young Men's Club, members of the Preston A.N.A., and the Malvern School Club, followed suit, and Mr. McConnell tells us that requests are still coming in. The train control phase of railway operation has certainly caught the imagination of people.



The first 500-ton trainload of Wonthaggi coal for the Harbor Trust Commissioners

ON THE FLYING SCOTSMAN



By

CLAIRE ANDERSON

WHAT has become one of the most famous and most luxurious trains in the world, Britain's Flying Scotsman, steams out of the London and North-Eastern Railway terminus at King's Cross at 10 o'clock each morning for its 399-mile northward dash to Edinburgh, which it covers, without a stop, in eight hours.

Miss Anderson, the well-known Melbourne writer, now in England, here records her impressions of this remarkable run, for the V.R. Magazine.

THE Australian may say "love me, love my dog," the Scotsman, "love me, love my bagpipes," but the Englishman says "love me, love my famous trains."

And so every morning at 10 o'clock at King's Cross there is a little crowd gathered, a crowd of boys, some of them grown up, maybe, some of them perhaps female, but all with the true boy's capacity for hero-worship and love of trains which even the radio and aeroplanes have not ousted. They will stand by this great green monster and look at her cylinders and shafts and foot-plate with an air half proprietary, half longingly. I have seen an old man surreptitiously pat her great green side. And always there is an involuntary cheer as some unseen hand pulls a lever, the blue-overalled driver pulls another in response, the great creature gives an ear-splitting, triumphant shriek, and sets out on her eight-hour race.

Eight hours without a stop! So we had made mighty preparations for the ordeal. It took the taxi-driver and two porters to carry them—rugs and cushions, thermos flasks and slabs of chocolate (so sustaining you know, my dear, Auntie had said), hot water bags (Scotland is so very cold, my dear, was Grandma's contribution), goggles for our eyes (the wind becomes very trying at those terrific speeds), packs of cards (but mind you don't play for money with strangers), a correspondence school course in mind and memory training (you really should make some use of all that time). Then having 10 minutes to spare after stowing away the paraphernalia, we proceeded to invest more capital in books, magazines, and a few daily papers, and a goodly store of tobacco. We had a drink of Bovril to sustain ourselves on our long journey, and, waving to the cheering crowd, drew out of the platform, with the feeling that we had said goodbye to civilisation.

"On Either Side"

On our way back to the compartment we spied a pamphlet that was to be distributed gratis, so, acting on the Napoleonic maxim of never missing an opportunity, we took one each. "On Either Side," it was called. Then we proceeded to sit down.

"I say, look at this gadget," said A. "By golly, if you switch it this way it heats the compartment on this side. Switch it that way and it just warms it. There's another on the other side to heat that side of the compartment. And here's a thingummy to open ventilators—though I can't see where they are, still it says it does it. And say, look at the cute little ash-trays they provide, see how they tip up? And what the deuce is this? Must be to fix up a table; jove, that's a bright idea. And there's the good old communication cord—What say we pull it, hey? the driver mightn't like it? Oh, very well then. It certainly is a little expensive. Wouldn't do to make a hobby of it.

"I say, let's see how far we can get along this corridor."

An hotel on wheels? Nonsense, it's a town on wheels. There's a paper-boy, chocolate sellers, a barber's shop with the latest luxury fittings, a ladies' rest room with all the latest methods for running up large bills and being rejuvenated. In fact, it's so up-to-date that one feels glad that the journey is no longer, or the women who cannot be dragged out of this beauty parlour would come out of it rejuvenated to twelve months . . . . a contingency with endless possibilities . . . . Then kitchens, dining saloons, store rooms. Having considerably exceeded our usual daily constitutional we at last regained our compartment, to sink wearily into the deep padded seats, our tired feet resting on the warmed soft footstools.

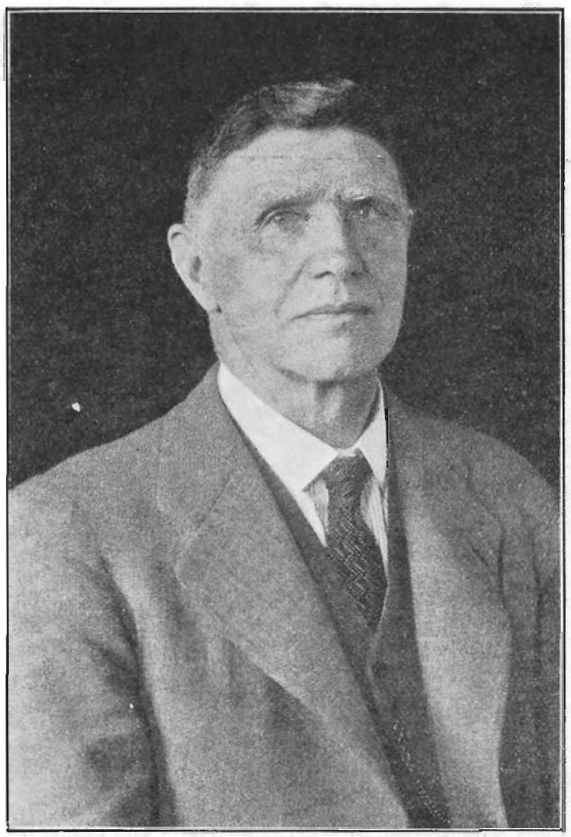
"By jove, B., this thing they gave us for nothing tells us all the places to look out for on each side, and all about them, I say, we've been missing an awful lot. . . Could you read the name of that station we flashed through? no, I couldn't either . . . By jove, St. Neots, I say, we've an awful lot to catch up, skipping all this about London and starting at Finsbury Park (2½)."

But it was hopeless. We were like the conscientious subscriber who read his *Times* religiously every morning, until he lost a fortnight through being in hospital. He spent the rest of his

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MILEPOSTS I HAVE PASSED

By E. H. BALLARD



NEARLY half a century ago, there arrived in Melbourne an English youth with an Edinburgh University honors matriculation certificate, 18 months' experience with an engineering firm, a determination to make good, and very little else. His name was Edward Henry Ballard.

His career, from that date until July 31, 1928, when he retired from the position of Victorian Railways Chief Engineer of Way and Works, is marked by a succession of important engineering mile posts, some of which he describes in this article, and to the erection of most of which he has in no small degree contributed.

AFTER 18 months general experience in the shops and drawing office of Palmer's extensive engineering works at Jarrow-on-Tyne, in the North of England, I decided to visit Australia, and at the age of 18 arrived in Melbourne in 1881, my assets being practically limited to my University certificate and a few letters of introduction, including one to Mr. Elsden, then Engineer-in-Chief for Victorian Railways, who promptly placed me in the Construction Branch as a chainman.

The survey party to which I was attached was engaged on the proposed line from Castlemaine towards Laanecoorie under the direction of Mr. F. Rennick—who afterwards became Engineer-in-Chief—and the chainmen included E. Norman, a brother of the late Chairman of Commissioners, and A. Lunt, whose father was afterwards appointed Chief Engineer for Existing Lines. Mr. H. Chase, who was Mr. Rennick's field assistant, and subsequently filled a high position in the British Admiralty, gave close personal attention to the training of his juniors, and I thereby acquired much useful knowledge during my twelve months service in the survey camp.

In 1882, I accepted the office of a cadetship in the Mango Island Co., Fiji. The Company's plantations were under cotton, but decision had been reached to cultivate and manufacture sugar, and an order for the sugar mill had been placed on the understanding that an engineer would accompany the machinery from Glasgow. Prior to the Engineer's arrival it devolved upon me to prepare the mill site, build workshops, etc., and construct some miles of tramway. The labor comprised 1,400 Polynesians with a white staff numbering only nine. The mill engineer on his arrival constituted me his assistant, and from his world-wide experience generously imparted to me a great deal of sound advice and instruction. He left Fiji on completion of his contract, and I became assistant manager of the company's properties on the islands of Mango, Kanacia and Cicia, which position I resigned in 1886, feeling—at the age of 23 years—that the field for my activities would be too restricted in Fiji.

Back to The Railways

On returning to Melbourne, a visit to Mr. Lunt, then Chief Engineer for Existing Lines, secured my re-employment in the Railways Department, and, in October, 1886, I was placed as surveyor and draughtsman in the office of Mr. T. Woodroffe, who at that time was Assistant Engineer in charge of structures and water supply, and in 1887 I was transferred to Mr. Philpott, the Signal Engineer. The work of signalling and interlocking was very attractive to me, but the procedure then obtaining in the Signal Branch, under which all operations were camouflaged with a veil of mystery, was repugnant.

With misgivings I ventured to express my view that everyone engaged on the work in the office, field and workshop, from the bosses to the boys, should be given every facility and inducement thoroughly to understand the principles governing the details of their work. Mr. Philpott concurred, and authorised me to effect this radical change of policy. My action in this matter was largely conducive to my promotion in 1890 to the position of Assistant to the Signal Engineer. My duties in the latter capacity caused me to spend three-fourths of my time outside the office and, as the interlocking system was then being rapidly extended throughout the State, I was brought closely in contact with train-running operations, and with the practical work of the permanent-way staff. As assistant to the Signal Engineer I was instrumental in standardizing the various parts of apparatus used for signalling and interlocking purposes which had previously been of several different types.

Prior to 1893, the survey work and preparation of plans for station yards devolved upon two officers, Mr. J. Bragge and Mr. J. McPherson, who retired about the same time that Mr. Philpott left the service. Mr. C. E. Norman, then recently appointed as Chief Engineer of Way and Works, decided that the survey and plan work, together with the signal and interlocking work should be amalgamated under my control. My classification was therefore altered, in 1893, to Assistant Engineer, and again, in 1897, to Superintendent of Signals, the duties of my position remaining practically unaltered, although the volume of work greatly increased.

As Superintendent of Signals, I made radical alterations to the signalling and interlocking systems. The signal lights were previously white for "clear" and red for "danger," and drivers were apt to mistake street lamps for railway signals, but even greater risks of disaster occurred when the red glass broke or fell out from the spectacle fitting, thereby showing a white "all right" indication when the signal was at danger." The fittings were therefore altered throughout the State to show green for "clear" and red for "danger," The levers of mechanical interlocking apparatus installed by the Way and Works Branch were independent of electrical block instruments installed by the Telegraph Branch, and some serious conflicts of signal indications were caused thereby, to obviate which electrical appliances—including track-locking, signal reversers, etc.—were introduced to supplement the mechanical gear.

Station Yards Transformed

This innovation transformed the appearance of station yards at which, in accordance with the old regulations, the signals were located within 200 feet from the facing points which they controlled. North Melbourne is typical of the change effected under which a driver has to observe only one set of signals placed at the entrance to the yard, whereas he previously had to pick out from the forest of semaphore masts the signals applicable to his train which were grouped at intervals of about 100 yards between Moonee Ponds Creek and the station. My duties in connection with the planning of the station yards involved close personal co-operation with all responsible officers of the Operating Branches; and in this connection it devolved upon me to design the altered track lay-out between Jolimont Junction and Flinders-street Viaduct to provide accommodation to suit 11 platform faces instead of the four faces then existing at Flinders-street Station. Subsequently I supervised the track-work and signalling for this scheme.

In 1905, the Chief Engineer of Way and Works, Mr. C. E. Norman, decided to reorganise his administrative staff, and divide the principal activities of the Branch into three divisions, namely, Way, Works and Signals, each to be supervised by a senior officer to to known respectively as Engineer of Way, Engineer of Works, and Engineer of Signals. I pleaded for appointment to the latter position, but Mr. Norman insisted that I should give similar attention to the standardisation of materials and methods for the Way division as had been given by me for signal and interlocking work. I accordingly became Engineer of Way, retaining control of surveys and designs for track lay-out. Under the altered organisation the repairers, gangers and Roadmasters came under the supervision of the Engineer of Way, and the artisans, foremen and Workmasters under the Engineer of Works, and trouble was thereby experienced in properly co-ordinating the work of the two divisions. My representations that District Engineers should be appointed to control both Way and Works activities were vetoed by Mr. Norman and afterwards by Mr. J. H. Fraser, who succeeded him as head of the Branch.

Big Suburban Jobs

During the three years, 1912 to 1915, my time was largely occupied in supervising the duplication and regrading of the tracks between South Yarra and Caulfield, which involved lowering about 16 feet the track level between South Yarra and Malvern, and raising the level to a similar height between Malvern and Caulfield, incidentally providing bridges at seven busy highways where level crossings previously existed. The operations were completed without interference with the scheduled running of any train. Surplus filling to the extent of about three-quarters of a million cubic yards was transferred from the Caulfield line to Tottenham, where it formed the nucleus of the embankment for the marshalling yard which was afterwards constructed. The regrading of the Box Hill line between Hawthorn and East Camberwell was commenced in 1915, but, owing to the war, was not completed until 1921, and the work, in which provision was made for the future duplication of the line, included substitution of bridges for level crossings at eight thoroughfares. At Bendigo, Geelong, Ararat, Seymour, Dandenong and many other places the station yards were remodelled to my designs.

I was closely associated with the electrification of suburban lines, and the biggest job which devolved upon me in this work was the preparation of the power-house site at Newport. A site was previously selected at Spotswood, but when the construction of power-house machinery was well advanced in England, it was found that suitable water supply could not be obtained at Spotswood, and the site at Newport was therefore selected. Contractors for the electrification scheme were much perturbed as to whether the Newport site could be made ready for the arrival of the machinery, the work involving the excavation of about 50,000 cubic yards of rock, the provision of concrete foundations for the plant and buildings, of the boiler, engine and switch houses, and construction of suction and discharge culverts, etc. I accepted responsibility for the operations which were commenced late in 1913, and completed in the following year, well ahead of the specified time.

In 1914 I was appointed Assistant Chief Engineer of Works, and in 1918 succeeded Mr. Fraser as Head of the Branch.

One of my first administrative acts as Chief Engineer of Way and Works was to secure Commissioners' approval to the appointment of District Engineers who became responsible for the co-ordination of operations in their respective districts. Readjustment of responsibilities devolving upon various Branches, consequent upon the expansion of railway business, necessitated demarcation of activities in the Branches concerned, and for this purpose I was chairman of the committee which in 1922 allocated the duties appertaining to the Way and Works, Electrical Engineering and Signal and Telegraph Branches when the latter was established as a separate Branch. I was also chairman of the committee which, in 1923, defined the procedure to be adopted by the several Branches engaged in providing overhead equipment for railway electrification.

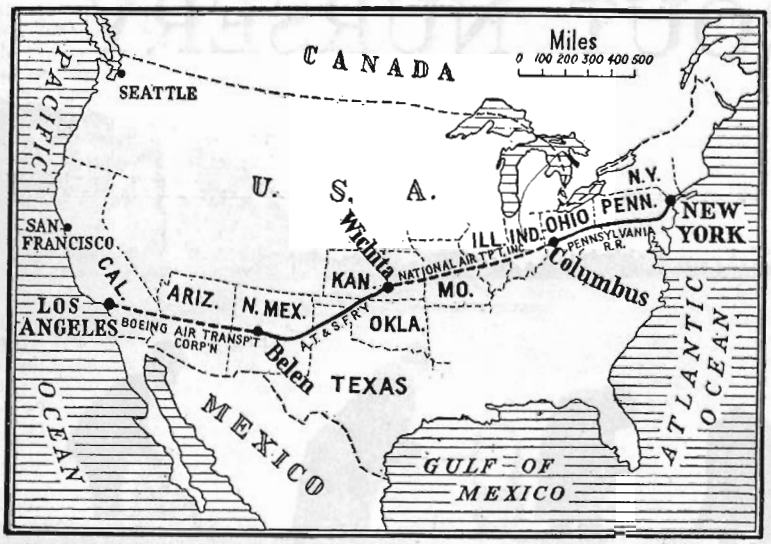
New £220,000 Workshops

The position in respect of workshop accommodation for the Way and Works Branch was for many years unsatisfactory, the woodworking division at North Melbourne being located a mile distant from the ironworking division at Spencer-street, thereby affecting adversely the co-ordination and proper supervision of operations. Although the Commissioners were sympathetic, funds could not be made available for amalgamation of the shops until 1925, when the erection of new workshops was commenced at Spotswood on a site adjacent to the General Store and Newport Workshops. The new shops are laid out on modern lines, with due regard to the welfare of the employees, the cost involved being about £220,000. The ironworkers vacated the old shops at Spencer-street in 1927, and all other workmen will be transferred to Spotswood this year, and the achievement, although belated, will realise one of the most ardent desires in recent years.

The standardisation of engineering methods and materials has been, and still is—of keen interest to me, and, in this connection, I have had much to do with matters dealt with annually at

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LINES FROM OTHER LINES



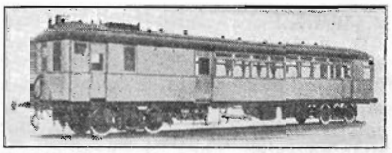
Sketch map shewing the route of the new combined rail and air service which will shortly be introduced in the United States

RAILWAY TO START AIR SERVICES

AN innovation in railroad practice will shortly be introduced in America by the Pennsylvania Railroad, writes Mr. D. L. MacDonald, a Victorian Railways electrical engineer, now with the Illinois Central Railroad. In conjunction with the Atchison, Topeka and Santa Fe Railroad, the Pennsylvania Company is inaugurating a passenger air transport service across the continent from New York to Los Angeles. The service which is outlined on the accompanying map, provides for train journeys by night and aeroplane journeys by day. Further details are supplied by the New York correspondent of the *Times*, who states that, according to tentative arrangements, the traveller will leave New York by the Pennsylvania Railroad at 6 p.m., change to an aeroplane at Columbus, Ohio, at 8 a.m. the next day, change again to a Santa Fe line train in Wichita, Kansas, at night fall, and the following morning will change once more to an aeroplane at an airport in New Mexico—probably Belen—arriving at Los Angles at 5 p.m. From this principal route there will be branches of the service to San Francisco, Seattle and other cities of the West. The National Air Transport will furnish the link between Columbus and Wichita, and the Boeing Air Transport Corporation the links in the West. The aircraft to be employed will be multi-engined cabin aeroplanes with a cruising speed of 100 m.p.h. Each will carry 14 passengers, and will be equipped with a restaurant service.

GEARED STEAM RAIL CAR

THE light rail car is becoming an increasingly useful factor on the side of British railways in their endeavour to meet road competition. A new Sentinel-Cammell rail car, one of a batch of 20 under construction for service on the L.N.E.R., incorporates a number of new features. Hitherto it has been the custom to transmit the drive from the engine to the wheels by a chain, and although this method has given satisfactory results in service, the adoption of a specially designed cardan shaft and gearing for the new car has the effect of improving the design for railway service. Instead of employing the articulated principle in the construction of the framing, as in previous designs, the main frames now extend from end to end of the car, and standard-type bogies are used. This arrangement renders the car much better adapted to withstand heavy buffing stresses than was formerly the case. Other improvements which may be mentioned include a superheater boiler having increased evaporative capacity and higher working steam pressure, and a specially-designed six-cylinder engine with ready accessibility of all parts for renewal or repair. Antifriction bearings have been fitted to the first car, and a demonstration run of 107 miles was recently made. The average speed between stops was 42 miles per hour, and the exceptional freedom from vibration or oscillation and the noiseless running of the gears were remarked upon.



The Sentinel-Cammell geared rail car

AN OUTSTANDING TUNNELLING WORK

ONE of the outstanding engineering feats of the century, the six-mile, timber-lined Moffat Tunnel through the Rocky Mountains, in the State of Colorado, built to carry the Denver and Salt Lake Railway, is now an accomplished fact.

Bored by the pioneer system—that is, a main tunnel and a smaller "pioneer" tunnel connected with the former by crosscuts for the removal of earth, and for bringing up piping and supplies—the work stands as a memorial to the skill of Mr. David W. Brunton, cousin of a well-known Australian, Mr. John Spencer Brunton, of Sydney and Melbourne.

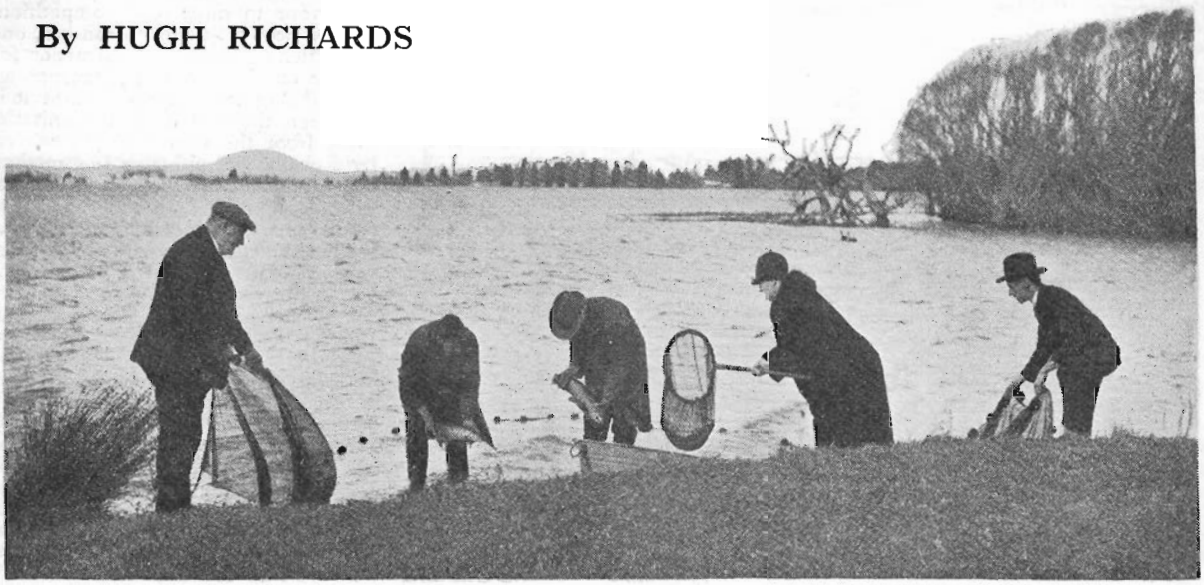
As Chairman of the Board of Consulting Engineers to the Moffat Tunnel Commission, Mr. Brunton was responsible for overcoming all constructional difficulties. The tragedy of it is that he only just lived to see the completion of the tunnel.

Mr. Brunton, who held the degree of D.Sc. from the University of Colorado, was past President of the American Institute of Mining and Metallurgical Engineers and of the American Mining Congress. In 1898, he was awarded the Telford Premium by the British Institute of Civil Engineers, and, last year, the Saunders Gold Medal by the A.I.M.E. for achievements in mining and tunnelling.

The contract for the Moffat Tunnel was let in 1923, and the "pioneer" tunnel was holed through in February, 1927, by the pressing of a button, in Washington, by President Coolidge. Ballasting and track laying were completed at the end of last year, and, to-day, trains are running through at a level of 9,000 feet, instead of, as formerly, crossing the Continental Divide at 11,000 feet, at which altitude winter snows frequently and seriously interrupted traffic.

VICTORIA'S TROUT NURSERY

By HUGH RICHARDS



Netting trout for stripping

THE largest trout hatcheries in the Commonwealth are those of the 58-year-old Ballarat Fish Acclimatisation Society at Lake Wendouree. From the Society's rearing ponds 71,000 yearling trout were supplied last year for the restocking of streams in Victoria and South Australia.

Free railway transport is available for yearling trout in Victoria.

THERE are hundreds and hundreds of thousands of them. Sticky, semi-transparent globules, they look for all the world like fat, yellowish tapioca, arrayed in neat and orderly rows and placed to soak in a sinkful of running water. They are spread evenly over the surface of long, narrow, glass grilles. And there they lie for from 35 to 45 days, when the resemblance to a huge boarding-house pudding abruptly ends.

The tapioca globule becomes a lusty and hungry infant trout. From one side of the globule—the trout egg—appears an infinitesimal tail, from the other side a microscopic head. The bulk of the globule remains between head and tail as a sort of attached luncheon bag. The infant is then known piscatorially as an alevin. If he is a brown trout, he is labelled *salmo fario*: if a rainbow, *salmo irideus*. Hard names, these, to hang over the head of a defenceless trout.

Of course, there are several other varieties of the vast trout family. There is the Lochleven trout, the silvery northern and southern sea trout, the brown estuary trout, the Gillaroo trout, the Geneva trout, the Caspian Sea trout and the Dalmatian short-nosed trout.

But the Ballarat Fish Acclimatisation Society rears and breeds the brown and rainbow trout only. And it has reared and bred them successfully for close on three score years. To it belongs much of the credit for the systematic trout stocking of Victoria's mountain streams. It might not rule the Victorian fish world, but it is, at any rate, the hand which rocks the trout cradle.

It rocks the trout cradle, steers young alevin through the nursery, teaches him how to swim (the young trout can't swim for five weeks), feeds him with liver paste, tries to prevent him from eating too many of his cobbers, and finally pens him in a roomy pond until he is close on a year old. Then it sells him by the thousand to the Fisheries Department and to various ambitious angling clubs all over Victoria and as far afield as South Australia.

High Infant Mortality

Infant mortality in the trout world reaches a high percentage. Cormorants, bittern, blue crane, crayfish, and yabbies have a connoisseur's taste for baby trout, and the voracious young cannibals prey on themselves as well. The weak trout, the short-sighted trout, the deaf trout, the absent-minded trout and the mentally defective trout have a lean time. As many as 5,000 advanced fry will be placed in the one pond, and as few as 2,000 yearlings will be left some months later. In fact, if 75 per cent. of the fry incubate healthily from the eggs, and if one-third of the remainder then progress safely to the yearling stage, the hatchery manager goes out and buys himself a drink.

Wire has been stretched across the ponds to discourage the birds, but the internecine cannibalistic tendencies remain unchecked. Short of specialising on a breed of trained missionary trout, which could be liberated among the cannibals to convert them, there seems to be no satisfactory way of reducing the heavy and consistent losses. In any case, the drastic weeding-out process amounts to a survival of the fittest which is steadily and surely improving the Ballarat trout standard.

As a rule, the male trout makes more of a habit of cannibalism than the female, although it's no indication that a big trout is no lady if she swoops casually on to a half-witted or weak-finned neighbor. You can tell the lady fish from the gentleman, incidentally, by the pronounced hooked jaw which curves upward round the masculine lower molars.

A more difficult task for the non-angling layman is to tell the difference between trout and salmon. The scientific angler can make it quite clear by pointing out that the trout has smaller scales on the back of the caudal region, and a greater length of the folded anal fin as compared with the depth of the caudal peduncle. The distinction becomes more readily apparent when it is further remembered that the trout usually has fewer gill-rakes on the anterior branchial arch than the salmon, and that, with young trout, the maxillary bone extends beyond the vertical of the eye centre, and often in six-inch specimens to below the posterior of the eye. With the young salmon, it appears, it doesn't. The differences seem to be obvious ones. . . .

One Trout—3000 Eggs

May sees the commencement of trout stripping by the Ballarat Fish Acclimatisation Society. Netted from the shoals of reserve trout maintained by the Society in Lake Wendouree, the female trout sheds its eggs under the persuasive influence of the strippper's fingers. One trout will shed from 2,000 to 3,000 eggs. As many as 8,000 eggs have been stripped from a single fish in 20 minutes. These eggs are fertilised in a stripping bowl with trout milt, and then pass on to the grilles in the hatching boxes.

Follows the progress from tapioca-ova to alevin, from alevin to fry, from fry to advanced fry, and from advanced fry to yearling trout. The railway carries the progress farther, the lively yearlings are released in mountain streams hundreds of miles from Ballarat, and the angler begins to catch big trout and tell lies about the bigger ones he nearly caught.

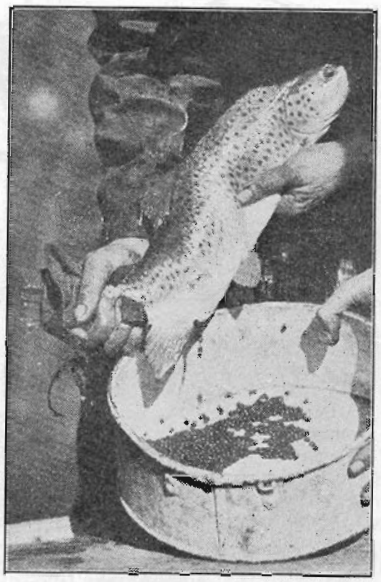
Last year the total output of yearlings from Ballarat was 71,909, comprising 43,959 brown trout and 27,950 rainbow trout. The Victorian Fisheries Department bought the bulk of these at £10 10s. a thousand, partly for re-stocking purposes and partly for purification of the metropolitan water supply. Six hundred were released in the big Maroondah dam at Healesville. The South Australian Fisheries Department bought 6,000 brown trout. Balance went all over the State at £15 15s. a thousand.

The yearlings travel by rail in special containers. Each container is filled almost to the top with water, and an order for 100 is supplied in three containers—33 trout going in each of two and 34 in the third. Free transport is allowed over all Victorian lines. Furthermore, there are never any complaints of rough handling. The more jolting the cans get, and the more the water is agitated, the more the imprisoned trout like it. If, after standing for a long time, fish are seen huddled together and apparently dead on the bottom of the container, they can be revived by the introduction of a bike pump. The only fish that doesn't notice the absence of air is a tinned sardine.

An authoritative commentary on the standard of the rail service, this extract from the Society's annual report is worth quoting: "To the station-masters and railway officials we once again express our sincere thanks for the magnificent help they have given. On many occasions space for fish was arranged at great inconvenience, and each consignment sent to various parts of the State was well looked after. . . .



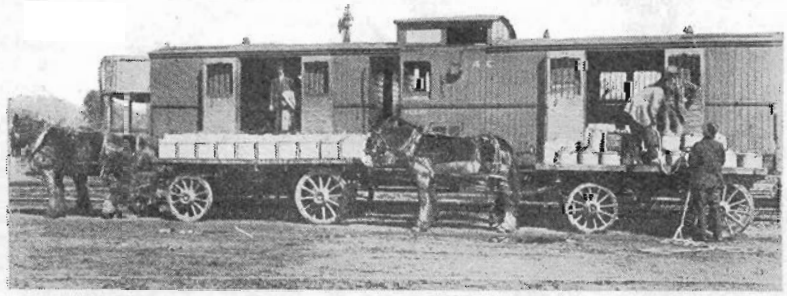
Eggs ready for hatching



Stripping a trout

Profit-making is no aim of the Society. It receives a subsidy from the Government and seeks merely to pay its way. Any surpluses are devoted to improvements and extensions at the hatcheries. Thus, at the present moment, nine more ponds are being added to the Society's 37. Gradually there will come an increasing output, and, when the limit of possible extension is reached, the nominal charge will be progressively reduced.

The Society's achievement in the past points to its achievement in the future. Seventy years ago there was not a single trout in Victoria. Today the State's well-stocked streams have nothing to fear from comparison with trout streams anywhere. A national work is going on unobtrusively at Lake Wendouree.



Consigning cans of yearling trout from Ballarat

NEW NON-STOP RECORD

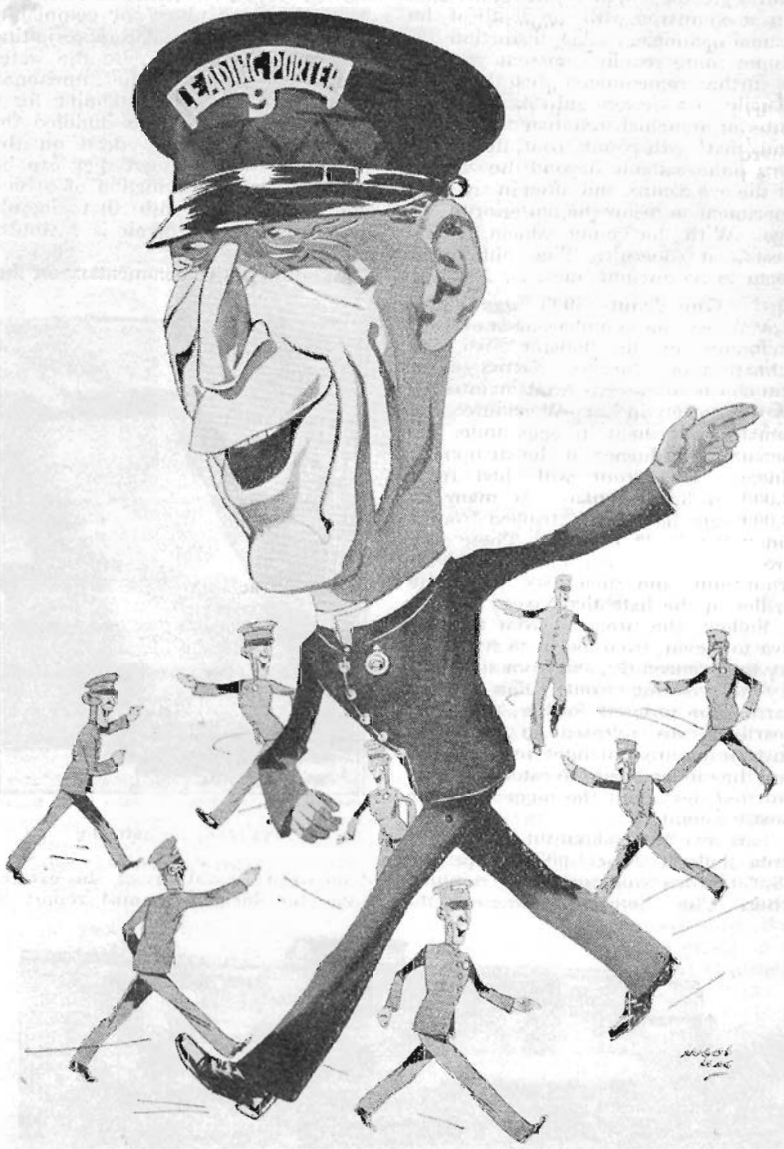
UNTIL recently the world's record non-stop-run was held by the L.N.E.R's. Flying Scotsman, with its 399-mile daily dash from London to Edinburgh. The rival L.M.S. railway, however, has now inaugurated a 401-mile non-stop journey between London (Euston Station) and Glasgow. The initial run recently was covered in 8 hours 7 minutes. The engine consumed 5½ tons of coal.

Representative Railroaders

By R. H. JUNIOR

No. 12—
Leading Porter, MARTIN YOUNG, Ararat

Caricature by ANGUS MAC



EVERYBODY hears it. In the far corner of the top first class smoker, the elderly, deaf gentleman hears it. In the end second class compartment, the stout, middle aged lady, festooned with crying babies and buried beneath rugs, shawls, blankets and ulsters, hears it. Over their berugged knees, behind their rustling papers, above the flick of their cards, the commercials hear it.

The whole train hears it. It peals down the corridors, sweeps through the windows, penetrates into the guard's van, agitates the eardrum of the fireman and driver. . . . . .

"Ararat! Ararat! Twenty minutes here! Refreshments!" It is the voice of Martin Young.

A penetrating voice but, mind, not a deafening voice. There is a touch of the orator in its resonant clamor, no hint of the football barracker. Milton has written of "a shout that tore hell's concave, and beyond, frightening the reign of Chaos and Old Night." While Martin achieves some of the mellow volume suggested by these words, his voice is essentially a reassuring one. And it never tears anything more serious than the fog of locality ignorance clouding the sensibilities of the occasional traveller.

Himself, Martin has the military stride, straight back and squared shoulders of the crack battalion sar'n'-major. Significantly and appropriately, he was a warrant officer, class one, when he left the army after the war. His uniform coat is buttoned tightly around the high, stiff-starched collar which prods his chin and imprisons his Adam's apple. His polished buttons glitter, his returned soldier's badge gleams, and the "Leading Porter 9" on his cap scintillates. He is tall, hard, lean, strong-jawed, decisive.

He always has been lean. "Thin as a match," he will tell you. There were no silken luxuries, no soft comforts even in the Martin Young upbringing. His father died when he was a boy, and by the time he was nine he had become the family's juvenile breadwinner. He went out as a precocious shepherd, watching sheep on the old Rosehill flat outside Ballarat. A wind-swept, unsheltered spot it was, and young Young was drenched to the skin there in the winter more times than he cares to remember.

He brought home his first railway pay in 1900 (two shillings a day), having joined up at Ballarat as a lad porter. Two questions the selectors asked him.

Are you strong, my lad?" and "Could you lift a bag of wheat?" Martin said "Yes sir" and "Well, I've never tried," and automatically passed into the big Ballarat yard to number-take. There he spent his six months' probation, and there he had drilled into him *inter alia*, the paramount importance of seeing that the shunters got their morning and afternoon tea regularly. So much so, that when District Superintendent Pearce, putting him through his probationary paces, asked him the hoary old query "What is your first and most important duty?" Martin declared seriously and immediately, "To boil the billy for the shunters, sir."

In turn, Martin saw service in the Ballarat lamproom, in the Ballarat parcels office, and on the Ballarat barrier. He went out relieving at woman-in-charge stations like Blowhard, Waubra and Smythesdale. But his true *metier* remained undiscovered. The depth and potentialities of his slumbering voice were as yet officially unplumbed. Until one day District Superintendent McTaggart overheard him out in the yard calling someone half-a-mile away. The ascetic McTaggart marvelled at the crisp, clear, effortless hail, with its meticulous aspirates and rolling r's. He was as one from whose eyes the scales have fallen. Or should it be ears? He called Martin to him . . . . . .

That same week, Martin Young stood beside McTaggart on the overhead bridge at Ballarat station at the height of the annual Show traffic, and, in his best deep-chested manner, interpreted his chief's progressive instructions to the train docking and shunting staff at the far end of the crowded platform. The Martin Young lungs had found definite expression.

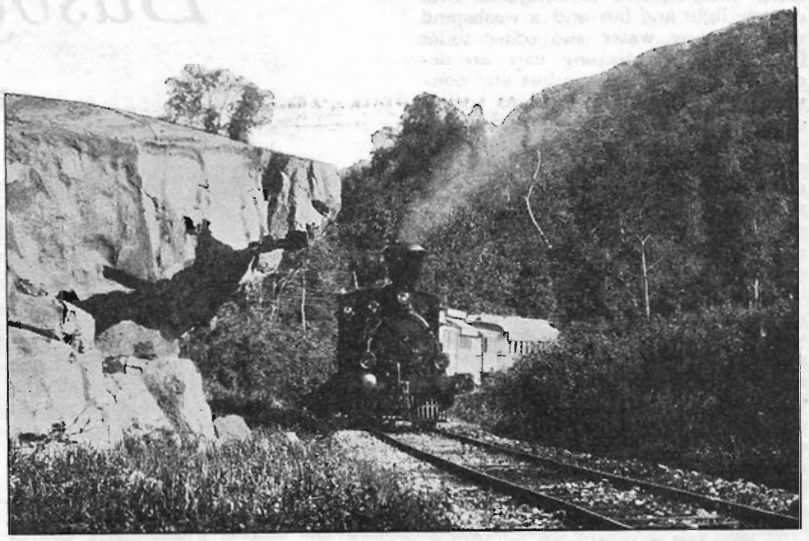
Down the years since then they have retained and developed that expression. For 18 years now Martin Young has been head-portering show traffic throughout the Western District. He takes control of the augmented platform staff at the show station, directs passengers, answers questions, announces train departure times, helps, organises, disciplines, advises. He uses his voice, uses his head, uses his hands, uses his feet, and uses his voice again. His voice must have floated above the din and tumult of railway traffic at as many as 250 country shows. He has been head porter at Stawell for the last five Gifts. He goes to Ballarat to direct, advise and use his voice on the platform at the big annual railway picnic.

Officially and sartorially, Martin Young is a leading porter. Vocally and encyclopaedically, he is the Western District's Man in Grey.

What brand of Cigarettes do you smoke?

I dinna ken. I'm tae polite to ask.

The Railways of Siam



Typical Siamese train

SIAM, with an area of 195,000 square miles, has a length of approximately 2,700 kilometres (1,700 miles) of railway, and about 400 additional kilometers, are under construction. The tracks are of both the metre and the standard gauge (4 ft. 8½ ins.), but conversion is taking place to the metre gauge. The Railways are government owned and operated, Prince Purachatra, who visited Australia a few months ago, being the Minister of Commerce and Communications.

The staff, totalling approximately 14,000, comprises 34 Europeans, 10,700 Siamese and 3,000 Chinese. The system is divided into ten services (branches) as follows: Central administration, technical office, legal branch, construction, maintenance, mechanical, traffic, accounts, stores and hotel service.

Capitalised at £12,336,000

The capital invested in the railways amounts to 160,000,000 ticals, or £12,336,000, a tical representing 1s. 6½d at the par rate of exchange. This is equal to an average cost of 62,000 ticals per kilometre or £7,691 per mile. A typical year's revenue is approximately 16,000,000 ticals or £1,234,000, the nett receipts approximating 10,000,000 ticals or £800,000.

For this revenue, 6,000,000 passengers are carried, and 1,155,893 tons of goods and 324,849 head of livestock hauled. The rolling stock consists of 143 locomotives, 340 cars and 2,427 trucks. The vacuum brake is standard on all truck stock.

There are approximately 340 stations, Bangkok taking pride of place. No fewer than 465,000 tickets were sold at Bangkok last year. On the goods side, 114,796 tons were forwarded, and 475,689 tons received, while 2,740 head of live stock were forwarded, and 212,071 head received.

The hotel service conducts three excellent hotels, two in Bangkok and one at Hua Hin-on-Sea, the most notable seaside resort in the Malay Peninsula. The hotels in Bangkok are Phya Thai Palace and the Railway Terminus Hotel. The latter hotel was opened in November last. The Phya Thai Palace was formerly a royal residence of King Rama VI. It is large, spacious and comfortable, and is claimed to be the largest and most up-to-date hotel east of Suez. In addition, rest houses are conducted at Chiengmai, Lampang, Aranya Prades, Petchaburi, Chumpon, Tung Song, Haad Yai and Singora. The restaurant cars also come under the control of the hotel service, which is managed in a most up-to-date manner, and is headed by an efficient staff trained in America and on the Continent.

Publicity

Publicity and advertising are handled by the Information Bureau at Bangkok, which advertises locally and abroad, and renders assistance to tourists to Siam, the duty of the Bureau being to encourage visitors to Siam in every possible manner. Guides and interpreters are furnished when required.

The rolling stock is both of the four wheel and bogie types. The express trains are equipped with all bogie

carriages. The sleeping cars are very much similar to the American Pullman compartment cars. Each car is divided into six compartments with two berths, one upper and one lower. Each compartment is equipped with electric light and fan and a washstand with running water and other toilet facilities.. The sleeping cars are designed especially for comfort and convenience, and can be used as sitting cars while travelling by day.

Free quarters are provided for most employes whose duties compel them to stay away from home, and also for those who may be called on to perform their duties at any moment. There is also a Railway Club at Bangkok for all employes and officers.

Most of the lines are single track, and all trains working between stations are worked on the "absolute block" system. Electric tablet instruments are installed in some sections of the line. In consequence of the number of the derailments due to careless handling of switches in station yards, a device to interlock the points with the signals has been adopted and gradually installed at stations where traffic is at all heavy.

Safety First

The railways take every precaution to see that the principles of "Safety First" are strictly adhered to. In this connection, it is interesting to note that the comparatively high figures of 19 trespassers killed and 16 injured in one year are attributed to the opening up of new lines and the strangeness of the railway to the inhabitants. It is contended that numbers of country people use the railway lines to walk along and, at nightfall, make themselves comfortable (?) on the line using the rails as pillows.

The railways of Siam are in the happy position of having no road traffic competition. Roads are constructed as feeders to the railways instead of running parallel to them. Three motor omnibuses, five motor lorries and four motor cars are operated by the hotel service branch.

A BRIGHAM YOUNG LEG-ACY?

THE Union Pacific Railroad recently hauled the first straight carload shipment of hosiery and lingerie ever received in Salt Lake City, the Citadel of Mormonism. It contained 7,613 dozen pairs of silk hosiery and 280 dozen pieces of lingerie, valued at 123,000 dollars (£25,000).

CORRECTION

Undetected, an error crept into the July issue of the V.R. Magazine. In the article "S. 300 Will Save Thousands," the A2 locomotive's tractive effort was shown as 29,000 lb. Actually its tractive force, at 80 per cent. boiler pressure, is 26,000 lb.

Busby's Chance

By C. V. TREGELLAS

PERHAPS you've never heard of Busby. John Busby I mean. The little man with the pottering ways, the whiskery face and the much-patched trousers. But you've all heard of *some* Busby, or maybe his name was Smith or Jones, but the characteristics were the same. The same sort of fool with the same idea that he was really a better man than anybody else, and only wanted a chance to prove it.

Busby was a railwayman. But that was in the days when our railways were less extensive and more appreciated than they are today. If you had taken the trouble in those days to travel to the end of the line that they were pushing out into the North, you might have seen him there pushing his wheelbarrow, plodding along, his head down, doing the only work that he seemed capable of.

For the rest, what he did he did wrongly, and what he didn't do someone was sure to be thankful for. And Busby let it go at that. But that is not to say that he did not think of it.

His mind might have seemed concentrated on his barrow-pushing; yet he was not thinking of barrow-pushing. He was turning things over in his mind and muttering to himself.

"I'm a fool, am I? They think I'm a fool. But I'll show 'em. Just wait till I get a chance."

Of course he had a wife. Most fools have. Mrs. Busby was all right as a wife, but as a helpmate and an incentive to better things she was about as useful as a block of wood and a three ton anchor. Her only goad was sarcasm, and on Busby that had much the same effect as a bent pin would on an elephant.

"You!" she would snap. "You call yourself a workman! Why, you can't even dig a hole, but you must go to sleep and fall in it. Why don't you take a grip of yourself. You're a fool, Busby. A big fool."

And Busby would sigh. A long sigh. A sigh that seemed to say: "Oh for those days when a man didn't have to wait for his chance; when he could go out and prove his manhood with his strong steed and trusty lance."

What was the use of taking a grip of himself? He'd tried that. What he wanted was a chance. Just one chance.



Busby . . . threw himself upon the box, beatin

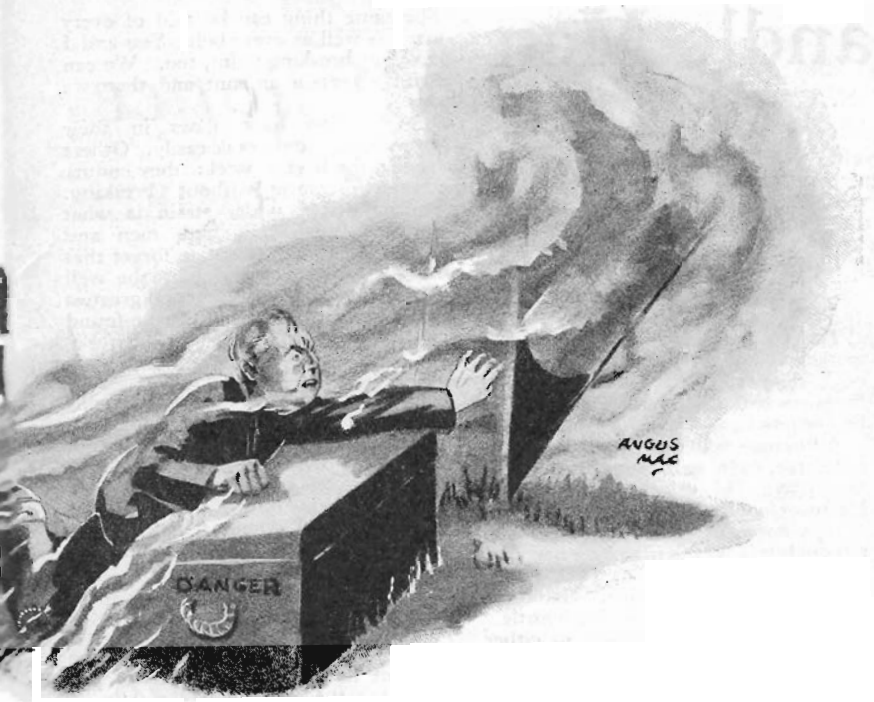
BUT chances are like trams and holidays. You've got to wait for them, and sometimes it seems that you wait a long, long time. So Busby pushed his barrow and waited, and the months slipped by until summer time came as it had never come before.

The line was very nearly finished by then. Right away up in the north of the State they were working on it, and out in that open country the heat took more out of the men than they cared to admit. Busby was there with his barrow, still plodding and waiting and feeling somewhat cheerful; for something seemed to tell him that his chance was not far off.

It was just after they had built a big bridge to take the line across a river that they struck the trouble with the grass-fires. There had been grass-fires all around the district that year, and the men had lost a lot of time in helping to put them out. Then a fire started about a mile from the line and came sweeping right across the plain towards the men.

Down went all their tools, but of course there was very little that they could do. For a while they fought the edge of the flame with beaters, but the wind gave them no chance, and, at last, the foreman saw the futility of it.

"Make for the bridge and let the fire go by," he yelled. "All of you. Out on the bridge."



g out the flames with his bare hands, and using his body to shield it from the fire.

Everyone rushed for the bridge . . . except Busby. Busby lingered. For a while he thought that he might be able to fight the fire on his own and show the men what he was really made of. But he gave up at last with a gulp of disappointment and turned towards the bridge. And he saw a sight that made his heart stand still.

The powder box! There were the men, all clustered on the bridge above the river, and right at the foot of the bridge, already being licked by the flames, was the powder box. The powder box was a red box, much like a ganger's tool box, that was used for transporting quantities of explosives for use in the construction of the line. And there it was in the flames, ready to blow the bridge and men to God knew where! . . . . . .

BUSBY started to run. He ran as he had never run before. His lungs were bursting but his heart was singing, singing. His chance!

The flames were all about the box now, and the bridge was hidden in the smoke and flames. Busby stumbled, but he picked himself up and threw himself upon the box, beating out the flames with his bare hands and using his body to shield it from the fire. His clothing was alight and the smoke was blinding and choking him. He was reeling. God! would the fire never pass? He staggered again, and as the last of the flames swept by, and the cool air struck upon him, he collapsed across the box.

WELL, they got him to an hospital . . . somehow. After the doctors had wrapped him in yards of bandages and shaken their heads over him, Busby moved again and tried to see through the bandages that covered his eyes. The Superintendent came in hesitatingly, his hat in hand, and sat beside the bed.

"Feeling comfortable now, John?"

John Busby would have smiled, if he could.

"I saved them, didn't I," he whispered.

The Superintendent looked down at his hat. "Yes, John. You saved them. You're a hero. A real hero."

Busby struggled in the bed until he had cocked himself up on one elbow. His head was pushed forward as if he could see through the bandages, as if he could see something that no man on this earth has ever seen.

"Do you think a fool could do what I did, sir," he asked. "Do you think he could?"

"No," said the Superintendent. "It takes a man to do things like that." Busby dropped back upon the pillow. The bandages about his face twitched in what was really a smile, and he muttered.

"What's that?" asked the Superintendent, leaning over. But all he heard was: "I'm a fool, am I. They think I'm a fool."

"No, John," he said. "We didn't think you were a fool."

But Busby was not listening. He joined the League of Heroes in a far away land.

STILL, there's a little white stone that stands upon a green patch beside those lines that join the north and south, and the inscription proclaims him a hero for all the world to see.

Which says much for the understanding of the Superintendent and his men; for all the powder box contained on that eventful day was a broken shovel and a pair of trousers that some workman had long since thrown away.

WHERE PIECEWORK IS PREFERRED

WRITING from America by the last mail, Mr. R. G. Durston, a Victorian railwayman, now with the Pennsylvania Railroad, describes working conditions at the new locomotive erecting shop at the Company's Altoona Works:—

"For the locomotive work," he says, "the shop staff is organised into gangs, each one class of gang under the control of a gang foreman, and attending to only one section of work. For instance, there are the track gang, valve and link gang, stoker gang, steam pipes gang, etc. I spent two or three days with each gang and was thereby able to obtain a fairly comprehensive knowledge of the conditions, extent and nature of the repair work. Piece work is almost universal throughout these shops. The men certainly work hard, though not unduly so, and get a high rate of production, and though there are some things that get by that are not perhaps 100 per cent., the quality of work generally is of a good standard, and any discrepancies that may be evident are due, not so much to lack of supervision as to the principle adhered to of getting the engines through the shops and back into service in the shortest possible time. The piece work rates are all set from time studies, the basic rate set at 10 per cent. above the prevailing day work rate for that class of work. The actual earnings average about 20 per cent. above the day work rate. The morale in the shops is very good, the men appear well satisfied with conditions, and undoubtedly prefer piece work to day work."

Incidentally, Mr. Durston makes special mention of the excellent treatment he is experiencing with the Pennsylvania Company. "Everyone," he says, "spares no effort to assist us in every possible way to obtain the desired experience and information. We feel we could not have had better opportunities anywhere."

How To Handle Men

By HERBERT N. CASSON

"EVERY worker has the right to efficient leadership," declares Mr. Casson in this article, reprinted by courtesy of Forbes Magazine, "and there is no more important fact than that output and quality depend more on management than on anything else."

Leadership versus dictatorship is the theme of his discussion.

MANY foremen have the wrong idea of leadership. They think a leader must be an autocrat. They are all for authority. They are dictatorial. They become unteachable and arbitrary. This is a great mistake. The old way of managing men has failed. It is not enough to crack the whip and to "raise hell once a month."

Every worker has the right to self-respect. He must not be degraded nor discouraged. He must be handled in such a way that he can make the best possible use of his own abilities, both for his own sake and for the sake of the firm.

There are just two varieties of leadership—leadership by co-operation and leadership by will-power. Both varieties may lead to success, but the quickest, easiest and best way of succeeding is to co-operate with other people, not to rule them.

All ruling and bossing is dangerous, because it creates friction and opposition. Every dictator, sooner or later, is beaten down by the law of retaliation.

Why, then, do men plan and strive to become dictators? Usually because they do not know how to organize and because their jobs are too large for them.

Management and Manners

When a man is overwhelmed with his job, he is obliged to bluff his way through. He does not want to confess his ignorance. He is not wise enough to ask for help. So he gives orders. He becomes a dictator.

This is true of all sorts of men. It is true of cabbies and of kings. The less we know, the more we bully.

The less a man knows, the less he wants to learn and the more he wants to swank.

We can never get entirely away from dictatorship, either in manufacturing or politics or anything else, but the less the better. Authority, after all, is like anger. It is necessary. It is indispensable in emergencies. But the more competent we are, the less we need to use it.

A good many foremen are beginning to realize that it is a large part of management to be courteous to their workers. Good management means good manners.

To have authority over a roomful of workers does not mean being a bully or a shouter. In fact the man who becomes harsh and rough as soon as he has power, is not fit for his position.

A foreman is in very many ways like a referee. He must give his people fair play. He must prevent fouls. He must enforce the rules.

It is not easy to be a good referee, although it is very easy to be a bad one. A referee must have his eyes everywhere. He must notice. He must run the game correctly by his whistle.

He must not be opposed to either team. He must not play favorites. Without a referee, there could be no game at all. That is a fact that many players forget.

It goes without saying that a foreman must above all things have control of himself. He must not be temperamental.

"Look out, lads, the boss has a fit on this morning." How often you hear that in mills and factories. Even foremen, patient long-suffering foremen, have fits once or twice a year. No doubt we all do, and you may have noticed that having a fit never does us any good. It costs us money. Worse still, it costs us friends and it costs us output.

Business and Opera

Business is not grand opera. Often, business is tragedy, but we must try to avoid being tragedians.

Temperament is, usually, an excuse for lack of sense and self-control. It is temper, not temperament.

Fits and outbursts of temper are destructive to the organisation of any business. They are like sand under the hood of a motor car. They create friction, ill-will, disloyalty, bad work, loss of profit. The remedy for temperament is to take business in a sporting spirit, to take it as a game, and not as an ordeal.

Recently, in a testing laboratory, I saw a number of bolts tested by a powerful press. Some bolts snapped at once, showing flaws in the steel. Others stood a fair strain and then collapsed. A few stood a terrific pressure before they yielded and broke.

Every bolt has its breaking point, and the only way to find out is by test. The same thing can be said of every man, as well as every bolt. You and I have our breaking point, too. We can stand a certain amount and then we snap.

Some men have flaws in their temperament and break easily. Others are like the best of steel: they endure terrific pressure without breaking. To stand up under strain is what tests the quality of both men and bolts. All of us are apt to forget that every employe has a right to be well managed. That is his first and greatest right, and no other right can be found to take its place.

Real Leadership

Every worker has the right to efficient leadership. And there is no more important fact than that output and quality depend more on management than on anything else.

It is an easy thing to blame the workers. They cannot tell the directors what the trouble is. Anyone, if he is mean enough, can call the workers hard names. He can libel them without any fear that they will hire a lawyer and prosecute him.

But what good does it do to blame the rank anf file? If a battle is lost we blame the general, and rightly, if the defeat could have been prevented. If a ship goes on the rocks, we blame the captain, not the crew. Not even if the crew has mutinied can the captain escape his responsibility.

Just as ill-used iron develops rust, and ill-used wood develops rot, so every ill-used body of people develops a Lenin and Trotsky.

There are some industries in which bad management has prevailed for generations, and where there has never been good feeling or good conditions.

There is only one real solution, and it is neither quick nor easy: Give the workers good management. Give them the competent, kindly, man-to-man leadership to which they have a right. Deal the cards fairly. There you have the solution in four words.

A certain very competent plant manager has written out the following questions, by means of which a foreman can measure his ability to handle men.

If you can answer "Yes" to at least nine or ten of these questions, you can claim to be an efficient manager of men:—

1. Did you ever deliberately decide to break yourself of a habit, and succeed in doing so?

2. Do you control your temper and not fly off the handle when things go wrong?

3. Are you usually cheerful and free from grouchy spells?

4. Do you think for yourself and not let the opinions of others unduly influence you?

5. Do you keep your head in an emergency?

6. Do you remain calm when your own mistakes are pointed out to you?

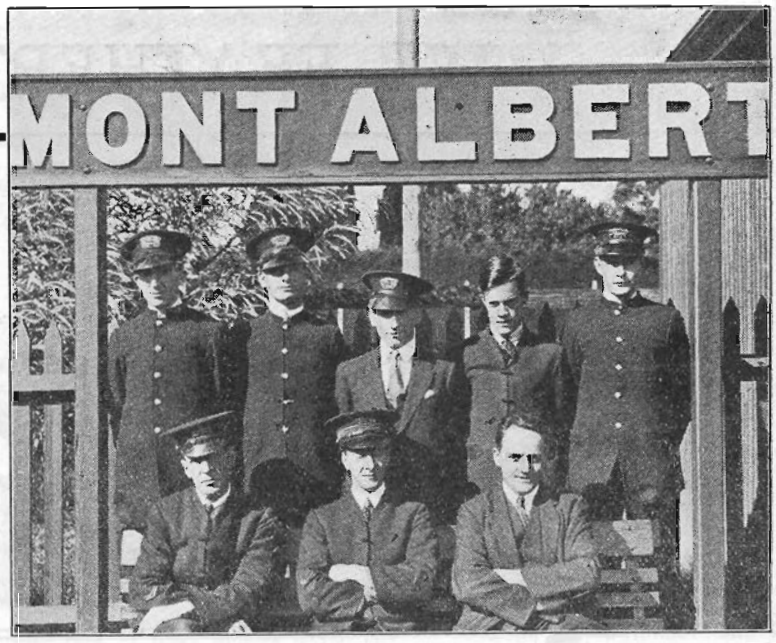
7. Do your men respect you and co-operate with you?

8. Can you maintain discipline without

Concluded on page 45

Railway Outposts

No. 3—



The station staff

DOTTED round, and sometimes far-flung from, the larger centres of railway activity in Victoria are the seventh, eighth and ninth class stations that feed in revenue as the watchful outposts of an army feed in intelligence to the main bodies they protect. This series of articles will attempt to summarise the work of a few of these essential railway outposts.

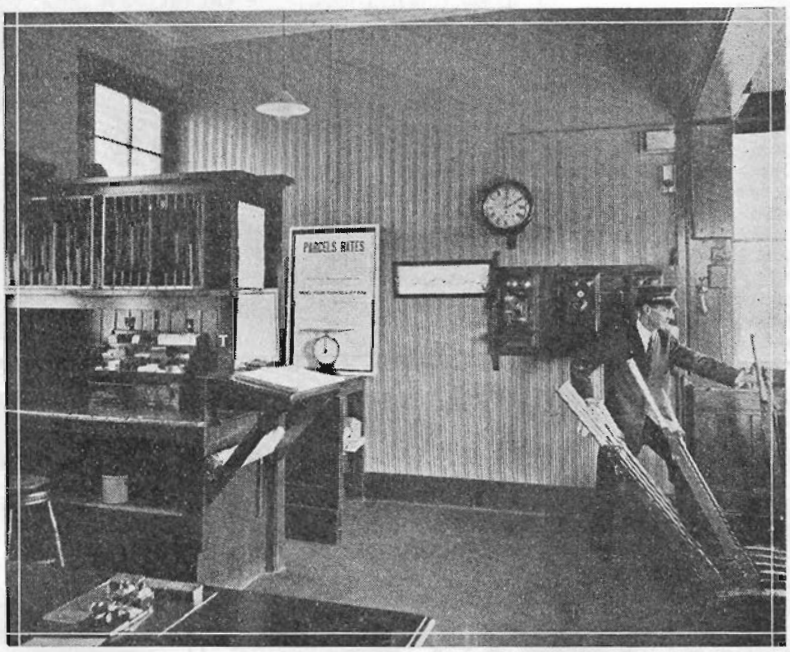
IN 15 months Mont Albert—the neat little 8th class station which crouches on a curve midway between Surrey Hills and Box Hill—has been visited by traffic inspectors thrice. And Station-master George John Bayley has reigned at Mont Albert for 15 months. The natural interpretation of that untroubled term of office being that S.M. Bayley has a reputation. He has.

He has a reputation for cleanliness and tidiness which is mirrored in every spotless window pane at Mont Albert, reflected in every shining tap handle, and emphasised in the bold black border which sets off his station posters. He has a good staff and he gets on well with them. They know exactly what they have to do, and S.M. Bayley knows that it will be done.

That confidence means a lot at any station, but it has special significance at Mont Albert, which, unlike most suburban stations, is equipped with a minus quantity of signalmen. Block work falls to the lot of the station staff, the station being switched in on week days from 6 a.m. until 11.50 a.m., and from 4.35 p.m. until 7.35 p.m., and on Saturdays right through to 3.15 p.m. This responsibility—78 Up and Down trains are worked through the station in a normal six-hour morning—prevents the S.M. and his assistant from exercising as much personal supervision as would be possible at a station sheltered by a signal-box.

Moreover, outside station activity has been supplemented recently by horticultural extensions on the street side of the Down platform. By the united efforts of the S.M. and the local progress association secretary, a strip of unused ground which constituted a convenient tip for rubbish scraps, jam tins, bread crusts and wind-blown papers has been reclaimed, laid out with shrubs and encouraged to blossom more or less like a rose.

Bayley improvements, however, have a wide ambit. They are not restricted to garden decorations. The S.M. has even contrived to improve on the Department's very comprehensive and useful graph-recording system. Slipped between the leaves of his passenger, revenue, salaries, ticket collection and other separate graphed pages are comparative statements showing the itemised fluctuations of the different records from month to month. The additional information proves very handy for inspecting officers and relieving Station-masters. Mr. Bayley, who has worn an S.M's cap for a decade, has been compiling these comparisons since the graph system was introduced, and holds several commendatory references from District Superintendents who have seen and appreciated the idea.



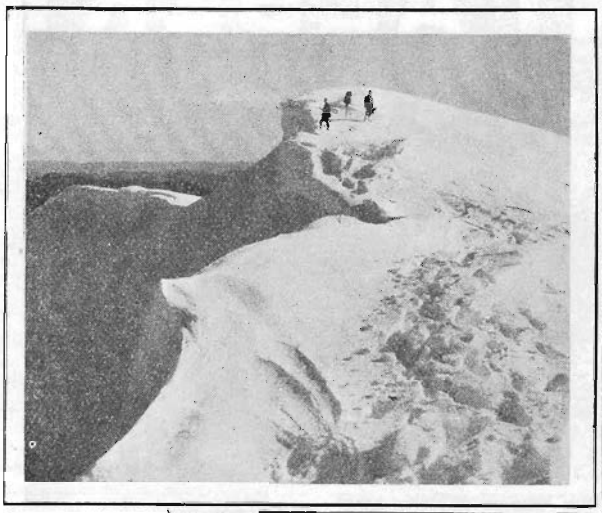
The station office

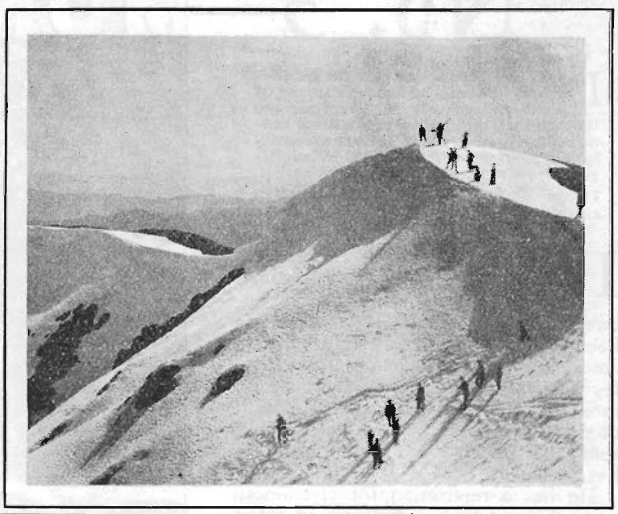
Only a trifling idea, of course; but then individually most ideas of that kind are trifling. It is their collective influence which, in the long run, spells the difference between efficient and slip-shod methods, pride in the job and the "oh—that'll—do!" spirit.

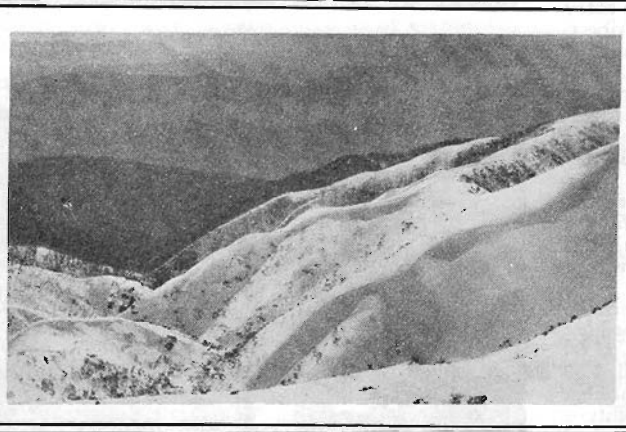
Mont Albert knows that.

Where to Spend a Holiday

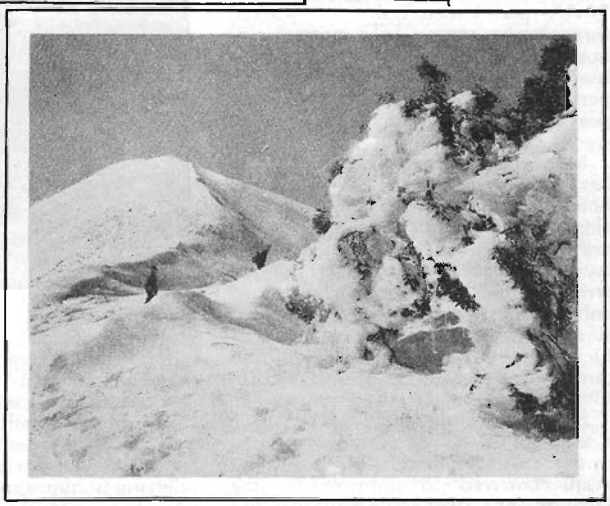
MT. FEATHERTOP











Winter sports are guaranteed during July, August, and September and sometimes October at Mt. Feathertop, among the Australian Alps. The Bungalow, two miles from the summit, was recently bought by the Railways Department, and is being run in conjunction with The Chalet at Mt. Buffalo. It houses comfortably and cosily 24 guests and is equipped with electric light, hot and cold water and sports gear.

UP-COUNTRY

As Recorded by Railway District Superintendents

Exceptional Season for Gippsland Butter Factories—Lower Beet Sugar Output—Footballers Use Railways More—Mildura Citrus Traffic Begins—Murray River Traffic Opens—Corio Bay Shore Improvements —Lambing Above Average.

GIPPSLAND

THERE is every prospect of a bountiful season in this district. Pastures have kept up remarkably well owing to early rains while the ground was warm. Butter Factory Managers agree that the exceptional season has enabled them to continue butter making for a much longer period than hitherto.

The 1928 beet season at Maffra, just closed, was on the whole very satisfactory. No less than 17,032 tons of beet were received by rail at Maffra, and 10,094 by road, making a total of 27,126 tons treated at the factory. The sugar output was 2,352 tons. To enable the factory to deal with this quantity of beet, 18,000 tons of slack coal, 981 tons of briquettes, 145 tons of coke, and 1,523 tons of lime rock were used. The sugar content of the beet reached a lower percentage than in former years, owing to excessive moisture. The cut worm pest was also much in evidence during the early growth stage.

In the Briagolong District, pig breeding is becoming popular, the large White Yorkshire type being most favored.

The inauguration of the new time table which provides for the accelerating on the main Eastern line of both up and down trains, is an unqualified success. The 40 minutes earlier arrival in Melbourne has given great satisfaction to passengers. Difficulty was expected in running trains on time to the faster schedule. The percentage of trains arriving at their destinations on time has certainly been lower than in previous months, but 95.01 per cent. for passenger, and 97.04 per cent. for mixed trains, for June, is considered very satisfactory under the faster schedule.

BENDIGO

THE season has been very favorable for graziers, and stock are in good condition. The wool season promises to open early, and to eclipse all previous records as regards quantity. The lambing season is stated to be very satisfactory.

With a little rain in the spring, the north will be assured of a record wheat harvest, the acreage under crop being far in excess of all previous years.

The river traffic has opened at Echuca Wharf, and the first boat departed on July 10 for Hay and all river ports.

During June, another type of rail motor—the "Brill"—was tried out on the Deniliquin line, with very satisfactory results. In conjunction with the petrol-electric car, a reduction in the overall time of the service is considered practicable. Amended time tables are now under consideration. There is a general consensus of opinion that each of these motors is the last word in motor transport, and they have greatly assisted to popularise rail travel.

All the football clubs in this district are patronising the railways this year, and the results so far have been very satisfactory. The cheaper football fare is highly appreciated, particularly as no effort is spared to bring the specials in sharp to time at the various destination.

MARYBOROUGH

THE citrus fruit traffic from the Mildura district has commenced, but owing to recent heavy frosts, the yield is expected to be approximately 10 per cent. less than originally anticipated.

As a result of the excellent rains, the crops throughout the whole district are in excellent condition, and with seasonal falls during September, a wonderful yield should result. Prospects were never better.

Construction work has commenced on the Nowingi railway line. A survey party is doing examination work in the districts to be served, and it is expected that the land now being opened up will be supplied with water from the Millewa system of which the main pumping station is at Lake Cullulleraine. So far as stock and domestic supplies are concerned, this system will be the largest in the world. There will then be more than 1000 miles of channels. Thirty-five miles of railway are to be constructed from Nowingi, and this will add about half a million acres of land to the area already watered from Cullulleraine.

Traffic on the River Murray has begun. The s.s. Gem recently made its first trip from Morgan, South Australia, and on June 14 the s.s. Marion commenced the Swan Hill run.

For some time past the gravel and sand of Jackson's Creek, Gisborne, has attracted the attention of concrete pipe and box culvert makers as well as builders. Recently still closer attention has been given to the matter by manufacturers from elsewhere, and it is now anticipated that concrete works will shortly be added to the town's activities.

GEELONG

THE agricultural and pastoral outlook still continues favorable, and a good season appears to be assured.

Extensive improvements are being effected to the foreshore, which, when completed, will add to the attractiveness of the beaches at Geelong, which are becoming more popular and attracting an ever-increasing number of people each year.

The automatic system of signalling between Newport and Manor is working satisfactorily, and the completed system will be in force between Newport and Geelong at an early date.

The Upper Barwon storage scheme, which will supply the Bellarine peninsula and augment the Geelong water supply, is in full swing and employing a large number of men. When completed, a good supply of water should be available at all times.

SEYMOUR

A LONG period of warm sunny days and frosty nights has furnished ideal winter conditions, and the light but general rainfall has had a beneficial effect upon the coming wheat crop, both as regards the early sown crops and seeding now in progress. Farmers generally were never more optimistic, and the prospects of a profitable yield have been still further enhanced by the poor harvest outlook in the United States and Canada.

Progress reports disclose that while some losses have been sustained through the cold in the hill country, the lambing generally is above the average. The sheep are in splendid condition, and an increase of at least 20 per cent. is assured in the wool clip in this district.

So far as the 1927–28 fruit crop is concerned, it is interesting to note that

Concluded on page 46

RAILWAYMEN of the MONTH

'Help's" Right



THAT forceful personality, Harry Jephson of the Ballarat S.M.'s staff, is the power behind the very useful Ballarat Railway Hospital Auxiliary, a body of district railroaders which seeks to assist the Ballarat Hospital in much the same way as its elder contemporary, the Railway Carnival Committee, helps the Ballarat Orphanage. A Jephson brain-wave brought the Auxiliary into existence, and the Jephson secretarial pen and energy have been in vigorous evidence ever since. So far, 470 railwaymen in and around Ballarat have joined the Auxiliary, agreeing to pay one shilling four times a year into the hospital funds. And 200 workshops men at least are expected to join up almost immediately. The result has been that several fat cheques, including one for £100, have fluttered towards the hospital. Wood chops have been conducted to supply the hospital with firewood, and a potato appeal has been launched to corner a year's supply of potatoes for the institution. Harry Jephson, with Auxiliary Treasurer Cameron, should move on to the hospital committee at the next elections.

Jack Dunn Retires



DOYEN of Victorian Railway guards, kindly, white-haired old Jack Dunn has passed in his green flag at Ballarat after 44½ years' faithful service. For close on 40 of those years he has been a guard, serving under 12 different district superintendents and 30 different station masters. His interests outside the department have been expansive and extensive. For 24 years he has been a member of the Ballarat Orphanage Committee, and he was one of the first members of the philanthropic Railway Carnival Committee which pays in a fat cheque to the Orphanage year after year as a railway contribution. Jack has been president of this Committee several times, and is still treasurer. Then he is a member of the Town and City Mission and the Female Home Committee, an active worker for the local Institute centre, and a sane and stalwart unionist. He will be missed.

Head Office Veteran Goes



AHEAD office man all his career, Bernard Downey retired from the Rolling Stock Branch the other day with 41 years' service behind him. He started in the Transportation Branch, put in a few years in the Stores Branch and then moved into the Rolling Stock. Before he finally moved into retirement, Chief Clerk W. A. Ryan, on behalf of the branch, presented him with a travelling rug and a gold wristlet watch for Mrs. Downey. Rolling Stock Accountant Bustelli and other speakers wished him well.

Afield from Clarkefield

STATIONMASTER Jim Nicholas had been stationed at Clarkefield for six years when the Staff Office decided to send him farther afield last month. Maldon is his new charge, and he looks like getting on as well there as he did at Clarkefield. Locals at the latter place told him how much they'd miss him and his family when farewell speeches were made over a gift silver tea service.

Koo-wee-rup to Retirement

STATIONMASTER Jim Chautem gets a transfer from Koo-wee-rup to retirement this month. He will have put in exactly 40 years on the job on July 27. Koo-wee-rup locals wish him the same kind of luck as he gave them service—the best.

August Birthdays



Mr. Maddern

HAPPY returns of the day to the following railwaymen whose birthdays occur this month. District Engineer Evan Richard of Oakleigh, and Tom Kennedy of Room 2, on the first; Alec. Wotherspoon of Room 1, and Assistant Chief Accountant A. Williams, on the third; Assistant District Superintendent George Rogers of Geelong, on the fourth; Architect H. T. Stanley, and Audit Inspector H. Henley, on the sixth; Acting Chief Engineer of Way and Works J. M. Ashworth, on the 10th; Relieving District Engineer W. O. Brown, and Payrolls Officer D. McCullagh, on the 12th; Officer-in-Charge Charles Corbett of the Melbourne Goods Perishable Shed, on the 16th; W. Hambridge of the Rolling Stock Drawing Office, on the 20th; Train Running Officer A. H. Game, Morgan Hayes of Room 9, Assistant Electrical Engineer R. S. Connolly, and Audit Inspector P. G. T. Osborne, all on the 21st; District Superintendent T. H. Maddern of Ballarat, and Block and Signal Inspector David Beddoe, on the 23rd; Manager Roy Gollan, of the Government Tourist Bureau, on the 29th; and Staff Board Member R. G. Wishart, and Manager Lindsay McClelland of the Dining Car Depot on the 30th.

And Another One



INCIDENTALLY, Cliff Williams, who has been pushing a pen in the Ballarat District Superintendent's office for eight years, celebrates his birthday on August 22. The Williams family always has been a Ballarat institution, and Cliff looke like carrying on the tradition. His lats

father Tom was officer-in-charge of the Ballarat telegraph office for many years, and brother Rex now dots and dashes regularly in the same office. With the exception of six months in the live stock agent's office, Cliff has spent all his railway career in Ballarat, and as a Mrs. Cliff will probably have appeared on the scene by next birthday, the odds are that the City of Statues will know Cliff as long as it knew Tom.

Two '89 Veterans

WHEN Passenger Guard Mick O'Neill handed in his green flag one fine day last month, he had completed exactly 27 days of his 40th year on the job. He started as a railwayman in May of 1889, was one of the very first railroaders in the State to be issued with a guard's certificate, and ran for years on the Bendigo line. Another '89 veteran who follows him into retirement is Conductor Jack Morrissey of the genial smile and infectious laugh. Jack has been patrolling the corridors of the Adelaide Express for the past 12 years.

Rechristened



A 13 - year - old title was shed by Stores Branch Chief C. W. J. Coleman last month, when he dragged down the ancient sign of Chief Storekeeper outside his office door and erected the more authoritative-sounding one of Comptroller of Stores. The rechristening ceremony was enacted, incidentally, in Mr. Coleman's 45th year on the job. He moved into the Stores Branch in 1895, with 12 years Transportation experience behind him, and moved up in easy stages as stores inspector in 1903, chief clerk in 1908, assistant branch chief in 1911, and fully-fledged chief in 1915. He went abroad as a member of the first Victorian rail delegation to America, and on his return was a driving force behind the reorganisation of the department's storehouse methods and practice. Dead now as Chief Storekeeper, long may he live as Comptroller of Stores.

Warburton Complex

ENGINE Cleaner in 1884 and Loco. Running Officer in 1922, Harry Collings terminated a long rolling stock career when he retired a few weeks back. For 18 years, he was driver in charge at Warburton, and it took a lot of persuasion to induce him to leave his mountain home for promotion. He made it clear to a little meeting of branch chiefs, who presented him with a travelling rug and a gold wristlet watch for Mrs. Collings, that he was going back to spend the rest of his days in Warburton.

Made Taradale Spring



TARADALE should remember Stationmaster Jack Donaldson and Mrs Donaldson long after the quietly capable S.M. and his popular wife have left the little town. For it was not until their advent, a matter of two - and - a - half years ago, that Taradale really discovered that it possessed a pure bubbling mineral spring as invigorating and as Kruschen-like as Daylesford's best. A vague local rumor attributed the source of the spring to some ancient and noisome mining shaft, but the two new comers drank their glassful with avidity, and came back regularly and consistently for more. The habit spread, and now all Taradale drinks from a spring duly tested and accredited by experts. Present indications are that the S.M. and his wife will not complete a third year at the scene of their mineral discovery. They will move on to a station of increased tonnage, but, as District Superintendent Russell always knows when he has a good man, it is unlikely that they will leave the Maryborough district. The fish in the river at Taradale, at any rate, will be glad to see them go.

When Taradale Had 20 Hotels



THE other local railway head at Taradale is Ganger Ned Nener, a sturdy old battler who joined the Way and Works Branch in 1895, and has pick - and - shovelled all his departmental career. He was born at Taradale in the gold boom days, and remembers when there were 20 hotels around the locality. These days, there isn't a solitary licence in the place. "Although there's plenty of gold up in the hills here yet," Ned maintains. In his time, Ned has pushed a trolley along the permanent way in the Bendigo district, far up in the north-east, and down south on the Beech Forest line. He looks to be settled now at Taradale until the calendar beckons him into retirement.

Millions of Apples

EXACTLY how many doctors Station-master Bill Butler deprived of possible patients, last fruit season, is a problem for a statistician to determine. The jovial Bill sent away from Harcourt no fewer than 200,000 cases of prime apples. The problem may be stated therefore: if one apple a day keeps one doctor away, how many doctors will be kept away by 200,000 cases? Anyhow, whatever the doctor might say or think, Harcourt fruit growers said quite a lot of nice things about railway service in general, and Bill Butler service in particular, at a complimentary smoke social tendered to the S.M. and Fruit Inspector Keys last month. District Superintendent Tredinnick was present, and President Pritchard of the Fruitgrowers' Association made a special point of his hope that Bill Butler would not have to find promotion in transfer.

Snow Education



THE ABC of ski-ing, the DEF of skating, the GHI of tobogganing and the JKL of sleighing will be taught to inexperienced Buffaloites and Feathertoppers, this winter, by Fred Chalwell, of The Chalet staff. His lifelong experience will be placed at the disposal of all guests. Fred was "brung-up" in the snow, and is more at ease on skis than most men are in slippers. He lived at Harrietville in the old mining days, when many of the miners travelled through the snow on skis, and when the mailman carried the mail into Dargo and the outback mountain regions, the same way. And he first skated on Lake Catani 16 years ago. Fred guarantees to teach any person, with a normal sense of balance, how to progress in a perpendicular position on the ice in one day. "And by the end of one week," he says, "I'll make anybody feel quite at home on skis or skates. Of course, if they want to *stunt* on skis, they'll need hard practice for about four seasons." Besides his good oil, Fred will be distributing during the next six weeks or so something like 150 pairs of skis, 100 pairs of steel skates, 200 pairs of snow boots, and ski sticks, toboggans, sleighs and snow capes galore.

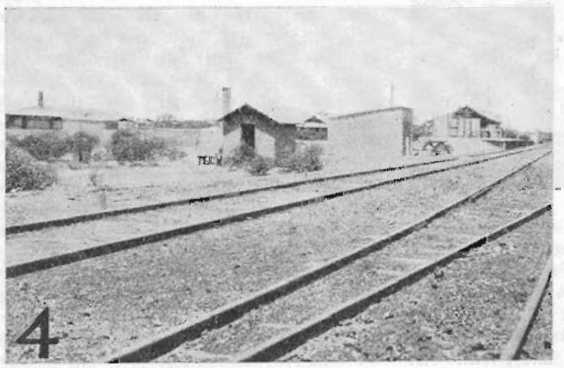
SNAPS ROUND The SYSTEM

SENT IN BY CONTRIBUTORS











1. Ganger Gettings (centre) and his two repairers, Harvey and Hansen, of No. 1 gang, Thurla. 2. In the Benalla V.R. Institute gardens. 3. Nowa Nowa railway bridge. 4. Annuello Station. 5. Meringur Station, the furthest " outback "—393 miles—from Melbourne.



Conducted by REG. HUNT

RAILWAYS SECOND IN WEDNESDAY LEAGUE FOOTBALL

OF their last five matches the Railway team has lost three (one against the Police on protest), and is now second on the list, four points behind the Fire Brigade.

This time last month, Railways were winning so easily that the pennant looked a certainty for them.

Although several good players have not been available lately, on account of injuries and sickness, and the captain (Lovett), by the decision of the Tribunal, has been unable to take the field, this has not accounted altogether for their setbacks. The team is not showing the dash and team-work of its earlier games, but with several good players yet to come in, Mr. Clifford, the Secretary, is still confident of winning the Premiership.

The scores in the last five games are—

June 20—Railways, 14.25 ; Police, 5.16
June 27—Railways, 13.16 ; Air Force, 9.6.
July 4—Railways, 7.7 ; Waterside, 10.13
July 11—Railways, 13.7 ; Telegraphs, 14.12
July 18—Railways, 5.7 ; Yellow Cabs, 2.5

The protest lodged by the Police Club concerning the eligibility of Joe Lovett, and which was upheld by the Independent Tribunal, has caused some keen discussions, and the Railway delegates are not yet satisfied with the decision. I have carefully studied the rules on the point, and am satisfied that the Tribunal has made an error, and that the match should never have been taken from the Railways team. However, as the decision is final and has been declared so by the Victorian League, it does not look hopeful from the Railways point of view.

ASSOCIATION GAMES

Car and Wagon Head List

The first round was completed on 18th July, the four clubs left to play off being, Car and Wagon Shops (first), North Loco. (second), Sandringham Line (third) and Coburg Line (fourth).

The premiership list is as under :—

Team	Mhs pld.	won	lost	Points for	Points agst.
Car & Wagon	10	8	2	1014	353
North Loco. ...	10	8	2	938	354
Sandringham	10	6	4	527	519
Coburg ...	10	5	5	452	532
Flinders-st. ...	10	3	7	472	899
Williamstown	10	—	10	307	1053

The semi-finals and finals will be played as follows :—

July 25th—North Loco. v. Coburg, at Brunswick.

August 1st—Car and Wagon v. Sandringham, at Fitzroy.

August 8th—Winner's play at Brunswick.

As I forecast in the last issue, Coburg Line has shown much improvement, having won four of its last five matches, and being beaten by only 2 points on June 27th, by North Loco. Car and Wagon Shop turned the tables on its old rivals (North Loco.) on July 11th, by 10 points, the same margin as in their first match. The premiership looks like going to one of these teams, although North are somewhat unfortunate in having several of their leading players transferred to the country which, of course, will greatly weaken the side. At present they hold the Commissioners' Cup, and are anxious to retain it. Williamstown Line has unfortunately not won a match, and being much weaker than the other Clubs, forfeited to Sandringham on July 11, and fielded only 14 men against Car and Wagon Shops on July 18th.

There is great rivalry between the leading goal kickers—McInnes (North Loco.) with a total of 89 goals, and Bateman (Car and Wagon Shops) with 80 goals. On June 20th, Bateman kicked 25 goals, and on July 18th 22. McInnes, on July 4th, scored 20, and on July 18th 26. The ball used in the match on June 20th is to be suitably mounted and presented to Bateman, in recognition of his performance. Ryan, Sandringham Line's leading goal kicker, has gone across to the Wednesday League and cannot play in this Association again this year.

Results of matches since the last issue of the Magazine are shown hereunder :—

	20.6.28		
Car & Wagon	34.12	v. Flinders-st	7.6
Loco.	14.13	v. Sand'ham	7.5
Coburg	7.8	v. Will'town	3.10
	27.6.28		
Loco.	3.11	v. Coburg	4.3
Flinders-st.	9.5	v. Will'town	5.7
Car & Wagon	9.8	v. Sand'ham	2.5
	4.7.28		
Sand'ham	11.5	v. Flinders-st.	9.16
Car & Wagon	10.11	v. Coburg	5.4
Loco.	24.13	v. Will'town	1.0
	11.7.28		
Coburg	11.16	v. Flinders-st.	4.3
Car & Wagon	6.6	v. Loco.	4.5
Sandringham walk-over from Williamstown.			
	18.7.28		
North Loco.	33.17	v. Flinders-st.	1.3
Car & Wagon	46.18	v. Will'town	1.1
Coburg	10.17	v. Sand'ham	4.5

COUNTRY COMPETITIONS

THE Maryborough Railways Football Club has been rather unlucky, for in four matches it has been beaten by less than 6 points. Thus it will just miss a place in the "four," which is distinctly unfortunate because the players have shown such improvement lately that they are now considered the best side in the Competition. Lin Chapple, the coach, has done wonders with his young players. Joe Symons (late of Room 148) is taking a great interest in the team, and is now treasurer, delegate and goal umpire. During his spare time he tries to convince the "locals" that St. Kilda could beat the Maryborough League—and he is most likely correct, too.

The Bendigo Railway team competing in the Amateur League is having a successful season, and is now in second position, having lost only two matches. Last season it was beaten in the premiership final by only 4 points, but it won the Silver Cup presented by Mr. R. S. V. Cocking, at the Annual Charity Carnival. This Cup, together with an enlarged photo. of the team, is at present hanging in the Institute. Mr. C. E. Molloy, of the Loco. is Hon. Sec., and is confident that it will go one better this year and win the premiership and the Clock donated by Mr. Gordon Carter.

In Ballarat we have still another Railways Amateur team taking part in local competitions (The First Rate Ballarat Football Association), and doing well too, being only 2 points behind the leaders (Wendouree). The club which was formed in a great measure by the efforts of Mr. Ern Jenner (of the District Superintendent's Office) who is now secretary and delegate, and who had previously been in office with the Maryborough team in the Ballarat League, has for president Mr. T. H. Maddern (Railways District Superintendent), and for vice-presidents Messrs. S. O'Haire and R. McClelland. The results to date have exceeded the committee's most sanguine anticipations, and have demonstrated that railwaymen can, by co-operation, attain in sport equally as much as that for which they are now noted in their daily avocations.

The Maryborough team is now second to Ballarat in the local League competition, and after their performance on July 14th, when they beat this team, should go very close to winning the premiership once more.

Tennis

THE final stage of the Telegraph and Train Running staff Singles Handicap has been reached, and the semi-finalists (Messrs. Block and Hapgood) will play off for the trophy. Both are on the "owe 40" mark, and a keen fight is anticipated.

Boxing and Wrestling

Opinions of Referees

THE V.R. Institute boxing and wrestling finals were decided at the Concert Hall on Friday, June 22, before a large and enthusiastic crowd. A very fine night's sport was witnessed, the whole of the contests being cleanly and vigorously contested. Mr. J. Conlan (Railway Outdoor Superintendent and Vice-President of the Institute) who has been a keen spectator right through the competition, and many other leading Railway officers were present, in addition to as many ladies.

The results are—

WRESTLING

Feather—R. E. Moran d. N. McDonald
Light—R. Kirwan d. P. V. Pawson
Light (novice)—R. Garrard d. J. Entwistle
Welter—J. Lewis d. T. Greatorex
Middle—J. Muldoon d. A. Donnett
Heavy—A. Leserve d. J. Hardwick

BOXING

Bantam—M. Byrne d. R. W. Nance
Feather—J. P. Smith d. A. L. Tanner
Light—J. Owens d. A. J. Kingston
Welter—D. McDonald d. C. O'Hara
Middle—D. Gallagher d. H. H. Richardson
Heavy—L. Bandias d. T. H. Barnes

I am sure the opinions of the two referees, Messrs. Syd Sherrin (boxing) and Frank Adams (wrestling) would be of considerable interest, and they have very kindly sent me a few comments on the competitions.



Syd. Sherrin

"During my long experience in boxing, both as a participant and referee, I can honestly say that this was one of the finest competitions I have ever been connected with. The majority of the bouts were full of interest and the science displayed was a big improvement on the previous two or three years. Each session right throughout the tournament spoke volumes for the management, everything going through without a hitch.

"In the welter weight bout on May 25, a most remarkable incident happened, when, in the second round, both boys' eyes were severely cut, and in the interest of the sport and of the boys, I could not allow it to go on and gave the bout "no decision." I do not remember a similar incident, either in amateur or professional boxing, and no doubt about it, it caused a sensation.

"One of the most scientific lads in the tournament was J. Loughlin, who I doubt is yet 15 years of age. He is the possessor of a beautiful left hand, and I feel certain, with more tuition, will be one of the finest lads who has ever appeared in an amateur ring.

"The final night, June 22, was full of interest and the hall was packed to the doors.

"The bantam final was between M. Byrne, 7.13, who defeated R. Nance, 8.2, on points—a clean clever contest. Byrne held too many guns for Nance but spoilt his work by continually slapping with his left hand.

"The featherweight final between J. P. Smith, 9 stone, and A. L. Tanner, 8.12, was won by the greatly improved Smith in a first class bout. Smith punches with nice short punches but crowds his work a bit too much.

"The lightweight finalists, J. Owen, 9.12 and A. J. Kingston, 10st., provided the thriller of the evening, if not of the series. Equipped with a beautiful left Owens carried the fight to Kingston who was quite willing and made such a contest of it that the big audience was up on their toes with excitement. Although it looked at times as if Kingston would prove too strong, Owens avoided a knock out and won on points. C. O'Hara gave D. McDonald a walk over in the welterweight final.

"The final middleweight between D. Gallagher (Australian Amateur Heavyweight Champion), 11.4, and H. H. Richardson, 11.2, was won by the former on points. Gallagher did not show his true form, but Richardson was a very awkward opponent.

"The final bout of the evening was between the heavy weights, L. Bandias, 11.11 (Amateur Middleweight Champion of Australia) and T. H. Barnes, 14.1, the Police Champion. This was indeed a very fine contest and one of the cleanest contests of the tournament. Bandias is a good two handed boxer and uses his feet very well, and Barnes a fine big fellow who boxes as a thorough sportsman. Bandias with more experience won nicely on points."

Frank Adams writes :

"The wrestling was the keenest that I have ever refereed. Right throughout the tournament the bouts were contested with good knowledge of the art and with a vigor and good spirit, which kept them interesting throughout. Although we missed Tom Bolger, Claude Angelo and Harry Morriss, I venture to say that the wrestling was equally as good as other years.

"In the featherweight division (9.0) there were some interesting bouts, R. Moran defeating Neil McDonald on points. Moran was Victorian Champion in 1927. F. James, B. Nugent and F. Dowdell also put up creditable performances.

"In the open lightweight (10.0) R. Kirwan showed splendid counter wrestling, and showed a decided improvement on last year's work. Pawson (runner up) showed up better in his other bouts than on the last night.

"In the novice lightweight R. Garrard defeated J. Entwistle on points after an interesting struggle. Both boys are splendidly built and display great promise in their wrestling.

"In the welterweight division, the wrestling was high class. Lewis, Greatorex, Muldoon, Selmer and Streckfuss provided stirring bouts in which a good variety of holds were shown. Lewis ultimately winning after a great tussle with Greatorex.

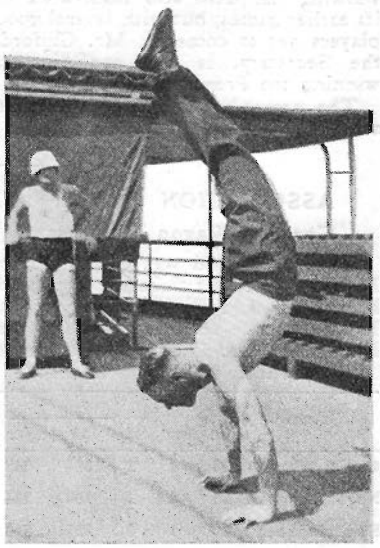
"In the middleweight division (11.4) Muldoon defeated Donnett after the most exciting bout of the series. The wrestling in this bout was not as good as it should have been ; a little too much vigor and not enough attention to real wrestling, which is to place your opponent's shoulder on the mat, if possible. An extra round had to be ordered before a decision was reached, Muldoon winning by a very bare margin.

"In the heavyweight division A. Leserve proved himself to be a star performer—his wrestling was good and method of attack was too much for J. Hardwick, who was Victorian Champion in 1914. Leserve was Australian Champion in 1927, and has a great future before him.

"In conclusion I would like to congratulate the Boxing and Wrestling Councils on the splendid manner in which the tournament was conducted."

Concluded on page 42

RAILWAY OLYMPIANS



Tom Bolger, the Railways champion wrestler, on his way to the Olympic Games at Amsterdam, training on the Naldera. In the background is "Tickle" Whyte, the middle distance runner, also a member of the Olympic team.

In a letter to Mr. Galbraith, secretary of the Institute, Bolger said they were having a good time on the voyage. There was a wrestling mat on board and a swimming pool, but they were only doing light training. At Colombo he gave an exhibition with a police constable, the local champion, but the latter was a poor exponent and easily beaten. The team has now arrived in London and is gradually getting into good form : in some English contests has already met with some success.



By "AERIO"

THE PUSH-PULL GRAMO-RADIO

"AERIO" here describes a set designed to give the greatest possible undistorted output for local radio reception or from gramophone pick-up.

THERE are advantages which accrue from electrifying a gramophone, foremost among which are vastly better reproduction (in many instances reproduction of detail which is entirely lacking in sound-box reproduction, particularly in respect of the latest electrical recordings); complete elimination of needle-scratch; less wear on records (the electrical pick-up being lighter in weight than a gramophone sound-box giving anything like equal results); and easy volume control from a mere whisper to dance-hall volume.

The first essential is an amplifier giving absolute purity of reproduction, and, as the same may be said of any radio receiver worthy of the name, the practice of adapting radio sets for gramophone reproduction as an alternative to radio reception, is becoming popular with radio constructors building quality sets.

Greatest Possible Output

The Gramo-Radio set about to be described is designed to give the greatest possible undistorted output for local radio reception or from a gramophone pick-up. With it results may be expected which will equal those from the highest-priced instrument, providing a good cone-speaker is used and B Battery voltage is maintained at about 120 volts. No high-class gramophone is necessary, as, providing the record is kept turning at an even speed and the tone-arm which holds the electric-pick-up in position works smoothly, nothing more is required.

The more usual grid-leak-and-condenser method of rectification, which is an almost certain cause of distortion in radio reception, has been discarded in favor of anode bend rectification which gives maximum purity and sharper tuning.

Variable reaction is provided to increase sensitivity and selectivity as required, but should be used sparingly, as it is otherwise detrimental to perfect reproduction.

While modern conditions call for a highly selective circuit for use in and around Melbourne, this selectivity can only be obtained at the expense of perfect reproduction, for, as a modulated carrier wave covers a fairly wide frequency band, a sharply tuned receiver will weaken or even cut out the side portions of this band, and the remainder, when rectified, will result in reproduction weak in higher harmonics and top notes. Two tuning circuits are therefore provided in the Gramo-Radio, and a switch S. 1 provides an easy means of changing from a fairly selective tuner covering all local stations (including amateurs) to a comparatively broad tuner giving wonderful reproduction on the A class stations only.

Range

No great range is claimed for the set, but for those desiring reliable reception of Interstate radio stations, I would recommend the incorporation of the V.R.I. Super-booster (described in the June issue of the Magazine) as a high-frequency amplifier which should be screened from the remainder of the set and provided with a separate aerial terminal and rheostat.

A standard 3-coil tuner is employed, consisting of primary (C. 1) 15 turns, secondary (C. 2) 45 turns, and reaction (C. 3) 12 turns wound on a 3-inch former, each coil being spaced ¼-inch from its neighbour. The tuner is mounted in a vertical position at the extreme left of the baseboard, the primary being at the top and the reaction coil nearest the baseboard. Slightly increased tuning range and sensitivity may be obtained with the V.R.I. 3 tuner described in the June 1927 issue of the V.R. Magazine.

The switches (S. 1) and (S. 2) are the push-pull type, but rotary switches with two switch-studs each may be used instead, if desired. Condensers (K. 1) and (K. 2) are the ordinary straight line frequency variable condensers of .0005 and .0003 capacity, respectively. The choke (CH. 1) should consist of a 250 turn honeycomb coil.

The Amplifier

For power combined with purity it is generally agreed that one stage of resistance-capacity coupling and a stage of high quality transformer coupling give the best results. Adequate output with the minimum of high-tension voltage is ensured by using a push-pull stage.

This amplifier is constant for all audible frequencies, so that equal amplification is obtained over the whole frequency band, and bass notes are amplified in their proper proportion.

Resistance-Capacity Stage

As the anode resistance (R. 1) should equal the internal resistance of the valve for efficient amplification, and be capable of carrying a current of several milliamperes without change of value, a 200,000-ohm wire-wound variable resistance should be used. This is mounted on the baseboard, and requires no further attention after once adjusting for best results with the particular valve in use.

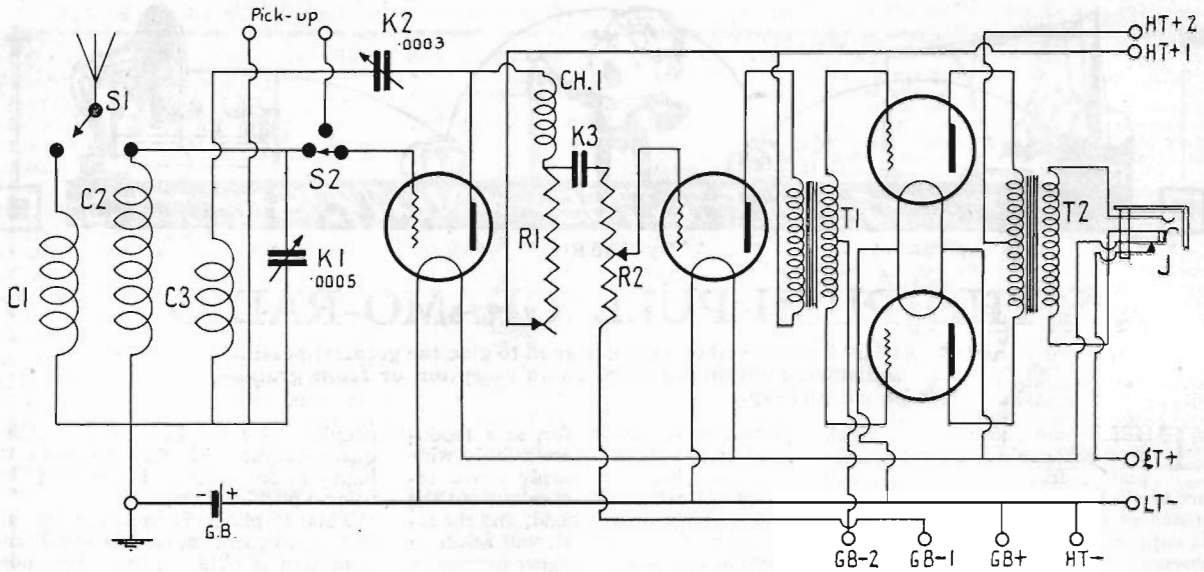
Fixed condenser (K. 3) should be of good quality with mica dielectric, capacity .02 Mfd.

R. 2 is a 500,000-ohm potentiometer mounted on the front panel where it serves the dual purpose of grid leak and volume control from a mere whisper to full output.

Resistance-capacity coupling is capable of responding to very low frequencies, with the result that there is sometimes set up a low-frequency oscillation, usually when a B-eliminator is used, due to coupling between circuits, known as "motor-boating." The simplest way to offset this, when it does occur, is to make the amplifier less efficient at low frequencies, by reducing the grid resistance (shortening portion of the wire on potentiometer) using a smaller condenser at K3 (say .005 or even smaller). This, however, is only an emergency tip and should not be necessary.

Push-Pull Stage

The transformers (T. 1) and (T. 2) are a pair of good quality push-pull audio transformers. Although two valves are used in the push-pull stage, and little more amplification results than that obtained in one good quality transformer system, the push-pull system has much to recommend it, when properly designed and used, as



can be seen from the fact that it is used in repeater stations on long distance telephone lines.

This system is capable of handling considerable voltage fluctuations, and corrects, at the same time, the distortion resulting from the curvative of valve characteristic and irregularity of the transformer characteristic, dividing the load equally between two valves in such a way that one valve amplifies one half-cycle and the other valve the other half-cycle. This system will deliver more volume for a given amount of distortion than any other type of amplifier. Full advantage of the push-pull system cannot be obtained, however, unless its load factor is kept high. Use, therefore, plate voltages of not less than 100 volts; even 150 volts may be used without introducing distortion. A good bias battery of at least 4 to 6 volts negative should be used, although a larger bias battery may be found necessary according to valves used.

The amplifier may, of course, be worked at lower plate voltages, without impairing the quality of the output, but the resultant volume might be disappointing when you consider that an extra valve is being used, beyond the number usually employed.

General Remarks

The jack (J. 1) serves as a filament switch and output jack, and automatically switches on the valves when the speaker is plugged in. No rheostat is provided as 4-volt valves are recommended in conjunction with a 4-volt accumulator. If desired, however, a rheostat may be inserted in the lead between LT + and Jack (J. 1). All terminals are arranged on a terminal strip at the rear of the baseboard. A small grid-bias battery used in detector circuit to obtain anode bend rectification is merely a single 1½ volt cell taken from a flash-lamp battery, and may be wired in the circle, as it will not require renewal for 12 months or so unless used in a very hot and dry climate. Semi-power valves are recommended for the first two stages, and power-valves in the push-pull stage

The pick-up is connected permanently to the set in a somewhat unusual manner, and is brought into use when required by means of switch (S. 2). The volume control supplied with pick-up will not be required. If a milliammeter is available, its hould be temporarily placed in the high-tension positive lead (HT + 2) and grid bias and plate voltages adjusted until the milliammeter gives a constant reading and does not flicker. If the needle does flicker at all, distortion is taking place.

There is one other point to remember: that is, that if there is distortion in the signal currents entering the amplifier, no matter how good the amplifier may be, it is not possible to get good reproduction. The fault here does not lie in the amplifier, but in the associated apparatus. For instance, if reaction is pushed too near the critical point, distortion will result, and this distortion will be passed through the amplifier into the loud speaker. When the term distortionless is applied to an amplifier, it means that it will reproduce faithfully whatever is put into it, and this is particularly true of the Gramo-Radio.

No wiring diagrams, etc., are available, but a suggested lay-out for the panel is (from left to right): switches (S. 1) and (S. 2), condensers (K. 1) and (K. 2), volume control (R2, and Jack (J. 1). If the milliammeter is permanently wired in the circuit it could be mounted near top of panel between condensers (K. 1) and (K. 2), and, if desired, a rheostat mounted directly beneath the milliammeter, near the baseboard, to give a symmetrical appearance to the panel.

SPECTACULAR ENGINE CHASE

A REGULAR movie thriller was enacted by railway police on the Canadian Pacific Railway recently, when they pursued and captured a quartette of young men who had stolen a motor-driven work-car with the intention of making their way to Ottawa. The chase was made in a locomotive. The "desperadoes" decided to seek their fortune on farms in the district of Ottawa. Having no money, they secured a small motor-driven track car and stepped on the gas. They disregarded all signals. As they passed South Junction, some distance from Montreal, a horrified telegraph operator, aware that the boys would run into an oncoming train in a short time, notified headquarters. A locomotive was immediately requisitioned from Outremont yards, and the chase began, four officers accompanying the engine crew. Finding the pace set by the pursuers too hot for them, the fugitives abandoned the little car as they reached Lachine bridge, 12 miles from Montreal, and took to their heels. The policemen, thinking they were up against a gang of bandits, pulled out their artillery and continued the hunt afoot. The chase went on merrily for two miles, until the hunters captured their prey near St. Constant. The work car was removed from the tracks two minutes before a freight was scheduled to reach that particular spot.

Radio!

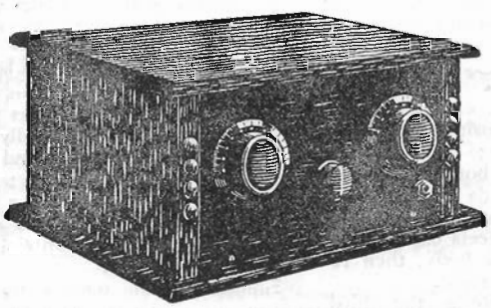
Two Popular Coyle Lines

A Better Two-Valve Set

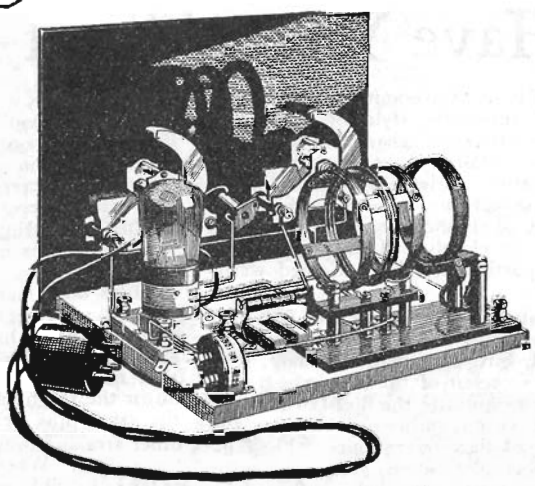
Here's a two-valve set that really is better—comparison will prove it.

It's a set built of the best components—built by men who know their jobs—built to give the utmost sensitivity, selectivity and simplicity of operation.

Local stations come in clearly on a loud-speaker—and the price: **£7-0-0**, brings the set complete with all accessories into your home—see it to-day!



Coyle Two Valve Set—Complete with all Accessories
£7-0-0



Showing wiring of Coyle Short Wave Set

A £6-6-0 Short Wave Set

that picks up World-wide Broadcasting

At Black Rock, Victoria, programmes from stations in the following countries were clearly heard on an absolutely standard Coyle Short Wave Set—YET THE COST IS ONLY **£6-6-0.**

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Its circuit is chosen after careful experiments by the builders, and is of a fixed tickler type with throttle condenser for reaction control, fitted with a Coyle Special Short Wave Kit (which alone costs **35/-**)

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Conducted by EILEEN to whom all communications for this feature should be sent.

Have You a Waist Line?

WE must all admit that the straight silhouette style of frocking is extremely charitable to many figures. Skilfully cut clothes of the semi-fitting variety will cover many slight defects and give to the figure an illusion of slimness, whereas a garment which fits closely will show all the defects, particularly the thickened waistline.

Most women deplore the fact that as they grow older their hips tend to spread, but, as a matter of fact, it is not the region of the hips which first begins to indicate the flight of time, or should we not rather say to show the results of flagging energies. The failure to employ some system of daily exercise must naturally be reflected in the increased girth of sedentary workers, but still more does it thicken the body about what we term the waist-line, writes Janie Jouet in the *Daily Mirror*. This is the part of the body, between the lower ribs and the hips, which has no bones whatever to support it, but is a large muscular area, and everyone knows what happens to muscles if they are not given daily exercise; they usually degenerate into flabby fat in this part of the body. The sedentary worker who is worried about the size of her waist should try these exercises; if very much out of condition, begin by indulging in them for a few moments each evening before retiring, and each morning on rising, and gradually working up until you do them for fifteen minutes by the clock, either night and morning, or for 10 minutes both night and morning.

Stand with feet together and straight, with the arms hanging down at the sides. Bend the trunk sideways so that the hand on that side stretches down the thigh as far as possible; at the same time bend the elbow of the other arm and draw the hand up under the armpit. When you have stretched as far as possible on one side, straighten up and repeat the exercise on the other side. This is a splendid movement for dispersing fat at the sides of the waist and toning up the muscles in that region.

Other Exercises

Another excellent exercise is to stand in the same position, but with the feet slightly apart; turn the body to the left and swing both arms to the left, allowing the hands to meet overhead, and rising upon the toes at the same time. As the heels come to the ground straighten the body, then repeat, swinging to the right.

The following exercise, the third, will disperse superfluous flesh and tone up the front muscles splendidly; try it. Stand in the same position as for the previous exercise, stretch the arms up over the head and interlock the fingers loosely. Now swing the arms forward and then downward, bending the body until the clasped hands pass between the legs; flex the knees just sufficiently to allow the body to bend right down, then swing the arms up again; lift the head well up, straighten the body and repeat.

These exercises will not only improve the figure, but they will tone up the circulation, and thus improve the complexion and general health.

When a heavy article is to be moved from one room to another, place it upon a mat. The mat with the weight upon it can be dragged along quite easily.



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IN THE HOME

To remove ink-stains on white material, cover the mark with plenty of mixed mustard. Allow it to remain on for ten minutes, then wash and boil the cloth. For colored material, warm sour milk is efficacious.

When winding wools, silks or embroidery cottons, fix the labels bearing shade, number, etc., to the reels, or whatever else you are using and wind your materials over them. Then, if there be any need for matching later on you will know exactly where the labels are.

When short of ink, crack up a tablespoon of any of the eucalypt gums—I find ironbark best—put in an empty jam-tin with a little clean water and ten or a dozen rusty nails. Leave till the gum melts a little; shake and bottle.

To remove soot from carpets, sprinkle the part with dry salt, mix it carefully and lightly with the soot and take up with a soft brush; then brush up briskly with a hard brush and rub with a cloth dipped in water containing a little ammonia.

ACCOUNTS GIRLS DANCE

A MOST enjoyable evening was spent by the Accountancy girls and their friends at a dance held in the Institute Hall late in June.

The arrangements were ably carried out by the committee, consisting of Misses D. Falloon (president), A. Russell (hon. secretary), Mrs. P. Blanchard (treasurer), and Misses D. Griffin, E. Thomas, J. Cordwell, M. Peel, F. Dorgan and M. Murphy. Valuable assistance was rendered by Messrs. J. Gleeson, J. Raftis, S. Webb, J. Elliott, J. Furphy, Booth and Watkins. Among the guests was Mr. T. F. Brennan.

Novelty dances were included in the program—the Monte Carlo being won by Miss D. Griffin and Mr. J. Hayes. The railway orchestra, under the leadership of Mr. Renfree, rendered excellent music.

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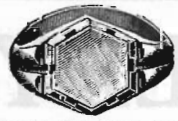
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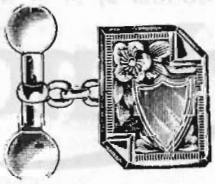


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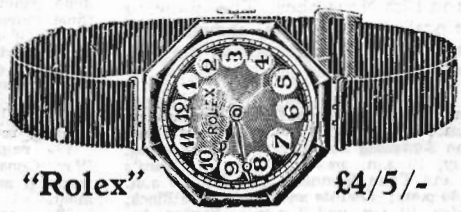
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INSTITUTE JOTTINGS

THE INSTITUTE TIGHTENS ITS BELT

A STORY of careful planning and wise economy is told in the recent circular issued by the council of the Victorian Railways Institute to all members. Faced with a reduction of £3,500 in the Commissioners' annual subsidy, the council is making ends meet by curtailing expenditure, placing social and recreational activities on a self-supporting basis, and increasing charges slightly.

The gymnasium, and the musical, dramatic and orchestral societies are now entirely self-supporting, and the fees of certain classes which the Commissioners are unable to help to maintain have been raised.

A margin of £842 to be found for the library, after a generous allocation has been made from general revenue, can only be covered by a charge of half a crown, levied annually on all members using the library.

The Institute is tightening its belt, but it looks forward with confidence to the future.

NEW FEES FOR EDUCATIONAL CLASSES

ON 2nd July, the second term of the various Institute educational classes commenced. It will conclude on 17th November. The following is the oral class syllabus, showing the times and days of meeting, and the new fees which have been introduced :—

1/- registration fee yearly.—Engine-working and Westinghouse brake, Wednesday, at 7 p.m. ; Thursday, 10 a.m. ; Two and Three Position Signalling and Electric Staff Working, Monday, 10 a.m. and 7.30 p.m. ; Guard's duties and Train Running, Tuesday, 10 a.m. and 7.30 p.m. ; Double and Single Line Block, Thursday, 10 a.m. and 3 p.m. ; Station Accounts and Management, Wednesday, 10 a.m,. and 7.30 p.m. ; and Thursday, 10 a.m. and 3 p.m.

Free.—Telegraphy, Monday and Thursday, 9.15 a.m. till 5 p.m. and 7 p.m. ; Tuesday, Wednesday and Friday, 9.15 a.m. till 5 p.m.

5/- per term.—English course (grade 1), Thursday, 7.30 p.m. ; (grade 2), Tuesday, 7.30 p.m.

10/- per term.—Typewriting, Wednesday, 5 p.m. and 7.30 p.m. ; Algebra (grades 1 and 2), Wednesday, 7.30 p.m. ; Shorthand, Theory, Tuesday, 7.30 p.m. (elementary), Thursday, 5 p.m. (advanced); Speed, Tuesday, 5 p.m., and Thursday, 7.30 p.m.

15/- per term.—Applied Mechanics, Friday, 7.30 p.m. ; Building Construction, Tuesday, 7.30 p.m. ; Electricity and Magnetism (grade 1, first year), Monday, 7.30 p.m. ; (grade 2, second year) Tuesday, 7.30 p.m. ; (grade 3 third year) Friday, 7.30 p.m. ; Tech. Telephony and Telegraphy (grade 1) Monday, 7.30 p.m. ; (grade 2) Tuesday, 7.30 p.m. ; Mechanical Drawing (grade 1) Monday, 7.30 p.m. ; (grades 2 and 3) Wednesday, 7.30 p.m.

21/- per term.—Bookkeeping, Friday, 6 p.m.

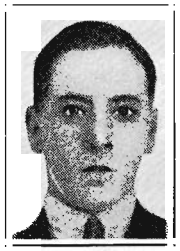
42/- per term.—Accountancy (Intermediate course) Monday and Friday, 7 p.m. ; (final course), Monday, 6 p.m.

Any of these classes, incidentally, will be commenced at any country centre which can enrol 10 or more students. Members' dependents are eligible to attend classes at the usual fees.

Syllabus for correspondence courses for the ensuing term as follows :—

1/- registration fee yearly.—Permanent Way, Construction and Maintenance ; Safe-working, and Station Accounts and Management.

20/- per annum.—Arithmetic, Algebra, English, Shorthand and Driver-Foreman.



Len Wilmot, aged 14, of Ballarat, who won four first prizes, including the under 16 elocution championship, and a second prize for singing, at the recent Bendigo Musical and Elocutionary Competitions. He is a pupil of Miss Winifred Moverley at the V.R. Institute, and the son of Railway Goods Checker A. E. Wilmot.

VETERANS MEET

The Retired Railwaymen's Social Club held its annual meeting in the Institute on July 5th.

An excellent musical programme by capable artists followed the ordinary business of the day.

Mr. Jim Saunders is the occupant of the president's chair for the coming year, and Mr. Maurice Quinn, the capable secretary, had no opponents for re-election. His value is too highly appreciated amongst his big family to think of any change.

Regular meetings are now held in the Institute on the first Thursday in each month. Old veterans of the rail come to chat over events of the 60's, 70's and 80's, and compare the good old days and methods with those of to-day.

NEWPORT LIBRARY EXCHANGES

REVISED arrangements for the exchange of library books at Newport workshops are now in force. By the courtesy of the Superintendent of Refreshment Services, book exchanges are transacted daily in the entrance vestibule of the workshops diningroom during the luncheon hour, when members are attended to by a diningroom official. Books for return to the central library can be deposited in the receptacle provided, and each book should contain a requisition list for desired book or books, with the name and position of the borrower clearly shown.

Continued on page 45

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LAST MILE POST

Safeworking Officer A. Mathieson

SINCERE regret was expressed by all grades of railwaymen at news of the death of Safe Working Officer Alexander Mathieson, an old and valued officer of the Victorian Railways department, which he had served for more than 36 years, retiring in 1916.

He entered the service in 1879, and was progressively promoted to signalman, Traffic Inspector, Block and Signal Inspector and ultimately Safe Working Officer. He was a studious and conscientious officer who earned the respect and confidence of all with whom he came in contact. He was a frequent contributor to various railway journals, and although of a quiet and unassuming nature, was ever ready to help younger members of the staff with his kindly advice.

Inspector W. D. Rees

OLD railwaymen will regret to learn of the death of Mr. W. D. Rees, of Bendigo, who joined the service as a blacksmith, in 1870, with Mr. Ponting, on points and crossing. In 1882 he was promoted to foreman in the newly formed Signal Branch, with Mr. E. Philpott as head, and helped to instal the first signal apparatus erected on the Victorian Railways, the workshops being on the old Lower Level. Five years later, he was appointed Inspector of Ironwork, under Mr. Woodroffe, and his particular work was the supervision of points and crossings from Thompson's Foundry, Castlemaine, also the erection of engine sheds at Ballarat, Bendigo, and Maryborough. He held this position until his retirement in 1893.

He was a busy man, and for some years was a probation officer in connection with the Children's Court. One of his sons is at present Worksmaster at Bendigo.

Sport -- *Continued from page 34*

INTERSTATE RAILWAY GOLF

Hard Fight Ahead for Victoria

THE Annual Interstate Railway Golf Competitions between New South Wales, Victoria and South Australia will be held this year on links to be provided by the first mentioned State. The test match will be played, I understand, at Woolongong on the prettily situated south-east coast links.

Victoria, so far unbeaten, holds the premiership, but a hard fight, to retain the honor, is expected this year.

The arrangements are that the team will leave for Sydney on September 15, where they will be the guests of the N.S.W. Railway golfers until the following Friday.

Members of the Victorian Branch of the Railways Golf Union, who are desirous of accompanying the team, would be well advised to secure their leave about this date if possible.

The next golf dance will be held at the Maison De Luxe, Elwood, in the early part of August.

Mr. W. J. B. Goad, of the District Superintendent's Office, Maryborough, is an ardent golfer, and is vice-president of the local Golf Club. On King's Birthday he finished fourth in the championship event, and accompanied by Messrs. Zimmer and Stevens, won the Small Teams' Event.

RIFLE SHOOTING

THE Ararat Railways Rifle Club held its first team shoot (for 8 men) on June 4th against the Ararat Rifle Club, but were narrowly defeated. On the same day they decided the shoot over 300, 400 and 600 yards, for a trophy presented by Mr. D. Fletcher, with the following results:—Fisher (146) first, and Carpenter (144) and Meredith (144) equal third. During May, A. Payne, with a score of 87, off the rifle, won the Novice shoot over 400 and 500 yards.

THIRTY-FIVE YEARS AGO

Extracts from the Victorian Railways *Gazette* of August, 1893.

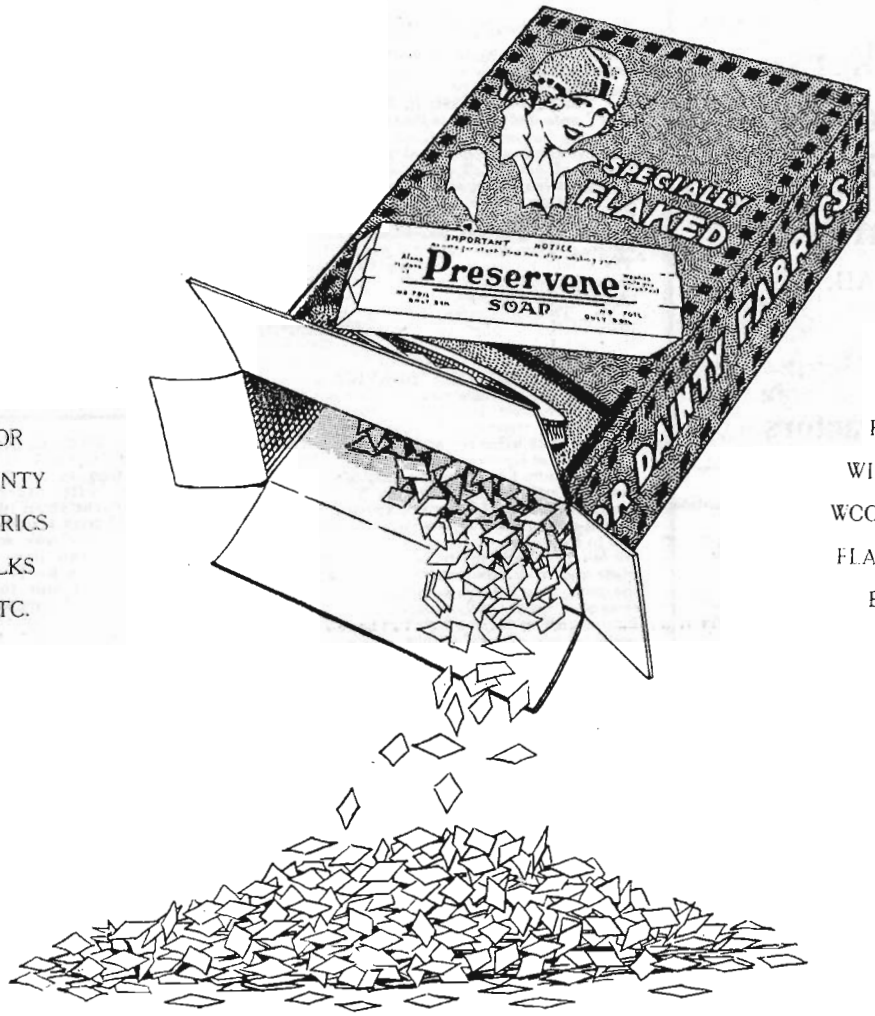
THE register of the engineer-in-charge of railway construction now contains the names of about 2,500 men who are anxious to obtain employment on the Mallee railways. The two lines, from Dimboola to Jeparit and from Boort to Quambatook, will afford employment for not more than 1,000 men, so that the applications for work are very much in excess of the demand.

THE Queensland Government has released Irwin and Jefreys, the unionist prisoners who were sentenced at Townsville to seven years' imprisonment for setting fire to the grass on Lammermoor station during the shearers' strike.

THE newly-formed V.R. band has met with phenomenal success. There is now a membership of one hundred, and the Commissioners have kindly granted the use of the old No. 4 goods shed at Princes-bridge for practice. A portion of this enclosure has been partitioned off to afford security for the band.

IN his budget speech last month, the State Treasurer (Mr. G. Downes Carter) said: "From paper No. 4, it will be seen that our railways from 1853 to June last have cost us £44,675,779 net, of which £34,630,233 was borrowed money, the balance £10,045,546 being defrayed from revenue. They are well worth this expenditure and a great deal more also, from the viewpoints of the good they have done and the substantial asset that they remain. (Hear, hear!) I have had statement No. 3 prepared in pursuance of my oft-expressed opinion in this House that, as a trading business, the revenue and the working expenses of our railways, together with their proportion of interest on our loans, ought to be shown quite distinct from the general revenue and expenditure of the colony." (Cheers).

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RAIL USERS SAY—

LORD MAYOR'S THANKS

THE secretary to the Lord Mayor's Fund (Mr. Hicks) informs me that your Advertising Department has been good enough to undertake to again display some of our posters on the metropolitan railway stations with a view to stimulating an inflow of contributions prior to the end of June, and also to quickening the interest in the Fund generally. I write on behalf of my executive and for myself to say how very genuinely this kindness and service on the part of yourself and your co-Commissioners is appreciated. It is a very valuable contribution to our charities, and as the Fund is the medium for this service, we, in turn, are appreciative of your consideration.
—Sir Stephen Morell, Lord Mayor of Melbourne, writing to the Chairman of Railways Commissioners.

"LOUD IN THEIR PRAISES"

MY wife and son have been spending a holiday in your district. They returned per Sydney Express today and are loud in their praises of your staff, particularly the barrier porter, of his clean, smart appearance, and of his attention to passengers waiting to catch branch line trains—information supplied in a general way re where second class cars would be, etc.,—I am sorry they did not get his name. The conductor on the Sydney Express, whose name they only knew as Bob., was most attentive and obliging also.
—Mr. Thomas Cotter, J.P., 4 Bank-street, Brunswick, writing to the Station-master, Benalla.

COURTEOUS SERVICE

I DESIRE, through you, to place on record my sincerest appreciation for the kindly and efficient treatment I received at the hands of your Station-master at Kyneton.
Arriving at Kyneton by the 4.50 p.m. "down" train, en route for Rochester, an urgent message came through for my return to Melbourne on account of a family bereavement. Your station-master made arrangements for the 'phone line to be held ; personally saw me to his office, got me through to my home by another 'phone, made me most comfortable in his office until the next "up" train came in, and, generally showed a most kindly desire to be of service. I cannot allow the incident to pass without expressing my sincere thanks and appreciation to this officer and bringing the matter under your notice as Head of the service.
—Col. G. H. Knox, C.M.G., M.L.A., writing to the Chairman of Railways Commissioners.

FOOTBALL TEAM TRANSPORT

I DESIRE to thank your officers very much for the courtesy and assistance rendered lately to my league in arranging the details with regard to the transport of the Victorian representative team to Adelaide and Wangaratta.
—Mr. E. Wilson, Secretary Victorian Football League, writing to the Manager, Government Tourist Bureau.

FIRST AID EFFICIENCY

I WAS a passenger to Melbourne to-day on the 12.30 bus from Werribee, No. 144, driven by Mr. Prince, and when about 8 miles on the road we were stopped and asked to render assistance to a man and woman who were imprisoned beneath a large double seater car which had overturned with them in a dam in which there was quite a depth of water. How they were not killed or drowned it is difficult to understand. However, with help, we were able to lift the car and get them out; both the man and the lady were in a very bad way. The way Mr. Prince got first aid outfit and gave them both much help and assistance was a credit to himself. He is a driver of which the Department may be proud.
—Mr. C. W. Tyzack, Werribee, writing to the Railways Commissioners.

EFFICIENT TRANSPORT

WITH regard to the incubator which was forwarded me by the Austral Incubator Company, via the Victorian Railways, I wish to tender you my deepest appreciation for the efficient transport of the incubator which I received in excellent condition, and I also noted the extreme care which was taken by the Department for the above machine. Every praise is due to Mr. Dunstan and his staff for the excellent arrangements they made to ensure its safe carriage.
—Mr. S. Webb, 19 Queen Victoria-street, Ballarat West, writing to the Chairman of Commissioners.

QUICK WORK

PLEASE accept our best thanks for the manner in which truck No. 11,479, containing chaff, Maryborough to Meringur, was expedited. This truck was loaded last Tuesday, and we were very anxious to have it at Meringur on Friday. It reflects great credit on your department that this truck duly arrived at its destination in time.
—Mr. J. B. Grelis, Inspector, Melbourne Timber and Trading Co., Redcliffs, writing to the District Superintendent, Maryborough.

LOST POUCH FOUND

ON Saturday evening, I left a brown suede tobacco pouch on the Ivanhoe station. On Monday morning, at 10 a.m., I called at the North Port station and notified the Station-master, Mr. Greelish, of my loss. He promptly tried to ring Ivanhoe station, but as I could not wait, decided to call later. To my pleasure, and surprise, when I called during the afternoon he handed me my tobacco pouch. I wish to thank through you, Mr. Greelish and the staff at Ivanhoe, for their prompt and courteous attention.
—Mr. E. Anderson, 162 Station-street, Port Melbourne, writing to the Secretary for Railways.

NO TRUCK SHORTAGE

RE haulage of beet from Hillside station to Maffra sugar factory, I, with others, can speak well of the way we were kept supplied with trucks and the help from the railway men with only one line, and live stock loading three days a week.
We say it was to their credit. We read in the papers complaints about shortage of trucks. It was unwarranted and misleading. I was there from the start to finish. It's 40 years, next November, since I took the first load of produce to the station.
—Mr. W. A. Cox, Beet Grower, Hillside, writing to the Chairman of Railways Commissioners.

FARMING TRAIN APPRECIATION

I HAVE been instructed to convey to you the Shire of Bellarine Council's thanks and appreciation to the officials on the Better Farming train for their courtesy to the visitors to the train. The visit has been of great educational value to the district, and it is hoped that arrangements may be made for another visit later on.
—The Shire Secretary, Drysdale, writing to the Secretary for Railways.

STOPPED THE EXPRESS

LAST Monday, I boarded the wrong train at Caulfield. I wanted to go to Bairnsdale where my samples were. Through some cause or another, the Yarram train arrived at Caulfield about the time that the Bairnsdale express was due—8.53. I boarded same but found at Dandenong that I was in the wrong train. I got out and when train had departed I found the Station-master at Dandenong, explained the case to him, and he sent me in to see the Controller, Mr. O'Meara, and they stopped the express and allowed me to get in. I wish to thank them both, through you, for their great kindness as it meant my trip for the week would have been upset.
—Mr. W. M. Delves, 63 St. George's-road, Elsternwick, writing to the Chairman of Commissioners.

SEEN

FROM

THE SIGNAL BOX

It is often the keen eye that looks out from signal box and locomotive, that is responsible for the safety of countless lives. Here, as in all spheres of life, it is

Precision, Accuracy and Sound Judgment

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QUALITY—ACE—CYCLES

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465 High Street, E. Prahran and at 437 Church Street, Richmond

How to Handle Men

Continued from page 26

often resorting to use of authority?

9. Have you ever been selected to take charge of a group of dissatisfied men because of your ability to handle them?

10. Can you adjust a difficulty and still retain the friendship of the person with whom you have differed?

11. Can you get men under you to do things without irritating them and causing them to be resentful of your authority?

12. Are you patient when dealing with people who are hard to please?

13. Can you meet opposition without becoming confused and saying things you wish afterwards you had not said?

14. Can you make and retain friends easily?

15. Do you make it a rule not to quarrel about petty things?

16. When thrown with a group of strangers, do you adjust yourself easily?

17. When interviewing subordinates, do you put them at ease?

18. Are you able to express your own ideas without causing others to feel that you are overbearing or narrow-minded?

A plant is two-thirds human nature. As Stevenson once said: "The greatest engineering is the engineering of men." And a foreman has to handle strong, rough men, not boys nor weaklings.

A foreman is a man-trainer. A foreman rises by training his workers. He must not be jealous of the skill of his men. The more skill the better for him.

Victoria's Biggest Bridge

Continued from page 40

More workmen scramble up the staging ladder on the tower. One carefree individual runs lightly along the top of the left-hand girder. Wire ropes are cast clear. Preliminary bracing work begins. The hammering clatter of the riveter breaks in excitedly. The foreman straightens himself, rubs his hands on his trousers and meets your eye with a grin.

"That's that," he observes.

Institute Jottings

Continued from page 40

DEBATING SOCIETY

During June, the V.R. Debating Society successfully contested its first debate for the new season. On both occasions the V.R.I. team affirmed the subject "That the Action of the State Government in regulating motor traffic is justified." The negative side was defended by the Y.M.C.A. and the C.Y.M.S. So successful were the debates that the representatives of various Societies, who were present, decided to form an association and conduct a novice debate tournament. The first debate of the series will be held at the Institute on July 23. The subject is "That the existing system of protective tariff is in the best interests of Australia."

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is an out-of-date phrase, but the principle holds good, yet there is a better way of saving money than by merely refraining from spending it.

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Save in the modern way. Open a Commonwealth Savings Account and let the pounds and the shillings and the pence work for you.

There is a Savings Bank Agency in every Post Office.

Commonwealth Bank of Australia.

(Guaranteed by the Commonwealth Government)

On The Flying Scotsman—*Continued from page 16*

life trying to catch up, and ended it, so the story runs, in a lunatic asylum. Trying to see the current villages, buildings, counties, pretty girls, and other objects of interest, rushing from one side to the other, book in hand, one eye on the words, the other on the object, we could not even keep abreast of the rushing train, let alone past opportunities.

" . . . . Scrooby (145¾). In this village once stood . . . . magnificent palace . . . . old home Pilgrim Fathers . . . Bawtry (149¾) . . . oh, that's the wrong side of the line . . . blow, missed that now . . . Rossington (151¼) . . . noted for grave . . . king of gypsies. . . ."

We had soup through Doncaster Central (156), Railway Works. Fish at Selby (174¼). Chicken in another county. Sweets at York. Coffee in yet a third county. . . Lunch in three counties, all at once, all the same lunch. . . . " Guess it must have something to do with that fourth dimension they say they can't find," said A.

" Water troughs. Here the engine picks up water as it goes from troughs between the lines," reads A. "By jove, I'm thirsty, old man; have a cider with me."

Back to our compartment at Northallerton, still to the accompaniment of A's reading. . . . Such comfortable seats. . . . Who had said the sun couldn't shine in England?—then what was that warm stuff streaming through the windows? . . . built in 1160 really, how interesting . . . was that so, old man . . . soothing noise those wheels make . . . jove, I feel good, and comfortable. . .

"Edinburgh!" I woke with a start, and kicked A., snoring opposite me. " You don't know what you've missed, old man," I told him, picking up " On Either Side," " but you looked so comfortable it seemed a shame to wake you."

Journey's End

So we gathered our rugs and cushions, our thermos flasks and slabs of chocolate, our hot water bags, goggles, and packs of cards, our memory training course, our books, magazines, and papers, our tobacco and the rest of our luggage, and lastly that highly instructive booklet " On Either Side," and went up the platform for a look at the creature that had brought us 399 miles in eight hours, without pausing for breath. She spat as nonchalantly as she had done in the morning at King's Cross; and the driver spat on his hands and rubbed them with a piece of cotton waste. She hadn't even a smut on her nose—though her driver had. So we said goodnight, and she screamed a greeting to us, and we went up to Prince's-street to see if we could find some pibrochs. We knew that they could be distinguished by the haggis they wore on week days, or the bawbee on the Sabbath; and that they lived on sporrans.

Mileposts I Have Passed

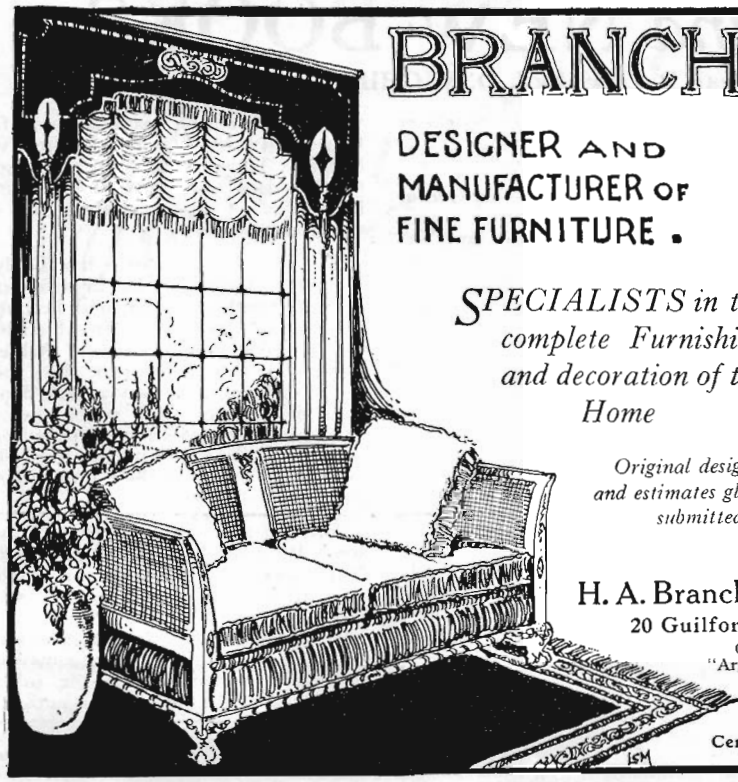
Continued from page 18

Australasian Railways Conferences, and was closely associated with the Royal Commission on Uniform Railway Gauge for Australia. When the Federal Government, in 1922, founded the Australian Commonwealth Engineering Standards Association, I was appointed the Victorian State Representative, and, in 1926, the Association elected me Vice-Chairman, which position I still retain. Some hundreds of eminent engineers throughout Australia are giving their services voluntarily to the work of the Association, and many sectional committees are functioning, for one of which, the Railway Permanent Way Materials Sectional Committee, I am Chairman. In 1926, the Federal Government inaugurated the Australian Commonwealth Association of Simplified Practice on which I am also the Victorian State representative. The government, on the advice of the Commissioners, has agreed to retain my voluntary services after I retire from the department as Victorian State representative on both the Engineering Standards and Simplified Practice Associations. The work will, incidentally, keep me in touch to some extent with the interests of the Railway Service.

Since I entered the Service the track mileage in Victoria, which exceeds 6,000 miles, has increased five-fold. The staff employed in the Way and Works Branch now numbers over 7,000, and the annual expenditure by the Branch has risen from approximately £400,000 to £2,325,000, the latter figure representing, in round numbers, the average expenditure for the past five years, including costs of maintenance and capital works. As a permanent officer, I have served under eight Chairmen of Commissioners and four Chief Engineers.

Up Country—*Cont. from page 29*

3,739 trucks of fruit were railed from the district's 11 principal fruit centres, compared with 3,251 during the previous season. In all, 1,332,334 cases of fruit, representing a tonnage of 33,580 travelled over the district's system. This brings the north-east's aggregate fruit crop for the past five seasons to 5,774,322 cases and 145,191 tons. The acreage under fruit and vines in the district is now 17,144.



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BOOKS *and* NEW BOOKS

Thumbnail Reviews by J. D. MICHIE

His Elizabeth.—By Elswyth Thane. A fragrant love story, beginning with Tommy Chandler kissing Elizabeth behind a hedge in Surrey. Years afterwards he saw her radiant in Paris. And thereby hangs this tale.

Mother India.—By Katherine Mayo. "It is," says the *New Statesman*, "certainly the most fascinating, the most depressing and at the same time the most important and truthful book that has been written about India for a good deal more than a generation." To say that is no doubt to say a great deal, but it is not to say too much. Miss Mayo can observe accurately, can understand without prejudice, and can write—a combination of faculties that is unfortunately rare. One is tempted to skip hardly a sentence throughout its four hundred pages.

Little Greatheart.—By L. G. Moberly. Nancy Handworth, compelled by circumstances, becomes an artist's model and sits to the famous painter Piers Daventry. He falls in love with her and they become engaged, only to have the cup of happiness dashed from their lips by the sudden arrival home of Daventry's wife, supposed dead. Miss Moberly's handling of this theme is sympathetic, and the book is one of great appeal and interest.

The Trail to San Triste.—By George O. Baxter. Three of them were crooks—men wanted by the law, rascals of desperate courage, of rare resourcefulness. That was why Joseph Simon chose them for the peculiar errand of finding a man to impersonate the lost heir of the Vereal family. The impersonator completed the quartet of fearless characters to undertake Simon's perilous quest. And then with his four leading characters, George O. Baxter leads his readers over a trail of thrilling adventure.

Come and Listen.—By E. Temple Thurston. Come and Listen is a collection of world-known stories retold for children. It includes stories from the Bible—the flood, Naaman, and Esther; from the Greek myths—Orpheus and Eurydice; and from the mediaeval legend—Lady Godiva. The illustrations are peculiarly in harmony with the spirit of the stories, and have besides a quite independent quality of their own.

Day's End.—By H. M. Bates. These short stories are written by the young author who made a name for himself with his first novel, The Two Sisters. They are far from being light and frivolous, and show an astounding knowledge of human nature for so youthful a writer.

The Dark Doorway.—By Evelyn Heritage. Christine, an English girl, goes to South America, and becomes involved in a revolution, in which her life is saved by a Colonel Ashley. Love dawns to these two, but they are forced through many a dark doorway of thought and action before their lives run smoothly. The author gives us a picture of the famous tribe of Incas as well as of the South American generally.

Farewell to Youth.—By Storm Jameson. We follow the fortunes of young Nat Grimshaw from his nineteenth year, through his early unhappy marriage, to a more enduring love, which nevertheless, does not regain his youth. Nat is a charming, though somewhat indecisive character, and the others are typical of the work of this author.

Wholly set up and printed in Australia at the Victorian Railways Printing Office, Spencer-street, Melbourne, for the Publishers — The Victorian Railways Commissioners.

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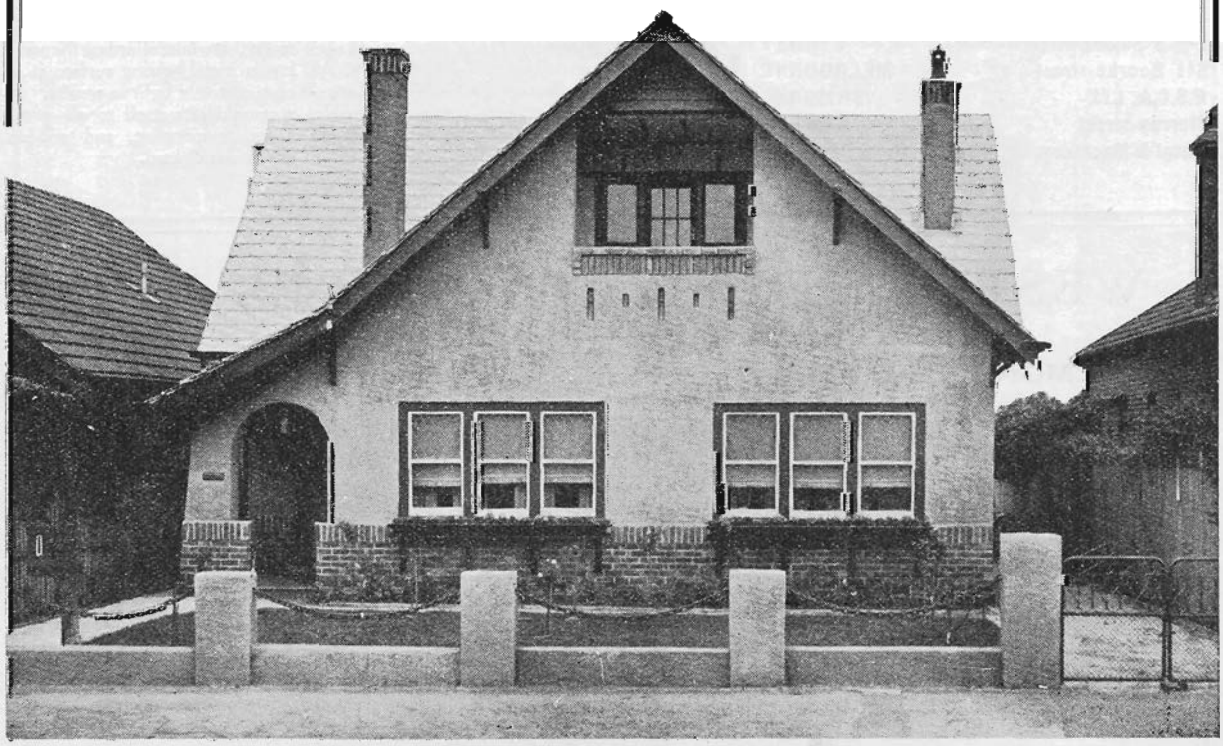
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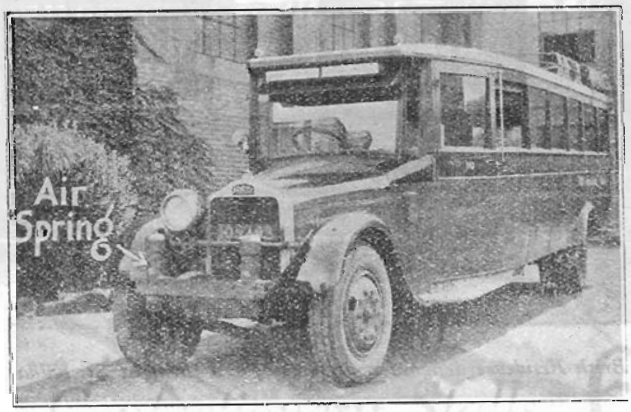
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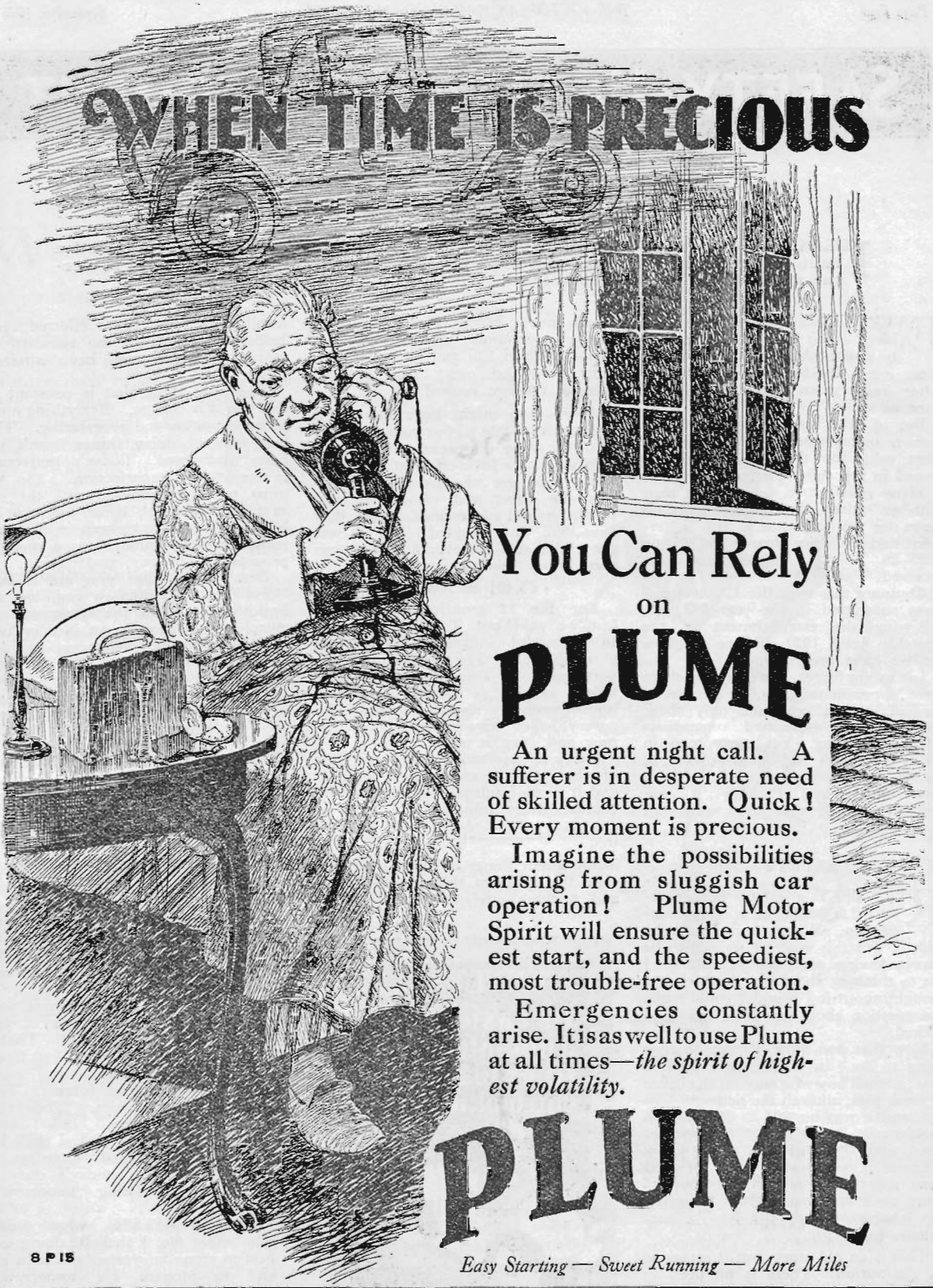
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SAFETY-HEALTH-BETTERMENT

WANTED—IDEAS!

IDEAS run this great railway service of ours. Not a track is laid, not a truck or locomotive built, not a train runs, in fact, not a single railway operation is carried out, except as a result of an idea or a multitude of ideas.

EVERY railwayman has his own ideas about how his job should be done. And very often he has ideas—very decided ideas—as to how other railwaymen's jobs should be done as well.

But of what use are views if they remain unexpressed? Even then, of what value are they if they are not voiced in the right quarter?

Many railwaymen demonstrate their faith in ideas by submitting their views for improvement to the Betterment and Publicity Board, and during 1927–28. 3,833 suggestions were received.

Compare this with the 1201 suggestions submitted in the year 1921–22, following the establishment of the Board in April, 1921, and we see how far we have progressed.

Let us not forget, however, that there were, approximately, 28,000 people in the service last year, and only about 13 per cent. submitted suggestions during the year. Yet every man in the Department had ideas—plenty of them, no doubt—but did not send them in. Why? Possibly it was because he felt that they were not worth much; but no idea is too small for consideration. Every one sent along is given full and impartial consideration, and every idea adopted receives its own reward.

Again, you might have thought it too much trouble to put your thoughts into words or on paper. Nothing is won without a little effort at least, and many there are who have made considerable effort and who have submitted several suggestions, before they have had one adopted. But it was the effort and perseverance that won them their reward.

£2,401 in Awards

For the 12 months ended June last we paid out £2,401 in awards to successful suggestors. Were you a recipient? The opportunity to participate is always open. The whole service is before you, and improvement is always awaiting discovery. Get your thinking cap on now and keep it on!

Every railwayman is an integral part of this great transportation system, and it is the multiplicity of ideas that counts. Every improvement, large or small, that has been effected, has helped to build up the standard of efficiency which we have attained today.

The only thing that is constant in this world is change. Everything must go on changing and progressing. The best way of doing things hasn't yet been discovered. Today's perfection is tomorrow's imperfection. So we must never be satisfied with the job as it is being done; it can and must be bettered if we are to keep in step and maintain our reputation as a modern progressive railway undertaking.

Demonstrate that you are a real "live" railwayman—a cog, but an important one, in the transportation wheel—by sending in an idea or two for improvement. Whenever an idea strikes you, make a note of it and send it along. We want your ideas; everyone's ideas. That is how we can all help in this big job of ours. Show your enterprise and resourcefulness by the worth of your ideas. Send them to the Betterment and Publicity Board.

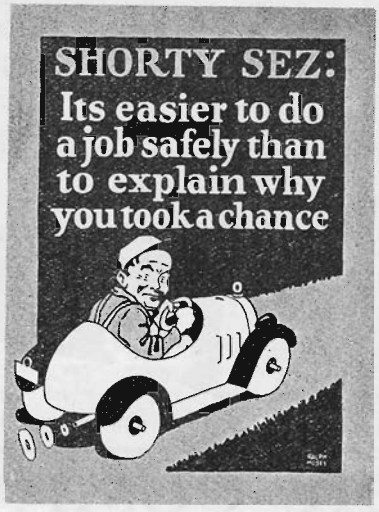
Let us make this year a record year for suggestions and progress!

SAFETY

RECENTLY a safety worker received a prize for a safety suggestion. When asked about it, he said, "It's this way. I seemed to be always having accidents myself, so I got to thinking about it. And when I thought about it I found I could make a suggestion about it. So I did—and clicked."

Now that was quite a commonsense thing to do. In China, once upon a time, a small boy who was left in charge of some pigs, allowed the house to take fire, and it was burned to the ground. Incidentally some pigs were incinerated, and the small boy got to know the taste of roast pork. Soon the good news spread and houses were burned down on every hand in order to gratify the inhabitants' appetite for the succulent roast pig.

This is an old story, but it serves as an illustration. There is no need to burn down houses to get roast pork. Neither is there any need to break legs, burn arms or rick backs or do any other inconvenient things in order to appreciate the value of thinking SAFETY and working safely.



The chief thing is to be alert. That is a matter of desire in the first place and practice in the second. Take a look at the man who mooches about from place to place with his nose on the ground, and you are looking at a piece of the raw material from which accidents are made.

Train your faculties to alertness, and say "Everyday and everyway I am getting better and better." That's SAFETY.

TODAY

YESTERDAY is gone forever. Tomorrow never comes. Today is only within our care.

IF I SHIRK today's task, I shall be adding to my wasted yesterdays.

IF I POSTPONE today's duty I shall be increasing tomorrow's burden.

IF I ACCOMPLISH what today sets before me, I shall be doing my best to atone for yesterday's failures, and to prepare for tomorrow's successes.

THEREFORE let us endeavor to so

Concluded on page 6

The Railways are there at the finish



WEDNESDAYS have meant quite a lot to football fans who have been following with interest the progress of the closely contested games of the Wednesday League matches. Railwaymen dropped their trains, cabmen their cabs, wharfies their cargoes, and other competing teams their usual daily tasks, and each entered the field on Wednesdays hoping to gain the premiership.

By splendid team work and the untiring efforts of their captain and coach, C. F. Forty, the Railways managed to reach the top.

As an all-rounder Forty played a wonderful game, but it was mostly his play on the wing which was so noticeable during the season. This is his sixth year with the Railways team and his second successive year as captain. His quiet nature has given him the complete confidence of the team.

To look for Charlie Forty at work we find him methodically knocking things together at the carpenters' shop at Newport. He does his job there just as thoroughly as he plays on the field, so it is no small wonder that such a chap has the respect of his fellow men.

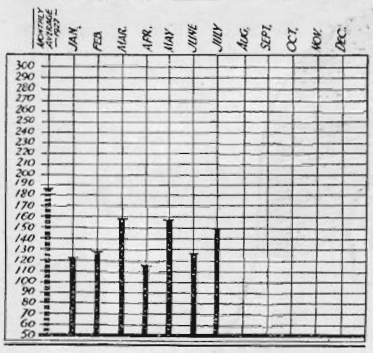
Away from the tool-box and the footy ground Forty carries his short nuggety figure with the well-set carriage of the athlete, and has managed, by his wise choice of a tailor, to wear clothes that reflect his personality.

For some years now Charlie Forty has been a customer of Byers, the well-known railwayman's tailor, and he expresses complete satisfaction of the quality, style and finish of Byers' tailored suits. Railwaymen who are desirous of always looking their best have found the same satisfaction by allowing Byers to look after their tailoring and mercery requirements.

To those railwaymen who are members of the Victorian Railways Welfare Society special discounts are available, and they will find a visit to the city showrooms will fully repay them. These are situated over Stewart Dawson's, on the first floor at the corner of Collins and Swanston-streets, and there, the latest in new suitings and men's mercery await selection.

Other railwaymen who are stationed in the country will have their requirements immediately attended to if they write giving some idea of the color of the suiting required and the price they wish to pay. Patterns and self-measurement form will be posted without cost or obligation. A novel convenience of payment is extended to all railwaymen. This method is fully explained in a handsome booklet which will be fowarded you free of cost upon receipt of a postcard. (Advt.)

ACCIDENTS REPORTED EACH MONTH



use our time and opportunities that today shall leave us a little wiser and wealthier than it found us.

SEPTEMBER SUGGESTIONS DRIVE

The subject chosen for the ninth suggestions drive, which will be held during September, is—

"How can we stimulate Parcels Traffic."

Suggestions should be submitted to the Betterment and Publicity Board in the usual way.

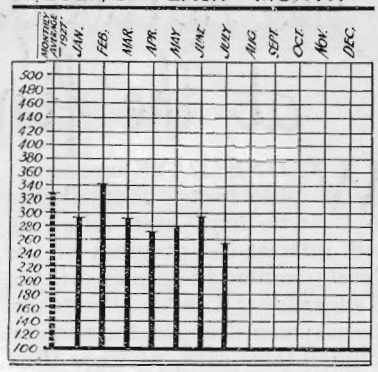
THE COG IN THE WHEEL

BY O. R. BURNS

Agent, Canadian Pacific Railway, Oshawa, Ont.

1. CO-OPERATION—A cog is not a thing-in-itself. It exists for others and others exist for it. A cog believes in team-work.
2. HELPING OTHERS—A cog passes its energy out to another cog. All it gets from its neighbor behind it tries to pass on to a needy fellow beside him.
3. ONE WHO FITS—A cog ceases to function if it is a misfit. It must fit perfectly into the scheme of things, must sacrifice ornamentation, self gratification, everything which would prevent a perfect fit into the whole.
4. PUSH—A cog is chuck full of push. Every helpful impetus it receives it pushes on to its neighbor.
5. MODESTY—It isn't showy, or loud-mouthed, and doesn't do the peacock stunt. A cog does the helpful thing and forgets about it.
6. WORK—A cog asks no office of honor, or fame, or glory. Its insistent demand is an eloquent sermon—"Give me a chance to help another Cog."
7. STRENGTH—Set those broad shoulders and rounded, bulging muscles, that solid brace—no wiggle or wobble for Mr. Cog: he keeps things steady.
8. READINESS—Always in training and always stripped for action. Mr. Cog never overeats or overdrinks or overindulges in any way; he is ever ready for the job ahead of him.
9. SERVICE—A score of other lessons could be named. Every bit of a cog's surface is a working surface. A cog is 100 per cent. unselfish.

SUGGESTIONS RECEIVED EACH MONTH



BENEFIT BY YOUR IDEAS

The following awards were made during July for adopted suggestions :—

Total Amount	...	£156
Highest Award	...	£70

Arrangements now exist for the placing of adopted suggestions of particular merit before the Railways of the various States, also the Commonwealth and New Zealand Railways.

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IN every walk of life there are to be found travellers who are putting their money into a bag with holes.

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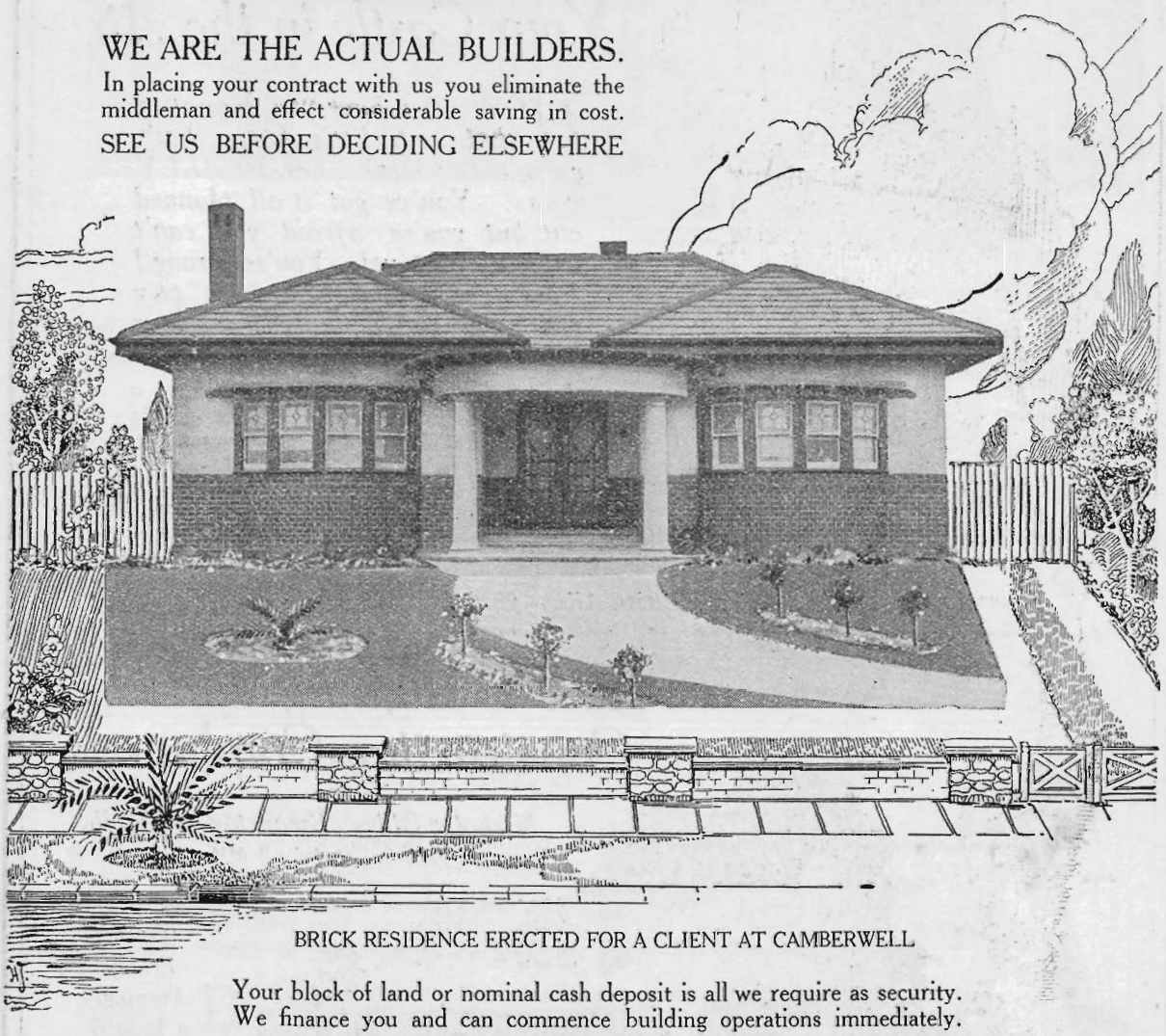
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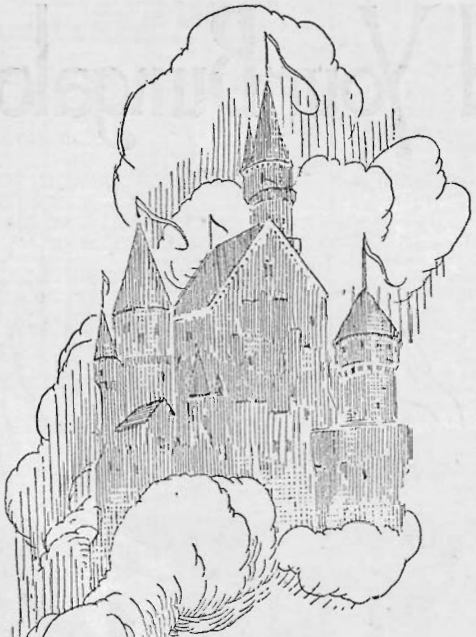
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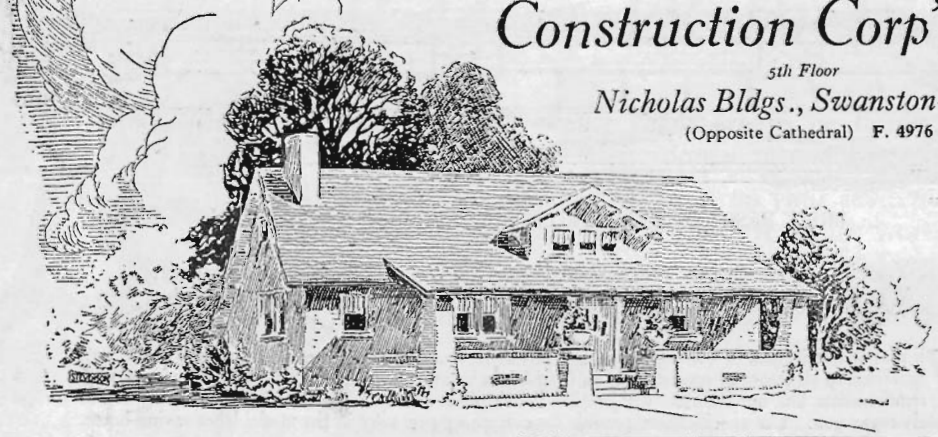
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FLINDERS STREET STATION — MELBOURNE

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A copy is issued free to all permanent Victorian railwaymen, and to all temporary and casual employes with six months' service.

Contributed articles, paragraphs, verse, and photographic prints (negatives are not required) must reach the Editor, care Betterment and Publicity Board, Railways Department, Spencer-street ('Phone Railways 393), NOT later than the 12th of each month. Correspondence relating thereto is carried free over the Railways.

Communications in regard to advertising should be addressed to the Manager, Railway Advertising Division, Savings Bank Buildings, corner of Spencer and Collins-streets, Melbourne ('Phone C. 6414 or Railways 139).

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SHOWTIME'S OBJECT LESSON

ROYAL Show time provides another of those recurring object lessons on the value of the rail vehicle to the community. What other form of transport could handle so efficiently and methodically the huge masses of people who want to see Victoria's annual window display ; could gather up stock, produce and machinery exhibits from the four corners of the State and concentrate them safely and in orderly sequence within a circumscribed area ?

BUT rail service, which the show brings into prominence, wasn't always so embracing, so efficient. What can be done today is the result of long planning ahead. Traffic had to be anticipated and facilities developed to meet it. And because it took money and time as well as foresight to build locomotives, cars and trucks and new tracks, today's service reflects past earning-power, past patronage.

THE railway is still anticipating, still building for the future, not merely for Show traffic requirements of 1938, 1948, 1958 and so on, but for the everyday business that the Show reflects. Whatever happens, the railway must continue to serve and develop community business. The rate of its progress depends largely on its earning power today, and the freights and fares which should ensure its ability to meet prospective demands are, as President L. A. Downs, of the Illinois Central Railroad said, recently, " the cheapest premium for the best insurance the business of the country could have."

READY FOR THE RING

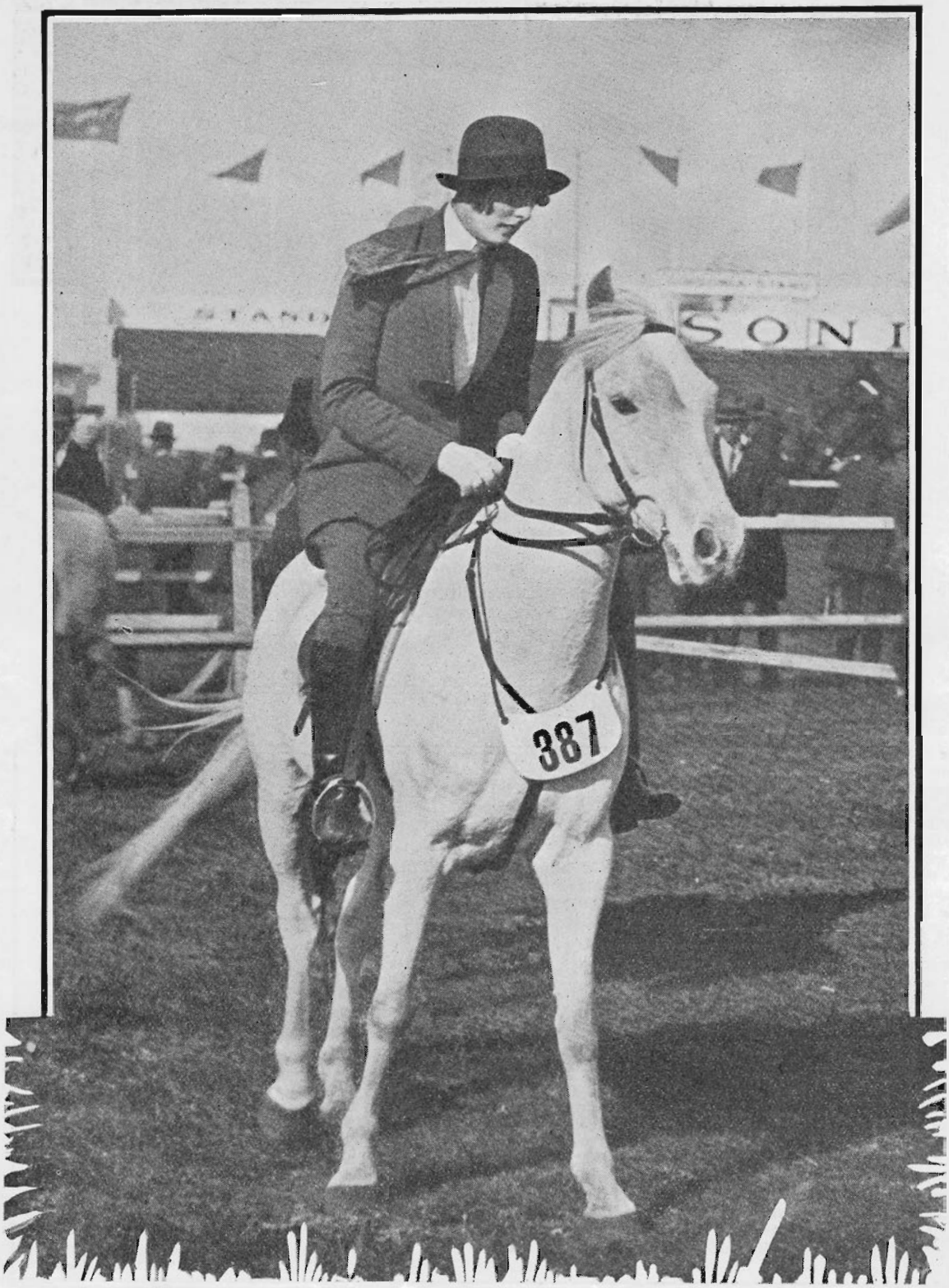


Photo by A. L. Reid

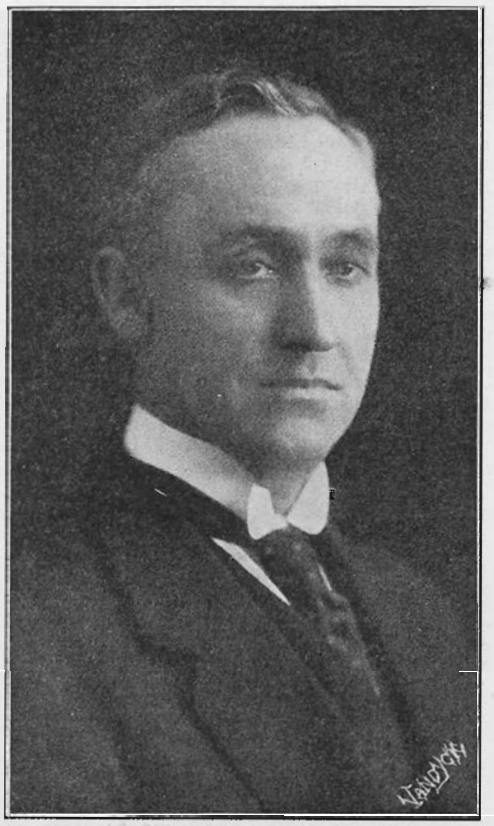
SHOWTIME

By HENRY SCHWIEGER

Secretary of the Royal Agricultural Society of Victoria, and of the Victorian Chamber of Agriculture

SEPTEMBER is wattle time, Springtime and Showtime. It is as Showtime that the Victorian Railways know it best.

In this article, specially written for the Victorian Railways Magazine, Mr. Schwieger, discusses the significance of the Royal Show. He outlines lightly aspects of the organisation necessary for the successful conduct of the Show. And he has a word or two to say about the railway service.



Mr. Schwieger

"THIS Show . . . . . what's the good of it? Is there anything like an adequate return from the extensive organisation and the expensive preparation that goes on year after year at Flemington? There's a big display of stock and exhibits—no doubt a very handsome and valuable display; there's a distribution of some few thousand pounds in prize money; there's a programme of ring events; there's an accumulation of profits by the Agricultural Society which helps it to organise and prepare for another Show next year. And what else is there? What, really, is the *good* of the Show?"

Now, I have never heard that blunt but superficial question expressed in as many words, but maybe its substance has occasionally lingered unuttered in some city minds. The shallow thinker might well miss the significance of the Show, and the casual eye fail to observe its intrinsic value to Victoria and Victorians. Like the answer to the question itself, the evidence of the Show's worth lies below the surface.

What's Behind It All

Below the surface lies its promotion of co-operation between primary and secondary industries, its incentive to breeders and pastoralists to improve their flocks and herds, and its stimulus to farmers to raise the general standard of their produce, to improve their method of cultivation, and to adopt better systems of marketing. Below the surface, too, lies its healthy spirit of rivalry, fostered by competition and comparison.

For that comparison of stock, of produce, of machinery gives the man on the land a true perspective of quality. Quality, when all is said and done, is only a matter of comparison. Let me illustrate that point. Some years ago my wife occasionally went riding with a lady friend who was mounted on a beautiful upstanding chestnut. I had admired this horse many a time, and eventually I persuaded the owner to enter it in the Novice Lady's Hack class at the Show.

"That mount," I said confidently, "will take a lot of beating."

During judging hour I passed through the grandstand enclosure, and noticed the lady in the arena halted in line with some other competitors nearby, but mounted on quite an ordinary looking hack. Puzzled, I spoke to my wife who was standing close by. "Where's our favorite?"

She nodded towards the arena. "There he is, but he certainly hasn't the slightest hope of a prize in that company."

I looked harder and I looked longer, and sure enough the lady's mount was the same fine-looking horse that I had previously picked as a likely prize-winner. Now, however, it was reduced to the standard of a mediocre hack by comparison with animals that were distinctly superior.

From this competition, this comparison and this emulation has developed steady progress in all ranges of exhibits at the Show. Which means steady progress in all phases of agricultural and pastoral methods on the farm. One of the best known viticulturists in the State has acknowledged time and again that he owes his present foremost position in the industry to the advice and the experience that he has gained at the Society's wine judgings. Every year he has improved the standard of his wines, and every year he glimpses further opportunities to maintain that improvement.

The Lesson of Herd Testing

Many are the leading dairymen, too, who have profited from the milk tests. Here the nutritive properties of every ounce of feed supplied to the cows engaged in the tests are carefully analysed, and the keenest discussion is aroused. The dairyman has his attention focussed on scientific stock feeding, and on that most important factor in successful dairying—herd testing.

These, then, are the direct benefits which precede, accompany and follow each Royal Show. There remain the widespread indirect benefits which are associated with the influx of thousands of visitors into Melbourne, the freer circulation of money, the purchasing, the accommodating and the providoring. At the showground itself, the city places its collective shop window before the countryman. A few pounds' expense at the Show enables the manufacturer to make contact with thousands of clients more satisfactorily than he could by a hundredfold increase of expenditure in other directions . . . .

Preparing for the Show

For the successful conduct of the great agricultural pageant, there must be steady and intensive preparation, extending over many months. We will have from 11,000 to 12,000 exhibits at this year's Show, and ample space must be reserved for them all long before the opening day. The size of each exhibit must be carefully estimated—an Orpington requires a larger coop than a bantam, a Cheltenham cabbage needs wider bench space than a Bendigonian. Name and catalogue number of every beast must be displayed above its stall or pen. There must be very generous drinking and feeding facilities, a washing dock, a quarantine area, a veterinary station.

In the produce section, organising work merely begins with the allotment of space for exhibits. Practical farmer and interested layman alike want to know where the produce came from, what soil it was grown in, what rainfall the district had for the year and for the growing period, who the exhibitor is, and what the correct name of the variety is. We tell them all that. In plenty of cases, we even tell them the quantity and type of manure used, the quantity of seed sown per acre, the source of supply of the seed, the yield per acre and the acreage under cultivation with the variety on exhibit.

Our preparative work is handicapped enormously by the fact that the great bulk of the showground staff is engaged year after year in a temporary capacity. We have 150 judges, as many stewards and five or six hundred officials and employes. Of these, less than a score are permanent staff. Temporary officials themselves, the whole of the divisional superintendents are in charge of men who are strangers to them and to one another, and who, for obvious reasons of economy, are not employed until the last possible moment. Hundreds actually commence duty on the first day of the Show, a bare hour or so before the grounds are opened to the public. We can co-ordinate this mass of unblended labor only by the meticulous preparation of approximately one thousand copies of clearly detailed duty sheets of 180 different kinds. Every single duty must be recorded, for in any year we may have an entirely new staff in any one of our 52 separate departments.

Wide and varied indeed are the instructions shown on these duty sheets. There are directions regarding the plant and equipment which will be required, the store from which it must be drawn and returned, and the manner in which it must be used. The manure stacker is instructed how to carry out his duties, the bandmaster in what key he must play the musical honors at the official banquet. Safety pins, sea sand, fresh milk and feeding bottles are needed for the creche. Among other articles, we must have hot water bottles and feather dusters, a horse ambulance wagon and a cheese tester.

From Chalk to Cheese

And the amount of equipment required for the judging and testing must be seen to be believed. Here, for instance, is our official list of the articles required for the wine judging :

A hammer and a chisel, tables and chairs, sawdust, spittoons, a wooden tub and a copper, firewood, two corkscrews, toilet and glass towels, a washstand, plates and knives, at least six dozen glasses and a water jug, a broom and a bucket, a hanging screen, tacks, gum, chalk, brown paper, gummed numbers, tapered corks, a "Beaume" instrument, soap, candles, judges' books, sheets and schedules, envelopes, stamps and memorandum forms, ink, pens and pencils, biscuits, cheese, olives and apples, soda water and brandy. *And*, of course, the wine and the judges.

In all, the Royal Agricultural Society spends about £30,000 each year, besides any sums required for the improvement and maintenance of its 63 acres of property. The 400 exhibiting firms spend from £50 to £1,000 each, so that expenditure under this head alone must approximate to £120,000. Add to this the cost of railing the exhibits to Flemington, the outlay for stock feeding, the wages of the attendants and the heavy expenditure incurred by the caterers, and it is evident that a quarter of a million pounds sterling would not cover the expense of staging one year's Melbourne Show.

Railway Co-operation

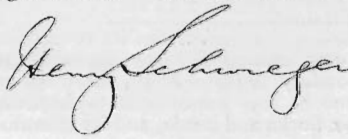
The part the railwayman plays in the success of the Show cannot be overestimated. All through, we look to him for active co-operation. And we do not look in vain. Last year, within a period of 9 hours on the final Friday evening of the Show, no fewer than 223 trucks of stock, together with owners' dunnage, were loaded and despatched from the showgrounds. Poultry, pigeons and other exhibits from metropolitan stations were sent direct to and from the grounds by electric parcels coach. And the passenger service, although not as heavy as in past years, was handled just as efficiently, just as speedily and just as safely.



The Grand Parade

Nineteen-twenty-five's record, when upwards of 50,000 people were transported from the one platform in two hours by eight-car trains running at three-minute intervals, we still regard as a feat of transportation unequalled in any other part of the world.

The stage is now set for the 1928 Royal Show. Indications are that it will be one of the most successful that our Society has yet conducted. Well-founded expectations of a record season should be reflected in increased buying. Money will not be tight. May we hope, with the railwayman's assistance, for the fulfilment of our ambitious aim—Nineteen - twenty - eight's Show "the best ever"?



The ONE-GAUGE PROBLEM

WHAT *is* INVOLVED *in* VICTORIA

By RICHARD HUGHES

SIX years or eight years—estimates vary—of intensive preparation and steady work would be involved in the conversion of Victoria's 5 ft. 3 in. railway gauge to the 4 ft. 8½ in. gauge recommended for adoption as the standard Australian gauge.

Constantly recurring interest in the problem, which is daily becoming more urgent of solution, has prompted review, from the Victorian angle, of aspects of the Report of the Royal Commission, which investigated the whole question of uniform gauge in Australia in 1921. The article also outlines the comprehensive scheme drawn up by State railway engineers to carry through the entire work to a set programme.



This photograph illustrates the difference between the Victorian 5ft. 3 in. and the standard 4ft. 8½in. gauges

WHEN New South Wales abruptly changed its colonial mind 70-odd years ago, and decided to build its railways to the 4 ft. 8½ in. gauge instead of the previously determined 5 ft. 3 in. gauge, a tremendous mountain of trouble was piled up for Australian posterity. And there is real irony in the fact that, when the long-deferred move for gauge unification does eventuate, the great bulk of the consequent widespread inconvenience and temporary dislocation of traffic will fall solidly on Victoria, and miss New South Wales altogether.

For it was the recommendation of the New South Wales government in 1852 which set Victoria building to the broader gauge, and it was the neglect of the older colony to confer with either Victoria or South Australia, when a newly arrived railway engineer successfully advocated a change to the 4 ft. 8½ in. gauge in Sydney, which precipitated the whole muddle.

Recriminations and regrets, however, are wasted at this stage. The damage has been done. It remains to be seen how best it can be repaired.

Seven Years Ago

The complicated problem was tackled seven years ago by a Royal Commission, comprising the late J. J. Garvan, a leading financial authority of Sydney, as chairman, R. Blake, an English civil engineer, and F. M. Whyte, an American mechanical engineer. This Commission, after prolonged, patient and exhaustive investigation, recommended the adoption of the 4 ft. 8½ in. gauge as the standard railway gauge for the Commonwealth, and decided that the work of unification in all States could be completed at a cost of £57,200,000. If, however, the scheme were restricted to the main trunk line from Perth, through Adelaide, Melbourne and Sydney, to Brisbane, with adjustments to the 5 ft. 3 in. gauge in South Australia and Victoria alone, the Commission considered that the cost would be £21,600,000

While neither of these estimates includes additional operating costs, interest on loans and so on, the general consensus of opinion favors the Commission's choice of gauge. It would cost much more money and occupy a much

greater length of time to instal the 5 ft. 3 in. gauge throughout Australia than to instal the 4 ft. 8½ in. gauge.

Victoria's proportion of the total cost was reckoned by the Commission at £8,324,000, although the Railways Commissioners considered that the work could not be done at that time for less than £14,798,522. The two estimates make an interesting comparison:

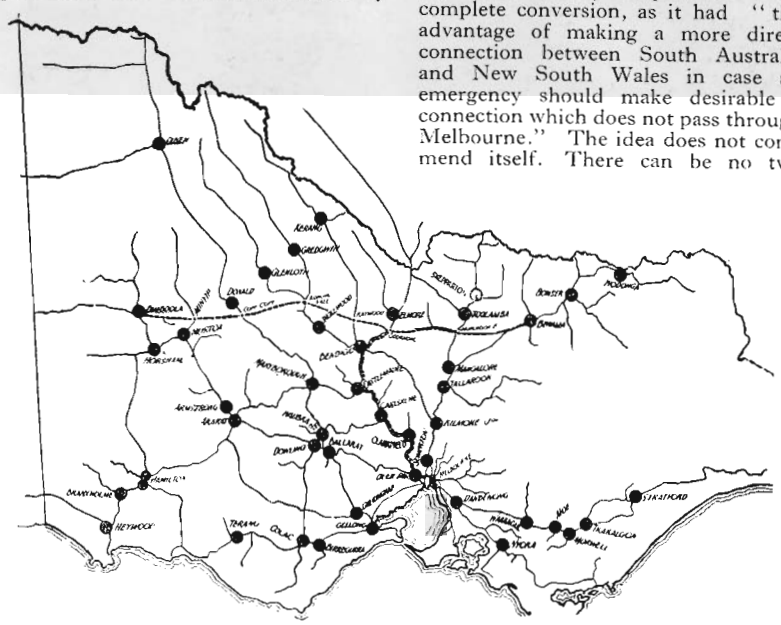
	Railway Estimate.	Commission Estimate.
Alterations to existing railways and structures	£7,391,869	£5,246,000
Adjustments of rolling stock	5,937,853	3,078,000
Transhipment expenses during conversion period	1,468,800	Nil
Total	£14,798,522	£8,324,000

Why Estimates Differ

It will be noted that the Commission made no provision whatever for the enormous expense of transferring passengers, live stock and goods from one gauge train to another during conversion. It also blue-pencilled drastically the Department's estimates for renewal of sleepers and construction of transfer stations and yards. Incidentally, South Australia's departmental estimate was reduced by 42 per cent., and Western Australia's by 67 per cent. It is difficult to reconcile these very substantial reductions with the actual work entailed in the undertaking.

Four alternative recommendations affecting Victoria were submitted by the Royal Commission. The last and best was the complete conversion of all 5 ft. 3 in. gauge to 4 ft. 8½ in. The three alternatives were piecemeal arrangements which would dislocate traffic permanently, precipitate confusion bordering on chaos, and attach soaring wings to operating costs. One was to convert the main trunk line from Serviceton to Melbourne and from Melbourne to Albury to the 4 ft. 8½ in. gauge, and to leave the rest of the system as it is. Another was to modify the first suggestion to the extent of converting all branch lines linking up with that main trunk line. And the third involved the construction of a brand new 4 ft. 8½ in. railway across country from Dimboola to Benalla (across Minyip, Cope Cope, Korong Vale, Raywood and Goornong), Melbourne being partly rescued from isolation by conversion of the existing gauge between the capital and Goornong, through Bendigo, into a 4 ft. 8½ in. spur line.

Certainly the Commission primarily recommended this third alternative in anticipation of a possible disinclination to convert all broad gauge lines in Victoria, but it also toyed tentatively with the idea of combining the sprawling cross-country duplication with complete conversion, as it had "the advantage of making a more direct connection between South Australia and New South Wales in case an emergency should make desirable a connection which does not pass through Melbourne." The idea does not commend itself. There can be no two opinions regarding the folly of tinkering with the main trunk gauges in Victoria, and leaving the branch and other country line gauges at 5 ft. 3 in. In any case, the suggested provision of an "emergency line" sweeping expensively 120 miles north of Melbourne has no bearing on the matter of a uniform railway gauge.



This map illustrates the tentative plan for gauge unification drawn up by Victorian railway engineers in 1921. The solid circles represent the location of the 47 transfer yards at which batches of rolling stock could be altered to the 4 ft. 8½ in. gauge, and passengers, goods and live stock transferred from old gauge to new gauge trains during the progress of different sections of the work. The dotted line running across country from Dimboola to Benalla is an alternative scheme for main trunk line unification. It was suggested by the Royal Commission in anticipation of any disinclination to alter all 5 ft. 3 in. gauge in Victoria. Melbourne was to be linked up with this new 4 ft. 8½ in. gauge line by conversion of the existing 5 ft. 3 in. gauge between the capital and Goornong, via Bendigo.

Victorian railway engineers drew up a co-ordinated and well-balanced scheme of gauge conversion, actual operation extending over five years. The Commission approved of the scheme, but objected to the Department's strong recommendation that a preparatory period of three years be allowed between the date of decision to alter the gauge and the date of commencement on the first section of the work. One year was sufficient preparatory margin, in the opinion of the Commission, and consequently six years was held to be the probable duration of the Victorian change of gauge.

Five Years' Actual Work

The Department's scheme split the system into five main groups of track, totalling roughly 1200 miles of rails apiece. Each group was subdivided in turn into sections of approximately 100 miles length outside the suburban area, and of 50 miles inside the suburban area. The rate of conversion was designed to complete one section every month, and each of the five main groups in about a year. Sixty-three sections were proposed, together with 47 transfer yards at the temporary junctions of the two gauges as they occur.

Operations were to commence on the main north-eastern line and branches, comprising the first group. The second group embraced the Melbourne-Serviceton trunk line and the Ararat–Portland line, with their immediate branches. The third group included the northern district lines—all track, in fact, hemmed in by groups one and two. The fourth group covered the south-western system as far as Warrnambool and Port Fairy; and the fifth group concluded the scheme with the eastern and south-eastern systems.

The conversion of the narrow-gauge Whitfield, Gembrook, Crowes and Walhalla lines (2 ft. 6 in. gauge) was not recommended. It was estimated then that the alteration of the Whitfield line would cost £168,000, and the Gembrook line £240,000; while the widening of the gauge on either the Crowes or the Walhalla line would be quite impracticable.

Obviously, there are only two methods by which the necessary six-and-a-half inch reduction in the distance between the Victorian rails can be made. One is to shift one rail inwards the full six-and-a-half inches. The other is to shift both rails inwards three-and-a-quarter inches each. The Commission said the shifting of one rail was the better method. The railway engineers

Continued on page 44

Things We are Talking About

WITH better times ahead and a distinct sense of optimism in the air, this year's Royal Show should be the best yet. Already the grounds are seething with activity. Workmen are sprucing up the buildings and exhibitors are arranging their displays. The threepenny and sixpenny samples without which no Show is complete, are, we hear, to be more attractive than ever. Trainloads of magnificent stock are beginning to arrive and Mr. and Mrs. Melbourne are preparing to entertain their country cousins as befits the annual reunion. Railwaymen after a comparatively slack time are getting their coats off for the usual rush of traffic which, it is quite safe to say, will be handled with the usual efficiency and courtesy. The prospects of a bumper season are likely to loosen purse-strings, and considerably better business is looked for than eventuated last Show when the spectre of bad times was looming up.

COUNTRY COMES TO TOWN

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IS the round-table get-together idea worth while? Opinions apparently differ according to experience, or lack of it, but the railway view is overwhelmingly affirmative when the idea is applied to fuel conservation and other betterment schemes. The concluding speeches at last month's Fuel Conservation Convention in Melbourne—speeches of men diametrically opposed in opinion on other things—clearly indicated the oneness of mind on the value of the Convention. Every delegate from Commissioner Mr. Shannon to the up-country driver put his brains to work and had his say as an equal striving for the common aim of greater and more economic efficiency. For the 150 or so delegates it was no picnic. Topics ranging from the influence of the nominated loading days on road competition to the handling of 40-ton trucks, from temporary speed restrictions to the strengthening of tail rope hooks allowed of little mental relaxation, and there was none apparent. The sincerity and constructiveness of discussion and criticism was as impressive as it was general.

SUCCESSFUL CONVENTION

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IT is significant that the Victorian Railways coal bill for the last three years has been reduced by £86,000 a year, compared with the average for the three years prior to the launching of the Fuel Conservation movement. It is not claimed, of course, that the whole of this saving is a direct result of the movement, but the proportion which can be definitely fixed at £10,000 a year on a strictly conservative basis, is sufficient to cover, many times over, the few hundreds spent during the year on meetings, and sufficiently accurate to give weighty support to the contention of a well-known labor leader, the other day, that the round-table idea was productive of the best results. He, admittedly, applied his remark to arbitration matters, but his application doesn't alter the declared principle.

FACTS AND A PRINCIPLE

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DIRECT railway telegraphic communication between Melbourne and Sydney is, since August 7, an accomplished factor in avoiding irritating message delays and in working trains between the two capitals more efficiently. On that date a new Toye Automatic Repeater which cuts out the necessity of relaying offices was officially put into commission, at Junee, by the exchange of direct and congratulatory messages between Messrs. S. J. Stevens, Chief Telegraph Inspector of the N.S.W. Railways and W. J. McCarter, Chief Telegraph Officer, of Victorian Railways. The automatic repeater, which it is hoped to instal at Serviceton as well, for direct Melbourne–Adelaide communication, is working excellently.

TELLING SYDNEY QUICKER

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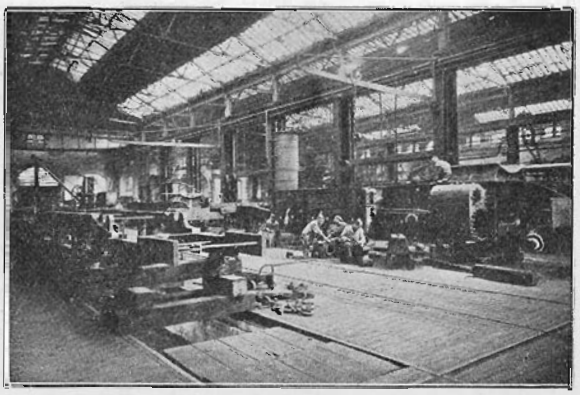
WORK is progressing satisfactorily on the new X class Mikado type engines at Newport Shops, as the photograph on this page shows. The frame on the right shows the cylinders in place and the head stock and guide bar fitted. Men are working on the axle boxes. Many of the parts used are standard for the C class engine, although the tractive effort—37,040 lb. or 46,040 lb. with booster—will be greater. The boiler pressure of the new freight giant will be 205 lb. to the square inch. The S class tender will be fitted. The weight of engine and tender in working order will be 179 tons. The frame on the left of the picture, by the way, is that of another S class engine.

NEW FREIGHT GIANT GROWS

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SERVICE, as understood by Victorian Railwaymen, doesn't necessarily imply a little extra trouble to help an influential passenger or consignor in the hope that he will "tell the boss about it." An instance of the fuller realisation of the principle comes from Maryborough. A lad of 15 or 16 who had been working in the far north-west found himself stranded at the station, recently, and at the end of his resources. The boy, an orphan, was trying to make his way down to a Melbourne suburb where his grandmother was living. Hearing the story the relieving station-master, first of all, saw to it that the boy had a good meal, following which he went through the station offices and among the staff on the platform and in the yard, and collected, in less time than it takes to write about it, sufficient money to pay the lad's fare to Spencer-

REAL SERVICE



New "X" and "S" class locomotives taking shape at Newport

street with 7s. 6d. over to cover a meal at Kyneton and his suburban fare in Melbourne. This seems to be a mighty good practical application of the teaching of a Man who once said : " Bear ye one another's burdens."

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TRAINS TO PERDITION ?

SUNDAY train patronage continues to exceed all expectations, and incidentally to stimulate the criticism of a few people bent on forcing ultra-Sabbatarian views down the unwilling throats of the majority who want to forget the associations of daily toil in clear sunshine and different surroundings, on the one free day of the week. Not a word is being said about the thousands of motor cars that, Sunday by Sunday, throng the roads that lead to bush and beach ; the train—the vehicle of the man of moderate means—is getting all the knocks. Far be it from us to cavil at anybody's ideals, but the years-old cry that a Sunday rail service is the herald of the Continental Sunday and ultimate perdition has nothing to support it in the way of experience. Regular Sunday trains and special rail excursions have been running for about half a century in Great Britain, which has neither introduced the Continental Sunday nor gone to the devil. As a race, Britishers, the world over, don't fit in temperamentally with that sort of thing any more than they care to submit to the domination of narrow, fixed ideas.

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QUEENSLAND GETS BUSY

THE recent Reso tour through Queensland, which is described elsewhere in this issue, again brings that go-ahead State to the fore, not merely because of its tourist attractions, but because of its potentialities for development. Following the tour, Capt. G. H. Thornton, M.C., who was of great assistance to Resonians, is now, on behalf of the Queensland Government, visiting Victoria, N.S.W. and South Australia to boost the Northern State by lectures, and through the establishment of information bureaux. Queensland, which has much to offer the settler and the tourist, obviously means business. Capt. Thornton, by the way, is very much impressed with the Victorian Railways and their successful efforts to help the primary producer, and he is making a report on both The Better Farming Train and the system of selling fruit drinks at stations to his government, which is considering the adoption of these ideas.



Capt. Thornton

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SAVING FOR HOLIDAYS

AFTER little more than a year's trial, the Save For Your Holidays scheme launched by the Railways and the State Savings Bank has been pronounced a decided success. The lay-by system which many retail businesses have popularised, and which has fewer economic pitfalls than the hire purchase system, has evidently appealed, as far as holidays are concerned, particularly to the youth and beauty of the community whose earnings in office, shop, warehouse and factory, would be severely strained by the sudden depletion of £10 or so in a crowded week of glorious seaside, bush, or mountain, and its concomitant boarding house tariffs, new frocks, tennis balls, chocolates and what not. At all events no fewer than 5,365 holiday accounts were open at the State Savings Bank on June 30, which means that at least 5,365 people, some of whom pottered through last year's holiday in the garden or lazed about the nearer beaches, are going to have a real vacation within the next few months.



This ancient motor-buggy was recently consigned by rail from Spencer-st. to Maldon. It was the object of considerable curiosity.

" FLIER " POSSIBILITIES

WHEN the holiday season does start, it looks as if the Flier is going to be a popular tourist train, this year, with the whittling down of commercial road competition. Outside the interstate expresses, it is the finest train in the Commonwealth for comfort and fast running, and it serves a multiplicity of picturesque costal resorts such as Lorne, Apollo Bay, Peterborough, Port Campbell, Port Fairy, Warrnambool, in fact practically the whole of the Victorian Riviera. Other countries have their famous holiday trains—the Panama Limited which serves the Florida beaches, the Cornish Riviera Express, the Southern Belle which runs non-stop from London to Brighton, the Continental Blue Train, the Paris-Lyons-Mediterranean Express—trains which are known and named everywhere. Why shouldn't Victoria follow suit ?

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MORE HONEY EATERS

MENTION, a couple of paragraphs back, of the publicity campaign to Save for Your Holidays brings to mind the latest results of another successful effort, that of popularising honey. It is exactly a year since the public was exhorted, by means of posters, recipe booklets and slogan-signs to eat more, and in that time no fewer than 3,438 two-pound and 4,061 one-pound jars—in all, 10,937 pounds of honey—have been bought at railway fruit stalls. It is still selling well, many people having become regular customers. The citrus-fruit campaign, by the way, will shortly be revived, and another, which will enjoin young and old to " Nibble a Napple," is already under way.

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"AT MER FRUKT "

SWEDEN is the latest convert to the fruit gospel. According to an American consular report from Stockholm, an organisation known as the " At Mer Frukt " (or " Eat More Fruit ") was recently formed there to stimulate public consumption of fresh fruits. The campaign will start with the next fruit-shipping season and Australian fruit, marketed at Hamburg, should get a look in provided quality and prices are right. Campaign advertising is in the hands of one of the largest Swedish agencies, which recently sent a representative to England to study the methods of the British Eat More Fruit Campaign. At present, about 85 per cent. of the total Swedish apple imports originate in the United States.



The Reso Train at Kinanda (Q.)

"RESO-ING" *Through* QUEENSLAND

By D. CLAUDE ROBERTSON

MONTHS of preparation, of close co-operation between the Commonwealth's railway systems, under the direction of a central executive, have been necessary to bring the Victorian "RESO" blossom into the full flower of All-Australian Developmental Tours.

The success of the wider project has now been assured by the first tour—through Queensland—impressions of which are here recorded by Mr. Robertson, a well known city barrister, who was one of the sixty-one Resonians who participated in it.

A PLACARD bearing the words: "Australian Developmental Tours, No. 1" attached to the Norman Car on the Sydney Express on June 16 announced the departure of another Reso party bent on carrying out the slogan, "See Australia First" by speeding through Victoria and New South Wales to the Queensland border at Wallangarra with memories of the beauties of the Hawkesbury River. Now on our return and in our armchairs we can but visualise the past, or look at pictures taken on the trip while waiting patiently until the next opportunity presents itself of partaking of the genial climate and warm hospitality of the Northern State.

Our party was caricatured in one newspaper as The Modern Sun Worshippers, and although the morning of our arrival in Queensland was cold, the sun shone out brilliantly and we felt ourselves welcome.

That feeling remained with us throughout the tour, but became intensified. Bunches of wattle in full bloom were handed to members of the party at Yarongmula as gifts from its residents, and we then realised what kindness and goodwill were in store for us from warmhearted people.

Toowoomba's Welcome

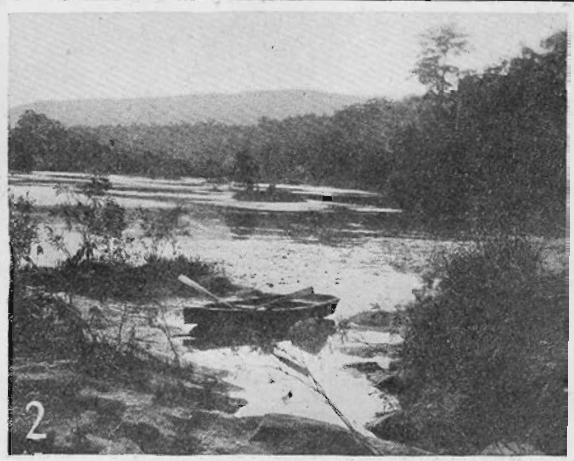
At Toowoomba, we were welcomed by the mayor—the first of many civic receptions on our way—and in this pleasant manner we learnt the nature, resources, population, industries, problems and prospects of each district; but in case we did not possess retentive memories, reams of printed information, guide-books and so on, were literally showered upon us. The same evening we reached Brisbane to be met by a fleet of cars, which actually came on to the station platform itself, and next day we were driven around this beautiful city, dominated by Mt. Cootha, where we were received by the Mayor of Greater Brisbane, and from which a view of the Brisbane River winding its sinuous course was seen. Men and women stood, the men at times with bared heads, as "the procession" passed. What respect for the party and the State from whence they came!

At Swift's meatworks at Cannon Hill we were shown some of the chilled meat which was being sent to Melbourne, and the whole process from the time the beast was killed until the carcase was shipped for export was seen and explained. What an opening for cattle-raising in Queensland and other parts of Australia, when one learns that the present rate of increase will only provide for the next 15 years' requirements at the present rate of consumption. One hundred thousand cans are filled with meat daily at these works alone. We were surprised to learn that the men in the canning department with meat to the right of them, meat to the left of them, meat all around them, were great meat-eaters.

Drizzling rain fell as we left Brisbane and we were unable to proceed over the Blackall Range, which is remarkably fertile country. At Nambour a lunch was provided entirely from the produce of the district. Here we visited the rural school, where boys and girls, not wishing to continue their academic studies, may learn wood, leather and

Where Resonians' Cameras Clicked





1 and 2.—Glimpses of the Barron River

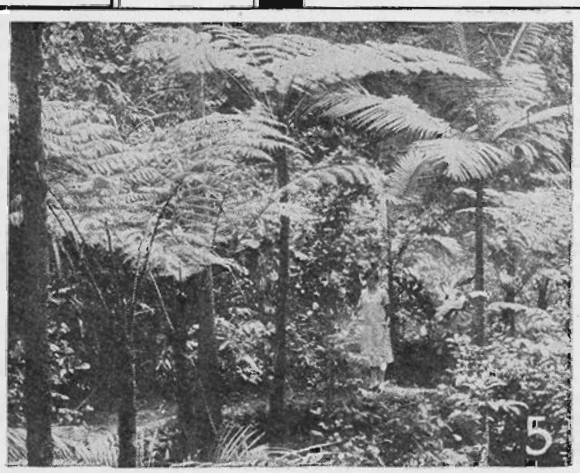
3 and 4.—Native dances at Palm Island

5.—Typical bush scene

6.—The Barron Gorge









sheet-metal working, or domestic science, to help them in their duties on the land. This is an excellent idea, and although the standard is not as high as that of our technical schools, the purpose of each system is different.

At Maryborough and other large centres we were impressed with the fact that the people do not rely on one industry alone but are self-contained. Engineering works, called in some places foundries simply, are able to turn out milling machinery for their local requirements. For example, at Mackay a movement is on foot to establish the dairying industry so that this large town will not be dependent solely upon the production of sugar cane.

The Millaquin Company at Bundaberg is installing a power alcohol plant by which it will obtain not only the ordinary spirit but also fusel oil, which is very valuable. The plant at Sarina has been established some time and the spirit is highly satisfactory. The extension of the power alcohol industry will overcome to a large extent the danger of over-production of cane, and in other respects the by-products of the sugar industry will become increasingly more valuable each year. Even megass may be used for purposes other than fuel.

In Arcadia

Our stay at Magnetic Island, which is six miles from Townsville was arranged with splendid forethought, as we were all willing to rest ourselves awhile after a week in trains. Our two days there will long be remembered; the little bays which there abound, the tropical vegetation and the surroundings of "Arcadia," the accommodation house on the Island, were things of beauty and a joy for ever. The corroboree staged in our honor at Palm Island, the tribal-war and the exhibition of spear-throwing were interesting diversions. The trip through the Hinchinbrook Channel at sunset with the long shadows cast against the slopes was worth the visit itself.

Very soon we were at Kuranda, north of Cairns. Here we stayed two days and were entranced by the marvellous tropical growth. We visited Fairyland, The Maze and Mr. Dodd's collection of moths and butterflies; in fact, the whole district to us was a fairyland. Words fail one to describe the foliage and the mystic charm of the river, the falls, the views from the hills, the ferns, and the palms. The stinging tree, "the sentinel of the forest," requires no introduction; he stands on no ceremony and brooks no interference, but his sting is worse than that of a nettle, as at least two Resonians found to their sorrow although "iodine held the key to make them free" of its pain.

The Atherton Tableland! Let the dairy farmer sing its praises. Let Victorian maizegrowers recite its possibilities! Let each of us acknowledge that here we had a splendid reception! We inspected the maize silos at Atherton, partook of a lunch at Millaa Millaa (the very tables on which the viands were spread groaned beneath their weight), stayed at the delightful Lake Eacham Hotel at Yungaburra until we left our hosts at Lake Barrine on our way across the great Range road to Cairns. Their hospitality was wonderful. A dance was arranged in our honor at Yungaburra, the lounge room of the hotel being given over to the dancers. Do we find such splendid accommodation for visitors in our up-country hotels? And Yungaburra is about 900 miles from Brisbane!



The writer of this article tries his hand at goat-racing

Theodore's Possibilities

From Cairns we began our homeward journey and we were most interested in the settlement at Theodore in the Dawson River Valley. Both irrigation and dry blocks are farmed, and experienced farmers from the Wimmera and elsewhere saw here great possibilities for development. Millet, maize, cotton and other crops are grown and opportunity is given to men with small capital. In another five years we would like to visit Theodore again to see whether our dreams for its settlers have come true. Rockhampton, the centre of the cotton country, and the sheep country of the West and Central West, gave us a splendid day. Its cotton ginnery and the Yaamba waterworks at Mt. Charlton were of great interest to the party. One Resonian thought that he would see black gins picking cotton at the ginnery, but he saw instead the seed cotton being taken off the railway trucks, sampled and weighed, and the seed and other debris removed and converted into cotton lint, which is exported. We should be reminded that Australian cotton has a fine staple. Seventy-five per cent. of the cotton exported to Manchester is premier cotton, we were informed, while only 3 per cent. of American cotton is of the same quality. For this reason, Australian cotton commands much higher prices abroad; but the other side of the picture is the variable rainfall, which means a difference of 12 million pounds of seed production in two successive years.



Resonians at Palm Island

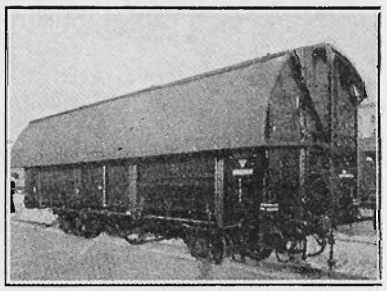
They Did Their Bit

One cannot close without a reference to the chairman of the party, Cr. J. Bennett of Horsham and his committee, for the tactful, genial, modest manner in which they carried out their duties and attended to the social side of the tour. A good chairman makes such a difference to the pleasure of a trip. The Queensland Railways did their part admirably. They have a very capable officer in Mr. J. E. Lingard, the private secretary to their Railways Commissioner, and their Refreshment Room Service leaves nothing to be desired. One point might be stressed and that is the comfort which is given by the provision of baths and showers at several of the main stations. One feels so refreshed to have a shower after travelling hours in the train; it is a necessity in a state of such long distances as Queensland.

LINES FROM OTHER LINES

TRUCKS WITH COLLAPSIBLE ROOFS

TO help to reduce the number of types of trucks and to minimise "empty" mileage, the Swedish State Railway is experimenting with wagons fitted with collapsible roofs, which can be used both for side and top loading. Fifteen of these wagons are now in operation. The collapsible roof is longitudinally divided into two shutters, which are worked by two arms fixed to a common axle at both ends of the truck. The shutters move outwards, and are manipulated by a handle which, through a suitable reduction gearing by means of a worm wheel, operates a system of cog-wheels, which turn the axle. On the axle are two cog-wheels, one at each end, which gear into a toothed segment situated on the down side of the roof. Both the lowering and raising are easily done by one person and take only two minutes. An angle-iron which automatically falls



Truck with roof partly open for top loading

over the joint between the shutters effectively keeps out water. On the sides roomy doors have been attached for the loading of piece-goods, etc., and on the end walls diagonally placed wickets have been arranged for the loading of wood-goods, pipes, and so on.

WORLD HAS 764,238 MILES OF RAIL TRACK

INTERESTING figures concerning the distribution of the world's railways, just compiled by the United States Bureau of Railway Statistics, show that North America has by far the greatest length of railway, with 316,444 miles—only a little less than half the world's total of 764,238 miles. Of the North American aggregate, the United States has 250,900 miles, compared with a total of 238,867 for the whole of Europe. Figures on a population basis give 21.9 miles of railway per 10,000 people in North America (the U.S.A. averages 23.6), South America 8.1, Africa 3.3, Asia 0.8 and Europe 5.1. Australia has the highest figure of 39.1 miles per 10,000 people. The world figure is 4.2, and the mileage of railway per 100 square miles of area is 1.6.

TRANS-PERSIAN RAILWAY PROJECT

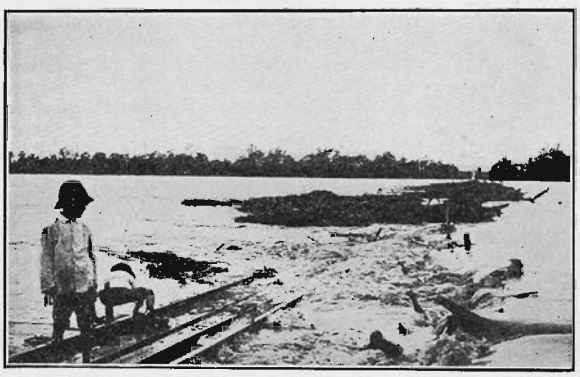
SURVEYS, to be followed by the construction of experimental sections of line, are to begin forthwith in connection with the important Trans-Persian Railway Scheme, in which various European and American firms are interested. The railway is to run from the head of the Persian Gulf to the south-eastern shore of the Caspian Sea. The total length of the line will be more than 700 miles. The northern portion will be built by German, and the southern by British, French and American firms. Besides opening up the not inconsiderable wealth of Persia, the line will have considerable political significance to Europe as well as to Asia. The contract will probably involve about £25,000,000.

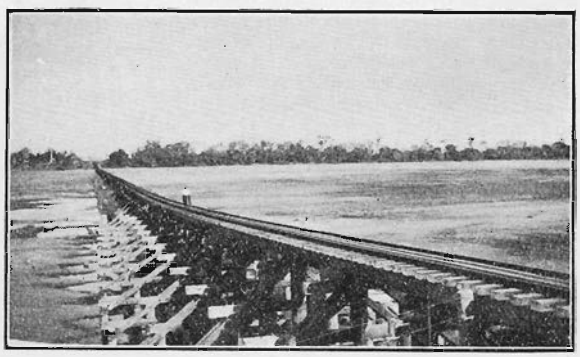
AUTOMATIC COUPLERS IN JAPAN

THE Japanese Ministry of Railways has just issued a very interesting pamphlet on the adoption of automatic couplings in that country, which took place in 1925, and which assured to Japan the honor of being the first country to carry out completely, and on a national scale, the recommendation of the International Labor Conference at Geneva, in 1923. The publication of the pamphlet is regarded as specially opportune in view of the decision of the International Labor Conference, a month or so back, to establish a special committee to investigate the question of securing the general adoption of automatic couplings. The pamphlet sets out in detail with ample illustration and statistical data, the work involved in the change over from screw and link to automatic couplings which have resulted in a great reduction in the number of accidents, and has made possible an increase in the tractive power of locomotives, and the efficiency of brake action on trains.

L.M.S. OIL-ELECTRIC TRAIN

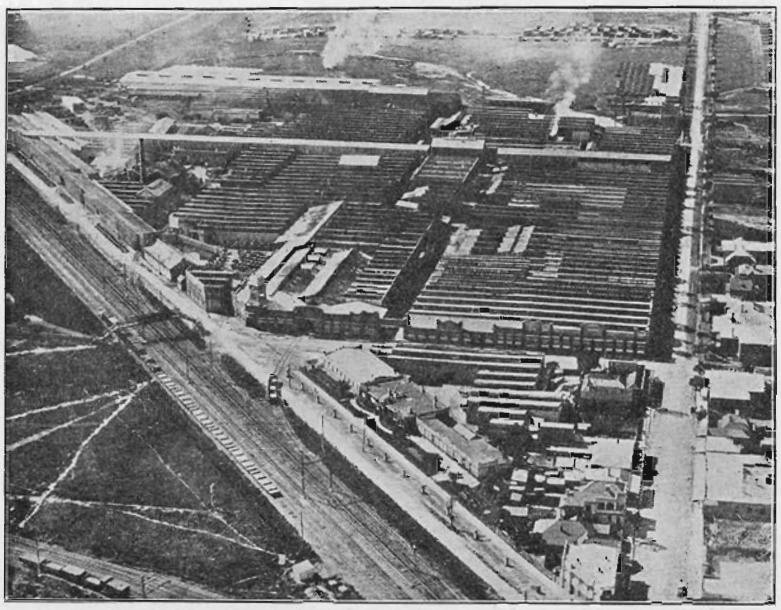
THE London Midland and Scottish Railway has become a convert to the oil-electric train. It is the first system in Great Britain to use it. Four coaches and a power unit, a 500-h.p. Beardmore Diesel engine are now in regular running between Manchester and Blackpool. The engine is run on crude oil, and a speed of from 50 to 55 miles per hour can be obtained.





These two interesting photographs sent in by a Queensland correspondent show the Burdekin River bridge, just south of Ayr and about 50 miles south of Townsville on the Great Northern Line, during the wet and dry seasons. The bridge, which is 58 chains long, is of the low level type which allows debris, in flood time to pass over without damaging the structure. It also obviates the cost of a high level bridge over the river which for the greater part of the year is dry. In the wet season when the river rises to more than 20 feet above the rails, passengers and mails are ferried across.

MAKING The FARMER'S MACHINERY



The Works of H. V. McKay, Pty., Ltd., at Sunshine

By Hugh Richards

WITHIN a few weeks, the hum of the header-harvester will be heard through the State, faintly at first in the north-west, but increasing its crescendo as the season progresses. Most of those header-harvesters which, in a comparatively few years, have revolutionised the garnering of grain, were made down Sunshine way, where, today, hundreds of them extend across the open, in serried ranks, waiting to be trucked away, the sun gleaming on their bright colors, spoked wheels and sword-sharp discs. Boadicea's battalions of chariots would have made an insignificant show beside them.

Behind them sharply rise the sawtoothed iron roofs of their sprawling birthplace, H. V. McKay's Harvester Works.

RATHER an expansive and extensive birthplace it is, too. It covers 40 acres, including 28 acres of buildings. It is flanked on one side by something like 3,000 tons of stored steel and iron material, and its timber yards carry a 3,000,000 super. feet stock of pine, yellow and brown stringy, blue and red gum, Queensland beech and other high quality woods.

Header harvesters, moreover, are only one item on a list of manufactures which embraces 42 different lines. The header harvester's *forte* is the salvaging of wheat from storm and rain-flattened crops. Standardised in six, eight and 10-foot sizes for team or tractor draught, it picks up the worst flattened crop, cuts all the straw with its reciprocating knife, conveys and elevates the tangled mass to a threshing drum, ejects the straw, winnows away the chaff and delivers the clean and graded wheat into its receptacle, ready for bagging and immediate delivery to the railway.

Some of the header harvester's more important brothers are the stripper harvester, which completes the whole work of harvesting ripe grain from standing crop; the autoheader-harvester, with its four-cylinder engine and fearsome, spreading 12-foot knife; the rugged stump-jump disc plough, which will stand no nonsense from the stoniest and most be-stumped paddock; the grain and fertilizer drill, which blazed the trail in mechanical seed sowing, and its more scientific prototype, the tyne drill, which will cultivate and sow at the one time; the six and eight-foot reaper and binder, which knocked a hole in the inflated prices which the imported machines were reaping from Australian farmers; and the undercut one-way disc cultivator, which leaves lumpy tilth where it finds the hardest soil, revels in summer fallowing, and cuts and buries the rank weed growth with considerate ruthlessness.

10,000 Tons of Iron and Steel

To maintain its regular output of this wide range of agricultural machinery, Sunshine absorbs 10,000 tons of steel and iron a year, besides £100,000 worth of timber, £15,000 worth of leather, and £25,000 worth of fuel. Entirely self-contained, the industry's activities revolve around the engine works, with its 80 machine tools; the bolt and nut manufacturing department, with a capacity of 37,000,000 bolts and nuts a year; the heat treatment department, where the work's tools and dies are hardened; the laboratory; the gate shop, where 100 wire gates can be made in one day; the reaper and binder department; the timber yards, the foundry, the main processing room, the assembly shop, the wood mill and the duplicates department. Each has its separate important function to perform, and all blend into one complete, highly organised entity.....

Actually, the white-coated chemist in the McKay laboratory is the man who has first say in the production of an agricultural implement. He makes analyses of the quality of all wrought iron and steel, pig iron and scrap iron, of all rubber, paint, pigment and varnish, of all coal, coke, moulding sand and fire-clay. Microphotography's searching eye helps him to examine the crystalline structure of special kinds of steel. Twice daily he tests the cast iron from the foundry. Science works for the farmer from first to last at Sunshine.

Pungent smell of benzine and environment of raw, vivid crimson characterise the painting department. There is a fine hearty simplicity about Sunshine's method of painting machinery and machine parts. No brushes, no spraying. Bundles of parts, weighing as much as eight hundredweight, are hoisted aloft by air lift, to be dumped and immersed in large bath-like dips of red, yellow or black paint. The long, narrow red dip is a scarlet gash in the floor, 16 feet long, three feet wide and

six feet deep. Dragged dripping from these sticky baths, the thoroughly painted—or paint *coated*—parts are hung to dry, stencilled, lined, dipped in a varnish bath and finally suspended from the half-mile of overhead runways in the "orchard." The constituent parts of more than 100 headers may be swinging like very solid and very bulky fruit from the steel branches of the "orchard" at any one time.

The fierce glare of roaring furnaces and the thump and thunder of drop hammer and steam hammer make an inferno of the blacksmith's shop. Burly demons, with bare arms, stiff aprons and supremely undiabolical faces, forge and hammer, stamp and weld, temper and test. Cherry-red steel is drawn, dripping hot, from an oil furnace and coiled into spiral springs on an impassive lathe. Unflurried bulldozers, with the slow-moving but irresistible force of an avalanche, ceaselessly press and squeeze hot iron. Over all is the greasy smell of fish oil.

The heat is gone in the sheet iron department, but the tumult still rages. Four electric welding machines unite sheet metal pieces at the rate of 30 welds a minute. Which isn't dawdling. Beam presses shape and stamp elevator cups, straw walker grips and other sheet metal parts for harvesters and drills. They punch with the strength of a Heeney and the scientific direction of a Tunney.

A 60-ton beam press is the largest machine tool in the factory. It exerts a total pressure—the word is inadequate—of 1,500 tons. It will prod 50 holes in a 10-foot steel plate as easily as a match could prod a hole in a crumpet. It will slice through a one-and-a-quarter-inch thickness of steel in one cut. It was made in Australia from drawings designed by the Sunshine draughtsman.

In the three-acre foundry, an impatient, unseen Hercules hammers at intervals with iron knuckles on a galvanised iron fence. The clangorous outbreak rings round the white walls. Here grey iron, malleable and converter steel castings are made. Automatic power moulding machines convert 220 boxes daily from plate patterns. Two thousand tons of smelting coke helps to turn out four million individual castings a year. The moulding sand brought from various parts of Victoria fills 300 railway trucks yearly.

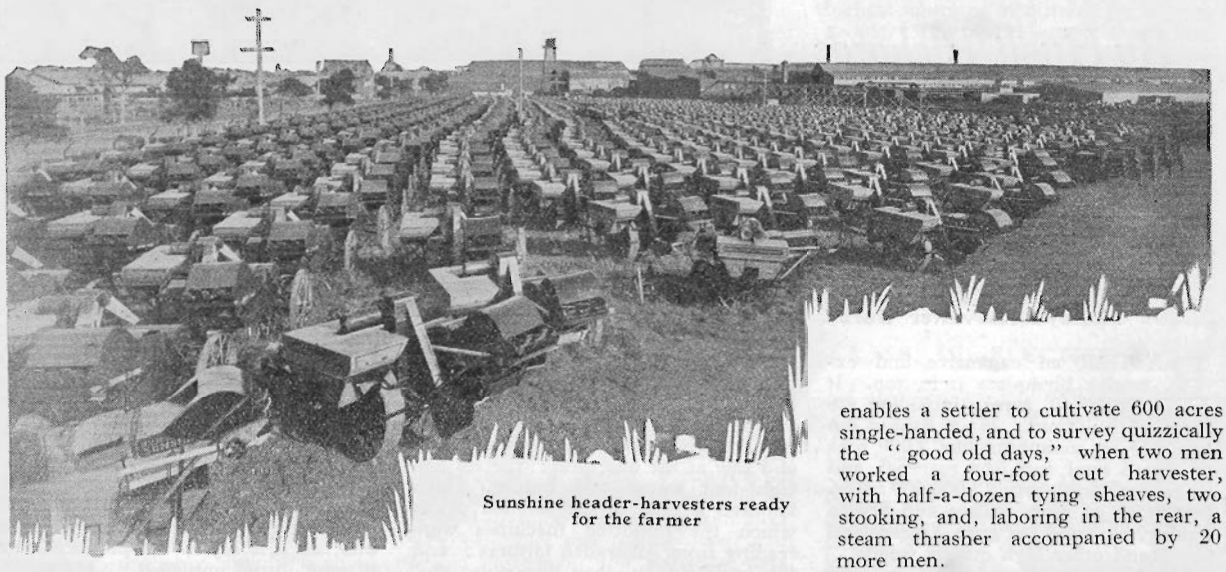
Ten annealing ovens bake the malleable castings at a temperature of 1,500 degrees for several days. The metal is then slowly cooled—it can do with it—and its resultant toughness and malleability suit it for many roles which could never be filled by the ordinary grey iron casting. A Melbourne University test has shown that a Sunshine malleable casting has a tensile strength of some 28 tons to the square inch. It seems enough.

Incidentally, approximately 30 tons of flour and 1,500 gallons of linseed oil are devoured mechanically in the core-making branch of the foundry. Made of sand mixed with the flour and linseed oil, besides other ingredients, the shape of the core is responsible for the inside hollowing of the casting, just as the mould is responsible for the outside shaping. The complicated figures of the cores are cooked in ovens until sufficiently hardened.

From all these various sections, the different machine parts eventually converge on the reaper and binder department, where two operatives, on the assembly floor, testify to their own expertness and to the perfect fit and duplication of the parts by setting up seven complete machines in a day. Here there is a grave and skilled milling machine, which, with a meticulous accuracy never varying one-thousandth of an inch, shapes the backs of the binder's fingers to form the race of the knife bar. Here there is a rapid rivetter attaching the knife section to the knife bar. Here there is a multiple drilling machine piercing sprockets with four spindles.

Finally the finished machine is run on rollers and thoroughly tested, even to the extent of trying a number of sheaves of hay .....

Comparison of pre-McKay and ante-McKay crop-farming methods illustrates strikingly the value of this all-Australian industry to the man on the land. In 1832, one man could produce, reap and thrash a bushel of wheat in 3½ hours. Today a self-propelled Australian auto-header will harvest, thrash, winnow and bag ready for market more than a bag of wheat per minute, representing 50 acres of crop per day. Modern machinery, in fact enables a settler to cultivate 600 acres single-handed, and to survey quizzically the "good old days," when two men worked a four-foot cut harvester, with half-a-dozen tying sheaves, two stooking, and, laboring in the rear, a steam thrasher accompanied by 20 more men.

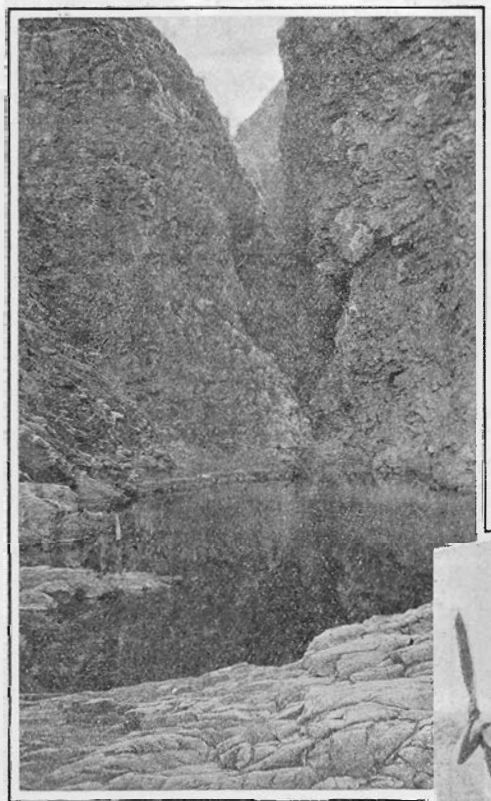


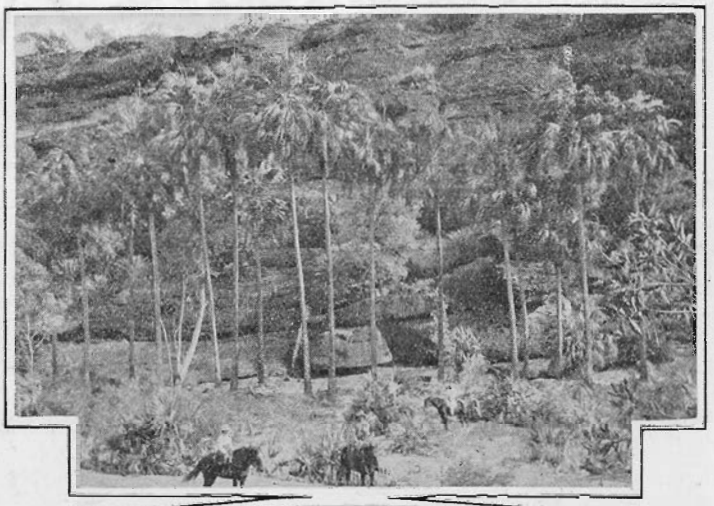
Sunshine header-harvesters ready for the farmer

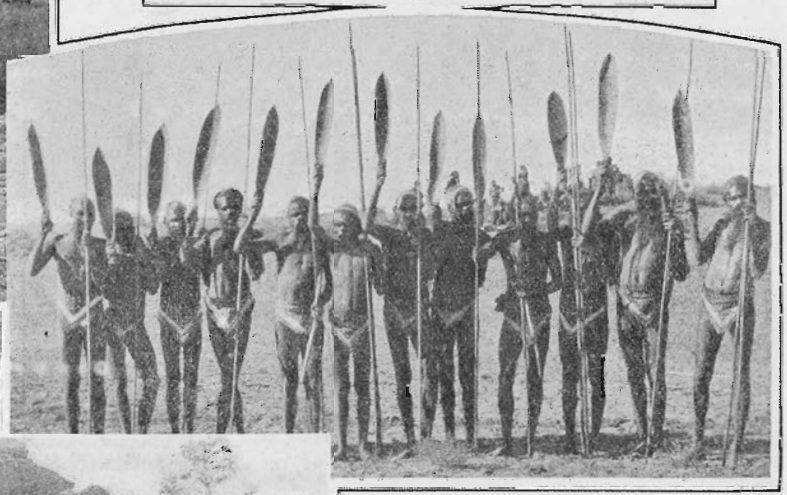
It is in the highest degree appropriate that a crude slab hut should now be set up on the neat green lawn which flanks the administrative buildings at Sunshine. For that hut bears a plain brass tablet, inscribed: "The first harvester was manufactured in 1884 in this smithy at Drummartin, Victoria, by Hugh Victor McKay." Brought down intact from the old McKay farm, it has been re-erected, log by log and shelf by shelf, in the grounds of the huge factory which owes its existence to the ambition which was realised under that same bark roof, two score years ago. Inside are the anvil, the bellows and the forge with which young McKay hammered his dream of mechanical revolution into actuality.

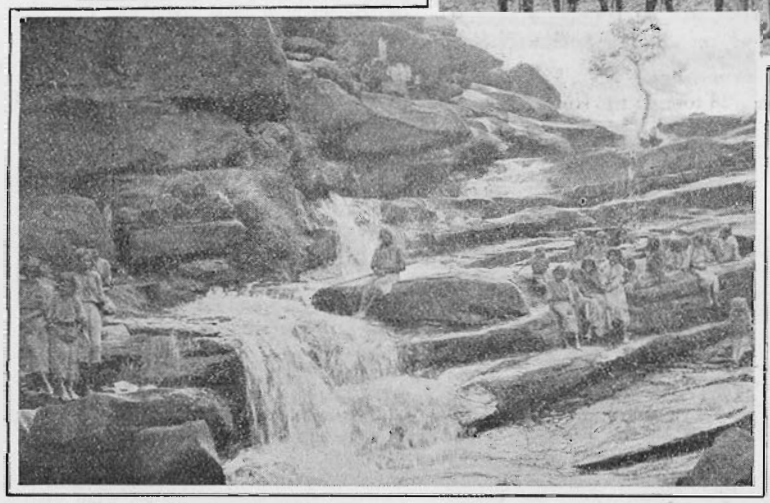
Looking ahead then, did he ever glimpse, even faintly, the future of that clumsy but efficient machine as it grew steadily under his hand and brain?

CENTRAL AUSTRALIA'S OASIS









PALM Valley, Central Australia's beautiful oasis, where gorgeously-tinted sandstone cliffs and cathedral-quiet gorges vie in chromatic splendor with cobalt skies and the vivid greens of 100-foot palms and dwarf cycads—one of the oldest forms of vegetation in the world—has all the makings of a world-tourist resort. Its wonderful climate, bracing days and frosty nights, alone make it, for three or four months of the year, a Mecca for health-seekers; its unique character, its tremendous antiquity, and its vast, luxuriant stillness and sense of remoteness give an irresistible invitation to others to explore and enjoy both the valley and the magnificent McDonnell gorges, 30 miles away. At the instigation of the Australian Railways Commissioners, Mr. C. H. Holmes, Chairman of the Victorian Railways Betterment and Publicity Board and Central Executive for All-Australian Reso Tours, recently co-operated with Capt. H. J. Larkin, of the Larkin Aircraft Company, in an investigation into the possibilities of Palm Valley as a site for a tourist camp. These photographs were taken during the tour.

Representative Railroaders

No. 13

By R. H. JUNIOR

Chief Train Despatcher W. T. McCONNELL

Caricature by ANGUS MAC

THEY called him a mug in 1907. He was a truck recorder in the Ballarat yard. His home was in Ballarat. All his associations were at Ballarat. He could easily have grown into a more or less permanent position at that centre. But he went out of his way to study telegraphy and to win his operator's certificate after a couple of months' hard practice. Immediately he was rewarded with a transfer from his hometown job to a wayback Mallee station as operating porter. "Mug," said his cobbers, succinctly and superficially.



But young Operating Porter Billie McConnell of those days was no more a mug than Chief Train Despatcher W. T. McConnell is, these days. So early he showed the independence, the forethought, the decision and the resolution which his career has since matured and developed. Buffeted by hard experience as operator and reliever, knocked and hammered by all the trials and tribulations of up-bush ansportation work, he emerged at a precociously early age with his pockets stuffed with block, electric staff, A.S.M. and S.M.'s certificates.

That juvenile and self-sought fight with practicality, that deliberate severance of hampering ties, that impatient rejection of the passive role of a railway Micawber, put a train running man's head on the truck recorder's shoulders. A station-master in 1913, W. T. McConnell had already caught the eye of his district superintendent . . . .

Always he had made a fetish of train running. "On time all the time" might have been the McConnell heraldic device. It was inevitable that he should drift into the train running bureau of A. J. Morris at Spencer-street late in 1917. There his appetite for whittling down roadside delays and speeding up sluggish schedules grew by what it fed on. And there he remained while W. Tredinnick succeeded A. J. Morris, and until the idea of district traffic inspector was conceived and born in Victorian Railway practice.

Actually, McConnell was the Department's very first traffic inspector. Before 1920 an occasionally regular form of responsible supervision and general station inspection had been in the hands of selected officers whose headquarters were at Spencer-street, and who toured the different districts at convenient intervals. Eventually, however, the advantages of a decentralised system of inspection began to obtrude themselves, and on May Day, 1920, McConnell went back to Ballarat as traffic inspector on District Superintendent W. F. Jones's staff. Thirteen years, that is, after he had been truck recording at Ballarat and qualifying

for telegraph certificate and contemporary title of mug.

Incidentally, the Western District celebrated his return by precipitating a water famine at Serviceton, and McConnell, assembling attenuated fleets of water trucks and organising a water train service from Horsham to the dry border town, day and night for several weeks, got an immediate hint of the versatility expected from a competent traffic inspector.

Of course, on and off, he contrived to vary his traffic inspectoring at Ballarat with spells (the word is a misnomer) as train running man. And he chief-clerked under District Superintendent T. W. J. Cox for a while also.

As train running officer, his reputation brought him back in 1925 to head office to blend with the just-formed Central Division, which was designed to keep a watchful eye on suburban running, metropolitan goods schedules and country traffic between Melbourne and Bendigo, Geelong, Ballarat and Seymour. Later on he left the time-keeping world to act for a short term as Transportation member on the Betterment and Publicity Board, but the development of the intensive train control system dragged him back unresisting into the position of Chief Train Controller.

There he has remained. His official label was altered in 1927, when he became Chief Train Despatcher, but his duties haven't altered, and his methods never will. Many hard lessons he learned in the transportation and train running school, and not one has he forgotten. His brain is a series of pigeonholes stuffed with district working timetables. He has the times, performances, records and reputations of every goods and passenger train in his division at his finger-ends. He knows the business-science of train running from "pick-up" to "set down."

With it all, he would never bluff. If he's not sure of his information or his knowledge, he says straight out that he's not. The pretence of omniscience gets short shrift at the McConnell hands. Long ago when he was operating porter, an old, conscientious, stammering S.M. set himself to show the junior how to compile the complicated account current. At the end of a laborious demonstration the S.M. asked him if he had grasped the idea. McConnell hadn't, but he was a bit diffident about taking up any more of the kindly old man's time. He hesitated. The S.M. waggled a pen at him and looked at him over the top of his half-moon spectacles.

"B-B-Billie," said he, gently, "n-n-never s-s-say y-y-yes if you m-mean no."

So Billie reddened and said "no," the S.M. showed him again, and Billie confidently made out the station's next account current himself. To this day the McConnell "yes" has always meant "yes." . . . . . :

Now, barely 40, the erstwhile truck recorder—tall, bolt upright, straight-backed, smiling, frank, likeable, with picturesque thick grey hair and the most expressive left eyebrow in head office—takes the reins from the driver's seat on the Victorian Railways train running coach, clicks his tongue persuasively and gallops surely towards one hundred per cent. punctuality, with nearly half his career still to run.

And 21 years ago they called him a mug.

A SCHOOL ON WHEELS

By UTHAI VINCENT WILCOX



A group of young seekers after knowledge in the Canadian outback

GREECE, some two thousand years ago, learned that business followed the school teacher. A peripatetic professor was sent out to wander about Athens and gather in the men and women to some quiet nook and there inculcate the knowledge that tapped the desires which were satisfied only in buying books, new robes, better houses, and investing in foreign exchange and new temples.

The lesson learned in Greece is being applied to-day in Ontario, Canada, and is discovered to be as efficient as when first promulgated, as Mr. Wilcox clearly demonstrates in this article reprinted by courtesy of "Dun's International Review."

IN the hinterland of the Province of Ontario, whose northern boundary is washed by the Hudson Bay inlet of the Arctic Sea and its southern shores by the greatest of the Great Lakes, the greatest of the experiments in creating new markets and good will through samples of education is now well proved.

For years northern Ontario lay in cold oblivion, unknown and unrecognized, a land of sagebrush and stunted poplar, fit only for the habitation of the nomad Indian and his brute companions of the wild. Then, gold and silver were discovered, which brought the adventurous. There followed the seekers of timber and basic ores. Some twenty million acres of arable land beckon the settler able by spirit and physique to conquer its first difficulties. The cry of gold brought a sparse population which slowly grew by the addition of hardy pioneers living off the natural bounties. Two great railways systems thread their way through the five thousand miles, linking the populous cities of the United States and Canada with virgin forests. Along these lines of steel, right-of-way gangs of six to eight men must group themselves every four to six miles to insure the safety of the thousands of people that pass and repass. These isolated groups become augmented by hunters, trappers, pocket farmers, tie and lumber cruisers, jobbers and millmen and others who must work the wilderness.

It is here that the ancient Greek experiment was tried out in twentieth-century manner. Instead of the peripatetic teacher there is a Prince Bountiful, bringing gifts that create the desire to have more. But the gifts are

in the form of knowledge and learning and wisdom. Schools on wheels slip quietly into these little settlements, stop on a siding and then are gone in a few days, only to return in from four to six weeks to check on the knowledge and lessons assigned. The foreign-born, as well as the English-speaking, flock to the unique cars where imaginations are stirred and desires awakened.

The Canadian National and the Canadian Pacific Railways provided the cars for the tests. The whole equipment was a model of completeness, and in itself was a travelling advertisement of new comforts. There is a kitchen, and a living room, as well as the school-room compartments. The kitchen itself would stir the envy of the most fastidious housewife, with its built-in refrigerators, food lockers, dish cabinets, sinks, and tables of nickel steel, range, kitchen utensils, ironstone china. The living room has its beds, carpets and upholstery. The class-room has all the equipment and prerequisites of the most up-to-date school.

MORNING by morning, as the school on wheels rests on the siding, the sounds of the school bell echo and reverberate down the forest aisles, a strange, weird note in a great wilderness of space. A new note never before heard. The effect of the advertisement of this modern world is startling in its influence and awakened love of knowledge and facts. A 100 per cent. attendance of whole neighborhoods is the answer of the communities. There are magnetic forces playing about these cars of learning, that find articulate response in the hearts of people who crave a better knowledge of living.

These cars ply back and forth on their hundred-mile beats, meeting, at six to eight station points, their coteries of from five to twelve pupils who welcome their advent and regretfully wave them adieu when the week's work is over. But heads and hands are busy in the interval, on prescribed work set and supervised by the teacher. The interest of the children in their school car almost passes belief. Before it arrived, their lives were a vacuity. Now their powers have been liberated, their time is crowded with profitable and well directed achievement. They have established a contact with the outer world of men and things. The school car has touched the mainspring of their lives. It has set the dormant forces and interests in action. Being new and strange and unique in form, it carries an air of mystery in its movements.

The ultimate value of the school car to these distant settlements can hardly be estimated in commercial terms. Yet, they have a most direct bearing on business, and in a far more direct way than does the missionary, they achieve a mission of good will that is reflected in a steadily increasing shipment of new appliances and modern conveniences to this new region of the north country.

An enthusiastic young man, accompanied by his wife—Mr. and Mrs. Fred Sloman—are the teachers. They have opened night schools at various points. The non-English are being taught to read and write and compute. The section hand who previously was doomed to stay where he was, because he could not read a train order or figure out a grade, or estimate fuel consumption, or note tonnage, is lifted into a new world of promise. His ambition is whetted. Those who can read are supplied with the world's literature.

THE teachers are dynamic. They are the best samples of the outside world. Their very presence there in the appearing and disappearing school on wheels is stimulating. They not only teach the young, but they are letter writers and interpreters, referees, and advisers of new things to purchase from the great world to the south. These modern pioneers of civilization are veritable panaceas for the troubles of the little settlements.

Incidents are abundant to show that the school on wheels is answering a need, creating good will, and opening up new business avenues. Two boys of nine and eleven were discovered alone in a shack in the forest, orphaned of a mother and left, by force of circumstances, by their father, to forage for themselves for the Winter, while he attended the traplines far down stream towards Hudson Bay. Sloman chanced on them, picked them up, and introduced them to the School Car. As it was nearing Christmas, he played Santa Claus to them, outfitting them in clothes, a supply of which he had on hand for the purpose. He kept them with him over the holiday season.

He discovered that 26 out of 28 children had never heard of Christmas. What a time they all had. The toys that were ordered! And the food! Here was plenty to eat. Here was a contact with a new world. Here was an incentive to secure the satisfaction of new needs and new pleasures. These boys found an old used tent, pitched it among the spreading spruce, banked it with snow, thatched it with boughs and actually lived in it through the dead of a northern Winter in a temperature of 45 to 54 degrees below zero, for the weeks that the school car was nearest to their home, forty miles away. Others, hearing the word, packed two weeks' provisions in their canoes and paddled thirty-two miles down stream, in order to secure some of the mental benefits of the school on wheels.

THE result of such a desire to learn has broken records. The Minister of Education is having to revise his time schedules. In seventeen days two children have learned to read and write, when on the second day they could only write, with great difficulty, the word "c-a-t." Others, in a few weeks, jump into the third and fourth grades. As a consequence, Teacher Sloman says now that "education is a state of mind." And this youthful discipline from southern regions has found an absorbing duty. His day begins at sun up and closes only in the "wee sma' hours." But, although too tired to rest, he breaks out with the exclamation: "Well, anyway, I wouldn't change places with President Beatty!" Mr. Beatty is chief executive of the Canadian Pacific Railway.

This unique effort is rapidly changing the aspect of the great Province of Ontario. It is becoming a leader in many industries and movements. All its institutions are in their infancy. It is ready to pour millions of its original wealth into the lap of Canada, and thence to benefit the world. Railways and travelling schools have stimulated its life so that, from adult to the youngest pupil, the North means a better place to live, with a vision of its worth and a desire to tap its resources.

Not the least of the results is the changed condition in the railroad world. The railways and the civil authorities are receiving the answer. Better order for learning is its own pleasure. And for the railways, the school cars are bringing the education that makes better workers along the right of way. Train orders, forms and messages can be more easily understood. Instead of finding it difficult to obtain joint action from the isolated groups, there enters a spirit of co-operation and achievement.

And appreciation? One day the lesson called for recitation, there within the Arctic circle, was "Father, we thank Thee for the light." The teacher asked his pupils to name some of their blessings. Dreamy Fred, looking out of the broad, double glassed windows, said as his eyes wandered to the red sun circling the horizon, "The red sky, it is so beautiful." "What are you thankful for?" the teacher next asked John, who was watching him in eager seriousness. "For not being lame or sick," John replied. Then Thomas, who had been shaking his hand and finding it hard to control his eagerness for supplying what to him would be THE answer, could wait no longer and almost shouted, "For having the School Car come to us." While the other pupils joined in, "Yes, Yes, the School Car!"

Education, twentieth-century style, is having its period of victory these days, led by the youth who can fight its battles as certainly as they can those of science, or as soldiers of fortune or organisation of industry.

RAILWAY OUTPOSTS–No. 4

TALLANGATTA

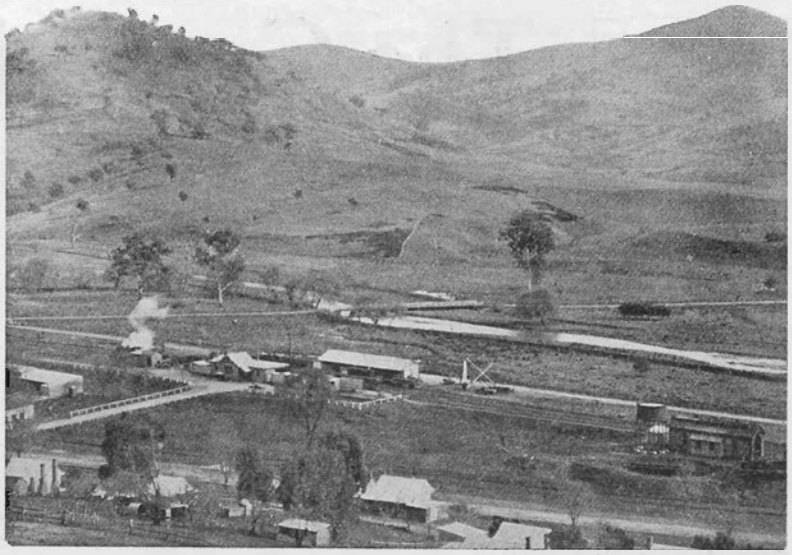
DOTTED round, and sometimes far-flung from, the larger centres of railway activity in Victoria are the seventh, eighth and ninth class stations that feed in revenue as the watchful outposts of an army feed in intelligence to the main body they protect. This series of articles is an attempt to summarise the work of a few of these essential railway outposts.

THERE are four a's, three t's and two l's in Tallangatta. There are also two hotels, three banks, five garages, one railway station, 20 shops and 600 people. *And* four railway transportation men.

The station itself is a matter of 212 long miles from Melbourne, and is set down like a toy model in the centre of a sprawling semi-circle of bald slumbering mountains.

For 23 years Tallangatta was the terminus of the line which strikes out eastward from Wodonga, but now the shining steel rails stretch 45 miles farther on to isolated Cudgewa. They climb and twist and climb and climb again. In the 23 miles between Tallangatta and Shelley they climb from 622 feet to 2562 feet above sea level. That section, incidentally, is probably the longest single section under staff operation in the State. The engine-driver carries the Tallangatta–Shelley staff for close on three hours.

Around Tallangatta is spread one of Victoria's richest pastoral and dairying districts. Fat stock browse in the fertile Murray river flats. There is one butter factory at Tallangatta, and another some 12 miles out. Both combine to give the Tallangatta railwaymen a regular butter freight which reaches a total of 720 tons in a year. Last year, also, 368 trucks of cattle, 480 trucks of sheep, and 70 trucks of pigs were hauled from the station yard.



The station

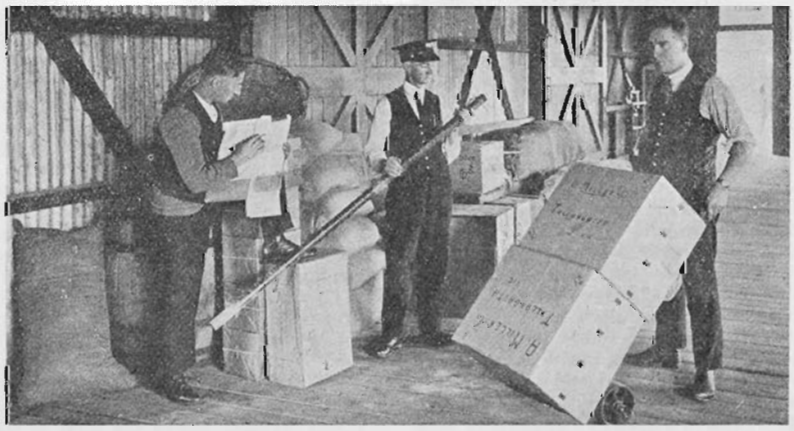


S.-M. A. G. Brown

A season's wool yield realises 2,500 bales. Rated as seventh class, Tallangatta turns over a total annual revenue of approximately £24,000.

That keen young station-master, Albert George Brown, has been in charge for the past three years. He has had previous terms at Winchelsea and Bungaree, and has also been night officer at Ararat and Benalla. He has three right hand men in porter T. W. Anderson (a Tallangatite of 15 years), shed porter H. J. Hammond and lad porter G. H. Bayles. The quartette make a singularly capable team. Office and station buildings are kept scrupulously clean. Returns are never late. A 100 per cent. ticket collection is a common occurrence.

Only one cloud obscures Tallangatta's horizon. That cloud, however, is one which cannot very well be ignored, either by railmen or townspeople. In a word, it represents nothing less than temporary community extinction. For Tallangatta is doomed. In five years' time, station, railway line, township and thousands of acres of rye grass flats will be completely and utterly drowned. No biblical significance attaches to this impending doom. The submerging waters will constitute part of the great Hume weir. Tallangatta, to avoid getting its feet and head wet, will, perforce, move higher up the slopes of the southern hills. There will be no very extensive deviation of the reconstructed railway. It will skirt the weir. Total compensation for the submergence is estimated to reach £120,000. But that compensation won't have to cover any deterioration in railway service. North south, east or west, Tallangatta railway staff will individually and collectively carry their traditions with them.



All hands on deck in the goods shed

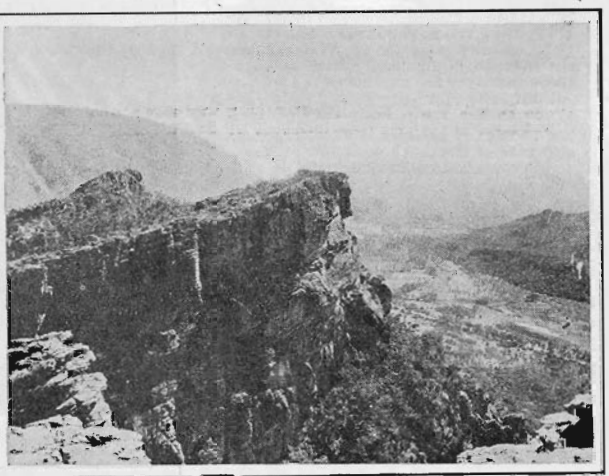
Where to Spend a Holiday

The Grampians

By M. J. HARKINS



MacKenzie Falls

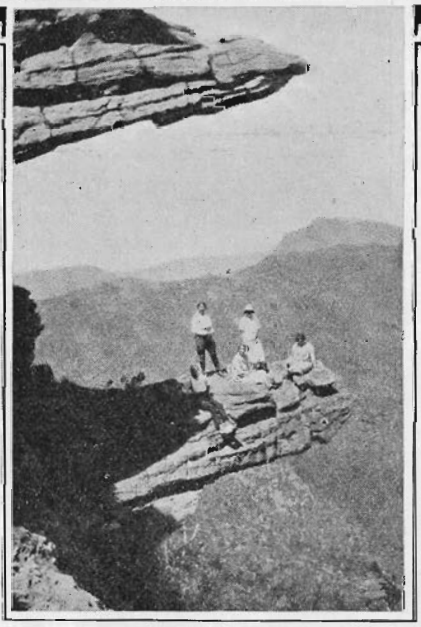


Relph Peak

IN March, of the year 1836, an expedition under Major Mitchell left Sydney equipped for a long and arduous exploratory tour of the then unknown country in western Victoria. The party travelled south for three months, and after crossing the Murray reached the Hutchinson River on July 13. From there Major Mitchell saw for the first time the ranges he subsequently named The Grampians.

On the following day he decided to make an ascent of one of the high peaks to view the surrounding country, and choosing as his objective Mt. William, bestowed on it its name, in honor of King William of England. In his account of the ascent, Mitchell recalls that the weather was wet and misty, and the cold so intense that the rocks on the mountain were ice incrusted. After many hours' strenuous climbing through thick scrub and across slippery rock, the summit was reached, but the purpose of the excursion was defeated by the clouds that enshrouded the countryside. As the party was not equipped for a lengthy stay, it was necessary to retreat to the camp without fulfilling the object of the excursion. As a result of this experience, Major Mitchell formed the opinion that the country surrounding Mt. William was utterly worthless on account of its ruggedness and inaccessibility.

From the camp on the Hutchinson the expedition skirted round the ranges to Mt. Zero, the northern extremity of The Grampians, and from there obtained a view of the western plains, but in spite of Mitchell's glowing account of the Wimmera and Glenelg country, the area remained unselected until 1843, when Mr. H. Norman-



Mt. Victory

Simpson took up land near Mt. Zero. His lead was speedily followed by others.

Although the natives that inhabited the hills proved unfriendly and treacherous, the fertile nature of the country tempted other settlers west, and in a short time a thriving settlement of selectors was established.

Notwithstanding the increasing number of settlers on the plains, it was many years before the fastnesses of The Grampians knew the presence of white men. The early selectors considered the penetration of the ranges by cattle impossible, and it remained for cattle duffers to discover a way through what is now known as Hall's Gap. Through this doorway to The Grampians, many stolen cattle were driven and left to fatten until their loss had been forgotten. Then they were sold in the mining camps surrounding Stawell.

The fertile valleys within The Grampians were not used by settlers until 1870. About that time two hardy Scotsmen established themselves on the stream now known as Fyans Creek, about the present location of Myrtlebank. The name Fyans was probably derived from that of a Capt. Fyans, who was Crown Lands Commissioner for the Western District.

Since then the mountains have known many changes; roads and tracks have been cut and homesteads established. Now The Grampians are the Mecca of tourists from many parts of the continent and all corners of the State.

Situated at the entrance to the ranges, Hall's Gap is a convenient centre for innumerable pleasant excursions. There are within easy reach peaks commanding magnificent views of mountain and plain, rock walled streams, and sparkling cascades. In Spring, nature clothes the surrounding country in a gay mantle of shrubs, and an abundance of flowers, and throughout the season many species of flora, not found elsewhere, bloom in profusion.

Of the many places of interest easily accessible to the tourist perhaps the most charming are Wonderland and Mt. Victory. An excursion to the former provides a glimpse of everything that The Grampians have to claim the attention of the lover of wild scenery. From the summit of the

Concluded on page 46

RAILWAYMEN of the MONTH

Unofficial

IN glittering array on the severely official desk of the Rolling Stock Chief Clerk last month, lay a case of cutlery and fish slices. The significance of the exhibit, however, was entirely unofficial. It was destined for the domestic buffet of Mr. and Mrs. Dan Donovan, and it carried with it the best wishes of the Rolling Stock head office staff for the future happiness of that newly married couple. Dan blushed appropriately in his response to the verbal tide of flattery from Messrs. Ryan, Dickinson, Heffey, Ruglen, O'Doherty and Kent.

Orphanage Movies



IN his eighth year of office as Secretary of the Railway Carnival Committee, which has been raising money for the Ballarat Orphanage for 38 years, Bob Caddell has seen a cheque for £240 flutter the way of the orphans. Portion of this amount will buy a kodascope, so that the kiddies will be able to have their own movies. Bob was elected secretary of the committee in 1920, and since then more than £2,000 has been contributed to the Orphanage funds by district railwaymen. So high is his reputation as an organiser that a special request was made to the Commissioners for the temporary release of his services in 1926, to conduct Ballarat's city appeals for St. Vincent's Hospital and a big rebuilding scheme at the Orphanage. Bob's secretarial pen scribbled its signature across a £1,000 cheque for St. Vincent's, and a £10,000 cheque for the Orphanage.

Two Months

GOODS Guard Jack Mullin of the Melbourne Yards has only two months to familiarise himself with the working of the automatic couplers and ratchet brakes. On October 31 he packs away his green flag and guard's kit and calls it a day after 40 years on the job. An ordeal of hearty but regretful handshaking confronts him.

Youngest Yet



A LABORER in the Melbourne Goods 18 years ago, Alf. Jukes now succeeds Jim Jeffers as senior foreman of "A" Shed. Just 45, he is the youngest man who has held down this big job. He has been truck stower, checker, shedman, parcels clerk, sub-foreman and foreman, and right through, in every position, has pushed his way to the front by sheer merit. Country experience came his way at centres like Maryborough, Bendigo, Stawell and Horsham, and for five years he was in charge of the Prince's Pier, Port Melbourne. In the busy season for some months before Jim Jeffers's retirement, Alf. worked late shift as acting senior foreman. He is a particularly good man in a particularly hard job.

Dyed-in-the-Wool Signalman



THE whole career of just-retired Block and Signal Inspector Ted Hoare revolved around signal boxes, signal-arms and signal-levers. He started in the Richmond Junction box as a recorder in 1883, was appointed a signalman in 1886 at the advanced age of 16, secured his double line block certificate a year later, and was teaching Station-masters the ABC of block work at 18. For 14 years he relieved in the Melbourne Yard, snatching occasional intervals to open several of the big boxes around Flinders-street, and finally landing his appointment as block inspector. He was at Geelong with a couple more years to go when the Railway M.O. decided that he had done sufficient work for one career.

No More Pay

TRANSPORTATION pay rolls men abstained temporarily from fingering pay sheets last month to say good bye to their chief, Pat Ward, who has discarded interest in fortnightly pay and now looks keenly in the direction of the superannuation office. The date of his entry into the service made an exceptionally good poker hand, as he put in an appearance in the Stores Branch on 8.8.88. After appropriately serving eight years with the Stores, he passed through the Engineering Accounts division into the world of pay-rolls. His staff presented him with a gold-mounted pipe.

September Birthdays



Mr. E. C. Eyers

ONLY two branch chiefs celebrate birthdays this month. They are Messrs. E. C. Eyers, Secretary for Railways (on the eighth) and C. H. Perrin, Chief Engineer for Railway Construction (on the 30th). Some other anniversaries in the big railway family are: Cecil Widdop, of Room 2, on the first; Assistant Manager James Taylor, of Newport, and 'Phone Engineer E. G. Godfree, on the second; Goods Superintendent T. R. L. Sexton, on the third; Worksmaster E. Hains of Seymour, on the fourth; District Rolling Stock Superintendent E. Hinds,on the sixth; Assistant C.M.E. A. C. Ahlston, Live Stock Agent B. Fitzpatrick, and Louis Sheppard of the Melbourne Goods, on the eighth; Claims Agent J. Southam and Chief Architect J. Fawcett, on the 10th; Outdoor Superintendent J. Conlan, Chief Clerk W. A. Ryan of the Rolling Stock Branch, Donald McDonald of Room 9, Station-master J. F. Regan of Spencer-street, and Leading Porter Martin Young of Ararat, all on the 11th; Superintendent A. W. F. Smith of the Melbourne Yard, on the 12th; Tom McGlade of the Weighing Office, on the 13th; Brake Inspector F. Boadle, on the 15th; Engineer-in-Charge T.

Doyle of the Rolling Stock Drawing Office, and Traffic Inspector R. S. Phillips of Bendigo, on the 18th; Photographer W. Howieson, on the 19th; Assistant General Superintendent W. Thomas, and Colin Young, Engineer of Power Signalling Construction, on the 21st; District Engineer E. B. Slater, of Geelong, on the 22nd; Foreman Paddy Thompson of the Melbourne Goods, and Maintenance Engineer W. Forrest of the Signal and Telegraph Branch on the 25th; and Printing Officer Milton Gray, on the 26th.

Grandpa Gray



PRINTING Officer Milton F. Gray, who, in an atmosphere of whirring machinery, ink and frantic requests for "a proof before one o'clock, please," genially presides over the comps., make-up men, machinists and "devils" who month by month turn out *inter alia* 30,000 odd V.R. Magazines, has found time to become grandfather to a bouncing boy—somewhat surprisingly, as he has a far too jaunty step, and far too few wrinkles (this is intended literally) for grandpaternity. Since 1921, when the railways printery became part of the Stores Branch and M.F.G. was put in charge, he has seen it grow from a four to a ten cylinder machine unit. Needless to say he keeps it sparking on all ten. Apart from his new family responsibilities and printing, he sought and gained municipal honors at the recent Malvern elections.

Last Train

WHEN Station-master Walter Leckie closed his train book and despatched his last official train at Ivanhoe the other week, he closed a career of 42 years and despatched himself into a retirement which had been hastened by medical advice. He hopes —and his host of railway friends hope —that the sunshine of the bowling green in his future hours of leisure will set his feet more firmly on the road to good health.

Getting Settled



UPROOTED at Castlemaine five months ago, Stationmaster Tom Kitto in now getting quite settled down at his new location, Ararat. He always was a Castlemaine identity. Before his four-year-term as Stationmaster he acted as clerk at the centre for seven years. Everton, in the north-east, was his first station. He went there as S.M. in 1906, twenty years after he started at Albert Park as a junior clerk. Since then he has dutied in every district except Gippsland. Affable and ruddy-complexioned, he speaks with the same distinct and clear intonation and the same deliberate word economy as characterise the conversation of Outdoor Superintendent Conlan. The similarity is remarkable.

Man of Hobbies



VARIETY is the spice of hobbies, according to Dave Quayle, clerk in the Ballarat Goods Shed. Dave doesn't play marbles or polo, but there are very few hobbies he hasn't tried his hand, feet or brain at, at one time or another. He is a fine shot with the gun and a good tennis player, he trains the Ballarat Y.M.C.A. harriers, and was himself a consistent performer on the track; and he has rowed and he has bred setters. But shadowing all these interests is his angling enthusiasm. He is secretary of the Ballarat Fish Protection Society and Anglers' Club, and has now been admitted as a member and committeeman of the very exclusive Ballarat Fish Acclimatisation Society, the body which has been laboring for half-a-century to make Victoria's trout streams equal to the world's best.

Veteran Carpenter

HEAD Office men in all branches will miss Foreman Carpenter Albert Trickey, who is retiring after 36 years' service. Albert has been looking after remodelling work and carpentry jobs around the building for 17 years, and has hammered nails into railway property in many different parts of the State. He took a wallet of notes and a clock with him into retirement, as gifts from the Transportation and Way and Works branches. Acting Chief Architect Stanley and Alec Wotherspoon, of Room 1, wished him well on behalf of the two branches.

Man of Steel



HARD working Bill Steele makes his 40th year in the service his last this month, when he retires from the position of Travelling Station-master on the Waubra line. It is a coincidence that cheerful, silent-footed Andy Johnston, of Ballarat, is the last Station-master with whom he works in association, for Bill was the first porter to work under him at Ararat two score years ago. Bill, who got on remarkably well with Mr. and Mrs. Waubra during his term as T.S.M., will make his home in the Port Fairy district.

A Kaniva Gale

SEVENTEEN speakers conveyed Kaniva's best wishes to Assistant Station-master Ern Gale last month, when he went on transfer and promotion to Gordon. He was presented with a wallet of notes, a shaving outfit and a travelling rug, and in 17 different ways the speakers told him how much his three years' service at the station had been appreciated by the locals. The Chairman struck the right note when he expressed the hope that a Station-master Gale would some day blow back to Kaniva.

MURMURINGS OF A PASSENGER TRAIN

YOU never praise when I'm on time,
No, you don't care a rap;
But when I run a little late
You blame poor Mr. Clapp.

. . . . . .

When your parcel doesn't reach,
You swear, "now this will end it."
You blame the railways every time;
But the chap who fails to send it
Gets off scot free; for you are sure
That he has kept his word;
He couldn't fail you—oh dear no—
The thought is quite absurd.

When you miss that early train
You've hurried up to catch,
"Of course she left ahead of time—"
You prove it by your watch.
Why old Bill Jones—he lives next door—
Just said to you last night;
"I see the railway clocks are wrong;"
Of course, old Jones is right.

You meet a friend. You talk awhile.
Then it begins to rain.
You've left your overcoat behind—
Just time to get your train.
And on the way to catch that train
You slip, and come down flat—
Banana skins beneath your heel.
Am I to blame for that?

—E. Drohan.

DISTRICT DOINGS

AS RECORDED BY RAILWAY DISTRICT SUPERINTENDENTS

Rains Generally Improve Outlook—Wool Traffic Begins—Good Lambing Season—New Source of Sand Supply for Melbourne—Herd Testing Improves Butter Fat Yield in Gippsland—Business Extensions at Ballarat.

GEELONG

BALLASTING is well in hand on the Hamilton section in consequence of which the Heywood ballast pits have been opened. Ballasting on the Gheringhap–Maroona line with ballast brought from Manor was begun during the latter half of last month.

Only very light falls of rain have taken place during the past month and seasonal falls are anxiously being looked for. Around Geelong it has been the driest July for many years past. The lambing season, however, has been very satisfactory.

To date about 500 bales of this season's wool clip have reached Geelong from the Northern and Riverina districts. This is about twice as much as was received up to this time last year.

SEYMOUR

GENERALLY speaking, weather conditions during the past month have been ideal throughout this territory. Notwithstanding some severe frosts, the days have been bright and warm, and the crops and herbage have made wonderful growth. At the time of writing steady rain is falling and there is every indication of a vital need being fulfilled. The prospects for the coming season are very bright indeed, and with reasonably good spring rains a bountiful harvest must result.

Lambing is still in progress in all the highland districts. While the season has undoubtedly been prolific, mortality has been heavy in some centres, owing to severe frosts, foxes, wild dogs, etc.

MARYBOROUGH

THE rainfall during the last month has considerably improved the outlook for the coming season. This applies particularly to the new country along the Meringur line where the crops show wonderful promise. Water storages and tanks are full, and feed is plentiful.

Very pleasing results have been obtained by sheep farmers so far as the lambing season is concerned, over 100 per cent. of lambs being obtained in many flocks.

The Better Farming train has just completed a tour of Murrayville, Ouyen, Mildura and Meringur lines, and keen interest was shown by settlers at each place of call. At Murrayville there were over 1,000 visitors, and more than 200 motor cars were parked in the station yard.

METROPOLITAN

THERE are indications that the sand pits at Seaford will shortly be worked out, and suppliers are moving out beyond Frankston where there are big deposits of first class sand.

A private siding is being constructed about 2 miles beyond Frankston, and very shortly supplies will be drawn from the new pits. Two companies are loading at Langwarrin, and this usually quiet station is now showing considerable activity. One company has had a very large acreage of first class building concrete and glass sand with deposits proved to a depth of 180 feet. Probably the most of Melbourne's sand requirements will come from the Frankston–Langwarrin area in the near future.

The construction of the Silvan dam, which, when completed, will add materially to the storage capacity for Melbourne's water supply, is now well under way. An aerial conveyor will be used to transfer material from Mt. Evelyn station to the dam 3¼ miles distant. Already about 300 men are employed, and an appreciable increase is anticipated when the work is in full swing.

BENDIGO

PROSPECTS for the coming wheat season continue good, although in some parts of the district the frosts are having a retarding influence on the growth of the grass, and a little rain will be welcomed on that account.

On the Balranald line, the wool traffic has commenced. Most of the clip will be forwarded by rail instead of partly by river as was the case last year.

At Echuca wharf several boats have received and discharged cargoes already, and a big increase is anticipated. A large quantity of citrus fruit is being received from these boats and despatched by rail to Melbourne.

The tourist river traffic opened during July, but the bookings to date have been somewhat light.

Improving conditions in the north of Victoria necessitate increased accommodation for the travelling public, and another modern hotel is being built at Pyramid.

DANDENONG

FOR the past month the weather has been unusually mild and spring-like in South Gippsland and fair feed is still available. Many of the dairy farmers are still milking.

The growing of oats for green feed for dairy herds is being gradually replaced by pastures of mixed clovers and grasses as recommended by the Department of Agriculture. The irrigation of maize fields has exceeded expectations, yields from 90 to 100 bushels per acre being general. Non-irrigated crops are hardly worth the expense of harvesting.

Herd testing as a result of the Better Farming Train's visit to Gippsland, is being largely extended. Hitherto the average annual yield of butter fat from each cow in Victoria was very low at 150 lbs., which meant that each cow returned an everage of only about £12 per year to its owner. One Gippsland Association has increased the yield of each cow tested by it by 91 lbs. of butter fat, which represents an increase in income of £5,960 amongst its members. If the annual yield of butter fat were increased by only 20 lbs. per cow, the whole industry would benefit by £1,000,000 or so.

Prospects for the coming season at Lindenow were never better. Stock are in good condition and the lambing season up to the present has been excellent. There is a superabundance of good feed, and in consequence live stock business is brisk. Straw crops are looking well, and record yields of sugar beet and maize are anticipated.

BALLARAT

WHILE the Wimmera harvest prospects are excellent and will possibly excel anything during the past ten years, a regular downfall of about 100 points during August, September and October is necessary to ensure a bountiful harvest.

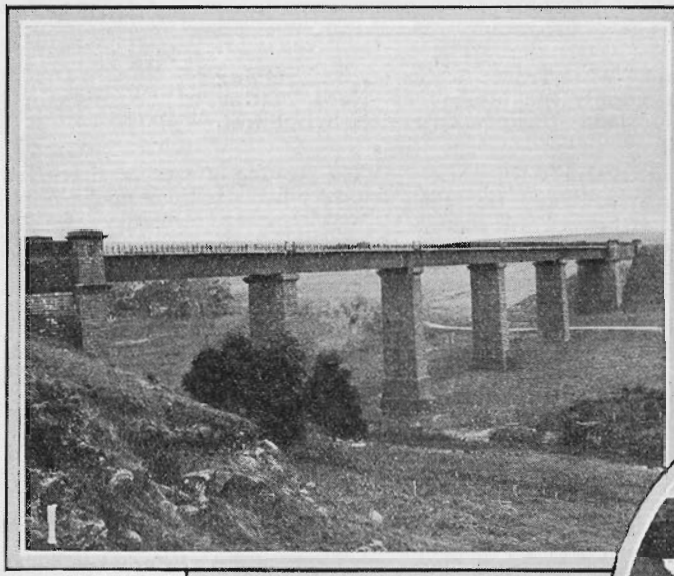
Manufacturers are steadily forging ahead. Only recently Messrs. I and R. Morley opened their Mills and are now steadily entering in the field of production. Schemp Textile Factory opened this year and have obtained excellent contracts.

The Ballarat Pottery Co. has moved from North Creswick and is now operating on a much larger scale at Creswick-road, Ballarat. There are clear evidences of increased prosperity in the State.

At Horsham, probably one of the largest country manufacturing firms (May and Miller) is extending its works and has obtained excellent contracts with farmers of Western Australia. Three years ago not one machine was sold by this firm in the State in question.

SNAPS ROUND The SYSTEM

SENT IN BY CONTRIBUTORS













1.—The Taradale Viaduct. 2.—The platform refreshment wagon at Bendigo which, since its introduction in April last, has averaged about £35 a month in sales. 3.—The Murrayville staff. S.M. Harries is on the extreme left. 4.—Approaching Nowa Nowa Station. 5.—A full load of 785 tons leaving Maffra. All the trucks are 40-tonners 6.—Loading granite at Harcourt.

RAILWAYMEN IN SPORT

By REG. HUNT



The Coburg Line team, Railway Association Premiers for 1928

RAILWAYS AGAIN ON TOP IN WEDNESDAY LEAGUE FOOTBALL

THE team is now playing in better form than that displayed early in the season, and should win the pennant. The return of Yawkins, Russell and Crowe, who have been on the injured list, and the inclusion of the four Victorian League players, Kelleher (Carlton), Lovett (the captain), Morrison and Baker (Footscray), have made all the difference.

The results of the last three matches are :—

August 1—Railways 24–25, Red Cabs 4–3.

August 8—Railways 11–12, Fire Brigade 5–6.

August 15—Railways 19–12, Argus 4–7.

Morrison kicked 10 of the 11 goals scored in the match on August 8, and the club has decided to mount the ball suitably and present it to him.

The semi-finals commenced on August 29 ; they are being played on the Collingwood Ground.

ASSOCIATION

Coburg Line Premiers

THE Coburg Line Team has put up a meritorious performance in winning the 1928 premiership, and is undoubtedly the best team in the competition. Only by accident was it received into the Association at the last minute owing to the withdrawal of the Melbourne Yard. It was a struggle to get a team for the first few matches, but owing to efficient organisation and wonderful enthusiasm among the players, it gradually improved, and in the first round ran into fourth position. It won its three games in the final round, and now holds the Commissioners' Cup.

The results of the semi-final and final matches are—

July 25—Coburg Line 13–1, North Loco. 8–11.

August 1—Car and Wagon Shops 9–18, Sandringham Line 5–18.

August 8—Coburg Line 8–11, Car and Wagon shops 8–5.

August 15—Coburg Line 11–5, Car and Wagon Shops 7–15.

Superior pace, better team work, excellent kicking for goals and more inclination to play the ball won the match for Coburg on July 25. However the match was much too rough and spiteful—kicking, elbowing, punching and other undesirable elements being too freely introduced. One player seemed to be centre of attention, and it was his roughness in the last quarter which finally settled North's chance of victory, for just at the critical time, when they had a run on he gave away several free kicks which just about turned the game. The display, generally, was discreditable, and a few more exhibitions like this would justify the Commissioners in withdrawing their patronage. Such games would quickly defeat the object of these competitions, which is to create friendly rivalry and healthy contests between the outside members of this great organisation.

However, the other three games redeemed the position, for although they were very strenuous, they were played in sportsmanlike spirit and were a credit to the Association and the teams concerned.

Car and Wagon Shops (the minor premiers) were too good for Sandringham Line on August 1, winning by 24 points.

Coburg and Car and Wagon Shops played an exciting game on August 8, the former winning by 8 points. The strong wind spoilt the play and made it congested, but what was lacking in open play was made up for in determination, marking and a close finish. Coburg Line played with more system, while their backs stood up well in the last quarter and saved the game.

These clubs met in the grand final on August 15, and after a good clean game Coburg, amid the wildest enthusiasm, won, their forward play and accurate kicking being their strong points. The side has been well handled right through by Ellis, the captain, while in Morelli, McNamara and Flynn they have three outstanding players. I was greatly taken with the play of the last two mentioned. With good coaching I feel sure they will go far in the game. Bill Keppell seems to be the life and soul of the team, and with Fred Campi, the president and secretary, organised a strong social committee, which intends to celebrate the event with a big smoke social.

The Car and Wagon Shops have also done exceptionally well. They joined the Association a week before the season opened with very few players and no money. The officials themselves purchased uniforms to the cost of £12, organised various functions, and have finished the season with £30 credit. Great praise is due to Mr. Jones, the secretary, and the committee.

However, it is with deepest regret that I record that Mrs. Jones, wife of the secretary, died very suddenly just before the grand final. She was a wonderful worker for the club, and her death had a very depressing effect

on the players in that all important game.

The Association intends to hold a Smoke Social in September, when the Cup will be handed over to the Coburg Line team.

The officials of the Association are somewhat disappointed by the poor patronage at the various matches, but there was a fine crowd at the grand final. Perhaps the success of this year's competition will create more interest next year.

I would like to suggest to the Association that it should endeavor to secure more competent field umpires, and that an Independent Tribunal be appointed to deal with players charged with offences on the field. It is unsatisfactory for club delegates to deal with these reports—the system has failed in every organisation. There should be no difficulty in securing the services of three who would be willing to accept the position.

COUNTRY COMPETITIONS

Maryborough

THE Maryborough Railways Club failed to obtain a place in the four of the District Association, the teams left in being Bealiba (minor premiers), Clunes, Carisbrook and Bristol Hill.

The Maryborough League Club is leading in the Ballarat League competition, and should gain the minor premiership honors. It includes no fewer than eight players who are on the Railway pay roll. Backway heads the goalkicking list with 78 in 13 matches, and holds the record with 18 in one match. In the following game he got 10.

Bendigo

At Bendigo the home games resulted in the School of Mines being minor premiers, and owing to the Stock Agents and Banks combining for the last round, no team dropped out of the four. Teachers' College were opposed to the new combine team in the first semi-final, and were defeated easily by the latter. The second semi-final between Railways and School of Mines resulted in an overwhelming victory for the Railways, the final scores being 12 goals 13 behinds to 2 goals 6 behinds. All members of the team gave their best services, and they are confident of winning the premiership.

Ballarat

Ballarat Railways succeeded in attaining third position in the minor-premiership games, and were drawn to meet South City (the minor premiers) in the first semi-final on August 18.

The supporters and players are quite satisfied with the result to date, but naturally are looking for further honors in the way of the coveted premiership pennant. The success of the club has been due to encouragement offered by the supervising officers and the loyal co-operation of the staff in general.



Morelli (Coburg) leads a dash for the ball in the Railway Association final

Tommy Hannah, of the S.M.'s staff, has weekly featured the club's activities by colored caricature posters. These have been favorably commented upon in local art circles.

HEAD OFFICE TENNIS ASSOCIATION GETS GOING

THE Head Office Tennis Association has been formed with 16 teams, which have been divided into two sections, as under :—

No. 1 Section—Secretary's No. 1, Accountants No. 1, Traffic No. 1, Transportation No. 2, Signals and Telegraphs No. 2, Rolling Stock No. 2, Electrical and Stores.

No. 2 Section.—Signals and Telegraphs No. 1, Rolling Stock No. 1, Way and Works, Auditor of Receipts, Transportation No. 1, Accountants No. 2, Secretary's No. 2 and Traffic No. 2.

Competition matches, which will be played on the Methodist Association Courts at Glen Iris, commence on September 18. The semi-finals are set down for March 11, and the final on March 18. Provision has been made for the playing of any matches which may have to be postponed through bad weather—five days having been set aside for such fixtures.

The annual tournament will be held from November 12 to 30.

The September matches are—

18th—Section No. 1—Transportation No. 2 v. Secretary's No. 1 ; Accountants No. 1 v. Traffic No. 1.

20th—Section No. 1—Signals and Telegraphs No. 2 v. Rolling Stock No. 2 ; Electrical v. Stores.

25th—Section No. 2—Signals and Telegraphs No. 1 v. Rolling Stock No. 1; Way and Works v. Auditor of Receipts.

Much enthusiasm is being shown in connection with this Association, and a successful season is confidently anticipated.

The final of the Telegraph and Train Running Tennis Clubs Singles Handicap was played on August 8, and won by F. Habgood, who defeated E. Black, both players off the owe 40 mark. Scores—3–6 6–4 6–1.

GOLF

ALL arrangements have now been completed for railway golfers to leave Melbourne on September 15 for Sydney. They will go straight through to that city instead of playing at Wagga and Junee on the way over, as in previous years.

Golfing honors were won by a member of the District Superintendent's Office, Maryborough, last month, when Mr. W. J. B. Goad won his semi-final in the Maryborough Golf Championship. After a most exciting round he defeated his opponent on the 18th hole.

Mr. Hugh Cameron, of the relieving staff in the Maryborough district is a golfer of no mean order, and finds no difficulty in driving a ball more than 300 yards. He is well known by reason of his performances in the Head Office versus Relieving Staff Annual Cricket Match.

Golf claims the attention of several of the Ballarat railwaymen during the winter season. Mr. Bill Laycock of the Parcels Office is always well to the fore in local and district tournaments. This year he was on a handicap of 14 at the North Club, and won two events at Avoca.

Paddy Gleeson of the District Engineer's office is looked upon as the "Boy Wonder" in Ballarat Golf circles. Pat had his 17th birthday on August 22, and is now playing on 8 at the Ballarat Club.



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TIPS AND GADGETS

Improved Tuners—Home Made Crystal—Daniell Battery Accumulator Charging Unit—Reception with Burnt Out Transformer—The V.R.I. 3 Again—Radio Books at the Institute—The Prize Crystal Set. —What are Our Short-wave Enthusiasts Doing?

A Tuning Improvisation

MOST of us have at some time or other experienced that annoying business of not being quite able to tune high enough to bring in some station just beyond the tuning range of the variable condenser.

In this connection, a fact worth remembering is that a variable condenser with any other kind of dielectric except that of air will have an increased capacity. For instance, if the vanes of a .0005 mfd. variable condenser were separated by ordinary notepaper instead of air, the capacity would be increased to about .001 mfd.

Therefore, if that station of promise just begins to come in when all the vanes of your variable condenser are interleaved, go on tuning up by gently inserting thin pieces of paper between the vanes of the condenser, but see that the paper is clean and dry.

There may be serious objections to this unorthodox practice, but the writer does not know them, and he has employed this cunning scheme several times to wheedle in stations just beyond the tuning range of the set.

Improvising a Condenser

IT sometimes happens that a variable capacity is required in connection with an experiment, and if an ordinary variable condenser is not available, the following makeshift may be resorted to.

Two flat pieces of metal are obtained, large or small according to amount of capacity required, and are placed between the pages of a book so that one end of each projects a little. The projecting ends are each connected with a piece of wire to the appropriate position in the set, one forming the fixed plate and the other the moving plate of a variable condenser. The capacity is varied by placing more pages between the pieces of metal, and by adjusting the amount of overlap by pushing them in or out of the book.

Using two carpenters' squares in this way to obtain variable capacity, and 35 turns of wire around a mineral bottle both A class stations were received at good strength and without interference, with a crystal detector, in the Dandenong Ranges. The same arrangement has been made with good results connected between the aerial lead in and a set, for the purpose of eliminating interference when receiving amateur stations. In this case the book was placed on a dinner plate to insulate it from the table.

An Emergency Crystal

IT is not generally known that sulphur added to a spoonful of molten lead will result in a "crystal" having several more or less sensitive points. A small piece of lead piping or sheet lead is melted in an old spoon or other vessel, and while in a molten state sprinkled with sulphur until it turns into a blue-black coke-like mass. Allow it to cool off, and then, upon examination, a few bright specks will be seen on the "crystal." These are the sensitive points. A piece of copper wire wound in a spiral around a pencil makes a good catwhisker, the end of which should be cut diagonally with a pair of scissors to form a sharp point.

A Constant Filament Supply

Country listeners, especially those at wayside places who have to rely on dry cells for their A battery supply, will be particularly interested in this system of obtaining a continuous fully charged 4-volt filament supply, whilst the initial and subsequent running costs are so low, and so little attention is required, that the system will appeal to many town dwellers.

Briefly the system, shown at Fig. 1, consists of two small accumulator cells

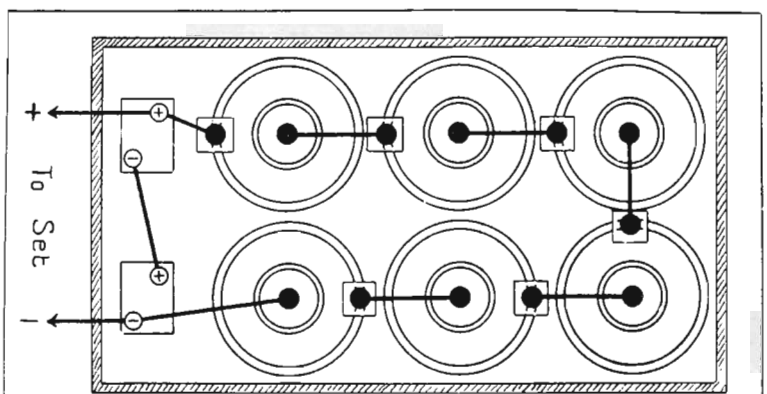


FIG.1. CONSTANT FILAMENT SUPPLY

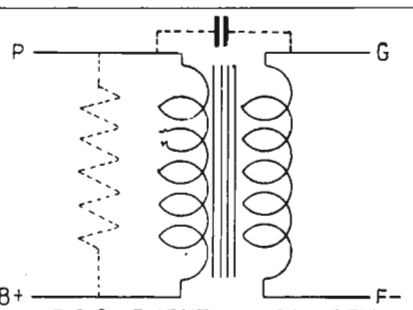


FIG.2. BURNT OUT PRIMARY

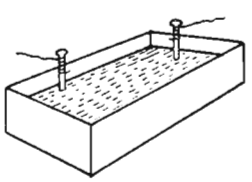


FIG.3. SOOT & SAND GRID LEAK

of ten ampere-hour capacity, connected in series, and the four-volt battery so formed is permanently connected in parallel with a series arrangement of six small primary electric cells of the Daniell type. By this means the accumulators are kept in a charged condition, and it is interesting to know that little or no wastage occurs, as when the accumulators are fully charged, their voltage rises until the charging current is reduced to a few milliamperes, which is sufficient to keep the Daniell cells in condition by preventing the copper solution working through the porous jars to the zinc elements.

The following are the materials required :—6 Porous pots (empty), 2 pint Lec. sixe ; 6 Zinc rods (Leclanche pattern) ; 6 Pieces thin copper foil, 2 in. x 7 in. ; 6 " Stone " preserve jars, 2 lb. size ; 6 4B.A. tel. terminals for Cu elements ; 2 Accumulator cells ; Brimstone sulphuric acid ; 2 lb. Copper sulphate (commercial) ; Magnesium sulphate (Epsom salts).

It is advised that the cells be housed in a suitable box or crate, and stored in a cupboard or other convenient place. Permanent wiring (using good quality bell wire of not less than 18 or 20 gauge) may then be run from the batteries to a neat terminal board near the set, which could also include a miniature switch—if one is not already fitted to the set itself. An added refinement would be a small fuse inserted in one of the output leads at the battery end—in case of accidental short circuit.

Fit one of the brass terminals to the top end of each of the 7 in. x 2 in. copper foil strips. Thoroughly cleanse the porous and outer jars and the zinc and copper elements, and assemble each cell as follows :—

Almost fill the porous jar with a half-saturated solution of magnesium sulphate (Epsom salts), prepared by dissolving as much of the salts as possible in a measured quantity of water, to which is afterwards added plain water of equal bulk.

Stand the porous jar in the outer jar of the cell. Place about four ounces of copper sulphate (commercial) into the outer jar and fill with clean water to *slightly below* the level of the liquid in the porous pot. A zinc rod (Leclanche pattern) is next placed in a porous jar, and the copper foil element into the outer jar—together with a few drops of pure strong brimstone sulphuric acid.

Place the completed cells in position in their box or crate, and make the following connections :—

Copper element of one Daniell cell to zinc of the next, and so on throughout the series. Accumulator cells in series. Positive terminal of the accumulator to the free copper element at one end of the Daniell battery, and the negative accumulator terminal to the remaining (zinc) terminal of the Daniell battery. Line wires (to set) to the last two junctions mentioned respectively.

Add copper sulphate crystals from time to time as used up ; replace liquid lost through evaporation by the addition of pure water only, and change the solutions for fresh every six months.

The copper elements will increase in weight by the deposition of electrolytic copper, and may eventually be disposed of and replaced by thinner ones.

This installation is designed to deliver " juice " to a 3-valve set (det. and two L.F. " Power " valves) such as the V.R.I. 3, consuming a trifle over a third of an ampere at four volts. (Dull emitter or semi dull emitter valves).

Burnt Out Transformers

IT sometimes happens that the primary of a transformer is burnt out at a time when reception is particularly desired, and it may be that the replacement of the transformer is not convenient or possible at the time.

A search through the junk box will usually reveal some kind of a fixed condenser which should be fixed between the P and G terminals of the burnt out transformers. A high resistance or grid leak should be mounted between the primary terminals—usually marked P and B+ and the set will then work at slightly less volume than usual. If it happens to be the first transformer that is being patched up, it will probably be necessary to step up the Detector B-battery voltage to about 45 volts or so owing to the high resistance through which it must pass. The arrangement is shown at Fig. 2. A makeshift high resistance is shown at Fig. 3, consisting of a match-box filled with a mixture of equal parts of soot and sand in which two ordinary nails or pins are placed from which connections are made with copper wire. The resistance may be varied by adjusting the distance between the nails. It may be mentioned that if the Primary of the transformer is burnt out near the B+ end, it will probably be found that the fixed condenser can be dispensed with. On the other hand, if burnt out near the Plate end, a fairly large capacity (at least ·002) would probably be required, and even ·5 or 1 mfd. might be used, if available.

V.R.I. 3 Success

MR. A. G. Jennings, writing in connection with the Super Booster, which in his case is not working satisfactorily, states " The V.R.I. 3 is still going strong. I have recently been transferred to Ouyen, but can still get speaker strength in daylight. At the moment 2 BL is coming in on the speaker, I can also get 2 FC and 4 QG weakly. 5 CL comes in fair during daylight. Of course it is nearer here than 3 LO. I can hear all the Jap stations and four New Zealand stations, so the set is performing well, and speaks volumes for the circuit."

The Prize Crystal Set

IN connection with the Prize Crystal Set recently described, Mr. A. Hudson, of Eaglehawk, writes : " I wound 50 turns of 30 gauge d.c.c. wire on a 2¾ inch former and a .0005 condenser and glass-barrel detector with M. Atom crystal, and, not having a piece of ebonite handy, used the cardboard lid off a lolly-box. Imagine how pleased we were when upon connecting aerial and earth, in came 3 LO, 3 AR, 2 BL and 2 FC at good strength on two pairs of 'phones. Later on we got 5 CL, which is not very loud. I have tried lots of different crystal sets here, but in most cases could do no good with them, so that should prove what a good one Mr. Harris's is. The aerial used is inverted L, 50 feet high one end, and 20 feet at the other ; length 92 feet over all ; 7.22 enamelled wire in one piece. Earth is galvanized plate, and also 12 feet of water pipe."

Note.—The gauge of wire recommended by Aerio for winding coils for this and other crystal sets is 22 or 24 d.c.c.

Now Then, Short-Wave Enthusiasts !

FROM time to time I have invited correspondence from those with short-wave receivers who have picked up 'phone stations outside Victoria, and particularly outside Australia, giving particulars of time (Victorian), date, nature of transmission, type of receiver, etc., with a view of compiling a list of such stations for publication in these columns.

No response has been forthcoming, but I am nevertheless satisfied that readers can hold their own in short wave reception, and some of them must have listened to the first class concerts transmitted by WGY, ANE, J-HBB and PCJJ between 3 a.m. and 7 a.m. on the 30 metre band. However, with a view of introducing a little friendly rivalry, all correspondence reporting reception of short wave 'phone stations will in future be published in these columns, and permanently recorded by the Victorian Railways Institute Wireless Club.

As copy for this Magazine closes on the 12th of the month prior to issue, reports for publication in October issue should be forwarded early.

The V.R. Institute advises having placed on the shelves of the Reference Library a number of radio text books covering the whole range of reception and transmission, and including the building of small and large sets. These books are available to members of the lending library.

Radio!

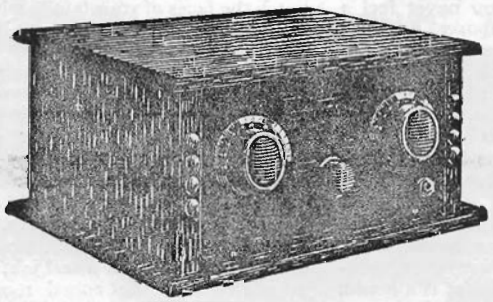
Two Popular Coyle Lines

A Better Two-Valve Set

Here's a two-valve set that really is better—comparison will prove it.

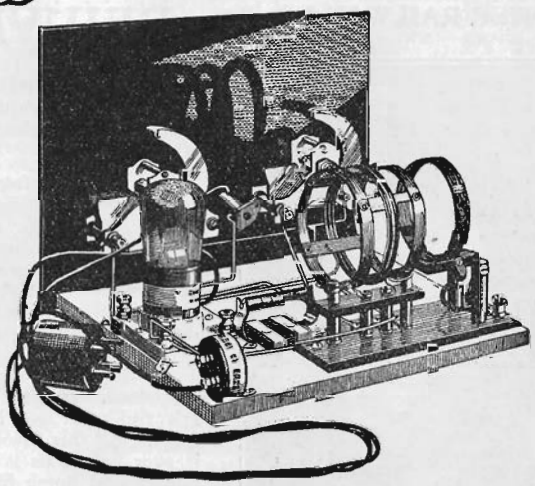
It's a set built of the best components—built by men who know their jobs—built to give the utmost sensitivity, selectivity and simplicity of operation.

Local stations come in clearly on a loud-speaker—and the price : **£7-0-0**, brings the set complete with all accessories into your home—see it to-day !



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A £6-6-0 Short Wave Set

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Conducted by EILEEN to whom all communications for this feature should be sent.

ANOTHER RAILWAY L.S.W.



The latest recruit to swell the ranks of the little army of Licensed Shorthand Writers in the Secretary's Branch is Miss M. A. Coman who has been drawing pothooks and tapping typewriter keys in the Branch for 4½ years. She plucked the proud title at the first attempt. Miss Coman, by the way, was coached at Mather's Commercial College, the Principal of which, an ex-railwayman, is very proud of the fact that she was one of his five candidates out of the 11 who were granted the licence.

TOURIST BUREAU EVENING

By the courtesy of 3LO a very enjoyable evening was spent at the Studio in Russell-street on Thursday, July 19, by members of the Government Tourist Bureau staff and their friends. Dancing to music supplied by the "Vagabonds" filled most of the evening, and several good items were heard. A representative staff gathering was present, including Mr. and Mrs. R. Wotherspoon, Mr. and Mrs. R. McArthur, Mr. and Mrs. J. Anglim, Miss Beresford and Miss Rooney, Miss Boyle, Misses McArthur and Hulse, and Messrs. Hulse, Streckfuss, Stewart and many of their friends. The evening was a great success in every way.

REJUVENATING THE HOME

PERHAPS our houses as well as our clothes need rejuvenating this spring. Perhaps they need changes which will make them real HOMES.

WHY not, after you have done all the cleaning of windows and woodwork that you think is necessary for the benefit of your house, give it a good thorough looking over? It's a queer thing, but you know your house and your home are two quite different things, writes Carla Ryder, in the *Illinois Central Magazine*.

Many houses are not and never could be homes. It is the home that counts. It's this that we have drifted away from. All this divorce question which is ever before us is really a matter of houses and home life.

I sometimes visit a perfectly charming house where there is everything for your comfort, physical and mental. Never a bit of dust everywhere, never a book out of place, all the chairs that money can buy—yet you never feel a bit comfortable in that house. It is not a real home, but rather a well run club. You know it is possible to have too much order. I would prefer to see a hat thrown down perhaps carelessly, and have my son come home glad to see me, than to have the hat put carefully away each time and miss his cheery hello.

It is the little adjustment that makes the difference between a house and a home. Look your house over carefully and find out whether it is a home. Can't you make a change here and there? A new cretonne covering on some old chair brightens the whole room. Give the shabby table a coat of paint. Remember, that almost any man loves to be turned loose with a paint brush, in fact, when once started, it is hard to curb his desire, but even so, it is worth while, for every man likes to have a personal interest in his home. You know, the more you put into a place the more you love it and the more it becomes yours together.

If you are tired of your surroundings and it is impossible for you to go away, why not change your surroundings? It is done so easily and with so little expense!

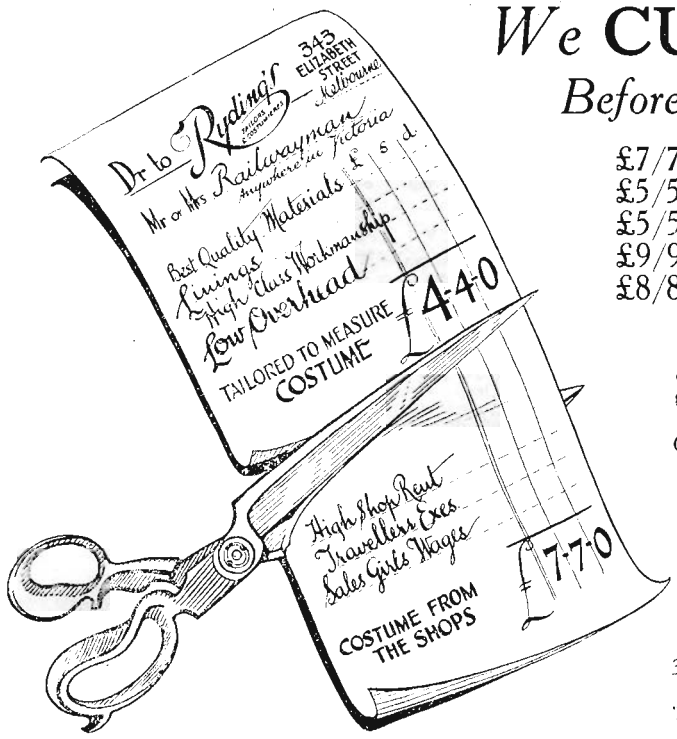
A different color scheme in your bedroom will make you happy all summer, or if you hate the dining-room rug, take it up. It is much cooler not to have a rug in the summer anyway. Oh, there are so many ways to make a home out of a house, and it's so much fun to do it! Just try a wee bit of a change and watch the faces of your family when they come home. You will find it worth your time and trouble.

About the biggest job in the world is to make a real home. Why women have gone wild over this economic equality makes me tired. It is not a small thing to make a home. Any servant can keep house, but a home is a different matter, and to run it in a truly efficient way, planning meals properly, with a view to the needs of each member of the family, is in itself a real job. Then, in addition to the actual mechanical labor, comes the underlying "something" that is hard to explain, but without which the home simply isn't, this something that makes the difference between just an ordinary house and a real home.

IN THE KITCHEN

Feather Cake.—½ cup butter, 1½ cups sugar, 1 cup milk, 3 eggs, 2 teaspoons cream of tartar, 1 teaspoon soda, 3 cups flour, flavoring to taste. Beat butter and sugar to a cream, add milk with soda in it, then add yolks and whites of eggs beaten separately, and 1 cup of flour with cream of tartar mixed and essence and pinch of salt to taste, lastly add two cups of flour and mix well. Bake in a good oven ¾ an hour.

Imperial Cake.—1 lb. sugar, 1 lb. currants, 1 box figs, 2 teaspoons baking powder, 1 lb. butter, 1 lb. almonds, 1½ lb. flour, 1 lb. raisins, 1 lb. mixed peel, 10 eggs. Beat butter and sugar together, add beaten eggs, then flour, then fruit, one kind at a time; stir well and bake 4 hours.



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'PHONE CENTRAL 8359

Rydings TAILORS & COSTUMIERES



Four-Diamond Ring with Hexagon Shaped Setting, 18 ct. Gold and Pure Platinum, £8/10/-
Others - £5 to £50

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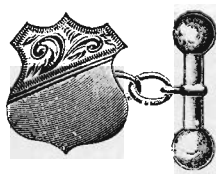
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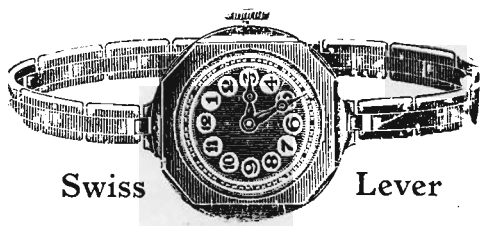
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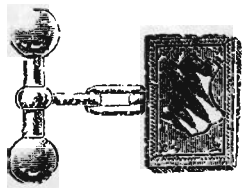
Three-Diamond Hexagon Shaped Ring set in 18 ct. Gold and Pure Platinum, £6
Others - £5 to £25



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10/6 pair
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In 15 ct. Gold 22/6 Pair



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Initials engraved free of charge

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Three-Diamond Coronet Ring set in 18 ct. Gold and Pure Platinum, £25
Others - £5 to £50

RAILWAY USERS SAY—

"ARRIVED IN GOOD TIME"

WE wish to express our thanks and appreciation for the courtesy and trouble taken by your Outwards Goods Department in tracing and expediting the delivery of a topdressing machine consigned by us to Camperdown, and are pleased to be able to advise that through their attention it arrived there safely in good time for our purposes.

—Mr. Wm. Perry, Crump Machinery Co., Pty., Ltd., 12 Carlisle-street, St. Kilda, writing to the Chairman of Railways Commissioners.

"EVERYTHING POSSIBLE DONE"

I DESIRE to thank you for the attention received from the staff of the Victorian Railways when travelling to Warrnambool with a patient this week. Everything possible was done for the comfort of the patient.

—Sister E. J. Colledge, 266 Sydney-road, Brunswick, writing to the Chairman of Railways Commissioners.

FOOTBALLERS' THANKS

ONE hears so much criticism of the administration of the Victorian Railways that I take this opportunity to convey to you the sincere thanks and deep appreciation of the party of Richmond footballers who visited Mildura last week-end, for the courteous and efficient treatment received from all the members of your staff with whom they came into contact, especially so at the Tourist Bureau, Melbourne, the managers at the refreshment stations and the train crews.

—Mr. P. Page, secretary, Richmond Football Club, writing to the Secretary for Railways.

HELP IN EMERGENCY

I WOULD esteem it a favor if you would convey to the members of your staff on duty yesterday morning at No. 8 platform at the arrival of the 9.23 a.m. from Sandringham, my thanks for the great courtesy and attention given by them to me during my sudden indisposition. Their kind assistance to me is no doubt a gratification to the management of the railways.

—Mr. J. D. Achburn, 108 Queen-street, Melbourne, writing to the station-master Flinders-street.

CAREFUL HANDLING

A FEW days ago I made arrangements at Maffra for despatch of about two tons of furniture to Pyramid Hill. Being under orders to proceed to Bairnsdale for relief duty, the furniture was packed very hurriedly, but, to my surprise, on arrival at Pyramid Hill, I found my furniture already waiting me and carefully stored. Not a thing was broken and a valuable piano came through without the slightest scratch or mark of any kind. I desire to take this opportunity of thanking the Department and particularly the local stationmaster for the care in handling and unloading.

It is noticed that the local stationmaster and his assistant have both purchased typewriters which they use for departmental purposes. I think this speaks for itself.

—Mr. W. H. Mitchell, Postmaster, Pyramid Hill, writing to the Chairman of Railways Commissioners.

KINDNESS AND CONSIDERATION

ON Friday evening last a friend and myself expected to have a miserable cold wait for the train to Aura, but the Belgrave stationmaster and the assistant stationmaster, Mr. Morrison, were extremely kind to us. They provided a lovely fire, and our long wait at Belgrave was made comfortable.

In fact, my experience for over 20 years on the Gembrook train route has been kindness and consideration from one and all. On this occasion I am very grateful indeed.

—Mr. J. C. Willis, "The Berries," Menzies Creek, writing to the Railways Commissioners.

APPRECIATIVE APIARISTS

AT the Annual Conference of this Association, a resolution was carried by acclamation.

"That this Association appreciates, and expresses its thanks for the action of the Railways Commissioners in connection with the Honey Advertising Campaign which materially increased he consumption of honey, and thus assisted the Bee Keeping Industry."

I am also directed to express our thanks for the courtesy of Mr. Thomas whose presence dispelled misunderstandings.

—Mr. F. R. Beuhne, General Secretary, Victorian Apiarists' Association, Tooborac.

TIMBER HANDLING EFFICIENCY

ON the completion of five years' business association with your Branch of the Railway Department, we feel that it is our duty to express our appreciation of the service and assistance we have received over the whole of that period. Five years ago our transactions with the Department were very small. At the present time they total for inward and outward freights some thousands of pounds per annum. The increase of business has been accompanied by continued efficiency in the handling and prompt delivery of trucks, and by courteous treatment from all members of the Department's staff.

In this connection we wish to specially mention Mr. Brophy, the stationmaster at Moreland, and his assistants. For the last 30 years, the writer has been dealing with the Transportation staff in many parts of Victoria, but nowhere has he encountered such efficiency and courtesy as from the Moreland stationmaster.

In conclusion we ask you to accept our sincere thanks for all the assistance the Department has given us, with the hope that there will be a continuance in the future of the happy associations of the past.

—Mr. D. T. Callaghan, Secretary Moreland Timber Co., Pty., Ltd., West Brunswick.

CITRUS GROWERS' APPRECIATION

WE, the undersigned citrus growers of the Cobram district, desire to express our appreciation of the work carried out by the Commissioners and Railway Refreshment Services in their efforts to assist the Citrus Industry.

We are firmly of the opinion that, had it not been for your assistance, the Citrus Industry would have been in a very precarious position to-day.

——Messrs. P. Rossiter, F. L. Edwards, J. G. Martindale, W. McInroy, J. F. Andrews, H. Kohfahl, H. D. Day, P. R. Quick, C. E. Brentnall, H. A. Backhouse, C. T. Johnson, Wadison and Tuck, Sidney H. Scott, Grant Bros., Cotton Bros., C. Cotton, F. M. Quick, M. O'Dwyer, John J. O'Dwyer, A. A. Brentnall, H. C. Dick, and L. G. Barnett, writing to the Railways Commissioners.

HONESTY

I WISH to bring under your notice an incident which happened on the Flinders-street station on Tuesday, June 26, which, in my opinion, not only reflects great credit on one of your employes but also on your service as a whole.

About 10.30 a.m. on that date, my wife bought a ticket for Malvern, and after hurrying along the subway, found she had just missed the train. She was carrying a hand bag, which amongst other things contained a small purse, containing about £15 in notes. Whilst waiting on the platform for the next train, she discovered that the purse was missing. The last time she had seen it was about an hour earlier in a warehouse in the city, where she immediately returned, only to find that nothing had been seen of it. My wife had no idea that she had lost it on the station, but made enquiries at the Lost Property Office, and after describing the purse and contents was most agreeably surprised to have it handed to her. The clerk informed my wife that a young porter, H. Lannan, of 15 Clyde-street, Thornbury, had picked it up in the subway and immediately handed it in to the office.

My wife saw Lannan and personally thanked him, but I feel that his honest and praiseworthy conduct should be brought under the direct notice of his Departmental Officers.

—Capt. H. W. D. Bold, Port Phillip Sea Pilot, Queenscliff, writing to the Railways Commissioners.

POPULAR S.M.

WE, the undersigned residents of Drysdale and district, desire to bring under your notice our appreciation of the very courteous and efficient manner in which Mr. H. L. Jenner has always carried out his work as Stationmaster at Drysdale. In doing so, we feel that during his residence amongst us, during the past three years, he has made the slogan "Help Us to Help You," a very effective one in the district. We regret his departure, but have long realised his fitness for a higher position in the service. We congratulate him on his promotion, and will watch with interest his future career.

—Letter, addressed to the Railways Commissioners, signed by ten representative public men of the Bellarine Shire and 102 residents who are railway users, and forwarded, by direction of a public meeting, by the Shire Secretary.

KINDNESS AND COURTESY

I WISH to convey my thanks for the kindness and courtesy extended to me by yourself and members of the staff, on Saturday morning, when I was a passenger to Clarkefield on the Bendigo express, owing to missing an earlier train.

—Miss A. Cooke, "Lisieuse," Gordon-grove, Northcote, writing to the Station-master, Spencer-street.

YALLOURN TRIP APPRECIATED

I AM just writing again to express my thanks, and the thanks of the party generally, for the way in which you arranged everything on Monday last. There was nothing that could have been improved; and your arrangements for lunch were excellent.

I would be obliged if you would communicate my thanks to all those who had anything to do with the trip, and, in particular, to the Station-master at Yallourn.

—Mr. H. C. B. Lane, Hon. Secretary Science Club, Melbourne University Union, writing to the Stationmaster, Moe, who made the lunch arrangements for the party.

SOMETHING MORE THAN A SLOGAN

ON Sunday last 80 members of this Society and their friends journeyed to Warburton for the Society's monthly walking tour, travelling by the 10.50 a.m. train and returning by the 6.5 p.m. train.

It was considered by members of my committee and myself the proper thing to express our appreciation of the kindness and courtesy extended to us by the crews of these trains, and the staff at the Warburton station. One action in particular which we appreciate was the holding up of the train for some 10 minutes to allow some of the female members of the party who had missed the way back to the station to catch the train.

Furthermore, we would like to tender our thanks to the operating porter at Warburton, who made available to us a room wherein we placed surplus clothing, etc., while we climbed Mt. Donna Buang to the snow.

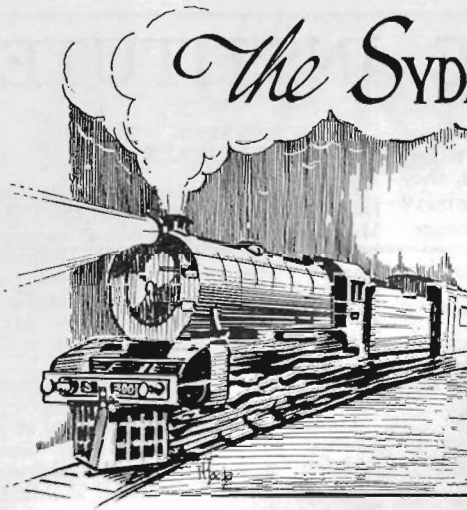
It is these little actions which tend to make such outings as ours enjoyable, and hence popular, and also goes to prove that the "Help Us to Help You" policy is something more than a mere slogan.

In conclusion I would like to state that we have found the same courtesy in members of the Victorian Railways staff on all of the walking trips which we have held this season.

—Mr. Alfred A. Wark, Newman Society of Victoria, writing to the General Superintendent of Transportation.

The Sydney Express

by Harry Tunnecliffe



SILENCE along the quiet hills is creeping;
The bird has sought her nest;
The setting sun with crimson rays is steeping
The clouds that fringe the west.

The glow that tints the distant skyline changes
From a bright gold to grey.
As far behind the rugged western ranges,
Retreats the summer day.

And through the shadows, farther still receeding
At last it fades from sight.
And on her track, the Sydney train is speeding
Through the fast falling night.

Past barren rises, lonely and forsaken
Save where a few sheep lie,
Through timbered valleys where her engines waken
Echoes that swell and die.

While white stars above the dark earth beaming
Spin in eternal space.
Up mountain slope and steep for ever steaming
She keeps her steady pace.

The tired bushman whom the still night hushes
Into a sleep profound
Starts from his dreams, as on she swiftly rushe
Shaking his hut with sound.

Still on she speeds by farm and roadside railing
As darker grows the night.
Her graceful cars behind her engines trailing
Glowing with warmth and light.

And all along her track is haste and hurry
As fast each moment flies:
For far ahead, upon the distant Murray,
Her destination lies.

AMERICA'S MOTOR INDUSTRY

THE automobile industry is the principal industry of the United States and employs over 4,000,000 workers. Automotive sales are equivalent to 11.6 per cent. of the total retail business of that country, and its motor vehicle production represents 81.6 per cent. of the total world output, that of Great Britain being only 5.5 per cent., France 4.6 per cent., Canada 4.3 per cent. and all other countries 4 per cent. These and many other interesting details are contained in the 1928 edition of *Facts and Figures of the Automobile Industry*, published by *the National Automobile Chamber of Commerce, New York City*.

In 1927, there were no fewer than 23,127,315 motor vehicles licensed in the United States—a huge figure when compared with the 1,434,000 vehicles shown in the latest Ministry of Transport returns as licensed in Great Britain. Motor vehicle taxes in the United States during 1927 amounted to the sum of 760,373,652 dollars (approximately £152,074,730), compared with the £15,508,153 received in payment for licences issued in Great Britain during the three months ended February 29 last.

Fifty-nine American railroads are reported to be using motor trucks—forty-seven for terminal operations, thirteen for store door delivery and seventeen to replace local freight trains, whilst sixty-seven operate buses, either directly, through subsidiaries or under contract.

There are 85,600 motor buses in the United States, and of the 2,896,886 trucks in use throughout the country, 82 per cent. are privately owned, 11 per cent. are owned by contract carriers and 7 per cent. by "for hire" operators, including common carriers. As instancing the vogue of the owner-driver, it is significant that there are estimated to be 1,896,886 owners of one truck, whilst 272,000 own two or more and operate an estimated total of 980,000 units.

By far the major portion of traffic by road motor is conveyed on journeys of less than thirty miles.

MORE ELECTRIFICATION

THE electrification of another Steam Suburban Service will shortly be undertaken in America. The Lockwanna system, serving the New Jersey suburbs out of Hoboken, is electrifying its trackage of 70 route miles (175 miles of single track) at 3000 volts D.C. It is understood that mercury arc rectifiers are to be used for the power conversion. Up to the present rectifier operation in America has largely favored Brown Boveri equipment.

CINÉ-KODAK

TO-DAY, amateur moving pictures are as easy to make as the simplest snapshots. Just press the release and you're making your own "movies" of your friends and your family, of sports and hobbies and travels.

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Amateur Movies you make yourself

JOTTINGS FROM THE INSTITUTE

A REAL RAIL PIONEER

TO the interesting collection of portraits in the rooms of the Victorian Railways Institute has recently been added a fine photograph of George C. Darbyshire, at one time Engineer-in-Chief of the Victorian Railways and a notable figure in the history of the department

The portrait is the gift of Mr. W. Pestall, engineer in the Signal and Telegraph Branch. In handing it over to his old friend, Mr. J. S. Rees, as general president of the Institute, Mr. Pestall writes :—

"I feel sure that you will accept this portrait for your Institute gallery. You were closely associated with the old chief in the early days, and no doubt this picture of him will be interesting to both old and new members of the service."

In reminiscent vein, Mr. Pestall proceeds to recall some of the incidents in Mr. Darbyshire's career. He points out that he was trained as a railway engineer by Robert Stephenson himself, and was employed in England on the survey and construction of the Manchester, Buxton, Matlock, and Midland Junction railway. Armed with the highest recommendations from the Stephensons and others, he landed at Port Phillip colony in 1853, and was immediately directed by Captain Clarke (afterwards Lieutenant-General Sir Andrew Clarke, R.E.), to survey and construct a railway line from Melbourne to the River Murray via Mt. Alexander. Costing more than £3,000,000, the line was completed to Sandhurst (now Bendigo) in 1860 and is a permanent monument to the skill of the engineer and those associated with him.

In consequence of criticism from some misinformed quarters, Mr. Darbyshire resigned from the service in June, 1860, but was subsequently induced to accept reappointment as Engineer of Construction and Engineer-in-Chief, and in these capacities he was responsible for the construction of most of the railways built in Victoria before 1892. In that year he retired, to live quietly at Werribee until his death.

NEW LIBRARY FACILITIES

Following the Institute library reorganisation that has taken place as a result of the present economic stress, and the imposition on library users of an annual registration fee of 2/6, the Council has decided that no second book fee will be charged to members of the Institute (who have paid their annual library registration fee), or who have given authority for the fee to be collected at the convenience of the Institute.

They are now entitled to exchange two books at any one time at the central library, or by personal call to the library. Country members are included in this privilege.

It is expected that a complete new library catalog of technical and general literature and fiction will be ready for issue to members early in October.

COUNCIL NOMINATIONS INVITED

The Institute starts another year with the usual call for nominations for councillors and auditors. Members who have been financial for six months are eligible for nomination on the usual forms supplied by the General Secretary.

The annual meeting will be held on October 13.

Attendances of councillors at the 14 council meetings during the year just closed were as follow :—

J. S. Rees, 10 ; J. Conlan, 8 ; E. W. Arthur, 2 ; J. Gault, 7 ; P. Arnold, 12 ; R. Balmer, 13 ; D. Cameron, 9 ; H. W. Clark, 9 ; E. A. Classen, 10 ; B. B. Deveney, 5 ; W. J. S. Donald, 10 ; G. R. Dowsett, 7 ; H. D. Eddy, 9 ; S. H. Evans, 11 ; B. E. Falloon, 14 ; H. W. L. Forster, 11 ; R. A. Guyot, 10 ; C. Holmes, 3 ; J. L. Miller, 12 ; J. McCartney, 14 ; N. T. McDonald, 5 ; T. Ramsay, 11 ; E. Richard, 2 ; J. Stewart, 11 ; D. P. Ryan, 9 ; C. G. Walker, 8 ; W. Watson, 8 ; H. Wilson, 7.

INSTRUCTIONAL CHANGES

INSTRUCTOR in Engine-working and Westinghouse brake at the Stawell centre since 1918, Driver J. Geaney, has now resigned in consequence of his transfer to Warrnambool. The institute council very much regrets the departure of this very painstaking and enthusiatic instructor.

On the other hand, Driver W. J. A. Hewitt has been reappointed instructor of the similar institute class at Korong Vale.

The Council of the Institute has decided to commence a class in Engine Working and Westinghouse Brake at Ouyen. Applications have been invited for an Instructor. Indications are that the class will be a flourishing one.

Owing to the resignation of Mr. F. N. Palmer as Instructor in Engine Working and Westinghouse Brake at Maryborough, Mr. T. W. Ellis, Driver, Loco., Maryborough, has been appointed to act in his place.

SUCCESSFUL BAND RECITALS

On a recent Sunday, at Hoyts De Luxe Theatre, Bourke-street, the V.R. Military Band organised a musical recital in aid of the Austin Hospital Appeal. The band was assisted by Misses Mary Kingston, Dawn Harding and Ida Scott (accompanist), and Mr. Alex. Wotherspoon, who are all well known Melbourne artists.

The program, which was broadcast by 3 AR, was very well received.

During July the band appeared at a Sunday Afternoon Recital in conjunction with the Postal Institute Choir at the Exhibition Building. The concert was well attended.

RETIRED RAILWAYMEN'S CLUB

The large hall of the Institute was well filled at the usual meeting of the Retired Railwaymen's Social Club last month. The principal business was the arranging of an old time dance which took place in the Institute on August 7, the first of the series, and was a great success.

Many of the members of three-score-and-ten and more enjoyed every dance, and a unanimous request was made for another evening, which has been arranged for September 20.

The club is holding its annual ladies' afternoon on Thursday, September 6. A pleasant time is promised.

THIRTY-FIVE YEARS AGO

Extracts from the Victorian Railways *Gazette* of September, 1, 1893 :

THE road traffic has led to an unexpected development that evidently was not calculated upon by the carriers. The country municipalities are up in arms and protesting against the heavy and continuous traffic of bullock waggons along the main roads of the Colony. It is proposed to introduce the now obsolete toll-bar system.

THE Premier has at last clinched the nail with regard to the use of Victorian coal on the railways. He has announced that the Government will not renew the contracts with the several Newcastle firms, but as they expire Victorian coal will be contracted for. This should lead to a large development of the coal mining industry in South Gippsland, and thus prove beneficial to the Colony at large.

WHAT appears to be an innovation in Australia is about to be introduced by the Portfolio Ticket Company, which has made a proposal to supply gratis 25,000,000 blank tickets to the Victorian Railways Department, provided the right of advertising is allowed them. A flap is attached to each ticket, in which it is proposed the advertisement slip is to be inserted.

IN connection with the Annual Show of the Royal Agricultural Society, the Commissioners are running special trains to Flemington . . . . Notwithstanding the depressed times, the present exhibition is no way inferior to past years, and it is only just to the management to say that a marked improvement is apparent in the arrangements for the inspection of the exhibits.

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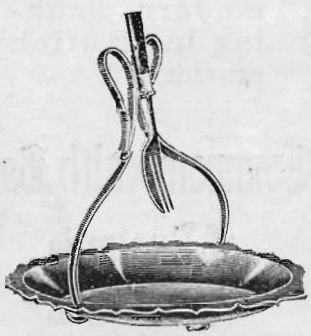
Diamond Cluster, splendid value, £8/10/- Others, £10 to £30



Splendid value, set in Pure Platinum and 18ct. Gold, £10. Others, £7/10/- to £30



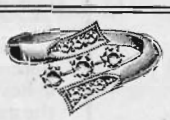
Fine quality, set in 18ct. Gold and Pure Platinum £15



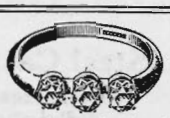
Cake Dish with Fork, best quality Silver-plated, **16/6** Post Free



SPECIAL VALUE.—String of Pearls 18 in. long. Splendid quality, with Brilliant Clasp. **Special Price 2/11** Post Free — Others, 7/6 to £10



Fancy Crossover 18ct. Gold and Pure Platinum, £10



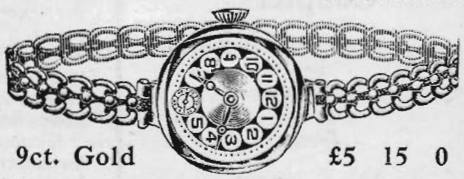
Coronet Set, set in 18ct. Gold and Pure Platinum, £12/10/- Others — £8/10/- to £50



Latest design quality Diamonds, set in 18ct. Gold and Pure Platinum £17/10/- Others, £22/10/-, £25



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The One Gauge Problem

Continued from page 14

said the shifting of two rails was the better method. The Commission said its method would halve the number of spike holes necessary for the change-over, and permit the workmen to adze and bore without disturbing both rails. The engineers said their method would preserve the alignment of the track, avoid unbalanced loading of sleepers, eliminate the slewing and pulling of the track over bridges and through tunnels, and maintain general uniformity. The Commission, with a cautious eye on the moneybags, said it would recommend its method.

The Greatest Difficulties

Apart from this aspect of the conversion, the actual and technical *modus operandi* is simple and straightforward enough. It is the transhipment of passengers, of goods and of live stock at the different transfer yards which presents the greatest difficulties. First, the proposed transfer yards would be required for the conversion of progressive batches of rolling stock to the new gauge. Thereafter for a month they would be required for the transfer of passengers and freight while the gauge alteration was under way.

The million and a half sterling which would have been involved in the construction of these yards seven years ago included such items as £278,100 for rails, fishplates and fastenings, £123,100 for sleepers, £415,440 for laying and lifting of material and plant, £75,000 for levelling and draining sites, £90,000 for signals and interlocking, £45,000 for water supply, and £96,526 for ballast.

"It is possible," the Commission pointed out bluntly, "to make such a heavy reduction in cost of changing the gauge by inconveniencing the travelling and shipping public somewhat, that advantage should be taken of the opportunity. In some places, especially where alternate routes can be made available, the passenger service should be discontinued for a day or two, in other places for a longer time; and goods service should be discontinued for several days if a convenient time is selected and proper notice given. On some of the outlying sections, the usual goods traffic might be suspended for several weeks, and the emergency goods handled on mixed train service."

Generally speaking, week ends would be selected for the shifting of the rail itself, and, when a large number of workmen was concentrated on the one section, the adjustment of a prearranged length of track would occupy only a few minutes. With a 4 ft. 8½ in. gauge train in readiness to move the men on to the next length of 5 ft. 3 in. gauge, and a 5 ft. 3 in. gauge train in readiness

Concluded on page 46

A Bank Account

gives you power and safety. Apart from its positive stimulation of the sense of Thrift, a Bank Account simplifies your operations and widens their scope. In or out of business hours it facilitates your transactions and surrounds all your dealings with dignity, impressive on your clients and associates.

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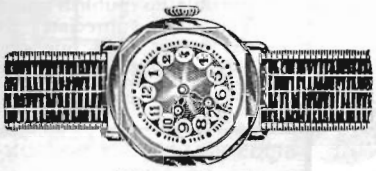
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£3 15 0

9,114.—Neat Gold Wrist Watch, Silk Band, 15-Jewels, Lever, 9 ct. £3/15/-; 15 ct., £5/10/-.



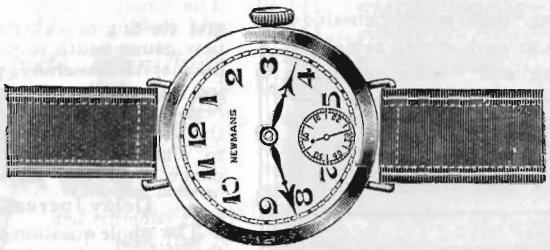
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The One-gauge Problem

Continued from page 44

at the junction to distribute them immediately over a further length, it would be possible for the gangs to duplicate several times during one day or night the length of track they were able to shift in one operation. Provided adequate labor was available, there would be no difficulty in converting one complete section in a night. The actual breaking of the rail or rails and shifting of either or both into the new gauge width would be a rush job, once spike loosening, preliminary adzing and similar preparative work had been completed. *Apropos*, it is said that America was many years preparing to change its 13,000 miles of mixed gauge, and two days changing it.

Delay Increases Costs

The whole question of uniform gauge, therefore, resolves itself irresistibly into a consideration of pounds, shillings and pence. There are no great engineering difficulties in the way, a coherent plan for conversion already exists, public, political and railway opinion is solidly behind the project, and the longer a decision is postponed the longer will grow the string of noughts on the end of the total cost. In 1897, Victoria could have adopted the 4 ft. 8½ in. gauge at a cost of £350,000 for permanent way alterations. In 1921, as has been seen, the necessary track alterations, exclusive, that is, of rolling stock adjustments and transfer expenses, would have cost £5,246,000 (according to the Commission) or £7,391,869 (according to the Department).

Today—track mileage having increased by 10 per cent., and wages and material costs by perhaps a similar amount—the permanent way cost would certainly be over the £8,000,000 mark. And in 1938 . . . . . ?

The Grampians

Ctd. from page 28

latter, can be seen the magnificent Victoria Valley on the one side, and on the other the glistening expanse of Lake Wartook.

For those who are capable of greater physical effort, a visit to Mt. Rosea or Redman's Bluff will amply repay the energy expended in attaining their heights. Each provides a panorama of rugged cliffs, deep gorges and rolling plains.

The beauty of the ranges, however, does not lie solely in their magnificence of outlook and ruggedness of form. When day draws to a close, purple shades soften the harshness of the cliffs and, save for the mournful cry of a mopoke or perhaps a litany chanted by the wind and the trees, no sound disturbs the stillness. Then can one imagine the lonely Grampians in other days ere man laid bare the beauties.

TO CORRESPONDENTS

F.W.W. (Spotswood)—Sorry you became unhitched so often, or rather that your stars proved to be meteorites. We, however, can only stress the aphorism ; we cannot indicate the stars. The individual must determine those.

John Morrissey (West Brunswick)—Afraid not quite up to standard. Cultivate a simpler, bolder style. Sketch being returned.

W. E. Bolitho.—Sorry it has not been possible to publish your verses yet. You will appreciate that our space is limited, and our correspondents who submit verse, numerous.

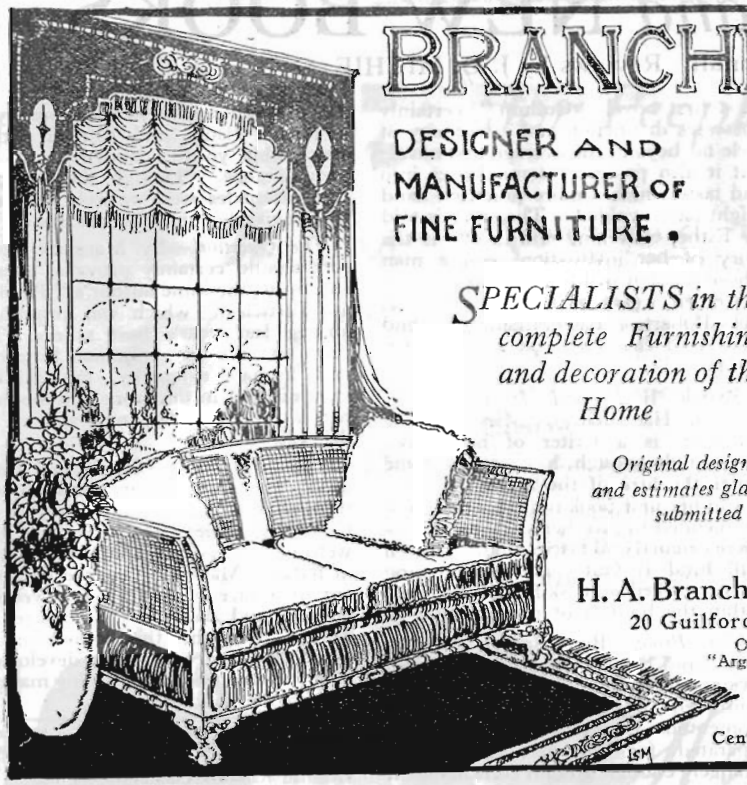
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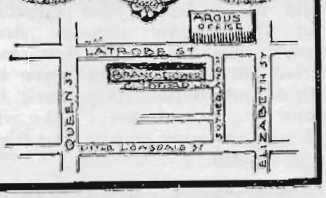
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BOOKS *and* NEW BOOKS

Thumbnail Reviews by J. D. MICHIE

Pickwick ; A Play.—By Cosmo Hamilton and Frank C. Reilly. This delightful play, "freely based upon The Pickwick Papers," was produced in Washington, D.C., in 1927, by Frank C. Reilly. The authors have done their work skilfully, and if the play acted as well as it reads it must have created a great deal of enthusiasm in Washington. We meet again all of the old well-loved characters, doing and saying the things we know they will say and do. Some excellent photographs illustrate the book.

Tales from Greenery Street.—By Denis Mackail. Those who had the pleasure of meeting Felicity and Ian Foster, the charming occupants of No. 23, Greenery-street, will readily welcome this opportunity of glancing into further houses in the same enchanted neighborhood. To the uninitiated it should be explained that Greenery-street (how aptly named) stands, generally speaking, for the first year of married life, with all its brave little artifices and foibles, its pathetic little lessons in give and take. The whole book is of gossamer texture, but therein lies its charm.

Cullum.—By E. Arnot Robertson. As a first novel "Cullum" certainly possesses distinction and a maturity of style far beyond the average first novel; but it also possesses some lapses into bad taste which a more practised hand might have avoided. The story is told by Esther Sieveking and briefly is the story of her infatuation with a man whose mission in life is to win the love of women, weary of it and toss it aside. Miss Robertson has craftsmanship and a sense of character that should carry her far.

Search Will Find It Out. — By Beatrice Harraden. Miss Beatrice Harraden is a writer of note who, surprisingly enough, has recently come under the lure of the mystery novel; and in her new book murder and music are blended to give her story an atmosphere original and fascinating. "Search Will Find It Out" is an engrossing story, worked out skilfully and kept within the bounds of probability.

Kiss Proof.—By Margot Neville. Lionel and Elfreda Osborne are wedded lovers whose billing and cooing has continued uninterruptedly until one momentous week-end when, being separated for the first time, both, strangely enough, sought consolation at a night club, Lionel in the company of a former flame, and Elfreda with a susceptible young gentleman of her acquaintance. Though their respective escapades were entirely innocent, the inevitable consequences ensue.

The Question.—By Margaret Peterson, should certainly prove as great a success as the same author's "Passionate Particles," which was prominent among last year's best sellers. The grim and the gay, inhuman bitterness and human sympathy, are skilfully intermingled in this story of a mother's hatred for the unfortunate wife of her degraded son.

The Firm Hand.—By Harold Bindloss. There is a clean wind blowing through the pages of this story of the Cumbrian dales which makes it a welcome change from some of the fiction of today. Mark Crozier, the descendant of a race of hard-headed yeoman farmers and dalesmen, is engaged to Madge Forsyth, the local doctor's daughter ; thence the story develops in a most interesting and gripping manner, true to the Bindloss style.

Wholly set up and printed in Australia at the Victorian Railways Printing Office, Spencer-street, Melbourne, for the Publishers — The Victorian Railways Commissioners.

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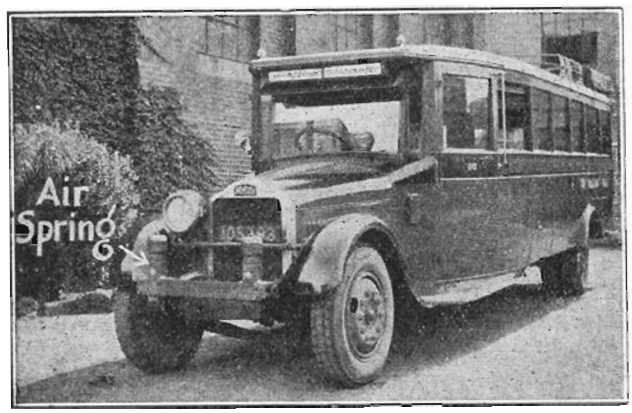
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To the careful Motorist

Just why do you drive carefully – why do you observe all traffic signs and signals? You do so for your own safety's sake, for the consideration of others, and because you wish to get the best out of motoring.

Those are just the reasons why you should *buy* carefully, too. The ability of your engine to respond to every call made on it depends greatly on the motor spirit you use. *You cannot be sure of this perfect engine performance by haphazardly filling up at whatever pump is nearest.*

Careful motorists select Plume. Its superior volatility means easy starting, sweet running, more miles, smooth power and a cleaner engine.

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SAFETY-HEALTH-BETTERMENT

Minor and "Near" Accidents

By A. V. STENNING, Secretary, Railways Safety Council

IN the whole field of accident prevention work there is probably no source of information which can be of greater use to men interested in the Safety movement than that drawn from the observation or study of the causes of minor or "near" accidents.

Because minor or "near" accidents are so frequent, nearly everyone has personal knowledge of some such occurrences, and because of the trivial consequences we are apt to pay little or no attention to them. Actually, however, each minor or "near" accident contains just as important a lesson as may be drawn from those having more serious results.

Does the accident caused by bad working conditions or the lack of some mechanical safeguard occur because the existence of the danger was absolutely unknown? In some cases it may, but generally it does not. Is the man who is injured because of some bad practice or through carelessness, injured because of a single indulgence in the bad practice? In the majority of cases, no.

Usually the bad practice has continued until disregard for the danger resulted in the accident, or else carelessness was the general habit. It is, therefore, safe to assert that, in a large number of cases, the occurrence of serious accidents might have been foreseen had the occurrence of the minor or "near" accident received consideration. Here, then, is a subject worthy of the attention of everybody who is anxious to prevent injury by accident to himself or others.

The Lesson Is Obvious

To the man on the job, the lesson will be obvious in many occurrences in which he sees men taking chances and escaping injury by only a narrow margin, and by personal experiences in the performance of his own duties. To learn the lesson requires only the power of observation and a realisation of the possible consequences.

To the foreman or to those immediately in authority, information regarding the occurrence of minor or "near" accidents may come from direct observation or indirectly from the men concerned. The general tendency is to pass over the occurrence as fortunately past, and to take no steps to prevent a similar recurrence. This is the wrong course. If repairs or guards are needed, the matter cannot be remedied too soon. If the accident happened because of some neglect or carelessness, the man responsible for it should be told of the result of his action. The habit of overlooking infractions of minor regulations pertaining to safety precautions weakens the respect paid to such regulations, and eventually they may become entirely ineffective.

Our Safety movement has still much to accomplish, and it would be well for those engaged in it to start at the bottom in an effort to eliminate the minor accidents. The more serious will then be fewer in number.

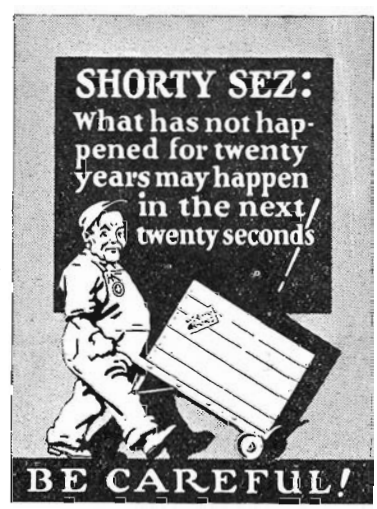
Remember that safety work is the study of the right and orderly way of doing things, and is, therefore, a great constructive aid to workshop efficiency. Safety teaches men to be alert, thoughtful and considerate; to observe conditions and to study how to do things the safe and right way.

AN UNSAFE PRACTICE

A frequent and very dangerous practice is to swing tea "billies" overhead in order to stir tea, and recently an employe received a painful injury and severe scalds through the handle of the "billy" breaking.

Tea can be thoroughly stirred by merely turning the billy backwards and forwards in the hand without resorting to the overhead swinging which is so prevalent.

Think of the safety of others and avoid this dangerous practice.



Safety First Message From Kyabram

KYABRAM, Thursday. — This railway man has qualified for the Safety First slogan branch.

Giving evidence in Kyabram Court today, he said that when he held up his hand and called to a defendant, who had driven a motor car over a railway crossing, at the risk of a collision with a goods train, the motorist used an oath.

"Terrible! What did he say?" asked Mr. J. B. Sawers, for the motorist.

"He told me to go to h—l," said the railwayman.

"And did you go?" asked Mr. Sawers facetiously.

"No," came the reply, "but he might have if the train had hit his car."

Mr. Sawers: Thanks; that's one to you.

From the "Sun Pictorial" of Aug. 24

BREATHE PURE AIR

Get out in the open air as much as possible.

While avoiding draughts, let air circulate through the house.

We sleep about one-third of our lives; so sleep with open windows, and get the benefit of the pure night air. Night air is NOT harmful if you keep yourself warm.

Breathe deeply. Nature intended the whole of our lungs to be used—not half.

Proper breathing helps to keep the body fit.

When dusting, use damp cloths, not "dusters." When sweeping, use a damp broom, or scatter bits of damp paper over the floor. Indoor dust, when disturbed, makes the air injurious.

Breathe through the nose. The nose is an air filter.

Fresh air night and day keeps the medicine bottle away.

Wear suitable clothing.

We wear clothing to keep our bodies protected from sudden changes that occur in the temperature.

Underclothes are the most important of our clothing.

As far as the material of which our underclothes are made, a number of different opinions are held, but a good rule to follow is that "that clothing which gives you physical comfort is hygienic and therefore suitable."

Given suitable underclothes, outer clothes are a matter of taste.

Don't "coddle" yourself with "chest protectors," "throat mufflers," "stomach bands," etc.

Clothing should not be tight fitting.

The less clothing you can wear and

Concluded on page 6

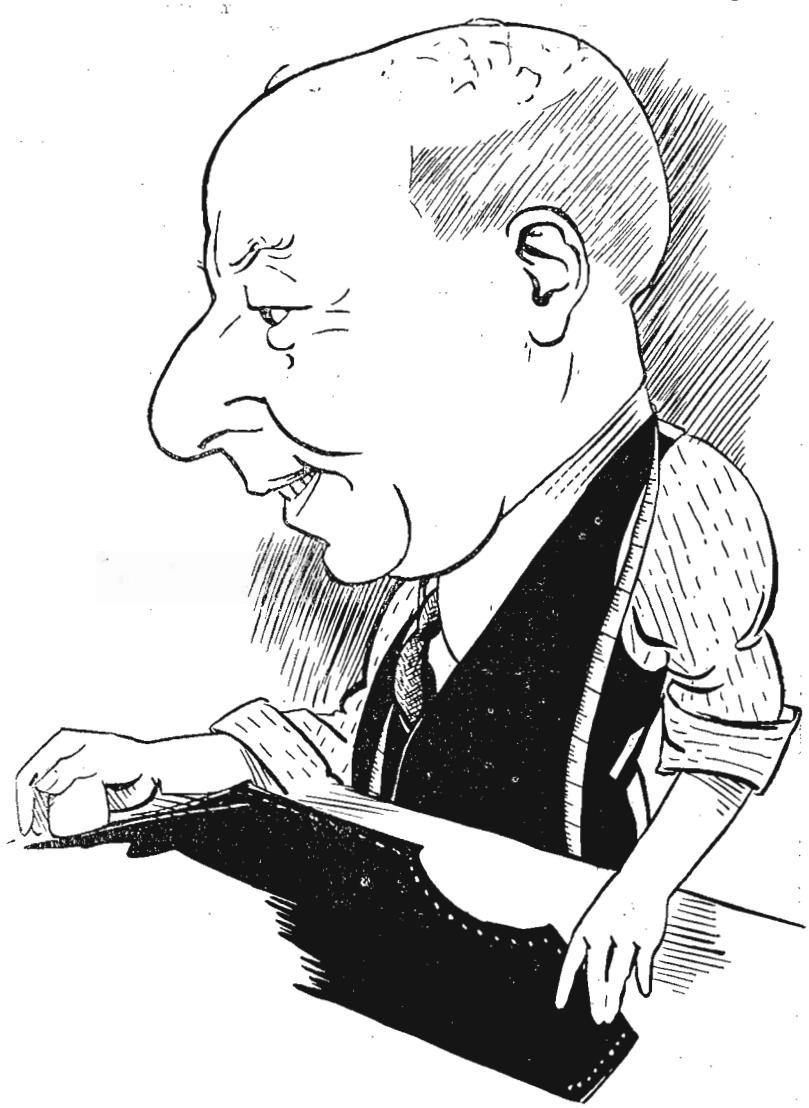
Let us introduce Mr. Field!

IT is a far cry from Bond-street to Swanston-street. Along that famous street in London the most exclusive tailors of the world are to be found, and patrons of these establishments can always be distinguished by the faultless tailoring of their clothes.

Here in Melbourne there are only a few cutters who have sufficient experience and knowledge of the tailoring art to enable them to satisfy their customers with a suit that conforms to the latest decrees of Bond-street; but such a craftsman is to be found in Mr. B. Field, and it is with pleasure that we introduce him.

For 25 years he has carefully wielded the tailors' scissors, and in that time he has been associated with some of the most famous houses of London and the Dominions.

Two years ago Mr. Field passed through Melbourne on a visit to New Zealand. He received many handsome offers from leading city tailoring establishments to remain and take charge of cutting departments, and finally was tempted with the proposals made by R. J. Byers and Co. This well-known firm of city tailors were indeed fortunate to secure the services of such a capable craftsman, and they pursued a very wise policy in placing such a man in charge of their tailoring department.



At their city showrooms, 101 Swanston-street (over Stewart Dawson's) Mr. Field personally attends to the cutting of all suits entrusted to him. He chalks and cuts the finest and latest materials with a practised and experienced hand.

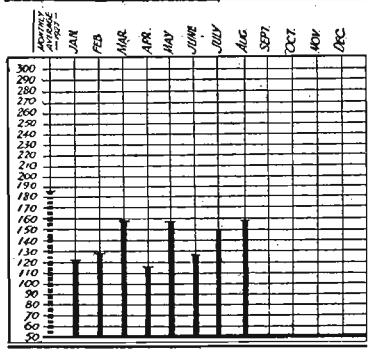
It is with the utmost confidence that R. J. Byers and Co. recommend railwaymen to immediately consult them for their spring and summer suiting requirements.

Country railwaymen, who are in need of a suit, will have sent them self-measurement form and a selection of patterns, free of cost, if they will write giving some idea of the shade of material required and the price they desire to pay.

Special discounts are available to those railwaymen who are members of the Victorian Railways Welfare Society, and an extended system of payment is in operation which is fully explained in a handsome booklet entitled "How to Dress Well on One Shilling a Day". This will be posted you immediately on receipt of a post card.

Should you require a suit for the Cups or Christmas holidays you are advised to avoid the rush season by being measured now. Call today, or, if in the country, write for patterns and you will receive same by return mail. Advt.

ACCIDENTS REPORTED EACH MONTH



Continued from page 4

be COMFORTABLE the healthier you will be.

Good health is good citizenship.

OCTOBER SUGGESTION DRIVE

The subject chosen for the tenth suggestion drive, which will be held during October, is—

"How can we curtail engine standing time."

Suggestions should be submitted to the Betterment and Publicity Board in the usual way.

Accidents turn sunshine into sorrow.

Safety-Ize ! Yourself, your job, your home.

THE ARTISTRY OF WORK

THE pleasure resulting from work well done is worth while. To develop the best equipped railway, to conduct the most successful bank, to create a great business where principle never yields to mere money getting, to create an environment for the young man just starting his business career that will be an incentive to him to do greater things, becomes a pleasure and pays dividends more remunerative than money value. Commercial business is the most fascinating thing in the world It is as great a thing to develop merchandise of character and beauty as to paint a fine picture, carve a beautiful statue, or write a good book. To some manufacturers a carpet is just a carpet, and a piece of gingham is only a piece of gingham. But with the desire to make the best—carpet and gingham can become a work of art.

SAFETYGRAMS

Use, don't lose, your head—(Keep it inside).

Better stop a minute than forever.

Watch your step—Not the clock.

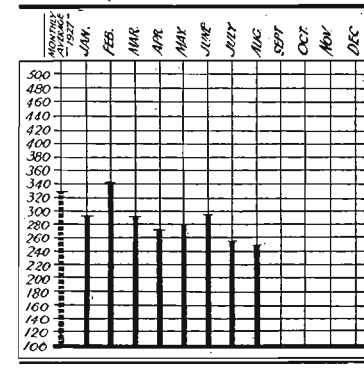
If it's goggles or glass eyes, take the goggles every time.

Stop and let the train go by,
It hardly takes a minute,
Your car starts out again intact
And better still—you're in it !

Better late at the crossing than too soon at the Pearly Gates.

Your children need you—work safely.

SUGGESTIONS RECEIVED EACH MONTH



BENEFIT BY YOUR IDEAS

The following Awards were made during August for adopted suggestions :—

Total amount ... £173
Highest award ... £50

Arrangements now exist for the placing of adopted suggestions of particular merit before the Railways of the various States, also the Commonwealth and New Zealand Railways.

Don't kid about Safety. You may be the goat.

Fire is costly Carelessness. Stop it.

An ounce of Prevention is worth a reservoir of water—Learn to forestall fire.



A Bag With Holes

IN every walk of life there are to be found travellers who are putting their money into a bag with holes.

It is such an easy matter to drop your savings into some so-called investment that turns out to be worthless.

It is just as easy to waste your money on trifles.

A Pound in the Bank is worth two that are lost !

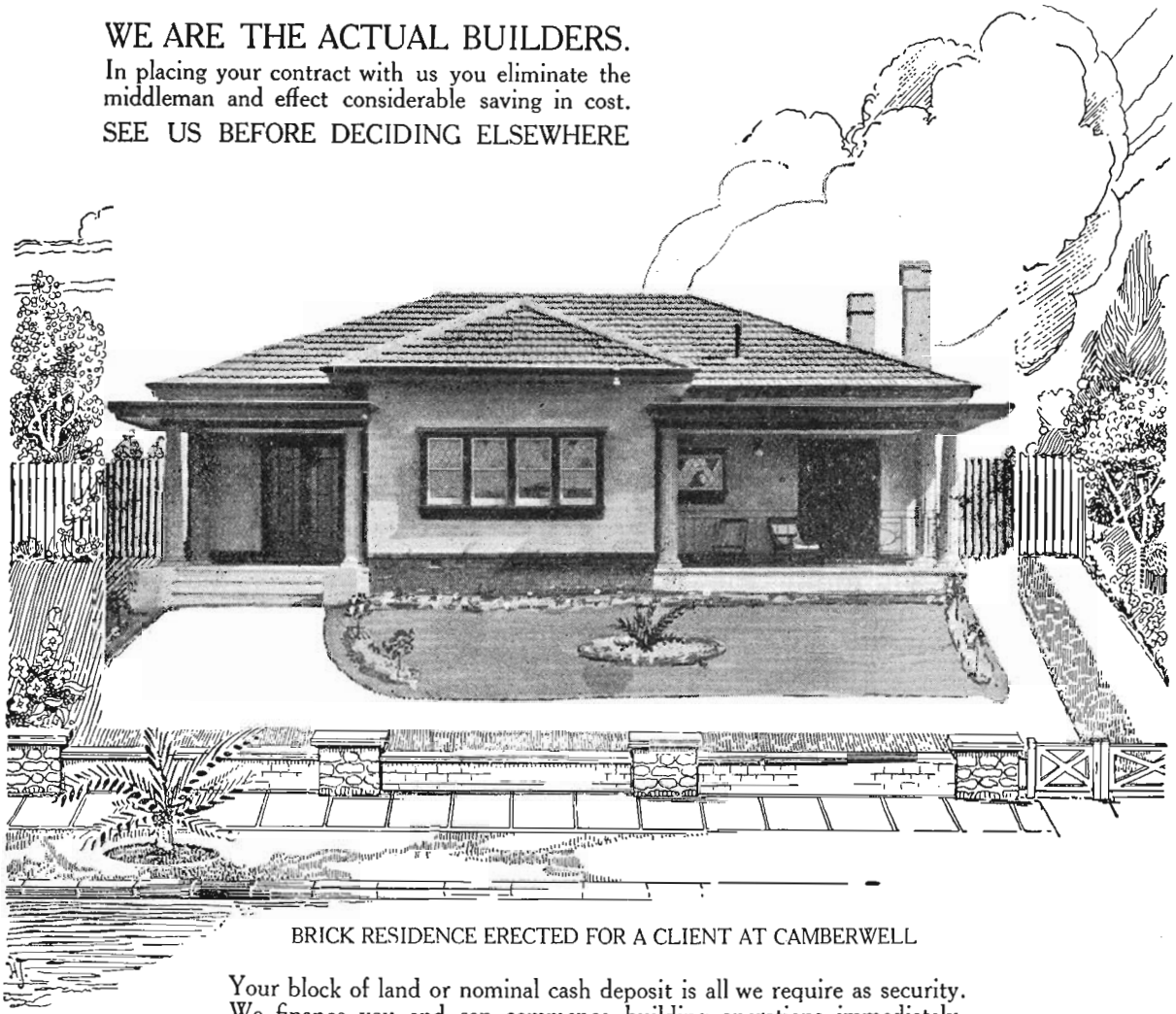
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Interest allowed at Four per cent.

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WE ARE THE ACTUAL BUILDERS.
In placing your contract with us you eliminate the middleman and effect considerable saving in cost.
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WE do not restrict you in any way—you may sell or let at any time. Inspect our model homes and buildings in all stages of construction on Golf Links Estate, CAMBERWELL, then let us know your requirements, and our architect will prepare sketch plans and estimates for you free of cost. It will absolutely repay you. Our specifications provide for everything necessary in the model labor saving home.

Our office, on the estate, is open for enquiry every day—week ends included—9 a.m. to 9.30 p.m.

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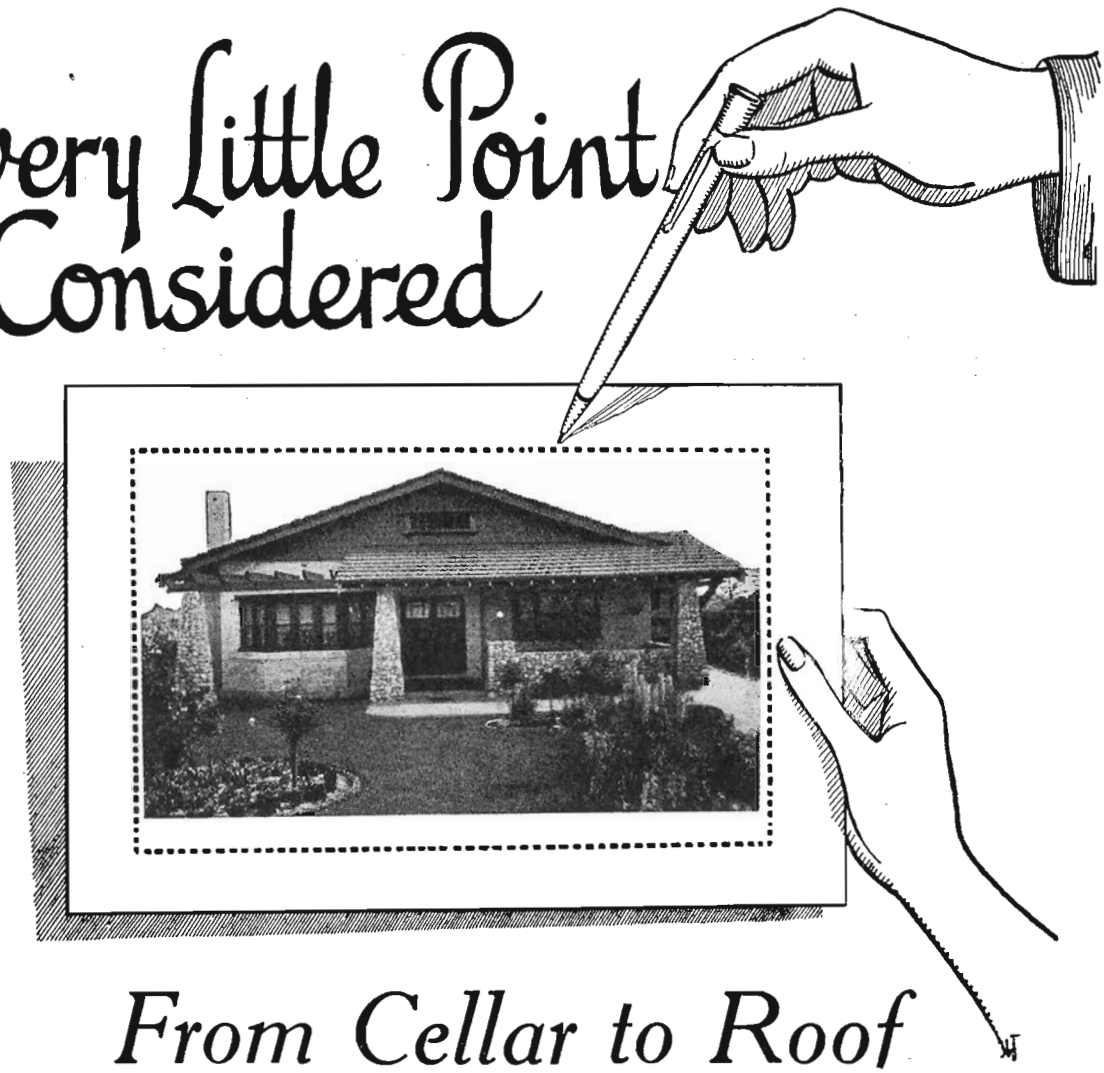
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V.R.M., Oct., 1928

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FINANCED (if desired) on terms that enable every man to become his own Landlord.

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There is No Red Tape ⌓ No Extras ⌓ No Restrictions.

Call and have a chat with us when next in the City and let us assist you with your building problem.

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R.M., Oct., 1928

The VICTORIAN RAILWAYS MAGAZINE



FLINDERS STREET STATION — MELBOURNE

For 7/- per annum, this Magazine will be sent, post free, to any address.

A copy is issued free to all permanent Victorian railwaymen, and to all temporary and casual employes with six months' service.

Contributed articles, paragraphs, verse, and photographic prints (negatives are not required) must reach the Editor, care Betterment and Publicity Board, Railways Department, Spencer-street ('Phone Railways 393), NOT later than the 12th of each month. Correspondence relating thereto is carried free over the Railways.

Communications in regard to advertising should be addressed to the Manager, Railway Advertising Division, Savings Bank Buildings, corner of Spencer and Collins-streets, Melbourne ('Phone C. 6414 or Railways 139).

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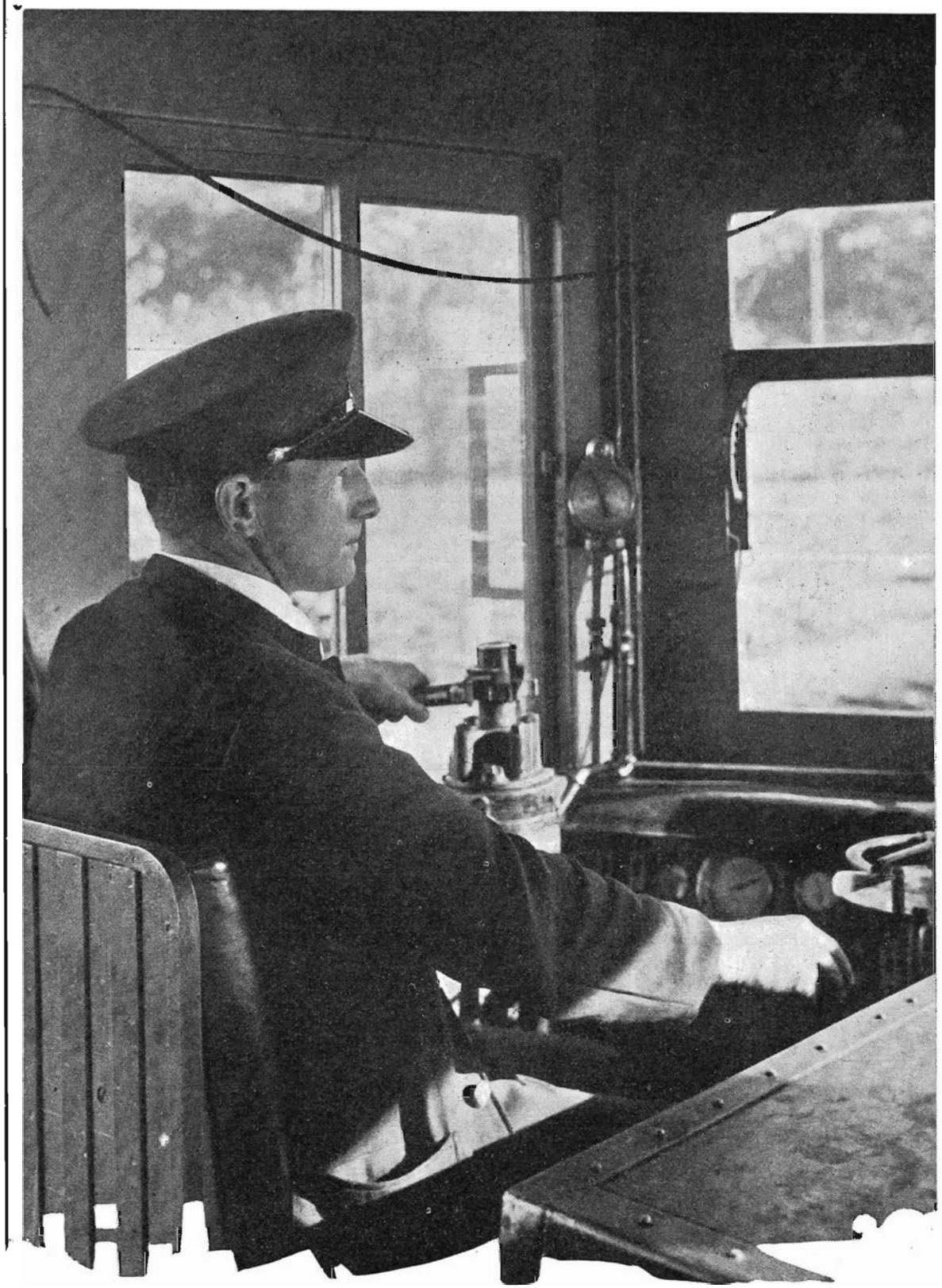
RAILWAY LOSSES

VICTORIA'S Railways have emerged from the trying financial year, 1927–8, with a deficit of £553,709, or, if the £357,170 recouped from the Treasury in respect of non-paying lines, of preferences granted for supplies of Australian manufacture, of losses due to a cut in certain agricultural freights, and of the South Australian Border Railways agreement, be added, the ledger shows a debit balance of £910,879.

THE position, on paper, looks alarming, particularly as no depreciation has been allowed. It looks even worse in the light of a three-and-a-half-million pound net deficit for the past sixteen years. But is it alarming? What is more to the point: are these paper losses *real*? If they were, they would have headed the State well towards the verge of bankruptcy. Instead of which it is much more prosperous than it was sixteen years ago.

ALTHOUGH the Treasury gave the Railways £357,000, the State's total deficit was little more than £200,000, despite a lean year. Which clearly shows that the Railways must have helped to swell State revenue as a whole. What is not disclosed in the alarming figures is the railway contribution to primary and secondary development (and, it follows, revenue) by its non-paying line, by its concession on agricultural freight, by its preference to Australian manufacturers.

RAILWAY losses in the past have made possible the opening up of large Mallee wheat areas, have helped to establish and maintain local secondary industries. That, when the State is still developing, still building, is surely not loss but investment in assets of which the potentialities are still unplumbed.

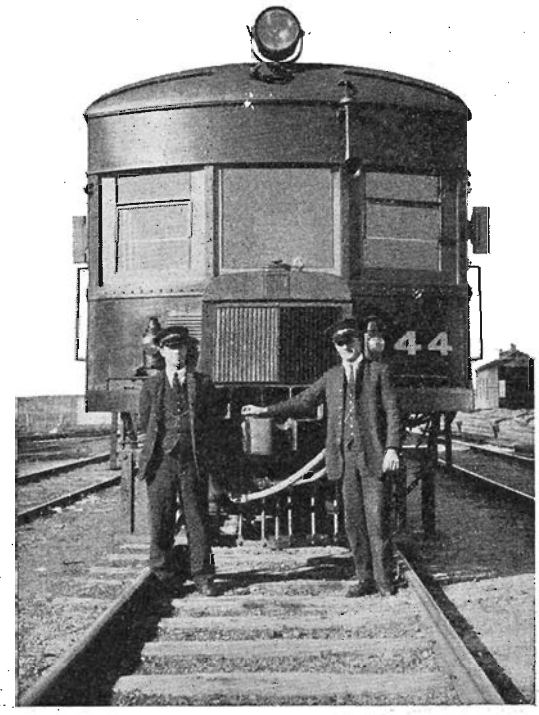


RIGHT AWAY !—The rail-motor driver on the job —Photo, W. Howieson

Rail Motor Evolution

By

Richard Hughes



"Brill" petrol-electric rail motor

THE evolution and development of the light, cheap and fast rail motor marks a definite trend in modern railroading. Regarded askance, for a time, by the railway world, as essentially a rival, petrol has since been admitted, with increasing enthusiasm, into profitable partnership with steam and electricity.

IT is a far cry from the London, Brighton and South Coast Railway Company's old Daimler rail motor of 1906 to the specialised varieties of high-powered petrol-electric and Diesel-electric motors now operating economically the world over.

That venerable forerunner of the road-motor-turned-railway-train crept prematurely into the railroad world. Its two 45 h.p. engines ran into the one four-speed gear box. Its careworn bonnet was bowed down beneath the burden of two current clutches which had to operate together to start the motor. It staggered to a standstill under a hand ratchet brake. Motor mechanics were few and far between. The pioneer's scheduled course between Brighton and Kemp Town was littered with broken crankshafts, cracked cylinders and dislocated pistons.

Of course, the steam rail car goes back to a much earlier date than the old Daimler. Victoria had its steam rail car 30 years ago. A Rowan it was, and it ran between Essendon and Broadmeadows. Simply, it was a small steam locomotive coupled permanently to a carriage which it pushed or pulled.

English railway companies early developed a vertical boiler design of steam rail motor, and this type, too, was given a trial in Victoria. It operated for a time between Ballarat and Ballan, but the severe oscillation of the body played havoc with the steel joints between boiler and cylinder. High maintenance charges withdrew the car from active service.

Britain's Steam Rail Cars

But the modern steam rail car has not lagged behind its progressive near relative, the petrol rail motor. Great Britain's light and cheap rail motors are chiefly of the steam variety. The well-known firms of Clayton Waggons, Limited, and the Sentinel Waggon Works and Cammel Laird & Co., Ltd., rule the market. Twenty new Sentinel-Cammell cars have just been ordered by the London and North-Eastern Railway. These cars have a superheater boiler with increased evaporative capacity and a higher working steam pressure. Another mechanical improvement which they feature is the adoption of a specially designed cardan shaft and gearing instead of the old chain drive.

Besides meeting orders from the British railway companies, the Clayton company last year supplied one of its 56-foot, 30-ton rail cars to the Egyptian State Railways. The body of this steam car was divided into four compartments—a driving compartment at the front, a third-class compartment seating 49 passengers, a second-class compartment seating 16 passengers, and a driving compartment at the rear.

Nineteen-twelve saw the first American ventures in the direction of petrol rail motors. The McKeen mechanical transmission cars and the General Electric Company's electric transmission cars appeared almost simultaneously. The McKeen car weighed the best part of 25 tons, boasted a steel, submarine-shaped body, and was fitted with very long buffers which were liable to buffer-lock. Six of them were purchased by Queensland and two by Victoria. They were not very successful. They gave fair satisfaction when operating with a rated load to a fixed schedule, but once they were overloaded troubles commenced. Primarily, they were too heavy. Besides, the internal combustion engine was, generally speaking, still in the experimental stages, and railway administration had not yet realised the possibilities of the road motor as a unit of rail transport.

The General Electric's petrol-electric cars (or gas-electrics, as the Americans call them) developed more promisingly, and a number of this type was operating

on various American railroads when the shadow of the Great War fell across the world. Progress was halted.

Post-war revivals, however, witnessed a phenomenal improvement in the development of the internal combustion engine. The intriguing idea of a petrol road motor, equipped with a very light body and steel flange wheels, began to find general acceptance with the big American railroads. Gradually the economical mechanical-transmission motors were placed in running on lines operated at a loss under steam traction. Success was immediate. Larger type cars were introduced on paying lines with the object of curtailing working expenses still further.

But the increased weight of the larger unit necessitated an increase in engine horse-power, and there was a consequent tendency to revert to electric transmission. Today, authoritative opinion holds that an excess of 150 h.p. requires electric transmission.

The Diesel Electric

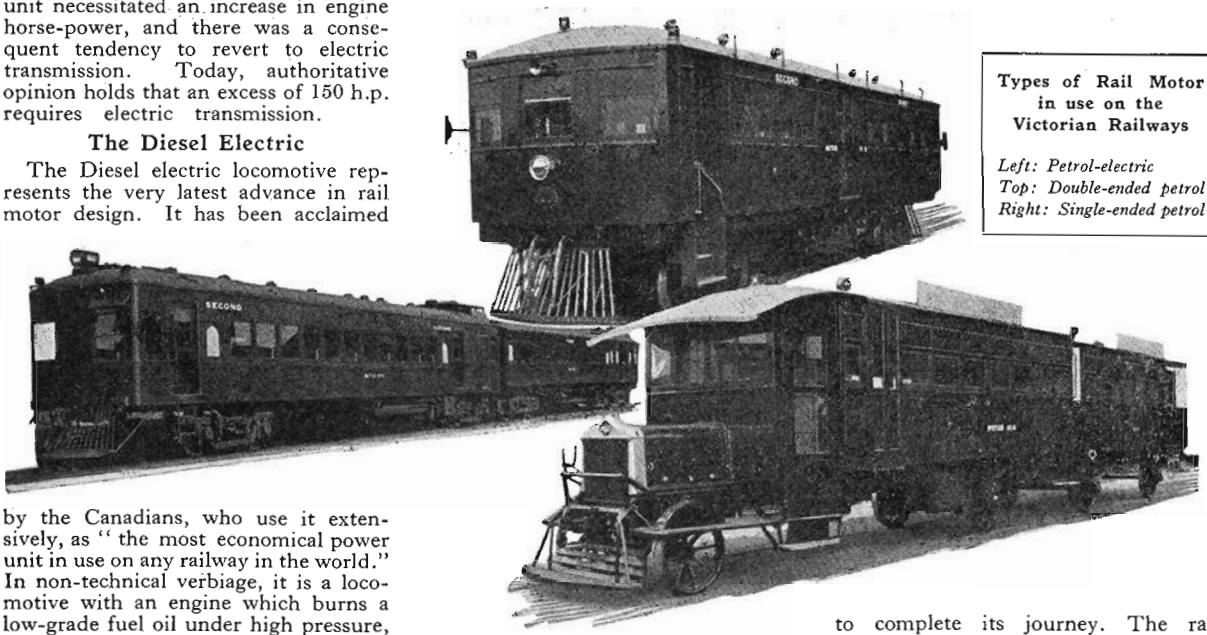
The Diesel electric locomotive represents the very latest advance in rail motor design. It has been acclaimed by the Canadians, who use it extensively, as " the most economical power unit in use on any railway in the world." In non-technical verbiage, it is a locomotive with an engine which burns a low-grade fuel oil under high pressure, and drives a generator that produces electricity for motors which are practically the same as those on the Victorian electric stock. The fundamental difference, in fact, between the Diesel-electric and the conventional electric train is that the Diesel carries its own power plant.

Heavy initial outlay is the Diesel's big drawback. It costs nearly three times as much as a steam locomotive, and to get the fullest benefit from its cheap operation, it should be worked 24 hours a day. Sweden uses big and heavy Diesels, and the bulk of Germany's 200 rail motors are of that type. Incidentally, at least two prominent engineering firms in the Fatherland maintain stoutly that the Diesel should be equipped with mechanical transmission, not electric.

In the matter of costs, a recent analysis of the varying working expenses of steam passenger trains, petrol rail motors and road motor 'buses, compiled by the Boston and Maine Railroad, makes interesting reading. This big American company is one of the largest railway operators of 'buses and rail motors in the States, and serves a region of great traffic density. It placed the cost of operating a steam passenger train, without any charge for maintenance, at 1.589 dollars per mile ; of a petrol rail motor at 0.72 of a dollar per mile ; and of a road 'bus at 0.289 of a dollar per mile.

It thus discovered that it could operate five road 'buses for the cost of operating one steam passenger train, and approximately two and a half 'buses for the cost of operating one petrol rail motor. . . . .

Victoria, at present, has a fleet of 19 single-ended rail motor (six-ton A.E.C. type), four double-ended type, one Brill petrol-mechanical motor, and one petrol-electric type, with 23 small type trailers, and one special trailer each for the Brill and the petrol electric. The Brill was considerably cheaper than the petrol-electric, and does 4½ miles to the gallon compared with the latter's 2½ miles to the gallon. The petrol-electric, however, would outlast two Brills, its maintenance charges are appreciably less, and it can be driven from either end, whereas the Brill is a single-ended type.



Types of Rail Motor in use on the Victorian Railways

Left: Petrol-electric
Top: Double-ended petrol
Right: Single-ended petrol

Rail Car Genesis in Victoria

This compact and efficient little fleet had its beginning in one single-ended type motor, which was placed in running between Mildura, Redcliffs and Merbein in the middle of 1922. Its prototype was the little five-ton rail motor operating on the Lismore-Grafton line in New South Wales—a converted road motor lorry, hauling a louvre truck and handling branch-line passenger traffic very cheaply.

Victoria discovered that it could operate the single-ended rail motor at a cost of 1/8 per mile, the double-ended type at 2/- per mile, the Brill at 2/3 per mile, and the petrol-electric at 3/- per mile. The approximate cost of a mixed train averages from 5/6 to 6/- per mile. Moreover, the rail motor provided a more attractive passenger service by replacing the slow mixed train, with its tedious shunting *en route*. And a purely goods train, in turn, could be built up to full loads.

Cut 3½ Hours from Journey

For instance, the Wycheproof-Kulwin mixed train, which was regularly confronted with heart-breaking roadside work, took more than eight hours to complete its journey. The rail motor now completes the distance in less than four-and-a-half hours. Similarly, the schedule time between Bairnsdale and Orbost was reduced from four and-a-half hours to three.

Further, the petrol-electric between Toolamba and Echuca now provides 12 regular trips weekly instead of the eight trips of the original mixed train. And the 10 mixed trains in each direction weekly on the Clarkefield-Lancefield line have been supplanted by 13 rail motor passenger trips in each direction and four goods trains a week. . . . . .

There can, as yet, be no reliable forecast of the lines on which Victoria's rail motor policy will develop. That it will develop is certain. But whether in the direction of Brills, petrol-electrics, Diesels or steam rail cars is uncertain.

Apropos, it is significant that, of the 175 rail motors put in running in America during the past 12 months, 171 were petrol-electrics.

Things *we are* Talking About

NOT SO BAD

EVEN with a deficit for 1927–28 of £553,709, Victoria's railway financial position compares favorably with that of some overseas railroads. The position appears unsatisfactory largely because of the more or less fixed rate of interest chargeable against capital. This, last year, was responsible for a disbursement of no less than £3,340,612, from which it follows that the net surplus of revenue amounted to £2,786,903 or 3·82 per cent. of capital. Even if a depreciation of say, £450,000 had been charged, the profit would still have been something more than 3 per cent., which, taking into consideration the contention that the Railways are overcapitalised by about £15,000,000, the partial failure of the wheat crop, and general financial and economical depression, was anything but a bad showing.

ENGLISH RAILROAD FINANCES

THE "Big Four" English railways, or, at any rate, two of them, are in a much worse position. So unpromising is the outlook that the market prices of railway securities have declined almost sensationally. Quotations cabled at the beginning of July recorded Great Western stock, which for 1927, 1926, and 1925 had returned 7 per cent., 3 per cent. and 7 per cent. respectively, at 87¼. Similarly London, Midland and Scottish stock, which for the same three years had returned 4¾ per cent., 3 per cent. and 6 per cent., was quoted at 61¼. London and North-Eastern deferred and preferred stocks were at 11⅞ and 25¾ respectively, while the corresponding prices for Southern stocks were 32½ and 70. Returns from stock in the two last named were :—

	1927	1926	1925
Southern, Ordinary Stock ...	2%	1¼%	3½%
L. and N.E., Preferred Ordinary ...	⅜%	⅛%	5%
L. and N.E., Deferred Ordinary ...	nil	nil	1%

In the light of these figures, Victoria has little to complain of, especially as its railways are still doing developmental work for the State.

IN AMERICA

IN America, the Interstate Commerce Commission, which supervises the operations of the railways, limited their net return to stockholders to 5¾ per cent. A recent leaflet issued by the committee on Public Relations of the Eastern Railroads shows that the property investment account of these railroads yielded 4·33 per cent., 4·83 per cent. and 5·13 per cent. for 1924, 1925 and 1926 respectively. The corresponding figures for the Victorian Railways, that is to say, surpluses of net revenue, were 4·57 per cent., 4·62 per cent. and 4·16 per cent. of capital. The figure for 1926–27 was 4.55 per cent. Had, of course, these American companies been compelled to pay a fixed interest rate of 5¾ per cent., they would have shown a deficit, and have drawn on reserves to meet it.

TOURIST INNOVATION

CONSIDERABLE success attended the Tourist Bureau's camp at the Grampians during September. Doubts were cast on the innovation before Mr. Gollan with customary energy got it going and dispelled them. One view was that a camp for nature study sounded too much like work, but the fact that 25 girls from Fintona school booked for the first week, 23 from the Church of England Grammar school, Merton Hall, for the second, 19 grown-ups for the third, and 19 Malvern-road State school children and 12 teachers for the fourth showed that whatever work was involved held an undeniable appeal. During the first fortnight the camp was attended by Mr. W. Foster, of the Footscray Botanical Gardens, and during the second by Mr. W. Audas, of the Government Botanist's staff at the Melbourne Botanical Gardens. Both these gentlemen know the wonderful Grampians flora to a leaf; Mr. Audas has, in fact, written a book, "Victoria's Wonderland," which has become a standard work. Most of the girls brought their books and presses and, in a word, thoroughly enjoyed themselves, as witness the following limerick telegraphed by the Fintona campers to another party from the school which went to Mt. Buffalo for the September vacation :—

We're hoping the Buffalo-ites
Are seeing as wonderful sights
As the Grampians campers
Who sport bursting hampers
And roast by the camp fires at nights.

AN EYE TO COMFORT

THE camp, which was organised with a keen eye to comfort, boasted a marquee for meals—good meals too, prepared by a chef trained in the Refreshment Services way of doing things—sleeping bags and a three-valve wireless set. The whole thing was based on the walk-in, walk-out principle, which, of course, saved endless trouble for the campers. A similar camp next year has already been brought within the bounds of possibility by the Fintona girls' unanimous request for bookings. It is even suggested that other suitable localities might be chosen for such organised camps during the summer months.

FARMING TRAIN GAINS NEW FRIENDS

EIGHT thousand people, approximately, visited the Better Farming Train, last month, on its tour through the Goulburn Valley district. Twelve centres were given lectures and demonstrations; at six of them, for the second time, the train having paid them its original call in March, 1925. At one of them, Tongala, herd-testing has made considerable progress, since the gospel was first preached there. The establishment of two notable studs—those of Messrs. Plattfuss (Friesian) and P. J. Maloney (Jersey)—in the district has also given stimulus to the movement. At Tongala, incidentally, the train was visited by Victoria's ex-Premier, Mr. J. Allan, who, after spending two hours in inspecting the exhibits, added his meed to the chorus of appreciation that the train has evoked wherever it has been. Another enthusiastic visitor was Mr. H. Pye, Cerealist at Dookie College, who described the train as an inspiration to the farmer. That, of course, is its job, its *raison d'etre*. The fact that interest instead of waning with the years is increasing with every tour is evidence that the train is justifying both itself and its job.

EUCHARISTIC CONGRESS TRAFFIC

TWELVE interstate specials in four days, and extra divisions on all expresses, was the Victorian Railways share of the recent widespread traffic arrangements for the conveyance of the thousands of pilgrims who attended Sydney's memorable Eucharistic Congress — the greatest religious event ever held in Australia. Three fully booked cheap excursion specials left Spencer-street on Friday, August 31, and on Saturday, Monday and Tuesday, September 1, 3 and 4. The first class return fare was £5, and the second class return £3 15s., compared with the ordinary single fares of £4 first and £2 13s. second. Adelaide, too, ran a special train right through to Albury. All told, 4,750 cheap excursionists travelled by the 12 Victorian specials, and at least 2,000 more by the ordinary express train services.

INTELLIGENT CO-OPERATION

THE smooth-running progress of this abnormal traffic was due in no small measure to the vigorous co-operation of the Melbourne organiser, the Rev. Father Clack. Father Clack kept in close touch with the Chief Time Tables Officer before and during the period of the Congress, and so well posted was he with the intentions of the Catholic parishioners in Melbourne that he was able to make an estimate of the probable number of travellers some weeks before the Congress. This information was the basis on which the railway time tables were drawn up, and its accuracy can be gauged from the fact that the original draft of special trains met actual requirements perfectly. Booking by the special cheap excursion specials was centralised at the Government Tourist Bureau, and the tickets were sold in batches for each special like theatre-seat tickets. The whole affair was a triumph of organisation and intelligent co-operation.

SUCCESSFUL FIRST-AIDERS

FOR the third year in succession, Geelong No. 2 Ambulance corps has won the South-Western District Ambulance Competition, and has consequently held the Commissioners' shield, a photograph of which is here reproduced, since it was presented two years ago. The corps, which is headed by capable Superintendent T. J. Williams, was, incidentally runner-up in last year's State competitions, and has exceedingly high hopes of beating all comers at this year's event which will be held shortly.



The Commissioners' Ambulance Shield

THE SPIRIT OF SERVICE

LAST month we recorded an instance of the railway spirit of service in which timely help was accorded a stranded orphan youth by the Maryborough station staff. Another manifestation, in a different setting, of this spirit is now brought to the light of day by the Headmaster of the Castlemaine High School, who in a letter to Mr. Clapp says :—

I have recently been very impressed by a fine example of the loyalty of railwaymen to one another, and by their goodwill towards a former railwayman now superannuated and in trouble. It may interest you to know that the team spirit which you have done so much to cultivate in the service extends beyond the station yards. Early this year I engaged as caretaker and cleaner for this school an ex-railwayman, whose ill-health after war service had made it necessary for him to leave his job as shunter. He is still very delicate, and for some weeks has been laid up by an illness which might have gone hard with him if aggravated by the worry of loss of pay (he has a wife and four little children to support). This worry, however, was relieved at once by his old comrades at the local station volunteering to do his job in their leisure time. For several weeks they have come in relays, and have done their work, and done it well. And this with no thought of reward nor of advertisement of their good-fellowship. With some difficulty I have learned that their names are Tolliday (Night S.M.), Noy and Bouch (clerks), Muirhead, Hendra and Penny (shunters), Simms, Sandford and Spiers (signalmen).

DIMINUTIVE LOCOMOTIVE

AN unusual job was turned out in double quick time at the Newport Workshops, last month, in the shape of assembling a " Climax " 2 ft. 6 in. gauge geared locomotive which had been imported from America by the Forestry Commission for hauling timber to Collins' siding on the Moe–Walhalla line. From the time the first case of parts was opened at the shops to the screwing home of the last nut, it took five working days : it was being tested under steam on the sixth. The locomotive weighs 25 tons, roadworthy, and its little 9 in. by 12. in stroke cylinders, through the geared drive, develop a tractive effort of 11,000 lb. Its boiler pressure is 200 lb. to the square inch, and it can haul 25 tons up a grade of one in ten.

NEW LOCO. ERECTING SHOP

ACCEPTANCE by Parliament of the Railways Standing Committee's recommendation will give Newport a much-needed new locomotive erecting shop, including a machine shop bay, and all the necessary track work, crane equipment, hydraulic and compressed air piping, electric lighting and wiring, machines, motors and so on. The limit of cost recommended is £150,000. It has been suggested that more constructional work should be done at Ballarat and Bendigo workshops, but the Committee, in its report, agreed with the Commissioners that it was sounder policy to concentrate the repair work in country centres rather than on locomotive construction. The present erecting shop at Newport will be made available for truck repair work which is now done in the open, as is the case at Bendigo. The Committee, incidentally, makes a further recommendation that Bendigo should have a truck repair shop at a cost of £5,000. Money spent wisely can have only one result—greater efficiency.

CUTS BOTH WAYS

VICTORIAN railwaymen have a reputation for courtesy that is second to none in the Commonwealth, and of that reputation they are justly proud. Courtesy in most cases begets reciprocal courtesy, but there are cases in which it doesn't, and until these few cases are eliminated by, let us say, a little more thought, and a little less egotism, and possibly, on the part of railwaymen, a double measure of courtesy, the ideal of perfect relationship between the seller and the buyer of transportation will not be attained. It takes two to make both harmony and dissonance. Recent comment in the *Maryborough Advertiser* stresses the point :

It is satisfactory to learn from the Chief Commissioner (Mr. Clapp) that, all over the State, the position was the same as the Mayor (Cr. John Lean) said existed at Maryborough, and that was the courtesy of, and the willingness by railwaymen to impart information to the public, travelling and otherwise, was very marked. Certainly politeness costs nothing and goes a long way; but it has to be remembered that such an essential is just as obligatory on the part of the department's patrons as it is on the employes of that great public utility. Far too often has it been the case that passengers and others, having business with the railways, have overlooked the fact that stationmasters, clerks and porters are but flesh and blood, the same as themselves.

Recent Railways Publicity

IN these days of hard, competitive selling, good publicity is more than ever necessary to secure results. These examples fully maintain the Victorian Railways reputation of being a front rank exponent of the art.



The "Help-You" Spirit *in* Public Service



Sir John Monash

By

Lieut.-General
Sir John Monash
G.C.M.G., K.C.B.

Chairman, State Electricity Commission of Victoria

"THE public service is but a vast departmental business, and while each department functions within a well-defined orbit, the sum of the activities of all is the welfare of the State," says Sir John Monash in this article specially written for the Victorian Railways Magazine. Sir John outlines the relationship between the two great State organisations which are respectively engaged in the mass production of electricity and of transportation.

IT is with considerable pleasure that I avail myself of the opportunity which has been extended to me by the Railways Magazine of giving a brief outline of the relationship between the activities of the State Electricity Commission and those of the Victorian Railways. To my mind there are no two State departments whose interests are more in common, whose activities more in parallel. The functions of each are State-wide, and each is entrusted with the management of a vast communal undertaking of vital importance to the well-being and development of the whole country.

The relations of each to the public are direct and reciprocal, and from each is expected the same ideals of public service, and the same standard of efficiency and economy. Each is endeavoring to give to its clients—the public—the best possible service at a minimum of cost, and each is faced with much the same problems, because the people, in whose daily life and economics each plays such an intimate part, regard both from the same standpoint, and, therefore, subject both to the same kind of criticism.

For the Public Good

Each has been created by the public for the public good, yet the extent of the benefits which each is able to confer upon its creators is governed by the use which the latter make of their own service; hence the slogan of the Railways, "Help us to help you," might well be applied to both organisations. The Commission's own slogan "Service at cost," is, after all, only a variation of that of the Railways, because behind it there is the message to the people to make a full and proper use of their own service, in order that the cost of such service may be made as low as possible. Both the Railways and the Commission have to provide for peak periods, whilst maintaining service for the remainder of the time. Given a heavy and constant demand upon its resources, each could afford to reduce its charges. To the Commission the periods of minimum demand are what poorly patronised trains are to the Railways.

Having regard to the numerous points of similarity in aims, objects, administration, governing principles,

and economical problems, it seems but natural that both departments should have the same Ministerial head, and that, understanding and appreciating one another's difficulties, the relationship between both departments should be of the most cordial character.

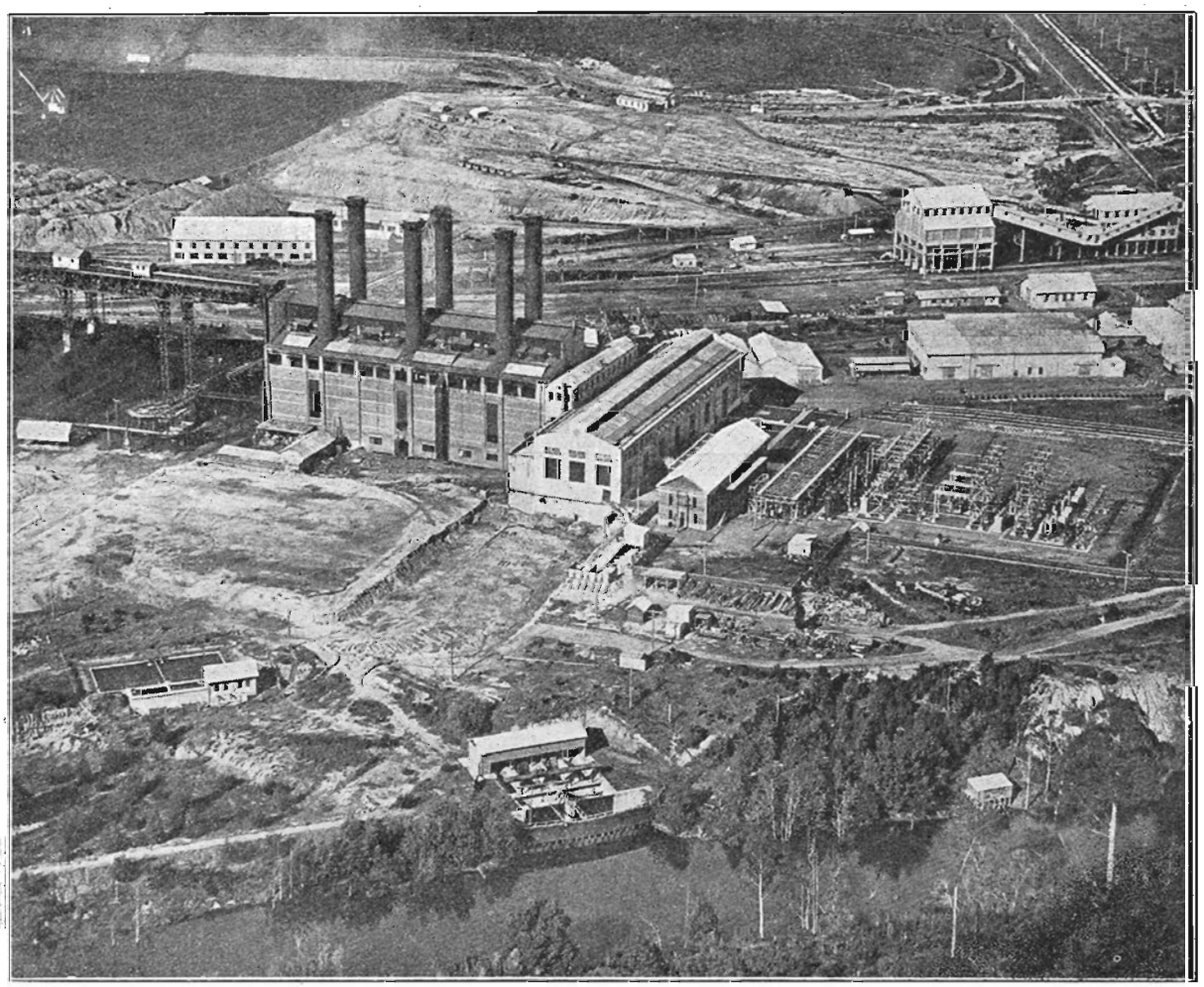
This fact is the more pleasing, because we have considerable business with each other. The trite saying that there is no friendship in business was never quite true, and is less true today than ever, because modern commercial principles frankly recognise the interdependence of contracting parties, and are designed to inspire confidence and create a feeling of co-operation. This has been particularly the case in the dealings between the Railways and the Commission, and it is worthy of mention, because transactions between government departments can very easily become formal and automatic, in which the ordinary business relationships between private firms may not be regarded as so essential. However, the public service is but a vast departmental business, and while each department functions within a well-defined orbit, the sum of the activities of all is the welfare of the State.

Reciprocity

The Railways Department has played and is playing an important part in building up Victoria's national scheme of electricity supply and briquette manufacture, and the Commission, in turn, has been and is a very good client of the Railways. Taking Yallourn, for example, all the necessary and very considerable plant for coal-winning, electrical generation and transmission and briquette manufacture has been transported over the Railways, which are now conveying the coal and briquettes that portion of this plant is producing to the various depots and markets of the Commission.

During the year ended June 30 last the Railways transported 121,957 tons of briquettes and 33,097 tons of brown coal from Yallourn, and, in respect of the coal and briquettes delivered to its own depots, the Commission paid £27,562 in freight, to which, of course, must be added the amount paid by private consignees. During the same period the total amount of freight paid by the Commission to the Railways on all its activities, including coal and briquettes, was £65,000 or more than £5,000 per month.

The Railways are now engaged in conveying plant to Yallourn for an important extension of the briquette factory, which will provide at least 200,000 tons more freight per annum. A major extension of the generating and transmission facilities at Yallourn is also proposed, and the plant for this will also have to be transported to Yallourn by the Railways. The cost of so doing has to be added to the capital expenditure on the production and transmission of electricity, so that, although electricity is intangible, the Railways do derive freight therefrom, in the shape of transport of the necessary generation and transmission plant.



The Power House at Yallourn. Part of the brown coal open cut can be seen in the left-hand corner

From the transmitted energy, the Commission, on its part, derives an appreciable amount of revenue from the Railways, as it lights the railway stations in every district in Victoria to which its mains extend. In the 1927–8 financial year, this revenue totalled £6,176 10s. 10d., in respect of supplies for railway stations, stationmasters' residences, refreshment rooms, offices, yards, signal boxes, sheds, pumping plants, etc., while the revenue which will be derivable from the supply of electricity to railway construction works now being carried out will equal about £700 for twelve months.

In very small centres the revenue from the local railway stations is always a most important factor, because it helps to make an extension economically possible and justifiable. In some such cases it has happened that the Railways' revenue has constituted the turning point in favor of local supply, so that it is invariably found that the physical points of contact between the Railways and the Commission lead to mutual benefit and to the advantage of the State.

Turning again to Yallourn itself, we find that there is very keen public interest in the model town and the stupendous works of brown coal winning, electrical generation and briquette manufacture associated therewith. Scientists, students and members of public bodies visit the works as a matter of course, because the operations mentioned are of great scientific interest and national importance. To the general public, however, Yallourn would remain more or less of an abstract conception were it not for the enterprise of the Railways Department in organising special excursions thereto, as part of its policy of educating the people in regard to the natural resources of the State. It is gratifying to know that these excursions are invariably well patronised and profitable, and that, while the Railways gain in revenue, the people themselves are given the opportunity of making a personal study and inspection of a vast State undertaking of great inherent as well as national interest, and the Commission reaps the advantage of a better understanding by the public of the nature and scope of its work. During the twelve months ended June last the number of people who travelled to Yallourn by the four of these special excursions which the Railways organised was about 450, and in the same period twice that number at least availed themselves of the ordinary railway facilities for visiting the town and works.

Interchange of Electricity

Immensity always appeals to the imagination, and with the further development of the field, and the extension of the works of coal-winning, power generation and briquette manufacture, the pride of the people in the success of their own gigantic enterprise will grow, and there will be few who take an intelligent interest in the progress of the State who will neglect to visit Yallourn. The town itself is becoming more self-contained each year, and the erection of a commodious and completely-electrified hotel will, in future, provide the accommodation for the general public that has been lacking in the past. The Railways Department has, therefore, a practical interest in Yallourn, and the Commission will welcome that Department's fullest exploitation of the possibilities of the place, because it is sure that the relationship between the public of Victoria and Yallourn will improve by acquaintance.

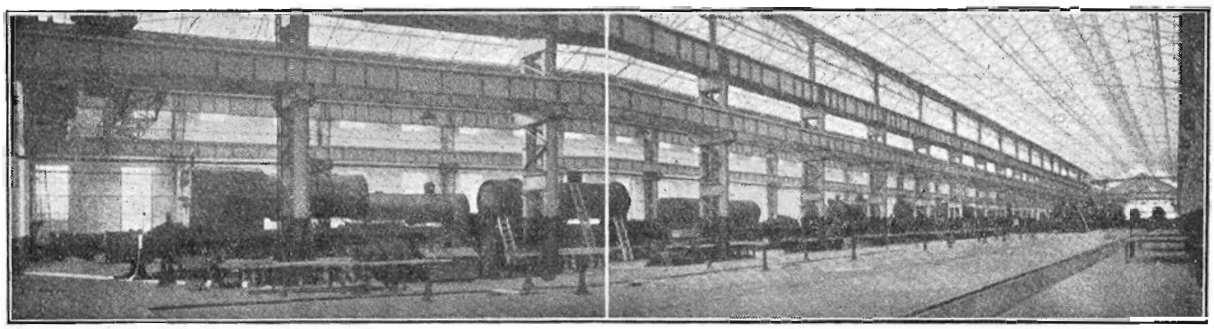
In the actual generation of electricity there is very important practical co-operation between the Railways and the Commission. Although separate entities, our respective stations at Newport ("A" and "B") are under the same roof, and provision has been made for the interchange of energy, so that, in effect, each station forms a reserve for the other, in the event of a breakdown or other emergency. As the Railways' system is 25-cycle, and that of the Commission 50-cycle, this necessitates the use of frequency changers, in order that the energy from each may be transformed and absorbed into the system of the other. Millions of units of electricity are thus interchanged each year, thus evidencing the mutual value of the safeguard which has been established.

I look forward with confidence to a continuance of our happy relationship. Our interests never conflict, and our functions must always combine to promote the prosperity and development of the State, which is our mutual aim. I am not going to assume the mantle of prophet, and predict that rural electrification will one day include the Railways, but I do suggest that as a possibility and as an evidence of a field in which the spirit of mutual endeavor and co-operation, now firmly established between two great developmental departments, may yet find unlimited scope for further expression.



Some of the 15-in. gauge locomotives in use on the New Romney, Hythe and Dymchurch Light Railway in the south-east of England. These engines are exact replicas of the powerful Pacifics which haul some of the country's famous trains.

Lines From Other Lines



The south and middle bays of the L.M.S. Railway's new locomotive erecting shop

FAMOUS LOCO. WORKS REORGANISED

A COMPREHENSIVE reorganisation scheme at the famous Crewe Works of the London, Midland and Scottish Railway has now been completed. Equipment has been immensely improved and increased. A new boiler shop is capable of turning out seven boilers a week, as well as all plates required for locomotive and tender repairs, while a new steel works has a production capacity of 85,000 tons a year. Practically the whole of the 36 shops have been remodelled, and approximately 200 new machine tools have been installed. Outside sidings have had to be constructed for 96 engines and 85 tenders. A new locomotive erection shop has been constructed in which 66 engines can be prepared for service at one time. One of the results of the reorganisation is the reduction of the percentage of time for engines under repair, from 12.3 to 6.4. Reduction of transport charges and manufacturing costs in all departments, increased output with less overtime, less time of locomotives out of traffic, and decreased costs of power, are all directly due to the new methods introduced.

ANOTHER THEORY UPSET

THE ordinary supposition that, because the Missouri Pacific rail motor car operating between Topeka, Kan. and Pittsburgh is painted dark green and not bright red, it is rendered immune to attack by bulls that wander on to the right-of-way, was unexpectedly proven false recently. An angry bull, apparently incensed by the headlight, attacked the car near Mapleton, derailed it, and died from injuries received in the encounter.

STARTLING RELIC OF A FORTUNATE FAILURE

FROM Lille, France, comes the report that the tens of thousands of passengers who have travelled by rail between Lille and Paris during the past ten years have been riding, without knowing it, over a powder mine. Workmen repairing the grade crossing at Libercourt unearthed a formidable collection of German shells varying in calibre from 3 to 10 inches, connected with electric detonators, skilfully buried under the track. This mine had apparently been laid by the Germans during the retreat in 1918, but the wires leading to the detonators must have been cut, thus preventing the explosion.

A POLAR RAILWAY

ONE of the oddest railways in the world is in Russia. It was built during the world war to open up a port on the Arctic ocean. Its northern terminus is at Murmansk, the latitude being 68 deg. 59 mins. north, or 147 miles north of the Arctic circle. From Murmansk it extends south to Petrozavodsk, 652 miles. It claims to be the only railway in the world operating dining car service north of the Arctic circle. Refrigeration should not be one of the problems in operating dining cars on this railway.

UNUSUAL TRAFFIC HOLD-UP

TRAFFIC on the Chicago and North Western Railroad was held up recently when a circus train blocked the main line at Francis Creek, Wis., while "Alice," a six-ton hippopotamus, was presenting to the world a hippo baby. The baby weighed 100 pounds and it was a boy. The Menominee Boiler Works, on three hours notice, built a special "crib" or tank for the infant, eight feet long by four feet high.

FRIENDLY ENEMIES

IN common with most other railroads the St. Louis-San Francisco has a number of world war veterans in its service in various capacities, but is probably unique in having veterans of both the French and German armies working at the same shop. Edouard Andalafte, boilermaker at Springfield, Mo., served throughout the war in the French infantry, was wounded and twice decorated, having received the "Medal Militaire" and the "Croix de Guerre." Employed at the same shop, as machinist and draftsman, is Walter Schindler, who was artillery observer attached to Von Hindenburg's army during the war.

RAIL AND AIR CO-OPERATION

JOINT air and railway passenger service between the East and the Northwest of America was inaugurated in August under a plan which has been approved by the Great Northern Railroad, the Northern Pacific Railroad and the Chicago, Milwaukee and St. Paul Railroad on the one hand, and the Pennsylvania Railroad on the other. The air service necessary for this co-operative effort is supplied between Milwaukee and St. Paul as the Northern terminus, and Chicago as the Southern terminus. This is the first joint air and railway service schedule to be actually arranged for in detail; is the first of a series of such schedules and operations planned by the Transcontinental Air Transport and the Pennsylvania Railroad; and is preliminary to the service which Transcontinental Air Transport will shortly inaugurate between New York and Los Angeles. All 'planes are subject to critical scrutiny by a Technical Committee, comprising several well-known aviation experts headed by Colonel Charles A. Lindbergh, its Chairman, who is also the Consulting Aeronautical Engineer of the Pennsylvania Railroad.

Representative Railroaders

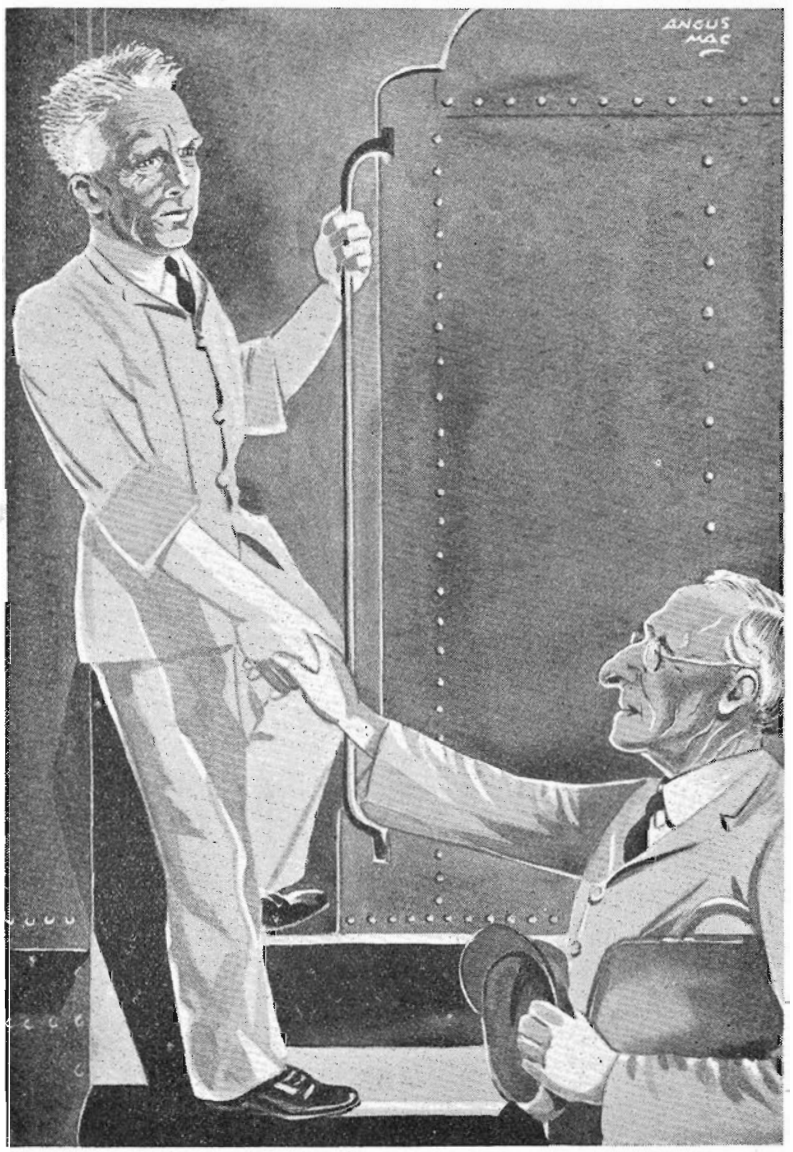
No. 14

Chief Mechanical Engineer N. C. HARRIS

By R. H. JUNIOR

Caricature by ANGUS MAC

THERE are certain men who are constitutionally and inherently incapable of remaining subordinate. They may be financiers or they may be bakers, they may be engineers or news-agents, surgeons or farmers, bank presidents or circus managers. Whatever they are and wherever they are, they push irresistibly to the front, as much in spite of themselves as because of themselves. The spark of success is in them. The ruck never knows them long.



Taking Over

Chance may have had as much say as design in the original choice and adoption of their careers, but their final success is so inevitable as to suggest that design right through has guided and controlled them. Had the financial man's training and environment pushed him into the world of surgery, his success there would have been as striking as in the world of money. Had the surgeon discarded the knife for a lawyer's brief, his achievements would have suffered in no way by the change.

With these fortunate ones, it is not the calling that matters, it is the man.

Consider, for example, the case of Norman Charles Harris, recently appointed Chief Mechanical Engineer of the Victorian Railways at 41 years of age. Here is a man born to authority, essentially a leader. No distortion of the imagination could conceive him occupying a subordinate position. A mixture of Chance and Intention has shaped his career—that is, if vigor, decisiveness and ability ever owe anything to Chance. He is of the type that can no more avoid successful responsibility than a cork can evade floating.

For obscure reasons, he selected engineering as his profession. He might just as easily have chosen medicine or law or science. And he could just as easily have won outstanding success in any one of those directions as he has in engineering. More than likely, he was swayed subconsciously by the possibility in the engineering field of getting right down to work without delay. That is the sort of consideration that would make an instinctive appeal to Norman Harris.

From Scotch College he went overseas to Canada to combine a graduate course at McGill 'Varsity with an apprenticeship term in the C.P.R. workshops. He graduated Master of Science, and, his apprenticeship terminated, he remained for a year on the technical staff of the C.P.R. superintendent. In those Canadian workshops the Harris intelligence made first contact with the principles of railway

rolling stock construction, an aspect of engineering on which he is now a world authority.

As an assistant engineer, he joined up with the Hydro-Electric Power Company of Tasmania in 1911. Four years later he crossed Bass Strait, and was absorbed by the Way and Works branch of the Victorian Railways.

Obviously the Rolling Stock branch was his logical location, but his adaptability and his thin skin stood in the way of his transfer to that branch. His adaptability guaranteed genuine Harris service in any branch, and his thin skin guaranteed his personal hostility to a proposed move into a branch where his father occupied a high administrative position. For C. J. Harris was then chief clerk in the Rolling Stock branch. The son had inherited all his father's obstinacy—as well as his appetite for hard work and genius for organisation—and for a time the transfer idea languished.

Commissioner Shannon, however, has ever been an administrator with an eye for a promising man. He was not prepared to stand any sensitive diffidence from an engineer with qualifications and talent that stamped him as a potential C.M.E. And so draughtsman Norman Charles Harris reluctantly took up duty in the Rolling Stock branch.

Meanwhile the Great War had intervened, and Captain Harris—of course, he would be a captain—had gone to put in four years service with the A.I.F. and to collect the D.S.O., the M.C., his Majority, and later his Lieutenant-Colonelcy. While on the other side, he remained for some time in Great Britain, looking into railway practice and studying engineering problems with several big railway and engineering companies.

Chief Mechanical Engineer Shannon had moved up to Commissionership and Alfred Smith was branch chief when Harris returned. He was still decidedly averse from the delicate complications involved in his official association with an administrative officer who was also his father, and just how long he would have continued in the branch under those circumstances is a moot point. Eventually, however, the problem solved itself by the appointment of the paternal C. J. as Superintendent of Refreshment Services. Norman Charles stayed on, to be promoted Assistant Chief Mechanical Engineer on the first day of 1922, and Chief Mechanical Engineer when Artist-Engineer Smith retired.

Downright, firm and tolerant, he will rule the Rolling Stock branch as dictator and democrat. He knows what he wants, and up to the present he has never failed to get what he wanted. With his bristling iron-gray hair, he combines an irresistible first impression of youthfulness, energy, health and zest in life. Somehow, he suggests cold morning showers, sharp razors and a stiff toothbrush.

It has been said that no one ever saw him sauntering. It could be said, too, that no one ever heard him use a superfluous word.

How "White Coal" Has Developed Switzerland's Railways

By

M. D. WILLIAMS

SWITZERLAND, which is almost entirely destitute of coal mines, long ago began to make extensive use of her "white coal"—the enormous wealth in hydraulic power that lies buried in her glaciers and mountain torrents. This article, published by courtesy of the New York Central Lines Magazine, outlines briefly what Swiss enterprise has done.

THE amount of power which it has been calculated could be obtained annually from the hydraulic resources of Switzerland has been estimated at twenty billions of kilowatt-hours, which, if they all were utilised, would represent eight million horsepower. A report issued in this connection by the Union Bank of Switzerland declares that owing to the fact that electricity can be transmitted long distances independently of the locality, it can now even be exported.

The World War and high coal prices resulted directly in the rapid electrification of the Swiss Federal Railways. Starting with a modest 107 kilometers in 1919, the length of electrified lines has since increased in surprisingly rapid manner: 1921, 217 kilometers; 1923, 507 kilometers; 1925, 849 kilometers; 1926, 1,054 kilometers; 1927, 1,490 kilometers.

2,000 Miles Electricity

The first programme in the electrification of the government-owned lines will be concluded in 1928 with a total length of 1,666 kilometers. Including the country's secondary railways some 3,300 kilometers will at that time be operated by electricity, or about two-thirds of the entire railroad system, which comprises 5,250 kilometers.

The lines included in this nearly completed initial electrification program of the Federal Railways form but 60 per cent. of the government-owned system, but since they absorb 80 per cent. of the total traffic it is apparent that the selection was made on a sound business basis.

The electrification of the railways naturally necessitated the construction of power plants capable of supplying the required energy throughout the year. The Swiss Federal Railways own at present two groups of such plants—the Amsteg-Ritom group in the St Gothard region, and the Vernayaz-Barberine group near and above Martigny in the Rhone Valley. A small power station at Messaboden above Brig furnishes the necessary energy for the Simplon from Brig to Iselle, and a number of sub-stations are distributed in various parts of the country. These power stations have a total capacity of 440 million kilowatt hours, and are devised to be complementary to each other.

On the St. Gothard line the Amsteg station, north of the tunnel, is used in the summer when the river Reuss supplies the water and the Piotta station, south of the tunnel, which utilises the water of Lake Ritom and the Fossbach Falls, is available in winter. In the summer months the water is allowed to accumulate in the lake which is situated 6,000 feet above sea level, and about 2,950 feet above Piotta. The capacity of the lake as a reservoir has been increased by the construction of a dam across a corner.

Scenic Beauty Preserved

At Amsteg, advantage is taken of the fall of the Reuss from the Pfaffensprung, about 900 feet higher, and the gorge through which the river precipitates itself has been closed by a curved

dam to form a reservoir. Neither here nor at Ritom do the works in any way impair the beauty of the scenery. In fact Lake Ritom and the nearby Piora valley are such rare gems of scenic beauty that the funicular railway connecting Piotta with the reservoir, and originally built for the purpose of facilitating construction work, is now used for tourist traffic. Since this line boasts a gradient varying from 71 per cent. to 85 per cent., it may readily be classified among the "thrillers."

To furnish the necessary energy for the electrified Simplon line and the government-owned railway system of Western Switzerland, the Vernayaz and Barberine power plants were constructed. While the works at Vernayaz can supply a large part of the required power in summer, the huge quantity of water collected in the reservoir lake of Barberine is available for winter, and the combination of the two is capable of producing a quantity of energy each year, irrespective of seasons, of 230 millions of kilowatts; 60 millions at Barberive and 170 millions at Vernayaz.

The works at Barberine have attracted the attention of engineers and tourists from all over the world, and the Swiss Federal Railroads are ever ready to supply a guide to parties desirous of visiting these or any other of their plants.

Huge Dam Built

Barberine is situated in the attractive alpine realm of Le Chatelard, one of the many charming resorts dotted along the Electric Martigny–Chatelard–Chamonix railway. From the power station at Le Chatelard–Village, 3,704 feet above sea-level, an electric cable line with a maximum gradient of 86 per cent. leads to the famous reservoir lake, 6,000 feet high. This artificial lake has been formed by the waters of the Barberine and the Drance by the erection of a dam across the valley 260 feet high and 900 feet long, with a depth at its base of 192 feet. The volume of water thus impounded is 39,000,000 cubic meters.

525 Million Francs Invested

It is estimated that a capital of 525 million Swiss francs has been invested in the electrification programme up to the end of 1927. This includes the cost of construction of power works, electric locomotives and the many other outlays connected with electrification. Of this sum 35 million francs have been contributed by the Swiss Government as part of a total subvention of 60 million francs allotted to the railway department for electrification. Thus, the capital debited to the Swiss Federal Railways for electrification up to the end of 1927 does not exceed 490 million francs. At an average interest rate of 5½ per cent. this means a charge of 26,950,000 francs per annum. To this sum must be added 7,936,000 francs for the stipulated sinking fund, and 3,750,000 francs for the operating personnel, current maintenance expenses, etc., so that fixed charges can be set at a total amount of 38,636,000 francs.

A survey of available revenue with electric traction reveals the following interesting figures:—

For the year 1927, electrification represents a saving of 450,000 tons of coal at a purchasing price of 17,100,000 francs, delivery at the Swiss frontier.

Savings on the payroll for the year 1927 amount to about 13,095,000 francs. In the year 1913, when traffic was lighter, and when a ten to ten and one-half-hour day was in force, 8,886 employes were engaged for the operating end. In 1926, with an eight-hour day, 8,616 employes were able to take care of the heavier traffic.

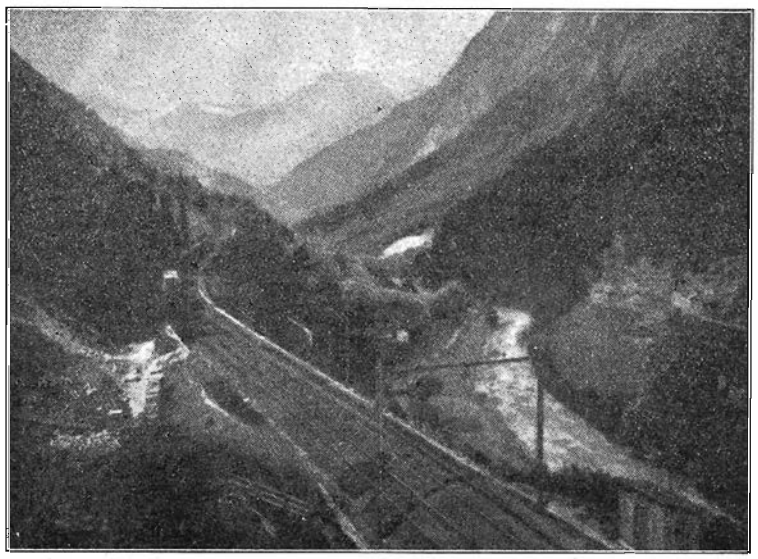
Electric locomotives far more powerful than the steam engines of pre-war type are able to carry considerably heavier loads in less time. No tedious stops are now necessary for replenishing coal and water supplies, and the engines are ever ready for immediate duty. Electric traction saves labor and the upkeep of the equipment is less expensive than that of the steam system. Statistics indicate that the maintenance of electric locomotives in 1926 amounted to an average of 30.24 centimes per kilometer compared with 35.40 centimes per steam-kilometer. In addition each kilometer covered by an electric engine corresponds with 293 traffic units, against 210 of the steam-kilometer. It is expected that, thanks to electric traction, the total saving in the maintenance of machinery will amount to 4,566,000 francs for the year 1927. With other economies that can or will be effected through electric traction, the total income is figured at 40,351,000 francs, so that the actual saving, due to electric traction, can be estimated at approximately 1,715,000 francs for 1927.

Impetus to Tourist Travel

While the enterprise of electrification in itself may be regarded as a complete success, it was at the same time a boon to labor and industry during the years of depression that followed the war.

In a country so lavishly blessed with beautiful scenery as Switzerland is, electrification has furnished new impetus to tourist travel. Smoke and cinders which made so many a trip a rather questionable pleasure are now entirely eliminated. The tunnels which have undergone a thorough cleaning are well ventilated, and there is no longer a necessity to close the windows every few minutes as one had to do on the St. Gothard line, for instance, in the days gone by.

Today all the villages and railway stations along electrified lines have a spotless appearance. There is beauty, cleanliness, comfort and contentment everywhere, and hosts of weary tourists who are deploring the necessity of having to affect the plainest of travel attire on their journeys on steam-driven trains through other lands, are fairly revelling in the fact that in Switzerland such precautions are no longer necessary.



A picturesque section of St. Gothard railway near the Pfaffensprung spiral tunnel

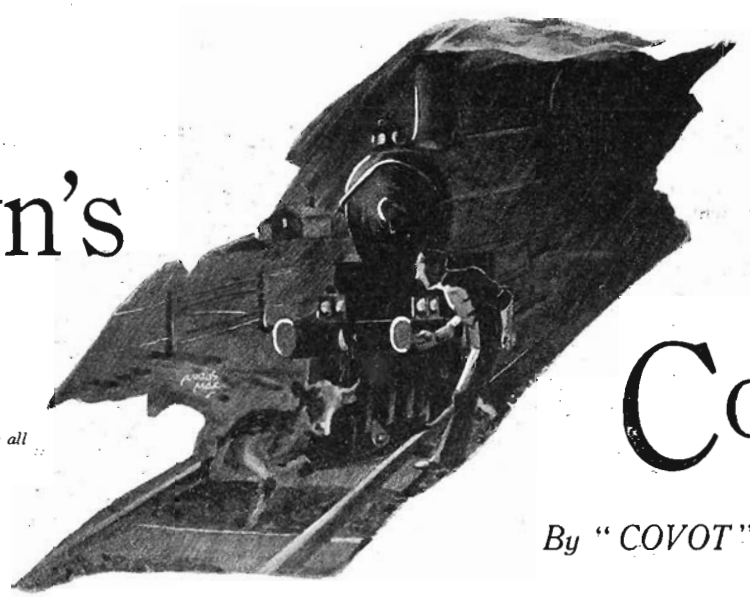
MATHEMATICAL MIKE

"Lady," said Meandering Mike, "I haven't had a square meal in two days."

"Why, it was only last night that I gave you a piece of pie."

"That wasn't a square meal, lady. That was triangular."

Old Brown's Cow



" There was the front of my engine all messed up with the remains of a red and white cow "

By " COVOT "

THIS is a tale of a cow. I hate cows. It's twenty years since I last showed any interest in one of their kind, and time has not sweetened the memory any. And time is not likely to. By struggling on a bit further you might find out the reason for yourself.

Twenty years ago I was thirty. I was also an engine-driver, single, quite sane, but in love. It wasn't my fault, I assure you. Being in love I mean. Let me state, for the benefit of any of the female sex who may have started reading this in mistake for the woman's page or something interesting, that a man does not *fall* in love. He is either dragged in or pushed in. I got in by a variation of the former. I was lured in by Mary Brown, the sort of girl that every man thought his wife was before he married her.

Unfortunately my opinion as to what constituted a perfect piece of feminine household decoration exactly coincided with the opinion held by a certain person called Sam Smithers. In short, I had a rival. If ever there was a man in this world less amenable to reason than Sam Smithers he's been used up as a gate post long ago. Sam was as pig-headed as a pig. The arguments I used trying to convince him that he didn't stand a chance with Mary would have made an impression on a deaf man. He didn't turn a hair or budge an inch.

Sam had met Mary in the same way that I had. We were both drivers stationed at Bendigo, and driving on the country goods-traffic. Mary happened to be schoolmistress to about half-a-dozen kids in a little red hen-coop of a school right beside the line, and the meanness of her father brought us three together.

That may sound peculiar, but it's true. Her father was the most despicable man imaginable. He lived on his wits, and the produce of fifty acres of land that bordered on the railway line about three miles from the schoolhouse, and he was known for miles around as " Miser " Brown.

And I can tell you that he lived down to his reputation. He wouldn't let Mary have a horse to ride to school. Said he could mend shoes cheaper than he could feed horses. That was why she used to tramp the distance along the line, and be thankful for a lift when one of us happened along with our train. It's wonderful how convenient time tables can be . . . . . sometimes.

WELL, to get back to this rival and general animosity business. Mary didn't seem able to decide which of us she preferred as a wearer-out-of-socks and a supplier of revenue and headaches, and she gave each of us equal opportunities to impress her with our particular qualifications. That was the catch. If Sam had contracted a touch of smallpox or engineman's back, and been out of the way for a week, I would have shown him just who was the Sheik and who was the sand-flea. But they didn't supply anything but pure eucalyptus air out that way.

I think we put in about two months scowling at one another before we found that it didn't get us anywhere. Then, like those countries that haven't any armies, we woke up to the fact that what's needed in this world is more peace treaties. We held a round-table conference around the marble-topped table in Finnegan's bar. I gave Sam a solution of the difficulty and he gave me one. He rejected mine and I rejected his. Then we put to the vote and carried unanimously the motion that we should go to old Brown and ask him which of us he preferred as his daughter's suitor. And off we went.

That was the first time that either of us had seen old Brown himself. In appearance he was a wee, wizened creature, all eyes and forehead and humped like a dromedary. Every time I looked at him I marvelled at how beautiful Mary's mother must have been.

He didn't seem at all pleased at the thought of losing his daughter. But we agreed that the chosen one should make his home on the farm and do a bit of work in his spare time, and that cheered him considerably. In fact, when he calculated that he'd be able to sow six more acres with mangel-wurzels or something he got quite enthusiastic over the idea.

" Well, lads," he said, " it's going to be pretty hard to decide. Just let me think."

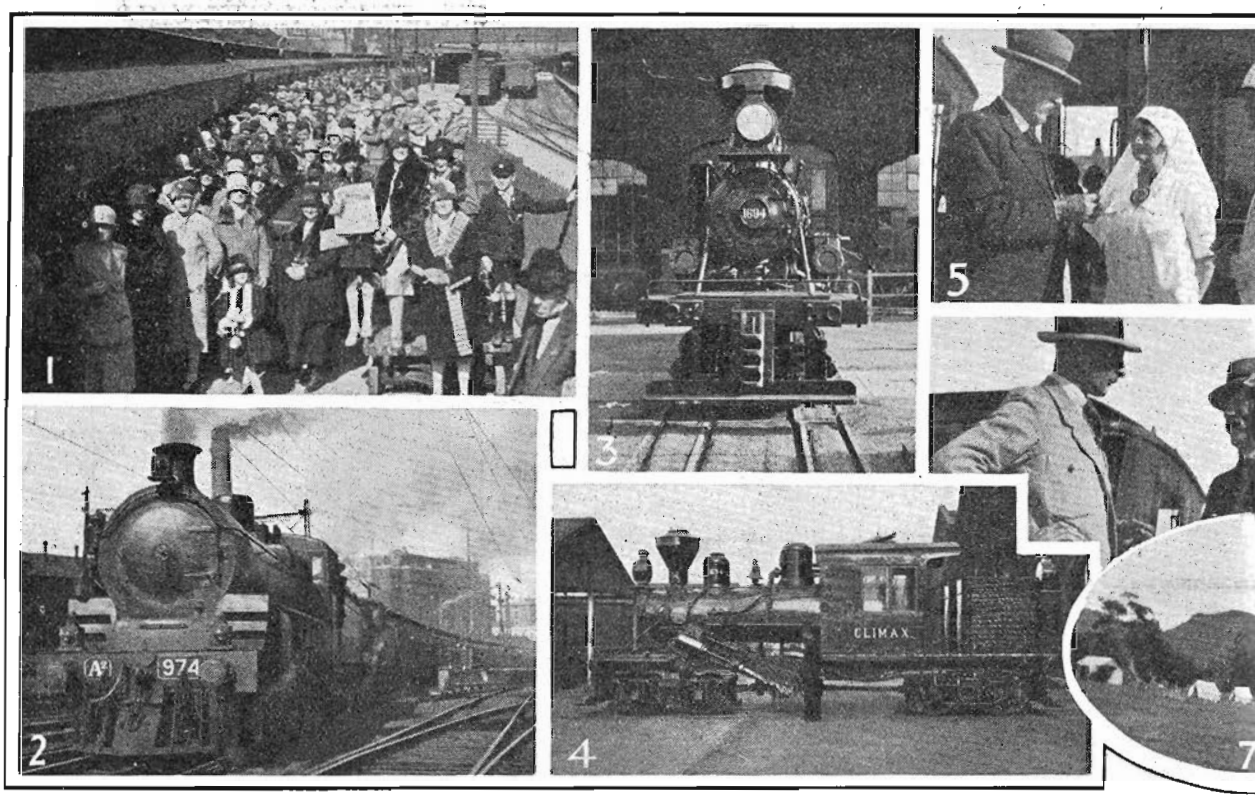
I couldn't see anything hard about it, but I didn't tell him that. He walked up and down a bit with his hands behind his back. Then he turned to us with what was supposed to be a fatherly smile on his face.

" I know," he said. " I'll set you a task. The one who accomplishes it is to have my permission to visit my daughter ; the other is never to see her again. How does that appeal to you ?"

That was certainly more than we had expected. It put us on our mettle and gave each of us an equal chance of success. The " Miser " went up one in our estimation.

" Well," said Brown, " the position is this. A week ago my red and white cow disappeared, and I have not seen her since. She may be a mile away ; she may be fifty miles away. The task is to find her. Get to it."

THE MONTH



1.—Visitors to the Sydney Eucharistic Congress entraining at Spencer-street. Nine hundred platform tickets were sold for this train.

2.—One of the Congress specials pulling out.

3 and 4.—A "Climax" narrow-gauge geared locomotive imported by the Forestry Commission and assembled, in five working days, at the Railways Workshops, Newport.

5 and 6.—The Hon. J. Allan, M.L.A., ex-Premier of Victoria, was an interested and enthusiastic visitor to the Better Farming train during its tour of the Goulburn Valley, last month. He is here seen chatting with Sister Peck, Assistant Director

DO you know, as I went out of that gate I could hear wedding bells ringing. Finding a cow! Lord, I would have shifted Mt. Everest and sorted the stones into sizes if I had thought that it would rid me of Sam Smithers. But evidently his thoughts were once more much the same as mine, for there wasn't a square inch of ground for miles around that escaped our scrutiny during the next few days. We found everything from lost fishhooks to lost spring-carts, but Brown's cow seemed to have vanished into vapor.

But she hadn't. She must have been hiding behind the only stone we didn't look behind. A few nights later I was bringing along my train, running hours late owing to the railway picnic traffic. We had topped the grade near the schoolhouse and were shooting down into the darkness with a full train of wheat from the north rattling along behind, when bang went my engine into something on the line. Down I got to investigate. There was the front of my engine all messed up with the remains of a red and white cow. Whose cow it was you can guess. I hadn't the faintest suspicion until I picked up an old cow bell that was sticking in the cow-catcher. On one side was the word "Joan"; on the other side "J. Brown." I had killed the cow that, alive, meant more to me than all the herds of Kidman. I sat down and cried like a child.

But it's no use crying over spilt milk. I was in a bad position, and it was going to take a lot of thinking to get me out of it. If Brown ever found out that I'd killed his cow it wasn't very likely that he'd come chasing me for a son-in-law. He was more likely to come chasing me with a gun or a nice sharp meat axe.

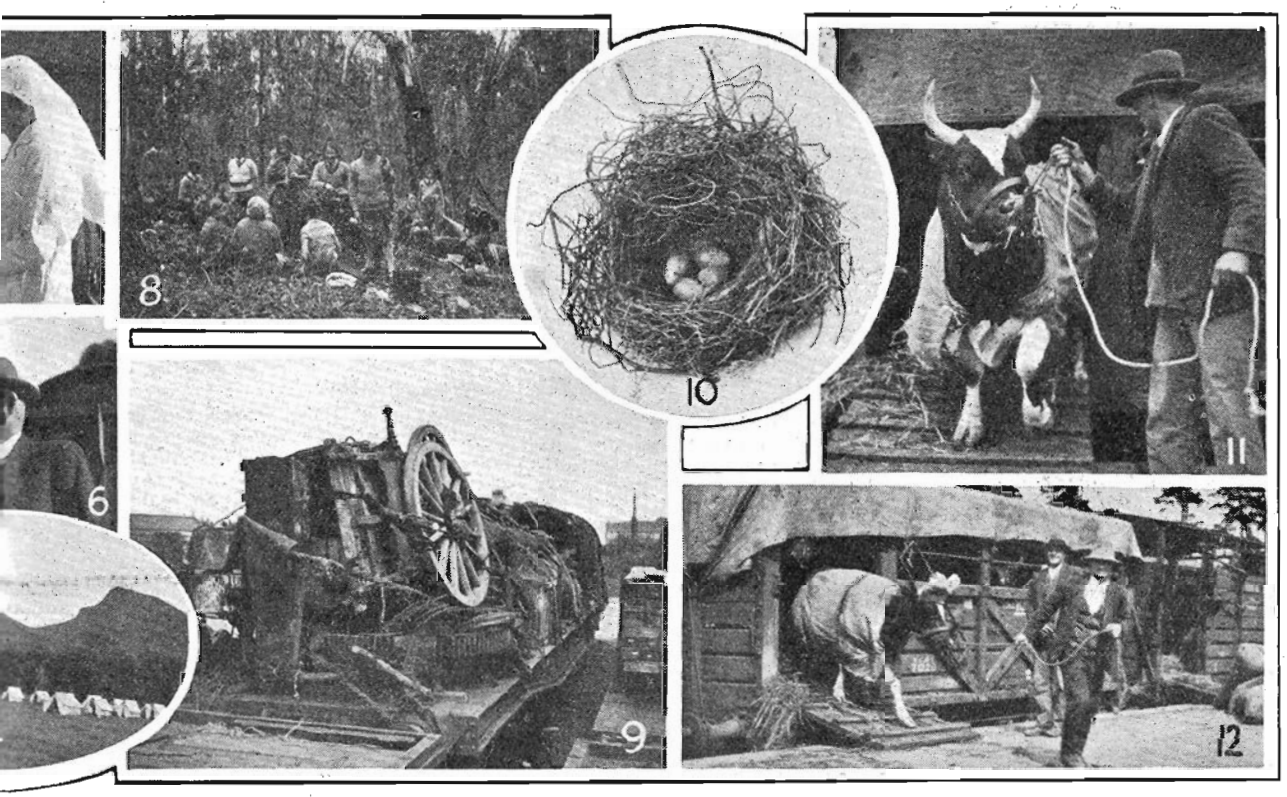
AND then I thought of that bell. There in my possession was the cow's chief distinguishing mark, the charm that changes any common or garden cow into Brown's cow, an animal worth as much to me as a kings' ransom. What was to stop me from buying a cow, hanging the bell around its neck, and parading it as the missing animal. Nothing. Absolutely nothing. That is just what I did do. I made a tour of the district and bought the finest, fattest and fittest red and white cow available. I hung the bell around her neck in fair imitation of mayoral regalia, and I drove her up to Brown's gate.

"I win, Mr. Brown," I said. "Here's your cow."

Brown glanced at the cow, then he stared at her. He peered at the bell and looked puzzled. Finally he walked right around the animal. "That's not my cow," he said. "The markings are all wrong and my cow was never that fat in her life. Where did you get that bell?"

What do you think of that. Fancy him trying to tell me that he could remember just how many red spots and

IN PICTURES



of Child Welfare, Miss Walford, her assistant, and Mr. R. de C. Talbot, the Agricultural Department's Officer-in-charge of the train.

7.—The Tourist Bureau's nature study camp at the Grampians held during September.

8.—Some of the schoolgirl campers.

9.—This truckload of what appears to be "junk" is actually a quarrying plant which was consigned to Stawell last month.

10.—A magpie's nest which established something of a record in that from the first twig to the last egg only four days elapsed. It was taken from railway telegraph wires between Poorneet and Cressy.

11 and 12.—Detrucking stock for the Royal Show at Melbourne.

how many white spots there were on his red and white cow. I bet if I'd asked him how many buttons there were on his waistcoat he would have been as dumb as a giraffe.

"Oh, yes. It's your cow alright, Mr. Brown," I said. What else could I say? I added rather hopefully: "Someone must have given her a feed."

"Bah!" said Brown. "Where did you get that bell?"

There wasn't much I could say. I scratched my head and looked around the landscape and who should I see coming up the hill but Sam Smithers. And he was leading a red and white cow.

How he got the idea I don't know. Either he had heard that I was buying a cow or he had thought out the scheme for himself. Anyway, there he was, coming up the hill with a red and white cow that he evidently intended to pass off as the missing animal. I didn't know whose cow it was, but I knew whose it wasn't. But what if Brown thought it was his?

I DECIDED that this was one of those cases where honesty is the best policy. I stepped around to what you might call the lee side of my cow.

"Mr. Brown," I said, "I'll tell you where I got that bell. I took it from the front of my engine after it had rammed your cow for being where she had no right to be. Your cow is as dead as a doornail and a whole lot less compact."

With that I slapped my cow on the side and fled as fast as I could drag her. That wasn't very fast but the pace was too hot for old Brown. He went back to the house and I hauled the animal in behind a boxthorn bush to let Sam Smithers go by. My reception might have been a bit frigid but I reckoned I'd made sure that his was going to be a real frost. And I could see both of us starting off from scratch again in the matrimonial stakes.

Sam dragged his cow up the hill and past my hiding place without so much as a glance in my direction. I watched him lead it around the barn into the yard and I put my fingers in my ears to lessen the sound of the explosion.

There was no explosion. Sam came back ten minutes later and there was a smile on his face.

I reckon that when Burns, a long time ago, made that little remark about the schemes of mice and men he should have included those of just common idiots like myself. "Miser" Brown had claimed Sam's cow. He thought it was the best way to replace his lost property without cost to himself.

Sometimes it is hard to be a gentleman. Sometimes it seems to a man that all these notions about sticking to his word and keeping his honor sacred above everything have been thought

Concluded on page 44



Brer Rabbit

By C. Corbett

THIS is the day of the rabbit—or, more strictly of his slayers and the exploiters of his skin.

Once, merely a pest, he has become the provider of ladies' fur coats and trimmings, of immense industrial profits, of railway revenue, and of excellent sport. He is worth nearly £3,000,000 a year to Australia's export trade.

What, asks Mr. Corbett, will happen when he is finally exterminated ?

"FOUR million rabbit skins required this season." So ran the laconic advertisement in the daily newspapers of one Melbourne skin merchant last season. The few words portended tragedy for Brer Rabbit; for it is a very simple sum to determine that if one merchant required 4,000,000 pelts, the total number traded would possibly amount to 12,000,000.

The reason for this extraordinary demand is not far to seek. Most of the skins are destined for America, where they are processed. The manufacturers' fairy wand transmutes the raw article into ladies' fur coats, such as any daughter of Eve cherishes.

It seems a far cry from America to Australia, particularly as the northern regions of the New World were famed for centuries as a habitat of the most sought after fur-producing animals. Hudson's Bay territory was famous for its rare and beautiful skins, but the march of civilisation has led to the extermination of many of the fauna of that land. Hence the reaching out into other lands to fill the demand for fur-skins.

The rabbit occupies a special niche in railway activities. In fact he is given a special heading, "Rabbit Traffic." As a highly perishable commodity he receives the promptest of despatch and delivery. Empty crates on "down" journeys also receive special attention, so that no delay will be caused the trapper in packing the rabbits for the consignee in Melbourne. As the industry is now highly commercialised, welcome revenue is received by carriage of traps and stores, and were this traffic to be eliminated, a not inconsiderable loss would result to the Department. I would here like to hint to the trapper that he should always tack a ticket inside the crates showing his name and station.

No doubt everybody is aware that the rabbit is not indigenous to Australia. It was introduced about 65 years ago from England, when it was thought he would be useful, principally as a dainty article of diet. But the introducer reckoned not the cost. Anathemas have been his portion ever since.

The fecundity of the rabbit was notable in Great Britian and Europe, but on his acclimatisation here, it was amazing, and it was realised that trouble lay ahead.

Has Cost Millions

In attempting to cope with the nuisance, the various Australian states have expended millions. In the Mallee country of the north, rabbits beat the settlers, and many holdings were thrown up while bunny reigned supreme.

In the efforts to exterminate him, carbon machines were largely used, and, as the result of one of these holocausts, 600 dead rabbits were counted from one large burrow in the Berriwillock district. In those days the pelts were practically worthless; the carcases were stacked and burnt.

Good winter skins in these days frequently realise 1/- each, and with the swing of the commercial pendulum, we are now regaining some of our former losses.

Settlement by cutting up big estates, and the high price of skins have sounded the death knell of the rabbit. He is being effectively coped with in every district. It is prophesied that in the near future gourmets will pay dearly for the now much-malinged but highly edible rabbit.

From a sporting standpoint, the rabbit has afforded countless boys, youths and men immense opportunities for healthy recreation, tramping the hills, shouldering guns, nets and ferret boxes, camping by creeks. I will ask the older generation of booking clerks and S.Ms. to think back thirty odd years. Envisage a holiday morning, long before the country train is due. Bring to mind the crowds of shooters waiting for the ticket window to open, to book to their particular happy-hunting ground. Consider the lethal weapons dignified by the name of guns, carried by the juvenile brigade. How the users of many of these nondescript weapons lived to tell the tale passes understanding.

In one of these motley crowds I noted a youth, the proud possessor of a tower musket dated 1800. Originally a flint-lock, it had been converted to percussion fire. Another budding Donald Mackintosh slung a Snider; another descendant of Nimrod carried a long Enfield, 13 lbs. in weight. Of course the usual double and single-barrelled muzzle loaders, pea rifles, chassepots and Prussian needle guns prevailed largely. All this junk was for the destruction of the rabbit. To a man, these shooters used for a propellant Curtis & Harvey's FFF powder. The red tops of flasks could be seen peeping from their pockets. This powder, although a hard-hitter, was very smoky, and a shooter could be located miles away after a discharge. A noticeable feature was that very small boys wore big leggings, large sheath-knives in their girdles, and generally bore the appearance of smugglers and corsairs.

Having obtained their tickets, the legion of be-leggined boys and be-whiskered men foregathered on station platform and entrained into compartments well crowded with congenial companions of the chase. I plead guilty to having been one of this army in my callow days. An old single-barrelled muzzle-loader was surreptitiously planted in an outhouse where it was carefully cleaned and oiled in anticipation of the holiday. I have owned the latest hammerless self ejector, but in the ownership of that old fowling piece I had a more cherished possession.

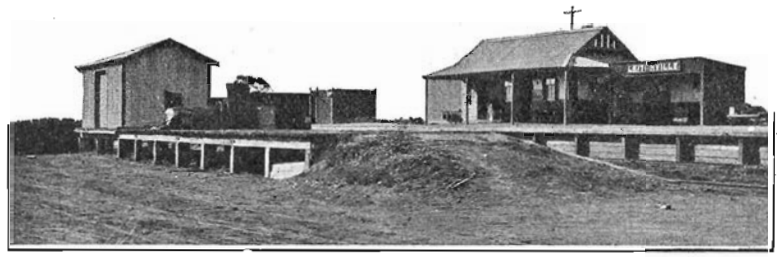
One well remembers these cohorts being let loose in quest of the rabbit. Hills and gullies were scoured, and the guerilla warfare was carried on till evening, when "far flashed the red artillery." No doubt the landholders were sorely tried, but as the rabbits were a grave menace to many, the holiday influx was condoned if not welcomed.

What will our sporting youth do when the rabbit is no more ?

Railway Outposts

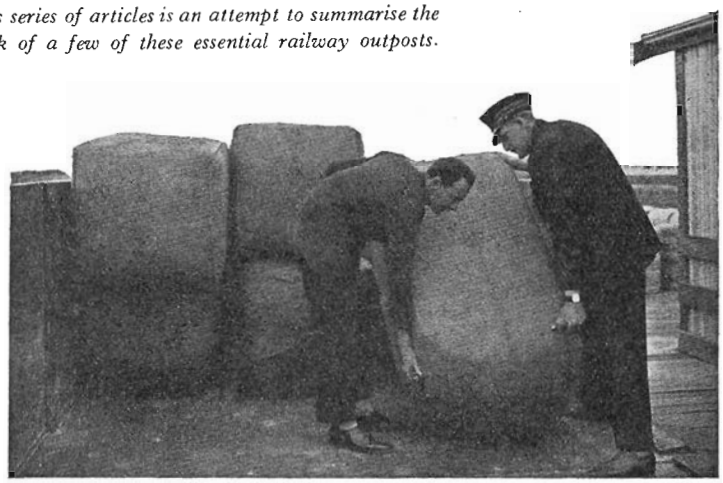
No. 5—LEITCHVILLE

DOTTED round, and sometimes farflung from the larger centres of railway activity in Victoria are the seventh, eighth and ninth class stations that feed in revenue as the watchful outposts of an army feed in intelligence to the main body they protect.



The station buildings

This series of articles is an attempt to summarise the work of a few of these essential railway outposts.

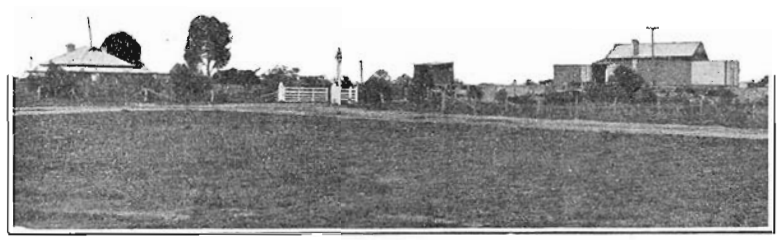


S.-M. Harry and Operating Porter Stuchbree helping to get the wool clip to market

ITS portable office not much bigger than its little goods shed, the ninth-class railway outpost of Leitchville is set down on the Elmore–Cohuna line, 117 miles northerly from Melbourne and seven miles westerly from the winding course of the Murray.

An outpost it is, pure and simple. Its revenue for the last financial year was £7,157, comprising chiefly freight on red gum timber and firewood, cattle and pigs, butter and a little wool. Revenue would have been greater had there been freight to collect on 210 tons of timber, supplied by a local merchant to Newport Workshops.

In the twelve months, 53 trucks of sheep, 110 trucks of cattle and 68 trucks of pigs were railed from Leitchville. Racing men, of course, know Leitchville as the home of trotters. Farmers know it as a pig-breeding centre. It was at Leitchville that the first Pig Breeders' Association in Victoria was formed. Stock auctioneers raised their commission on each pig from sixpence in the pound to one shilling in the pound, and the harassed district breeders decided to form an association and do their own selling. The idea has since caught on in all parts of the State.



The station approach

For the past three years the outpost has been in the charge of Stationmaster H. S. Harry. Naturally, therefore, it has won prizes in the district's tree-planting and garden maintenance competitions for the past three years. Last year, the S.M. won first prize for garden maintenance; the year before, first prize for tree-planting; and the year before that, second prize for maintenance. He had two stations before he came to Leitchville—Chiltern and Aspendale—and he won second prize for his garden at both.

With his part-time assistant—Operating Porter G. Stuchbree, who shows up at Leitchville for 20½ hours each week—Stationmaster Harry is sudden death to road competition. He is connected with the local progress association, he takes an active interest in the civic life of the town, he is on good terms with all railway customers in the district, and he acts quickly and decisively when the menacing honk of the road competitor's motor horn is heard in the distance.

A few months back, a Cohuna man decided to inaugurate a regular road service for goods between Cohuna, Leitchville and Bendigo. He bought one goods lorry and ordered another. Stationmaster Harry didn't wait for the competitor to hit the town. He immediately canvassed every certain, probable and possible consignor in and around Leitchville, and secured a universal promise of continued support of the public railway. The discouraged competitor sold his lorry and cancelled the order for another.

Leitchville likes the rail way.

UP-COUNTRY

AS RECORDED BY RAILWAY DISTRICT SUPERINTENDENTS

PROSPECTS Still Promising, but Rain Needed for Crops and Water Storages—Highly Successful Dairying Season—Good Citrus Crop, but Prices Disappointing—Fillip to Flax-growing in Gippsland—Earlier Wool Arrivals at Geelong.

BALLARAT

GREAT progress has been made at Glenorchy in the haulage of firewood from the local forest to the rail. One wood mill owner recently purchased two 30 cwt. motor trucks and thus displaced two five-horse teams. So pleased is he with the result that he hired another truck at a remunerative rate.

The dry winter experienced in the Horsham district has reduced water storages to a lower level than they have been for years. Swamp country south-west of Horsham is now dry for the first time in 25 years. Orchardists and others dependent on irrigation naturally view the position with anxiety. Heavy rains are badly wanted.

In the wheat belt the August rainfall was below the average, and although the crops are reported as looking exceedingly well, the need for early rainfall is indicated in the reports.

During the first week in September, the rainfall averaged 50 points over the Murtoa – Warracknabeal – Jeparit - Serviceton–Goroke circles, and at time of writing, indications for further falls are promising.

SEYMOUR

FOLLOWING the splendid late summer and autumn rains, the season gave wonderful promise and led to an extensive area being put under crop, figures showing an increased average of 750,000 for the State. However, the comparatively dry winter, and absence of early spring rains, is giving rise to a great deal of concern, particularly in the northern G.V. and Riverina District, where many of the early sown crops are already in ear alongside late crops which are barely above the ground. The critical period has now arrived, and adequate September rains are of vital importance to ensure the realisation, to any degree, of the earlier anticipations of a record yield.

A long succession of severe frosts considerably checked the pastures, but, owing to the splendid early growth, there has been an abundance of feed, and stock have maintained splendid condition. Fat bullocks from the district have been bringing top prices at Newmarket.

The dairy season has been a highly successful one. A new winter record was established by the Shepparton Butter Factory with a fortnightly payment of £4,500 for butter fat.

A fine new factory has recently been completed for the Kiewa Butter and Cheese Co., and the change over from the old premises is now taking place.

Sheep have maintained excellent condition, foot-rot has been at a minimum, they have developed magnificent fleeces, and the clip all round will be well above the average.

The citrus crop has been a good one, but growers are somewhat disappointed with the low prices ruling. It is estimated that 35,000 cases will pass through the Cobram packing shed during the present season. During the next few seasons considerable expansion will take place owing to the large areas of citrus coming into full bearing.

BENDIGO

IN the northern part of the Bendigo section, the season's prospects are satisfactory, but across the river things are not quite as good as was expected. The rivers are falling rapidly and already boats are tying-up for the summer. Wool from the districts surrounding Balranald and Moulamein will now come through by rail. The wool clip this year is much lighter than last year's. The following are some of the figures to September 1 :—Deniliquin, 8803 bales ; Moulamein, 3811 ; Balranald, 3684 ; Echuca Wharf, 3465 ; Swan Hill, 1631 ; Bunnaloo, 1104 ; Robinvale, 663. The total for the section is 33,132 bales.

The river traffic at Echuca Wharf has been very light this month. Only 415 tons were received, of which 154 went via the river, excluding 26 tons sent from Echuca. For transport by rail, 1397 tons were received from the river, the bulk being sleepers for the department.

DANDENONG

THE winter has proved exceptionally dry in the Maffra district, but owing to the surplus of pasture carried over from the bountiful autumn, the condition of the stock has not been affected.

A larger acreage than usual will be under beet, and a better yield is expected.

Throughout the Bairnsdale district there is every indication of a splendid spring. The heavy rainfall in February and March has proved most beneficial throughout the winter months. The growth of grass owing to the mild conditions has continued right throughout the winter, and there is still an abundance for stock, which are in splendid condition throughout the whole district.

The season has been most satisfactory for graziers, most of whom are stocked up to their full capacity with sheep which are in excellent condition. Lambing has been very satisfactory, an average of 90 per cent. having been obtained.

Young crops are healthy, but a good downfall of rain would help them considerably.

There is a marked advance in the early pea crops this year as a result of the mildness of the season.

An estate in the Wy Yung district has been recently subdivided by the Closer Settlement Board, and has proved successful. A considerable area of new country is being broken up.

In the Traralgon district, recent rains have caused the grass to come away very rapidly, and a bountiful spring is expected.

Dairy herds are coming in rapidly, and the cream supply to the various district factories is nearly at its maximum. There is, at present, no shortage of feed.

Many farmers in this locality have contracted to grow a definite acreage of flax next season, and more than 500 acres will be sown. If this crop is a success and the land proves adaptable for the production of flax fibre, the prospects of a flax mill being erected in the town are bright.

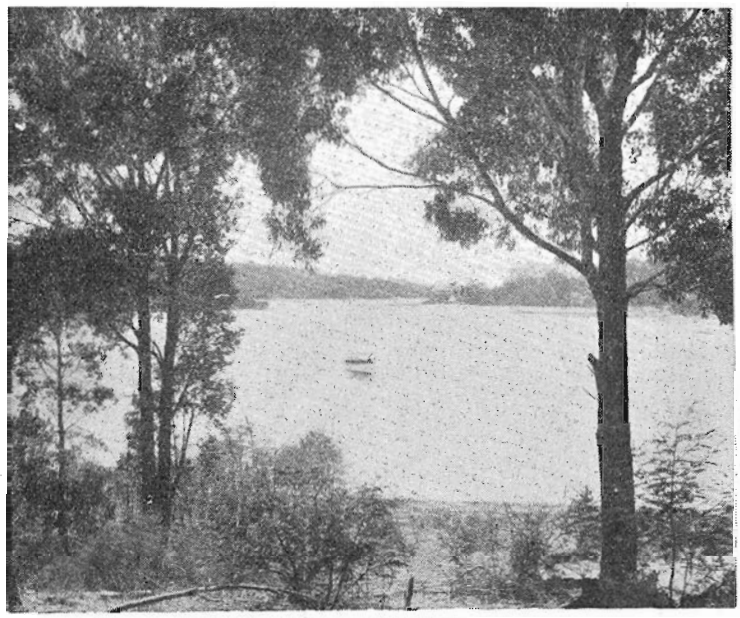
Around Cowwarr plowing for barley and peas has been completed. A larger acreage than usual has been planted.

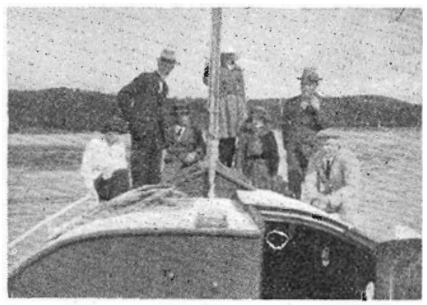
Pig raising is receiving considerable attention in this part of Gippsland. At the last local weekly sales nearly 600 pigs were yarded.

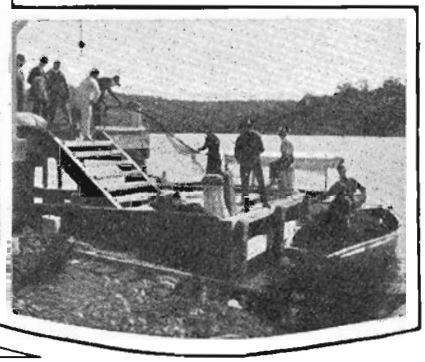
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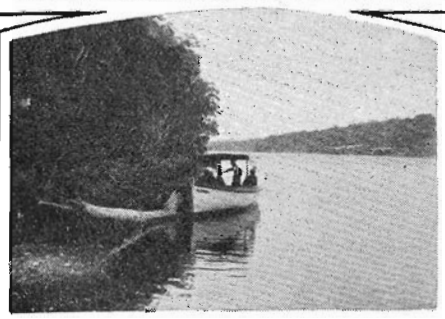
Where to Spend a Holiday

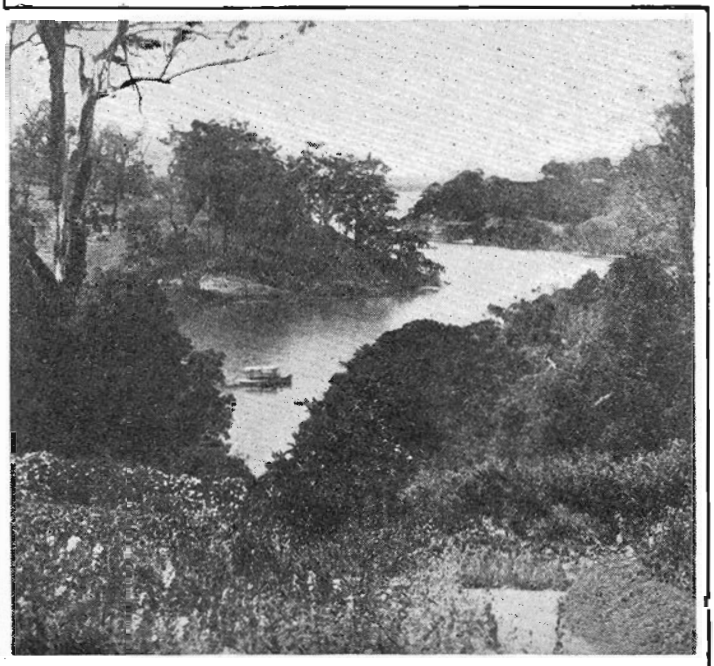
Lovely Lakeland

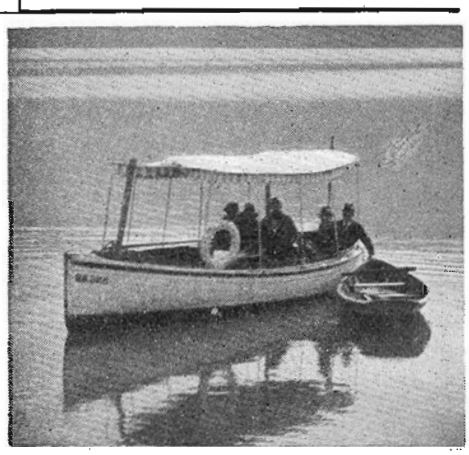












Two hundred miles east of Melbourne lies the finest and most picturesque water-chain in the Commonwealth, with the famous Lake Tyers as its brightest link. Stretching for upwards of 50 miles, between bush-clad slopes, the tranquil beauty of the Lakes contrasts vividly with the thunder of the breakers that lash the 90-mile beach only a sand-hummock strip away. The Lakes have been described as the fisherman's paradise, the camper's Mecca, the sportsman's happy hunting-ground, and the artist's inspiration.

Railmen of the Month

October Birthdays



Mr. H. N. May

PROMINENT on this month's list of Victorian Railway birthdays are two distinguished representatives of the Refreshment Services branch. One is Superintendent W. D. Bracher, and the other is his right hand man, Chief Clerk F. C. Campbell. Congratulations are in order to the chief on the 13th and to the lieutenant on the 31st. A casual assortment of other birthdays for the month includes: Assistant Distribution Engineer W. Coe of the Electrical branch, on the first; Assistant Superintendent J. James of the Melbourne Yard, and Shunter H. Phillips of Geelong, on the second; Driver H. Cottier of Warrnambool, on the fourth; Workshops Manager H. N. May, and Bill Frilay of the Melbourne Goods on the fifth; Relieving District Superintendant M. A. Remfry, and W. Spencer of Room 9, on the seventh; Rolling Stock Clerk A. P. Burdeu of Ballarat, on the eighth; Way and Works Engineer G. Massey, on the ninth; Electrical Engineer Ronald Harvey, and Fireman A. Fraser of Benalla, on the 11th; J. M. Barklamb, Seymour District Superintendent's licensed shorthand writer, on the 12th; Transportation Clerk Reg. Hunt, of football fame, Bookkeeper F. Towers of the Spotswood Storehouse, and Driver F. W. Corrie of Stawell, on the 13th; Chief Clerk Tom Neal of Seymour, and Tom Slattery, confidential Secretary to the Chief Engineer of Way and Works, on the 15th; District Superintendent H. E. Russell of Maryborough, on the 16th; Leading Shunter T. Cowdell of Geelong, on the 19th; Ewen McIntyre of Room 10, Landscape Gardener George Allan, Stationmaster Andy Larkins of the Institute Station Accounts and Management Class, Way and Works Clerk George Perrin, and Block and Signal Inspector John Evans, on the 20th; Signalman A. Moverley of the Melbourne Yard, on the 21st; Leading Shunter B. F. Lowday of Maryborough, and Assistant Train Running Officer L. K. Missen of Dandenong, on the 22nd; Guard R. Rowland of Maryborough, on the 26th; and Inspecting Engineer A. P. Taylor of the Construction branch, on the 29th.

Cabin-Boy to Flag-Captain

THIRTY-eight-year-old Andrew Campbell Ahlston provides a neat railway parallel of "cabin-boy to admiral" promotion—or, more correctly, cabin-boy to flag-captain. His appointment, the other week, as Assistant Chief Mechanical Engineer, in the stead of the new Admiral of the rolling stock fleet (or should it be fleet rolling stock?) Mr. N. C. Harris, who in turn has been officially recognised as successor to Chief Mechanical Engineer A. E. Smith, has occurred exactly 20 years after he satisfied the V.R. board of selectors that he would make an f.a.q. apprentice. Study and hard work won him a departmental scholarship at the Workingmen's College, and later a Diploma of Mechanical and Electrical Engineering. Behind his success all through have been keenness, application, untiring energy and outstanding capacity for getting things done. He is, of course, chairman of the Central Fuel Conservation Committee.

Railway Father Time

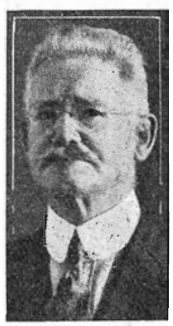
SOME twelve and a half million times, more or less, did Jim Marshall raise his indicator pole to alter the hands of the Flinders-street clocks, during his 28 years at the world's busiest passenger station. He didn't count the times himself, but the calculation was a simple one once he admitted, after adjusting his last clock-time at 10.15 p.m. one recent Sunday night, that he made 1260 changes of the indicators in a day. He made them all, too, without any assistance from a timetable. Now, going back to the country to spend his retirement, he intends to forget about time altogether.

39 Years' Service



DESPITE his dramatic training and his ability as an elocutionist, Recorder Tom Ryan of Burnley was hard put to make a composed reply to the tide of good wishes which encompassed him on all sides on his last day on the job recently. Altogether, he had 39 years service as shunter, special checker and block recorder. Stationmaster Hodges capped the "best of lucks" with a presentation of a case of gold mounted pipes, an oxidised brass smoker's stand and an illuminated address.

Stock Chief Goes



PRE-EMINENTLY a round peg in a round hole, Live Stock Agent Barney Fitzpatrick slipped away from the world of cattle trucks last month with characteristic unobstrusiveness. For nine years he had control of every four-footed railway passenger in Victoria, and his term of consistent hard work goes back to 1889, when he started at Toongabbie in Gippsland as a railway laborer. He was an S.M. by 1900, and in less than a decade had moved into the Superintendentship of the Melbourne Yard. As an administrator, he never failed to get on well with his staff. It was his proud boast that, in his nine years as Live Stock Agent, he never once found it necessary to hand out a hard word to any member of his little team of experts. Their parting gift to him, incidentally, was a set of pipes with a hand bag for Mrs. Fitzpatrick.

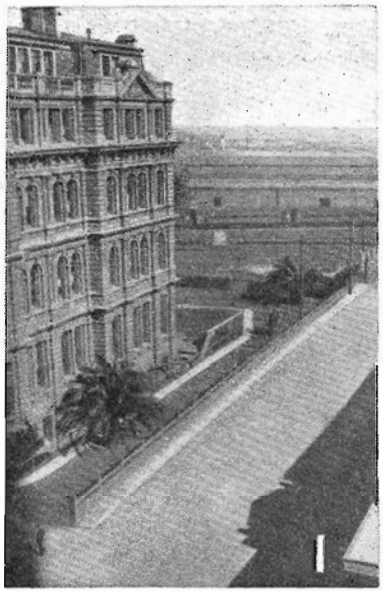
New Foreman

OFFICIALLY, Goods Sub-Foreman Alfred Whatmore of Ballarat vanished from V.R. records last month, to be replaced by a brand new Goods Foreman Alfred Whatmore, of the Melbourne Goods. The change and the promotion precipitated an avalanche of regret and congratulation at Ballarat, and a dense assemblage of local railroaders, business heads and carriers pressed upon the departing Alfred handshakes, good wishes, felicitations, au revoirs, a travelling rug and bag, and a handbag for Mrs. Alfred.

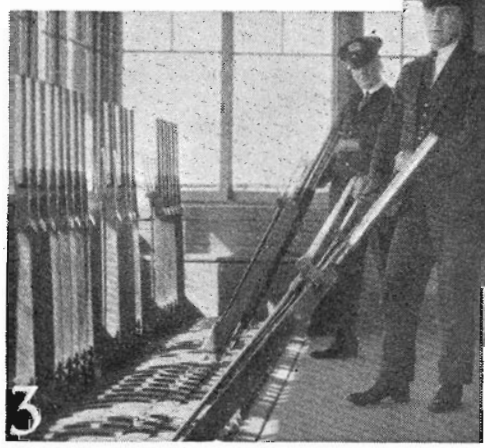
YET another wedding presentation was made by the staff of the Rolling Stock Accounts at Head Office last month, when the branch Accountant, Mr. Bustelli, handed Mr. Eric Montgomery a marble clock, accompanied by the staff's best wishes.

Snaps Round The System

SENT IN BY CONTRIBUTORS

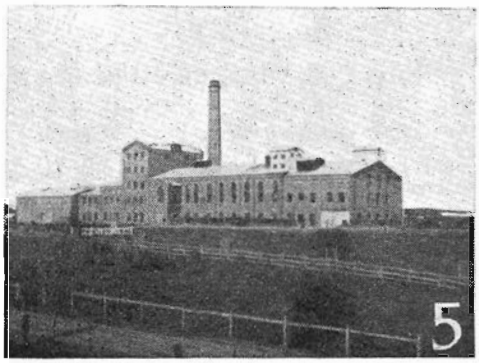












1. A corner of Railways Head Office, Spencer-street, from an unusual angle. 2. Staff at Castlemaine. 3. In the Signal-box at Toolamba. 4. The Better Farming Train at Walpeup. 5. Maffra Beet Sugar Factory. 6. Shepparton Refreshment Room staff.



By "AERIO"

Speaker Strength With a Single Valve

THE "V.R.I. Reflex De Luxe" here described is probably the loudest and most sensitive one-valve Broadcast Receiver ever designed. Easy to make, straightforward in operation, perfectly clear in reproduction, with speaker strength to 75 miles, all Interstate on 'phones—this circuit sets a new standard in single-valve receivers.

WHILE the ordinary form of straight circuit used in receiving sets finds many adherents among amateur constructors, the type of instrument employing dual amplification is of such interest as to merit the attention of all constructors, and the set described in the following notes may be regarded as the finest example of this particular principle, from which all undesirable features have been eliminated.

This set is capable of some remarkable long-distance results, and using headphones, should easily bring in the A class stations in daylight anywhere in Victoria, and, with moderately favorable conditions, all interstate stations in darkness. The reliable speaker range with a fair outdoor aerial system is limited to about 50 to 75 miles from the A class stations, and quite good speaker results can be expected in the suburbs.

Briefly, the single valve employed acts simultaneously as dual amplifier, magnifying the signals before they reach the detector and again after detection, at the same time introducing regeneration, so that the volume reaching the headphones or speaker is considerably greater than could possibly be obtained with any single valve "straight" circuit.

In the constructional features of the set, no undue complication will be found. The cost of the instrument brings it well within the scope of the average home constructor, and the layout has been so simplified as to render the assembly and subsequent operation extremely simple.

The "V.R.I. Reflex De Luxe" is really worth while building, and in order to give the raw amateur among set constructors an opportunity of acquiring such a high class receiver, explicit details, together with measurements, baseboard layout, circuit and full wiring diagrams, are given in this and the November issue of the V.R. Magazine, which should remove any element of doubt as to the result.

The measurements of the panel and baseboard have been cut down as small as possible so that no waste space is available, and the method of mounting the components and wiring them up must be rigorously followed, or chaos in the latter will result and interaction between the components and their connections will be inevitable. Provided the layout and wiring diagrams are adhered to, however, no difficulty will be experienced in getting the set to work efficiently.

Those who contemplate building this set should place this magazine carefully aside until the November issue is received, which will contain the circuit and wiring diagram. In any case I would strongly advise keeping the magazine containing the constructional articles for this set which will certainly become famous among single-valvers, and as was the case with those containing the description of the V.R.I. 3, all surplus copies will soon be sold out. Under no circumstances will the circuit or wiring details be released prior to the issue of the November magazine.

In the meantime the coil-kits may be constructed.

Constructing the Coil Kits

The coil kits T1 and T2 can easily be made at home. Both should be wound on bakelite formers 3 in. diameter and 3½ in. long. The tappings are made by scraping off a ¼ in. section of the insulation on the turn to be tapped, and soldering the tap lead (No. 24 wire run in "spaghetti") to the exposed wire.

T1 consists of Primary (P1) 32 turns tapped at the 8th, 16th, 24th and last turn. Secondary (S1) 45 turns, ⅛ in. space between Primary and Secondary. No. 24 double cotton-covered wire to be used for both windings.

T2 consists of Primary (P2) 48 turns No. 30 double cotton-covered wire tapped at 12th, 24th, 36th and last turn. Secondary (S2) 45 turns No. 24 double cotton-covered wire, tapped at centre.

The Primaries of these coil-kits or transformers are semi-tuned through use of small inductance switches. This feature results in much greater efficiency than would otherwise be possible.

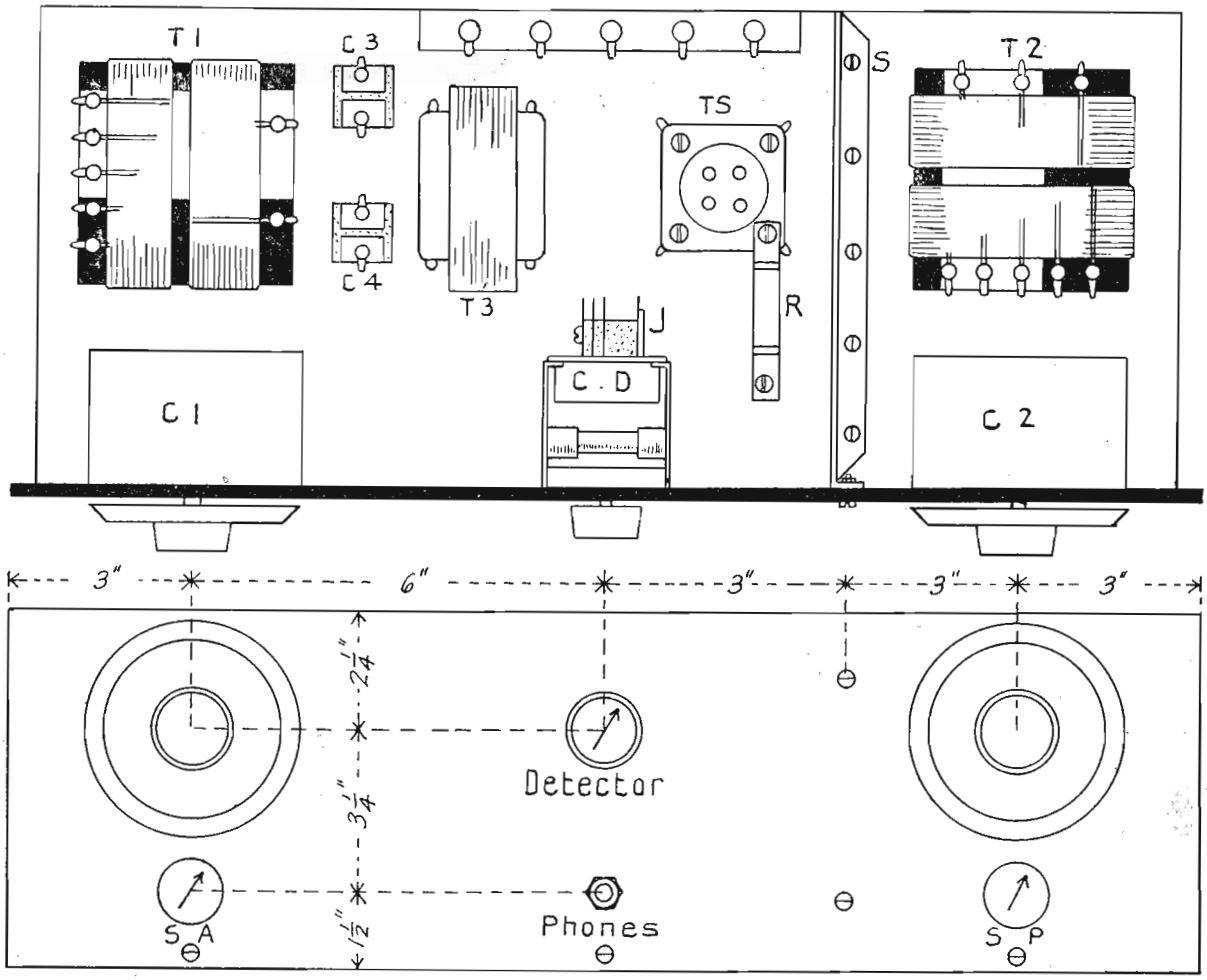
Components

C1, C2 ....0005 mfd. grounded Rotor Variable Condensers.
C3 ... .0001 mfd. Fixed Condenser.
C4 ... .0005 mfd. Fixed Condenser.
CD ... Carborundum stabilizing detector unit.
TS ... Non-microphonic Valve socket. (UK type).
R ... Ballast resistor for valve being used.
T3 ... Audio Frequency Transformer (3½ to 1 or 4 to 1).
S ... Metal shield, Aluminium or Copper.
J ... Single circuit automatic filament control jack.
T1, T2 ...Radio frequency transformers (described in text).
SA, SP ... Back of panel 4-point inductance Switches. Alternatively, ordinary rotary switches with four switch studs each may be used.
Panel ...18 in. x 7 in.
Baseboard 17 in. x 8 in. x ⅝ in.

All Wiring Should be Soldered

To make a good job of this set, soldering lugs (obtainable at all Radio Dealers at 3d. a dozen) should be soldered to the wires at all points where the wire is to be connected to the terminals on the various components. The tapping leads should be carefully soldered at their junction with the coils, and large blobs of solder should be avoided.

This soldering is best done with a small soldering-iron—the type with the bit attached at right angles to the handles, if procurable. Purchase a



new iron for this job. Most hardware dealers stock them at 1/6 each.

A sixpenny piece of block salammoniac is placed on a table and the iron, heated to a dull red only, is pressed into it to form a cavity about ¼ inch deep. Melt some solder with the iron and allow it to drop into this cavity.

These small irons are best heated over a gas or spirit flame, and should NOT be replaced in the flame until you are actually ready to solder the next joint. They heat up very quickly, and must never be allowed to become really red-hot. Just heat to a dull red (when the flame burns blue it may be taken as an indication that the iron is about right for use). There is just enough heat in the iron to solder one joint.

Scrape with a penknife all parts to be soldered, apply a tiny smear of Fluxite by means of a match-stick, dip the heated iron into the solder resting in the salammoniac, and the job will be quite simple.

There is just one other thing to remember. Be particularly careful to wipe away all traces of Fluxite with a piece of rag while the joint is still warm.

If the iron has inadvertently been allowed to become too hot and is "burnt," it will require re-tinning before it will pick up the solder. To do this it will be necessary to heat it to a white heat and plunge into cold water. The burnt portion will then become scaly and should be removed with a file. File the tip quite bright, heat it again to a dull red, rub on salammoniac and dip into the solder, allowing it to remain there until the solder boils.

Full details, with diagrams for wiring, will be published in the November issue.

WORLD'S LARGEST TUBE STATION

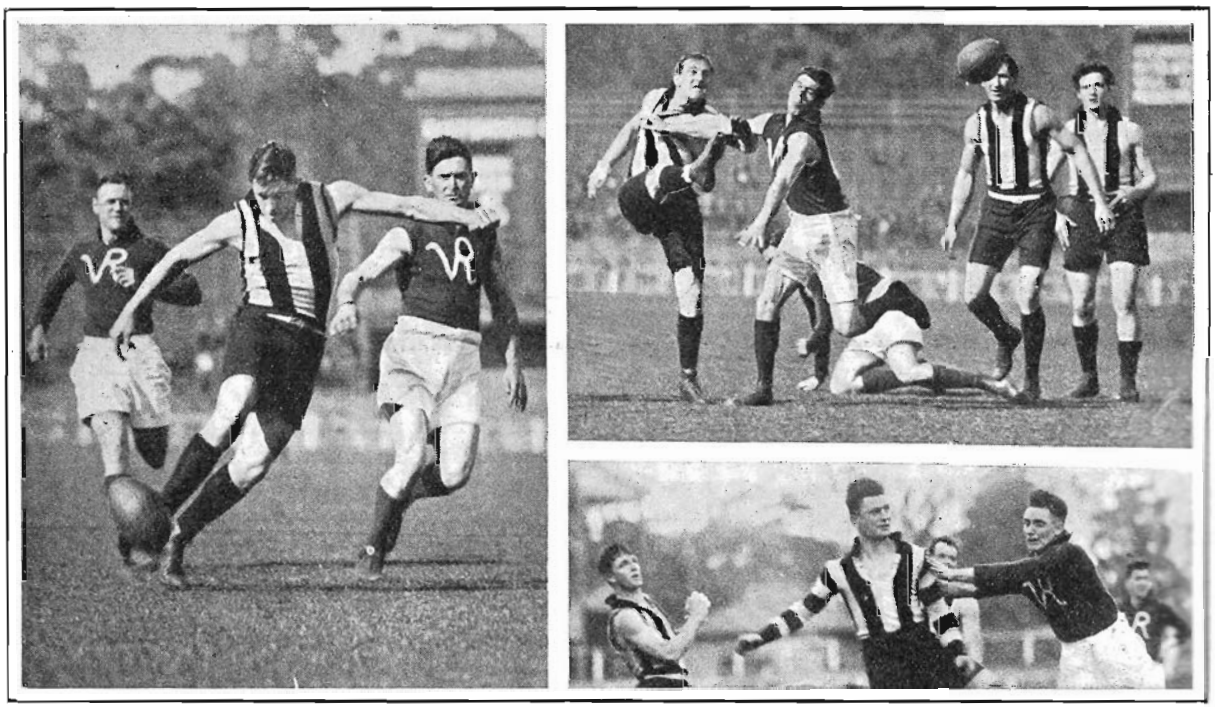
THE world's largest underground railway station, and probably the most ingenious and intricate will be completed for the use of Londoners at the end of this year. Piccadilly, for such it is, is the last word in subterranean accomplishment. A gigantic "breast plate" has been rivetted and pillared against the concrete roadway above. Fifty-seven pillars, each capable of sustaining a load of 250 tons have been erected in the new booking hall alone. "Piccadilly is stronger now than when we took the earth away," was a foreman's recent comment. Bricks, pieces of timber and concrete blocks have been wedged between the upper edge of the steel "breastplate," and the concrete bed of the roadway. Nearly a quarter of a mile of show windows will encircle the station. Seven "passimeters" and scores of automatic booking machines will be installed. Eleven escalators are being constructed to handle a total of 50,000,000 passengers a year.

TO CORRESPONDENTS

H. V. Smith (South Africa)—Thanks for congratulatory letter. Copy of April number has been forwarded to you.

Railwaymen *in* Sport

By Reg. Hunt



Some incidents in the Wednesday League Final

Railways Win Wednesday League Football Premiership

FOR the sixth time the Railways team has been successful in winning the premiership of the Wednesday Football League. The final match (there was no necessity for a grand final) was played on the M.C.C. Ground on September 12 between the Railways and Fire Brigade, resulting in a victory for the former by 14–10 to 6–21.

THE strong north wind to an extent spoilt the play which, like in the Melbourne–Collingwood semi-final, was hard and congested, but fair.

The Fire Brigade fielded its strongest team for two seasons, but the pace and system of the Railways were too much for the strenuous tactics of the big Firemen. The latter's forward play was bad, players being nearly always out of position and repeatedly spoiling each other in the air, whilst their goal kicking was much worse.

The Railways team, having learned in the department the value of co-operation, practised it on the field, played as a team, and this has been a big factor in their success right through the season.

Kelleher, the Carlton half-back, was the best man on the ground, and won a trophy on the vote of the players. Others to play well were Forty and Morden who beat Watson (Richmond) and Pitt (Brighton) on the centre wings, Crowe, Ryan (4 goals), Yemm, Bloomer, Morrison (3 goals), Wells (3 goals) and Gregory who was much too good for his League Club Captain (Tyson) in the centre.

The Committee and players derived the greatest pleasure from the visit of the Chairman of Commissioners (Mr. Clapp) who was accompanied by his son (Harold) and Mr. J. Rees (President V.R. Institute) to the dressing room during the half-time interval. The Chairman congratulated the captain on the splendid game his team was putting up, and expressed keen satisfaction when it was pointed out to him that the team was thoroughly representative of the service, players being drawn from all grades.

It is quite safe to say that this surprise visit will have a far-reaching effect for good, as it is an indication of the personal interest of the Chairman in the sporting activities of the Railways.

The Railways team has a wonderful record in this League, having won the premiership at its first attempt in 1921, and later in '22, '23, '24, '25 and '28, having been runners-up in 1927. The Competition was suspended in 1926.

During the whole of this period, Mr. W. A. Clifford has been hon. sec., and this result speaks volumes for his enthusiasm and organising ability. The captain (Cecil Forty) is vice-captain of the Fairfield team which won the premiership of its section in the

League Sub-district Association.

When it is stated that the Railways team scored 253 goals 258 behinds to its opponents' 109 goals 153 behinds, for the season, its superiority is easily seen.

COUNTRY COMPETITIONS

Bendigo

Bendigo Railways team in the Amateur League Competition was defeated in the semi-final by the Stock Agents and Banks, the scores being 13–10 to 10–10. The Railways made a great pull up, being 8 goals behind at three-quarter time, but were not quite good enough. However, the season has been very successful, due, in a great measure, to the efforts of Mr. C. E. Malloy the hon. secretary.

Seymour.—Railwaymen have something of which to be proud in the winning by Seymour of the Premiership of the Waronga N.E. Football Association and the Silver Shield presented by Mr. J. Minogue, of Melbourne. The team has 16 railwaymen in its ranks, 14 of whom played in the grand final against Alexandra at Broadford on September 8, before a record crowd and gate of £157. The Captain is Fitter Les Lehmann, and the Vice-Captain Fireman Stan Doyle. Executive officers are—President, Mr. J. McIvor, Depot Foreman; Vice-President, Mr. H. Willis, Telegraph Branch; Committeemen, Messrs. W. Gilligan, Rolling Stock Branch, and T. O'Keefe, Transportation. Mr. Gilligan also represents the club as delegate on the association.

Ballarat.—The Railway Football Club finished a successful season on August 18, the occasion of the second semi-final in the first rate Football Association Competition. Railways were beaten by South City after a fast, interesting game. It was only in the last few minutes that victory went the way of South City, but at the conclusion it was freely admitted that they were just a little too good for Railways on the day. South City (minor premiers) annexed the premiership in the play off with North City on September 8. Railways record for the season is very creditable for a newly organised body competing with experienced ex-Association players. In the minor round 12 games were played—6 won, one draw, 5 lost.

Maryborough.—The League team was easily beaten by Ballarat in its semi-final, much to the disappointment of President Jack Roberts. Want of condition, due to slack training, was primarily responsible for the defeat.

V.R.I. HARRIERS

The first cross country season concluded with a four mile handicap race over the Albert Park Lake course. The event was won by D. Dickinson, one of the most recent members of the club, fastest time being recorded by H. Millane, the virtual scratch man. Detailed results:—1. D. Dickinson, 105 secs. 2. C. R. Newell, 115 secs. 3. E. Jones, 115 secs.

Winner's time 23 mins. 55 secs. Fastest time, H. Millane, 23 mins. 40 secs.

Two teams have been entered for the "C" and "D" grade of the track athletic competitions to be held at the Motordrome next month. The club trains at the Amateur Sports Ground each Tuesday and Thursday from 5 p.m.

The club, which has now 50 members, started about 12 months ago with only 8 or 9 members.

GOLF

Paddy Gleeson the "Boy Wonder" of the Ballarat Golf Club continues to show the old hands a few points about the game, and incidentally to add more trophies to his large collection. Playing at Ballarat Golf Links on Saturday, September 15, he won the 18-hole handicap (open), and also tied in the second round of the club championship.

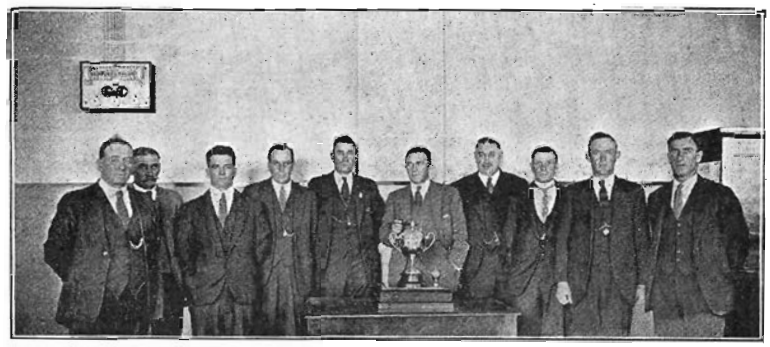
Bill Laycock has recently won three second and one third trophies in nearby country tournaments. Bill is a keen golfer, and is reported to have spent the major portion of his recent annual leave on the links.

CRICKET GETS GOING

The annual meeting of the V.R.C.A. was held in the Institute on September 14. Representatives from seven clubs were present. The election of office-bearers for 1928–29 resulted as follows:—President, Mr. M. O'Sullivan; Vice-Presidents, Messrs. F. Salvana and J. Hower; Joint Secretaries, Messrs. D. Ellinston and R. M. Kydd; Treasurer, Mr. W. Treadwell; Committee, Messrs. Campigli, Colson, Russell, Browell, Donald and Yawkins.

The secretary reported that negotiations were in hand for the securing of South Melbourne Cricket Ground, and it was confidently anticipated that it would be available for the forthcoming season.

The first of the interstate matches will be played at the end of February, and a team will be sent over to Brisbane to try conclusions with Queensland and N.S.W. The Victorian team will be selected from members of the V.R.C.A.



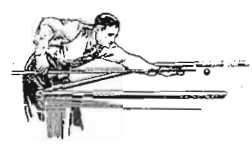
Presenting the Colwell Challenge Cup, last month, to the Overhead Depot tug-of-war team which defeated the Electrical Superintendent's team. The cup was presented by Mr. Colwell, Railways Chief Electrical Engineer (standing behind the cup) to be competed for each year by the various sections of the Electrical Engineering Branch

RIFLE SHOOTING

The Ararat Institute Rifle Team held a shoot over 300 and 400 yards for a trophy donated by Mr. Stewart on August 29 and September 1, when a good muster of members competed.

Firing at the tin hat target for the first time, results were—W. Dwight 35–5–35 and 28–7–35, total 70; R. Finch 26–7–33 and 27–9–35, total 68. P. E. Fisher 31–6–35 and 25–8–33,

Concluded on page 44



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Conducted by EILEEN to whom all communications for this feature should be sent.

HINTS ABOUT HAIR

THE old gibe "keep your hair on," often becomes a very real problem to the woman as she advances in years. If she is to retain her crowning glory until it whiten, and afterwards, she must give it constant care and attention during youth and middle age. In this article, written by Madame Louise, a Chicago Beauty Specialist, and which we reprint by courtesy of the "Illinois Central Magazine," valuable hints are given on what can be done in the home to keep hair glossy and attractive.

THERE are many necessary details of the toilet which milady herself may do if she cannot afford the time or luxury of a beauty specialist.

For home shampoo, use pure English castile soap, finely chipped, and boiled from ten to fifteen minutes. The first rinse should be lukewarm—not hot—as hot water only "sets" the oil and grime. Rinse in water of the same temperature until the hair is thoroughly cleansed. For oily hair, the final rinse should be with hot water, to give it the desired fluffiness; for dry hair, with cold water, in order to retain the oil of the glands. Also in the case of dry hair, it is advisable to use a little white vaseline a day before the shampooing, and to oil the scalp slightly just after the cleansing process, in order to keep the hair nicely smooth.

For keeping blonde hair light without harming it, camomile tea or henna leaves with the last rinse helps very much. Any chemical or acid, soda, lemon, salt of tartar, or peroxide, causes the hair to break more easily.

For dark hair, a treatment of tar mixed with oil is beneficial, stimulating the growth and imparting that wonderful lustre which belong to dark tresses.

Salt Is Indispensable

An indispensable article to the toilet of the hair is salt. Rubbed into the hair and then brushed out carefully, it proves not only a scalp cleaner but also an excellent hair tonic.

English ladies for centuries have set womankind an example in the correct brushing of the hair. Their method is to divide the hair in strands and brush each strand separately, bringing the oil down to the very end. By the way, keeping the brushes clean is absolutely necessary. The best kind of brush is the English make with long bristles. At least once a week the hairbrush should be washed in lukewarm soapsuds and rinsed in very cold water. Always dry with bristles downward, for perfect draining.

The coloring matter of the hair undergoes different changes, from its natural color to a snow white—by the same process as that which yellows the green stem of a flower. Gray hair has no coloring matter, and for this reason is much coarser than it was originally.

Nature Knows Best

Those who are prejudiced against gray or white hair—admiring it only on someone else—should remember that Nature, the true artist, understands her business, and she knows that nothing is so becoming, so softening and sweetening to the aging face as this same snowy crown with which she adorns it.

Hair often turns gray through inheritance, nervous shock, or from poor circulation of the scalp. As the body generally needs daily exercises, so does the scalp—to feed the hair canals.

Hot oil treatments are extremely beneficial if they are properly given; cold oil, when the scalp is not sufficiently stimulated by massage, clogs the pores.

Just as in the case of a tooth which receives attention only when it begins to ache, so the hair is often neglected until it begins to fall out. It is then that one must visit a specialist, who all too often "scalps" in more ways than one. Is it not wiser to take care of the hair in time than to wait until the evil days overtake you? Hair should be a frame for the face. Picture yourself in a hat, with just about five wisps of hair underneath, or visible in scanty, unbecoming arrangement! You must admit that you would look anything but beautiful!

Women who pay the most exorbitant prices for millinery, gowns, and other extravagances of dress not infrequently exercise the utmost parsimony in the matter of preserving their hair.

HOME HINTS

A piece of common yellow soap rubbed on a mosquito-bite will relieve the irritation. Do not pull light stockings over the place until dry, or the soap will make a yellow stain. Mosquitoes will not attack the skin while the soap remains.

If the blue-bag be squeezed in water in which glasses are to be washed the glasses will sparkle when dried and polished.

Never apply ointment direct to any wound. Take a clean piece of linen, smear it with enough ointment to cover the wound and bind on carefully.

Should American cloth on chairs become shabby, make a mixture of equal parts of linseed oil and vinegar and apply lightly and sparingly. If there should be any stickiness, rub gently with a soft cloth dipped in ground rice.

A VIVID PICTURE

Of all "aptitudes" the technical is least likely to manifest itself in a feminine brain. The young lady whose visit to a locomotive works is described here, was doubtless interested in what she saw, but her account of the processes observed leaves the reader to doubt her entire understanding of them.

"You pour," she told a friend, "a lot of sand into a lot of boxes, and you throw old stove lids and things into a furnace, and then you turn the red hot stream into a hole in the sand, and everybody yells and shouts.

"Then you pour it out, let it cool and pound it, and then you put in it a thing that bores holes in it. Then you screw it together and paint it and put steam into it and it goes splendidly, and they take it to a drafting room and make a blue print of it.

"But one thing I forgot. They have to make a boiler. One man gets inside and one gets outside, and they pound frightfully, and they tie it to the other thing, and you ought to see it go."

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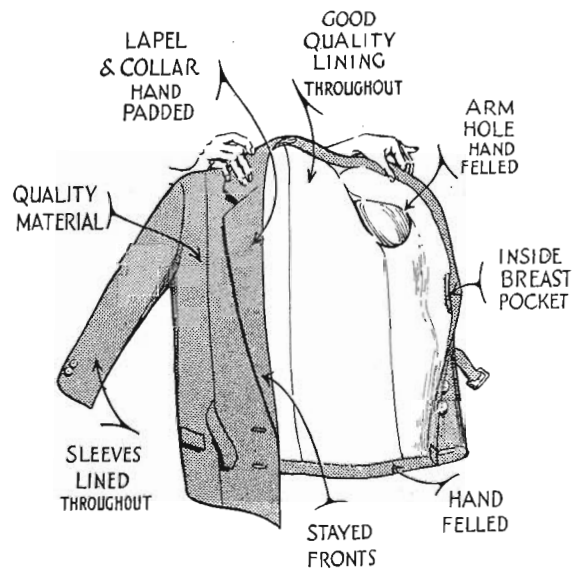
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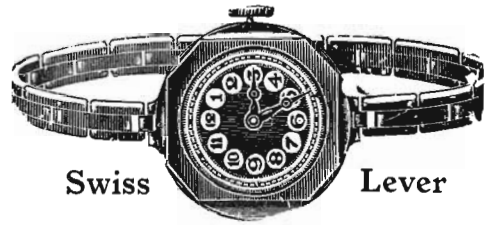
Four-Diamond Ring with Hexagon Shaped Setting, 18 ct. Gold and Pure Platinum, £8/10/-
Others - £5 to £50



Three-Diamond Hexagon Shaped Ring set in 18 ct. Gold and Pure Platinum, £6
Others - £5 to £25

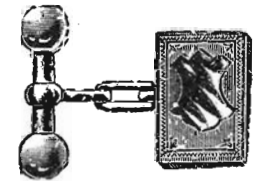


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10/6 pair
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Others - £5 to £50

Jottings from the Institute

SIXTEEN SUCCESSES IN INSTITUTE EXAMS.

During August, the first of a series of examinations was held at the Institutes at Melbourne, Bendigo, Seymour, Ballarat, Maryborough and Geelong for Porters and other employes of the Transportation branch who are seeking promotion to Operating Porter.

Of forty candidates, from all parts of the State, who sat for the examinations, the following sixteen were successful in passing examination :—

Rasmussen, A. P., Porter, Gorae ; Hogan, M. J., Ticket Checker, Flinders-street ; Reaper, A. W., Parcels Porter, Warragul ; Williams, L., Porter, Ringwood ; Williams, H. G. L., Porter, Hawthorn ; Hill, H. H., Porter, Hawthorn ; Feehan, M. J., Lad Porter, Ashburton; Haslam, N., Ticket Checker, Flinders-street ; Henderson, C. E., Relieving Porter, D.S., Seymour ; Morrison, J., Porter, Redcliffs ; Goudie, H. A., Porter, Castlemaine ; Thornton, A. E., Porter, Donald ; MacPherson, K. J., Porter, Caulfield ; Morgan, W. D., Porter, Rupanyup ; Meagher, F. D., Porter, St. Kilda ; Haysom, G. E., Sup. Labourer, Melbourne Goods.

These examinations will be held at six-monthly intervals in future, and railwaymen who wish to sit for the next examination, to be held about March, 1929, are advised to enrol in the Operating Porters' class at the Institute, Flinders-street. Correspondence Course papers also are ready so that intending candidates in the country may be afforded an equal opportunity with those in Melbourne.

CORRESPONDENCE COURSES

The Institute among its many activities offers an excellent system of instruction by correspondence in Engine Working, Westinghouse Brake, Driver-Foreman, Station Accounts and Management, Safeworking, Shorthand, Algebra, Arithmetic and English.

When a student enrols in a course he is forwarded his first lesson with full instructions. After he has answered the questions, and returned them to the Instructor, his paper is corrected, marked, recorded and returned to him with the next lesson. This plan provides for individual attention, and letters offering advice and suggesting further reading are frequently forwarded. In view of the fact that the courses offered by the Institute deal, in most cases, with subjects specially developed to apply to the needs of a particular organisation, the text material is not of a general character, and is not obtained elsewhere. The correspondence method, therefore, has an added advantage in that the complete set of lessons of any course becomes the property of the student constitutes an excellent reference.

Correspondence courses may be commenced and completed at the convenience of the student, but it is a point of interest that the element of procrastination is extremely small, very few allowing more than a couple of weeks to elapse between lessons, and a negligible number dropping courses altogether.

Although the successful completion of a course of instruction is no guarantee of promotion, the Institute policy is to assist railwaymen to prove their worth in their present positions so as to become eligible for increased responsibilities.

DEBATERS STILL UNDEFEATED

The V.R. Debating Society's representatives in the inter-society debate tournament continue to maintain their unbeaten record. In the last two engagements they have emerged victorious.

On August 14, the team defended the negative aspect of the subject "That State Governments should be abolished in favor of a Unified Commonwealth Parliament" against the Commonwealth Bank, and later successfully affirmed "That public hospitals should be fully maintained by the State," against the Stoic Club's negation.

The V.R.I. team is now first on the list in company with the Workers' Educational Association and the Catholic Young Men's Association.

The next debate will take place against the Workers' Educational Association. This event should prove one of the most interesting yet held as neither team has been defeated. The V.R.I. will argue the negative side of the subject "That second chamber government has proved a failure." This will be the concluding round of the tournament, and will be followed by two semi-final debates.

WHAT STUDY CAN DO

SIXTEEN years old this month, Lad Porter Keith S. Cairns of Darebin has a remarkable record of educational achievement to his credit. He joined the service in April last year. Inside eight months he secured his ticket checker's certificate ; inside another two, his telegraph certificate ; and inside another four, his ambulance certificate. He passed each examination at first attempt. Stationmaster H. J. O'Brien of Darebin suggests that this record—three certificates after 14 months service, by a boy not 16—has probably never been equalled before.



Chief Clerk G. P. Mulcahy, of the Railways Advertising Division, with Mrs. Mulcahy and a friend at Mt. Buffalo, last month

He : If I should kiss you, what would you do ?

She : I never meet an emergency until it arises.

He : But if it should arise ?

She : I'd meet it face to face.

Trying to be brutally frank to a flapper, we told her that her hair looked like a mop. "What does a mop look like?" she asked.

Dick (looking up from his newspaper) : I say, Jim, what is the Order of the Bath ?

Jim : Well, as I have experienced it, it's first the water's too hot ; then it's too cold ; then you're short of a towel ; then you step on the soap, and, finally, the telephone rings.

THIRTY-FIVE YEARS AGO

Extracts from the Victorian Railways *Gazette* of October 1, 1893 :—

THE Victorian Railways United Gold Mining Company, which has been floated by and for railwaymen, is now an accomplished fact. The company has been duly registered, the directors have been appointed, and by the middle of next week the company hopes to have commenced mining at Bullengarook.

o o o

THE annual social of the Victorian Railways Christian Union was held in the Spencer-street board room. A programme of sacred music was provided. . . . The chairman, Mr. A. Cameron, announced that the subscription to the Union was being reduced from 2s. 6d. to 1s.

B.H.P.
IRON & STEEL PRODUCTS

MANUFACTURED AT

NEWCASTLE STEEL WORKS

LIST OF PRODUCTS :

Tee Rails	Angles	Flats	Wire Rods	Sulphate of Ammonia
Bridge Rails	Tees	Octagons	Benzol	Sublimed Naphthalene
Tie Plates	Locking & Joint Ring Bars	Pig Iron	Tar	B.H.P. Blow Oil
Beams	Rounds	Ingots	Crushed Slag	Creosote Oil
Clutch Bars	Squares	Blooms & Billets	Solvent Naphtha	
Channels		Reinforcing Bars	Toluol	

THE BROKEN HILL PROPRIETARY CO. LTD.

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Head Office—422 Little Collins Street, Melbourne

Steel Works—Newcastle, N.S.W. *Ironstone Quarries*—Iron Knob, S.A.

WIRE PRODUCTS

MADE AT THE WORKS OF

RYLANDS BROS. (AUSTRALIA) LTD., NEWCASTLE

LIST OF PRODUCTS :

Made From B.H.P. STEEL		
STEEL WIRE—All classes and grades for manufacturing purposes, including Galvanised, Bright and Coppered Spring, Nail, Welding, etc.	"*Waratah*" *Brand*	Made From B.H.P. STEEL
BLACK & GALVANISED FENCING WIRES	"*Waratah*" *Brand*	
WIRE NETTING—Rabbit and Assorted	"*Waratah*" *Brand*	
BARBED WIRES—"Iowa" or "Waukegan"	"*Waratah*" *Brand*	
NAILS	"*Waratah*" *Brand*	
CLOTHES & GUY LINES	"*Waratah*" *Brand*	
STEEL FENCING POSTS—Star Pattern *B.H.P.*	"*Waratah*" *Brand*	
STEEL FENCING DROPPERS	"*Flexo*" *Brand*	

FOR ALL CLASSES OF WIRE PRODUCTS :

SPECIFY "WARATAH" BRAND

Rail Users Say—

"VERY CREDITABLE PERFORMANCE"

WITH reference to the very valuable consignment of stone transported to Grenfell, N.S.W., last month, we cannot let the occasion pass without writing to express our appreciation for the way the consignment was handled, for the whole of the stonework reached its destination without a scratch, which is indeed a very creditable performance, and speaks of the care taken throughout the transportation of the same.

—Messrs. Chambers and Clutten, corner Lonsdale and Exhibition-streets, Melbourne, writing to the General Superintendent of Transportation.

UNSURPASSED MT. BUFFALO

WE feel we cannot leave Victoria without stating our appreciation of the very pleasant holiday we have spent at Mt. Buffalo, the beauties of which are unsurpassed. Also handing a tribute of praise to the splendid arrangements of the Victorian Tourist Bureau, and especially mentioning the courtesy and thoughtfulness of our guide, Mr. H. Strekfuss, who left no stone unturned to add to the pleasure and comfort of all our party.

—Mrs. M. Collins, Mayoress, Burra, S.A., writing to the Manager, Government Tourist Bureau.

HELPING THE FRUIT INDUSTRY

I AM instructed by my Association to express our appreciation of the efforts you have put forward during the past few years to increase the consumption of fruit. That your efforts have been successful is proved by the enormous increase in the sales of fruit drinks at your fruit stalls. We trust that you will continue your efforts on behalf of the industry.

—Mr. John A. Rushton, secretary, Shepparton Irrigators' Association, writing to the Chairman of Railways Commissioners.

VERY COURTEOUS TREATMENT

ON the 15th inst., my wife and myself found it necessary to take one of our girls, aged 5½ years, who had had an accident, to a specialist in Melbourne, and I feel it is my duty to bring under your notice the very courteous treatment we received at the hands of your staff while travelling, and I can assure you that same was greatly appreciated by Mrs. Lyle and myself.

—Mr. G. E. Lyle, Railway Yards, Warracknabeal, writing to the Ballarat Railways District Superintendent.

FOOTBALLERS' THANKS

I HAVE been requested by the delegates of the Mathison Cup Football Association to thank you for putting extra carriages and altering the timetable for the Up Goods from Ballarat on August 25, for the convenience of footballers and supporters. Your action in the matter was very much appreciated by the delegates, footballers and supporters.

—Mr. G. E. Mayo, Hon. Sec. M.C.F.A., Meredith, writing to the Ballarat Railways District Superintendent.

BRITISH TOURIST DIRECTOR EULOGISES VICTORIA'S RAIL SERVICE

I AM familiar with all the Railways of Great Britain, and have visited most of the pleasure and tourist resorts in Europe. I am investigating tourist travel in Australia, and have acquired much valuable data to bring before British Passenger Agents; in this task I have been greatly helped by the courtesy and efficiency of the Government Tourist Bureaux, and especially by the Publicity Board of Victorian Railways.

The outstanding features which strike a critical observer may be briefly summarised—

(a) The courtesy and zeal of all ranks in the Victorian Railways Service. There is evidently a satisfaction with conditions, and a recognition of the fact that daily duties cheerfully and promptly performed contribute greatly to the common good. An excellent spirit appears to prevail everywhere.

(b) The peculiar problems of transport with long distances and scattered populations are being faced with marked success. Criticism of railway methods—such as one sees in occasional newspaper grumbles—is uninstructive and unfair. Difficulties are obvious, but so far as I can see, are being surmounted. To my mind the comradeship spirit amongst railway workers is a considerable factor.

(c) The Refreshment Room Service is much superior to that in most countries; the quick service of good meals at uniform charges is very well done.

Mt. Buffalo.—I came here in a critical spirit—prepared to be disappointed. I find a cheerful company of 150 guests enjoying snowballing, climbing and walking to vantage points for glorious views—returning invigorated for indoor amusements, and with added zest for the good meals provided. I have seldom met so happy a crowd as the visitors here. The Victorian Railways rightly aim to make Mt. Buffalo and the Chalet popular rather than select or exclusive.

Commercially, turnover is the secret of profit; and the methods adopted at Mt. Buffalo are not only most likely to produce good results financially, but the stream of satisfied and contented visitors means the best possible publicity for the Chalet, and for the Victorian Railways. The Chalet is most comfortable, unexpectedly well equipped, and the resident management most experienced and efficient. My short experience of Victorian travel satisfies me that there is no need to go outside of Victoria for beauty and variety of scenery, and that whatever tourists may or may not do they should certainly not fail to visit Mt. Buffalo. The conditions here remind me of the best places in Switzerland and Scotland. By all means visit Mt. Buffalo at any season of the year, is my advice to tourists and to all Australians seeking refreshment of mind and body.

—Mr. Walter J. Willmott, Director of Frames Tours, Ltd., London, writing to the Chairman of Publicity Board.

COMFORT FOR INVALID

I FEEL I must write and thank you for all your kindness over my husband's trip to Bairnsdale. He had a most comfortable journey and says all the railway people were just wonderfully good and kind to him, and he can't thank you all half enough. He did not feel a bit tired after the trip, and it has not done him harm in any way. Would you please thank all the people who helped so kindly to get my husband home in such comfort.

—Mrs. P. S. Macmillan, Burilda, Metung, writing to Commissioner Mr. Shannon.

"NOT A SINGLE BREAKAGE"

I WISH to express my appreciation of the manner in which my goods (furniture, etc.) were packed in trucks for despatch to Meringur. I have now unpacked, and am glad to be able to inform you that there was not a single breakage, although the furniture included a good deal of glass, etc. I tender my thanks to you and your staff for your efficiency.

—Mr. Edward Thomas, Meringur, writing to the Officer-in-Charge Goods Sheds, Geelong.

£2,000,000 WORTH OF FREIGHT £96 IN CLAIMS

AT the annual meeting of shareholders of this company held in Warrnambool, the General Manager furnished a statement of the very satisfactory transport by the Railways, and stated that during the year about 460,000 cases of butter, cheese, eggs, etc., had been carried over the Railways—the value of which was over £2,000,000. The total claims amounted to £96, of which £85 was paid by the Railways Department. The following resolution was carried unanimously:—

"That this meeting express its appreciation of the services rendered by the Railways Department in the transport of dairy produce, etc., during the year, and that the directors be authorised to submit this resolution to the Railways Royal Commission."

—Mr. H. W. Osborne, general manager Western District Co-operative Produce and Insurance Co., Ltd., 49-57 King-street, Melbourne, writing to the Chairman of Railways Commissioners.

FRUIT TRANSPORT

I HAVE been instructed by my directors to forward to you the following resolution that was carried at a meeting held on the 12th inst.

"That the Directors of this Society wish to place on record their high appreciation of the manner in which the Railways Department handled and transported the record quantity of export fruit forwarded from Harcourt railway station this season."

—Mr. H. V. C. Wilson, Manager, Harcourt Fruit Supply Society, Ltd., writing to the Chairman of Railways Commissioners.

TIME TABLE SATISFACTION

I HAVE been instructed by this league to commend you on the improved time table now operating on this line. We hope the change will be a permanent one and will be a forerunner to further reductions.

—Mr. F. O'Dea, hon. sec., Maffra Advancement League, writing to the Chairman of Railways Commissioners.

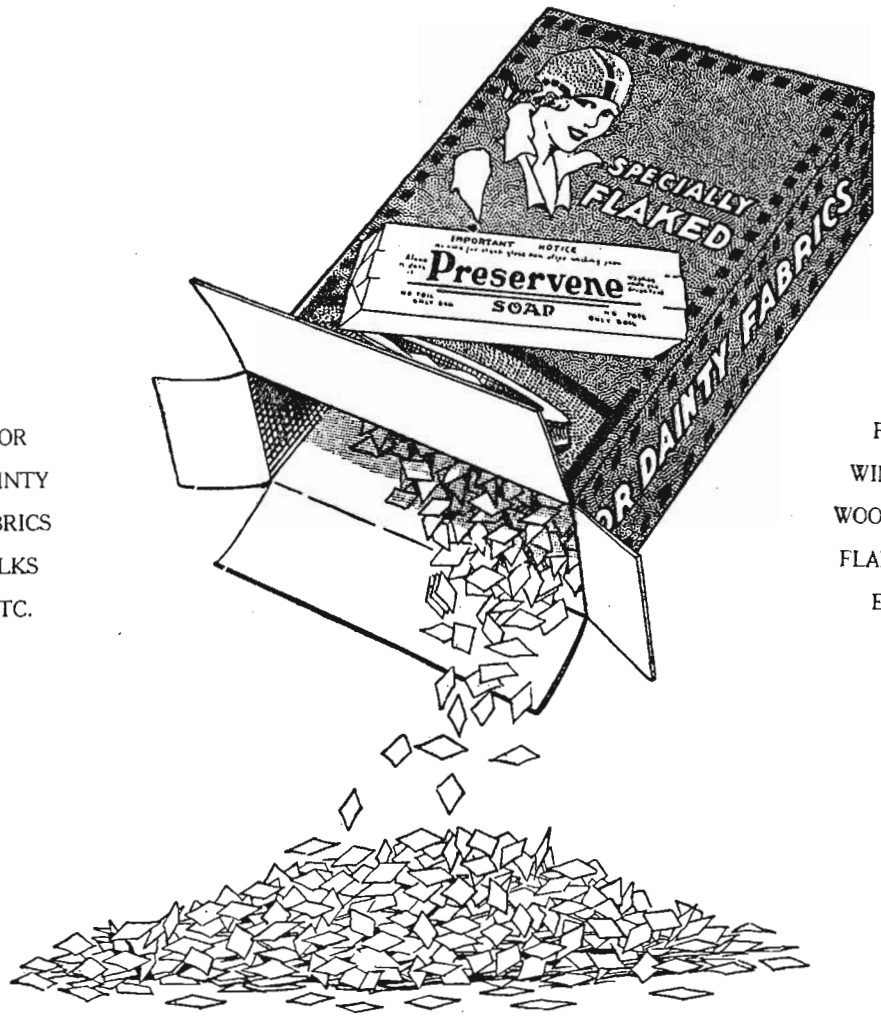
PUBLICITY APPRECIATED

AS president of the Hamilton Wesley Guild, I wish to expresss my appreciation of the fine publicity work which is being carried on under the auspices of the Betterment Board, through the medium of moving pictures. Mr. Barnett has visited us on three occasions, and each time our large hall has been filled with appreciative audiences. Last Wednesday Mr. Barnett brought with him the Reso film—"Central Australia"—with supporting pictures, and we consider that the programme was one of the finest ever screened in Hamilton. In Mr. Barnett, the Board has a most efficient and courteous representative who, without knowing it or attempting to do so, makes himself popular wherever he goes. Our thanks are due to the Chairman (Mr. Holmes) for his courtesy and kindness in making these screenings popular.

—Rev. R. E. Hooper, Hamilton, writing to the Editor, V.R. Magazine.

Concluded on page 42

PRESERVENE FLAKES



FOR
DAINTY
FABRICS
SILKS
ETC.

FOR
WINTER
WOOLLENS
FLANNELS
ETC.

TO look well dressed requires constant attention to your clothes. If you wish to retain that new look about your clothes so dear to every woman use

PRESERVENE FLAKES

Rail Users Say—*Continued from page 40*

WHERE PRAISE IS DUE

WHEN changing trains at Murtoa on my journey from Melbourne to Beulah, I unfortunately left my coat on the rack of the carriage. On arrival at Beulah I asked Mr. Wardley, the Stationmaster, to make inquiries for me. He promptly rang several stations, with the result I received my coat the following evening.

So many people are complaining about our Public Servants that I would like to say a word of praise where praise is due. I consider it was through the promptness and kindness of Mr. Wardley that I recovered my coat. He is a most efficient officer, and always ready to assist the public.

—Miss Mary A. Barber, Methodist Parsonage, Beulah, writing to the Chairman of Railways Commissioners.

MISS MAUDE ROYDEN'S WELCOME

MAY we express our appreciation of the arrangements made by your department for the meeting and welcome of Miss Maude Royden at Spencer-street. We also wish to say how we appreciated the personal attention of the Stationmaster and Mr. Sullivan.

—Mrs. Julie Rapke, hon. sec. Victorian Women Citizens' Committee and of the Maude Royden Welcome Committee, writing to the Metropolitan Superintendent.

EFFICIENT AND BUSINESSLIKE

WE enclose cutting which appeared in all the the dailies on Wednesday last. The concluding paragraph thereof, will, no doubt, be of interest to you.

We find the officials in the Live Stock Branch of your department most attentive, and deal with matters of importance in a very efficient and businesslike manner.

—John McNamara and Co., Pty., Ltd., Temple Court, Collins-street, Melbourne, writing to the Chairman of Railways Commissioners.

(The cutting referred to an advertisement giving particulars of a sheep sale at Newmarket by John McNamara and Co. of 180 truck loads. The concluding paragraph of the advertisement set forth that : " Not a hitch occurred in any detail while the prompt deliveries made by the Railways were most pleasing to all concerned.")

UNFAILING COURTESY

ALLOW me to thank you, also your staff, for the unfailing courtesy which has always been shown to me during my many years of travelling. Wishing you all success.

—Mr. D. H. Willder, Paterson, Laing and Bruce, Ltd., Flinders-lane, Melbourne, writing to the Stationmaster, Seymour.

LOST BAG PROMPTLY FOUND

I LEFT my hand bag containing 28s. and railway ticket in the Oakleigh train leaving town a few minutes to 9 p.m. On alighting at Carnegie, I was half way home before I discovered my loss. On returning to the station the Stationmaster informed me the train was well in Oakleigh by that time, but rang up immediately, and found the bag was there. He asked for it to be returned by the next train as I was waiting. It arrived intact, neatly packed and sealed, at 10.15 p.m. A quick recovery. I wish to thank the Stationmaster at Carnegie also the staff concerned at Oakleigh for their prompt and courteous attention.

—Mrs. B. Smither, 3 Fontain Avenue, East Malvern, writing to the Secretary for Railways.

TOURIST COURTESY

I feel that it is my duty to write and thank you for the trouble you took in answering my note regarding the Sunday trains running between Melbourne and Ballarat. No one could wish for better or plainer information than that which I received from you to-day, and you deserve great praise for the pains and care you go to whenever I make an enquiry by letter.

—Mr. M. Reilly, 49 Horace-street, Malvern, writing to the Manager, Government Tourist Bureau.

Careful Porters

From the " Victorian Poultry Journal "

ONCE upon a time, as a good old-time story always commences, a porter on a Melbourne suburban railway station was seen to throw across a platform a package containing eggs for setting that had been gathered from a well selected and carefully mated pen. They were consigned from a reliable breeder to a young man anxious to embark on poultry keeping. Those eggs got such a doing that they did not produce the chickens. Maybe as a result the railways lost big revenue because there are many places in the State today at which the returns from eggs are considerable, and one cannot imagine what was the potential egg capacity of the pullets that were not hatched from that badly handled package of eggs.

Those days have gone for ever, as far as most of the railway stations are concerned—let us hope all stations. A member of the staff of the " Victorian Poultry Journal " one morning, during the cold weather, was standing on a station, unknown to anybody. He watched the arrival of a Melbourne train at this junction station. Prominent among the luggage and valuable freight that had to be transferred were many packages containing day-old baby chickens of great promise, several packages of valuable eggs, as well as one or two breeding pens. (Certainly this was a reflex of the good business that is being done by the big stud breeders).

There were several porters on duty, and the manner in which they handled those chickens, eggs and birds revealed that they were interested in poultry, and certainly interested in their job ; perhaps their desire to do the best for the clients of the railways was all that mattered with them. They took the chickens from the more or less cosy van on to a cold platform, but they were placed in such a position that the cold draught of air on the platform would not strike the chickens. The eggs were placed on a truck with care, and the birds were handled as only valuable stud birds should be handled, with due regard to their value.

A human interest was taken by these young men in this work, which, if it had been done in a haphazard style, might have meant setbacks to several poultry-men, because it was noted that the packages were consigned to several different people in different districts.

When the time came for these packages to be re-handled into later connecting trains, the same care was taken, and if at any stage of the journey injury took place it was not at this junction station. As the last was seen of the chickens in one corner of the new van, the " Victorian Poultry Journal " man gave silent thanks to Mr. Clapp and his careful staff.

The industry is certainly developing rapidly, and with a good business in export, it will pass all previous records, and there will be one department that will benefit. It will be the railways over which so many of the eggs will have to be carted before they reach the ship's side for shipment to the fastidious London market.

This is a record of an actual happening that stands to the credit of the Victorian Railway Service.

APPRECIATION

A Victorian Railways ex-repairer who was recently retired and compensated on account of heart failure, has written to the Secretary for Railways as follows :

" I would desire to thank you and the Commissioners. The treatment I have received from them since my retirement has been of the kindest, and in my humble way I am endeavoring to uphold the interests of the department, and at any time, should the occasion arise, I shall always be on hand to do this for the department, as they do not let a man feel that he is a worn-out cast-off because he has retired. This is the first opportunity I have had to write to you since my retirement, but I cannot speak too highly of the kindly consideration of the officers of the Way and Works staff room. I think their names were Messrs. Wain and Norris who dealt with my case ; also the medical officers, Staff Board, and last, but not least, the very kindly way in which the Commissioners treated me. I shall always feel that I owe them a debt of gratitude, as I do not feel that I am totally severed from the department which I always endeavored to serve and I shall be loyal to always."

SOME TEST !

From *The Engineer* of September 13, 1872.

The Cedar Rapids (Iowa) *Republican* gives the following account of a singular accident which occurred recently on the Iowa division of the Chicago and North-Western Railway, ten miles west of De Witt :—" A heavy thunder shower had washed away a portion of the embankment over a small culvert, the latter not being able to carry off the water fast enough, so fierce was the storm and so deep the ravine. The dirt was washed away for a distance of 12 ft. in length and 15 ft. deep, leaving the rails intact over the chasm, as they were joined by the patent ' fish-plate joint.' The express thundered along at the rate of twenty-five miles an hour, passed on the suspended rails, which bent underneath the heavy weight, but did not give way. Such was the velocity of the train and the tenacity of the rail-joints and car-couplings, that every car of the long train actually passed over the chasm, although there was no support under the 12 ft. of rails. The trucks of four cars were forced from under them, however, and left side by side, over the chasm, and just as the rear car got safely over the rails gave way and precipitated the trucks into the ravine."

SUCCESS AT LAST.—Australia produces a DRY GIN Better and Purer than the best imported.

PRESTON'S

Medicinal Dry Gin, 6d. a Nobbler, with Squash, 7d.

Guard against Winter's ills and chills—**Preston's** Gin and Squash.

Alexander & Pater on Hansen & Co., Melbourne.

BY APPOINTMENT TO HIS MAJESTY KING GEORGE V.

LEYLAND

Is the LEADING British Lorry and lasts longer

Models 2, 3, 4, and 5 tons. Apply to:—

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ENGLAND

Melbourne Depot 76-84 Courtney Street, NTH. MELBOURNE (Near Metropolitan Meat Market)

McMASTER'S FOR VALUE

EVERY ARTICLE GUARANTEED SEND FOR OUR CATALOGUE POST FREE



Three fine quality Diamonds Hexagon set, £7/10



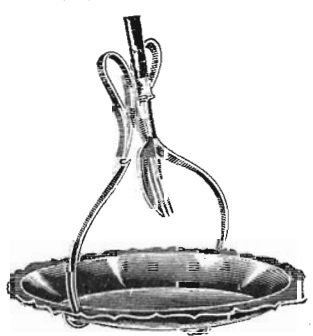
Diamond Cluster, splendid value, £8/10/- Others, £10 to £30



Splendid value, set in Pure Platinum and 18ct. Gold, £10. Others, £7/10/- to £30



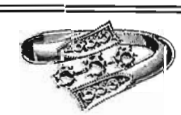
Fine quality, set in 18ct. Gold and Pure Platinum £15



Cake Dish with Fork, best quality Silver-plated, **16/6** Post Free



SPECIAL VALUE.—String of Pearls 18 in. long. Splendid quality, with Brilliant Clasp. **Special Price 2/11** Post Free Others, 7/6 to £10



Fancy Crossover 18ct. Gold and Pure Platinum, £10



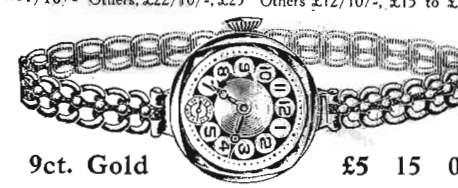
Coronet Set, set in 18ct. Gold and Pure Platinum, £12/10/- Others £8/10/- to £50



Latest design quality Diamonds, set in 18ct. Gold and Pure Platinum £17/10/- Others, £22/10/-, £25



Beautiful Diamonds, set in 18ct. Gold and Pure Platinum, £20 Others £12/10/-, £15 to £50



9ct. Gold £5 15 0

This splendid Gold Wristlet Watch with latest design, Gold Expanding Bracelet. Perfect timekeeper. Guaranteed 5 years. £5/15/-

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RAILWAYS
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Contractors to all Australian Railways

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Of all sizes and descriptions

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For points and crossings

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Agents:

FOR COUPLERS
Gilbert Lodge & Co. Ltd.

FOR ALL OTHER PRODUCTS
Howard Smith Ltd.
Market St., Melb.

Railwaymen in Sport

Continued from page 35

total 68; F. Kloester 24–7–31 and 25–9–34, total 65.

One of the team's leading members, Mr. F. Merideith, died during the month after a short illness, and his loss is keenly felt by members of the team which expresses its sincere sympathy with his family.

TENNIS

The Head Office Tennis Association's premiership matches commenced on September 18, with the following results :—

Accountancy No. 1 beat Traffic No. 1.
Lester–McIver v. Roberts–McDonald, 6–3, 3–6.
Cobham–Davies v. Worrall–Conroy, 6–0, 6–0.
Transportation No. 2 beat Secretary's No. 1.
Williams–Rains v. Letham–Stenning 3–6, 6–5.
Wright–L'Hullier v. Fowler–Baird 6–1, 6–5.

October matches are :—

2nd—Secretary's No. 1 v. Accountancy No. 1. Traffic No. 1 v. Electrical Branch.
4th—Rolling Stock No. 2 v. Transportation No. 2. Stores Branch v. Signals and Telegraph No. 2.
16th—Transportation No. 2 v. Accountancy No. 1. Stores v. Secretary's No. 1.
18th—Signals and Telegraph No. 2 v. Traffic No. 1. Electrical Branch v. Rolling Stock No. 2.
30th—Traffic No. 1 v. Transportation No. 2. Rolling Stock No. 2 v. Secretary's No. 1.

Tennis enthusiasts at Ballarat are preparing for the association games. The Railway four promises to be a formidable combination as the old players are showing good form, while some promising new men are available. The absence of a railway tennis court is a handicap, but a move will probably be made shortly to establish a court.

Old Brown's Cow

Continued from page 25

out just to provide a fence between him and the things he covets most. But I like to think that I stuck to the agreement that we made with that old "Miser" Brown. Anyway Mary didn't seem to care much about me any longer. But I didn't care. Don't think that I cared. A man of the world like me has got too many things to think about without worrying his head about a girl who doesn't know a good man when she sees one. I married the widow Wilkins. I thought she had one child seven years old but it turned out that she had seven children—from one year up. That's her singing in the next room now, and I tell you that that noise is music compared to what I have to put up with. If you lived next door to us for a week you'd understand why I haven't touched milk for twenty years.

A Bank Account

gives you power and safety. Apart from its positive stimulation of the sense of Thrift, a Bank Account simplifies your operations and widens their scope. In or out of business hours it facilitates your transactions and surrounds all your dealings with dignity, impressive on your clients and associates.

A Cheque Account is a record of payments, practically a Book-keeping System in itself.

Additionally it introduces, to your service, the innumerable banking advantages and facilities that a modern banking institution provides.

Commonwealth Bank of Australia.

(Guaranteed by the Commonwealth Government)



Rings *of* Quality & Value

THE Stamp of Quality is upon Every Newman Diamond Ring. Being actual manufacturers on the premises, Newman's offer their Quality Rings at "Direct to You" prices.

Buy at Newman's and you'll be more than satisfied with your purchase.



9,391 — 18ct. Gold, Platinum Settings, 9 Diamonds, £22/10/-



9,414 — 9 diamonds, Platinum Set, £15



9,400 — New Hexagon Pattern 18ct. Gold and Platinum Settings, £21



9,286 — Platinum Settings, 7 Diamonds, £30



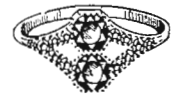
9,392 — 18ct. Gold, Platinum Settings, 8 Diamonds, £22/10/-



9,394 — 18ct. Cluster Ring, 13 Diamonds, Platinum Settings, £24



9,415 — 8 Diamonds, Platinum Settings, £10



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Up-Country—*Contd. from page 28*

Owing to the low prices of potatoes, the traffic in this commodity has not been equal to that of last year. Many potato growers have found it unprofitable to dig the potatoes out of the ground.

Contracts for supplying granite for the Shrine of Remembrance from the Tynong Granite Quarries have been started, several truck loads having been forwarded to Melbourne in an undressed state.

An inspection of the granite quarry revealed an immense outcrop of splendid stone. The Contractor is of opinion that as the stone dips it will be of better quality and more easily handled.

GEELONG

THE recent rains have improved the agricultural outlook, and a favorable season is assured throughout the district.

The cream traffic is exceptionally heavy and considerably in excess of that of last year.

To date, no fewer than 7,369 bales wool have been received by rail for Geelong wool firms, the arrivals being earlier than those of last year.

The additional rail motor service between Geelong and Melbourne is appreciated and is being steadily patronised.

MARYBOROUGH

PROSPECTS for a good season are still promising, although rain is wanted in the wheat belt north of Ouyen. Light showers during the early part of September have been of wonderful value, and crops are in good heart. Fodder is plentiful, and stock is in good condition. September rains will save the situation in the new country along the Meringur Line.

Wool traffic has commenced, and wool is offering freely. The largest consignment received was at Mildura, where 1200 bales where received in one consignment, ex river boat, from Lake Victoria station. This was followed a few days later by a consignment of 600 bales, also ex river boats.

Farmers in the Birchip district were apparently very confident that a good season this year would follow the poor yield last season, and this was reflected in the increased quantity of artificial manures received. This year 16,717 bags came to hand, compared with 12,228 last season, while at Kinnabulla the increase was even more marked, the figures being 14,316 as against 9820. For 12 months at Birchip 521 trucks of live stock where despatched and 401 received.

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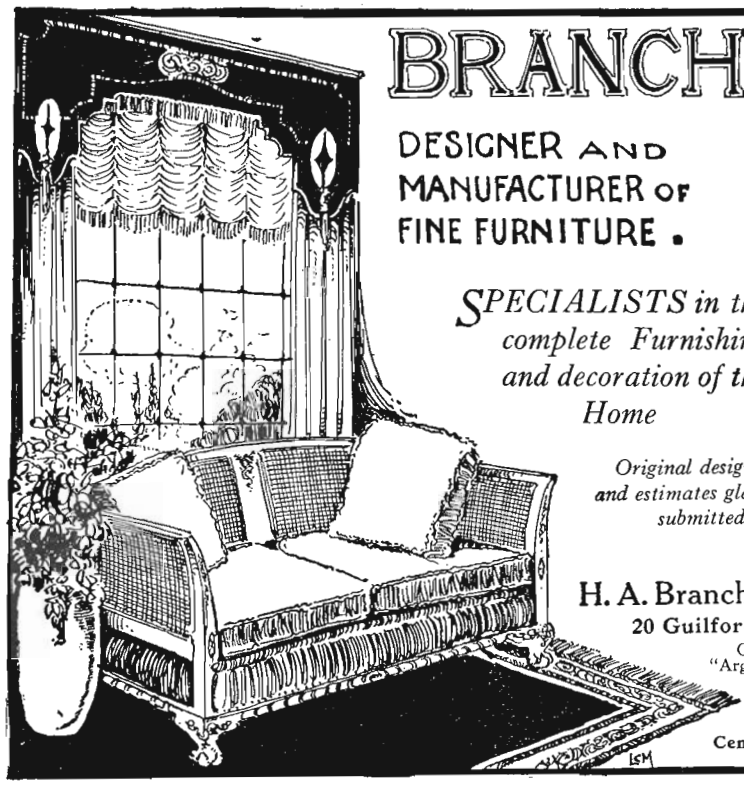
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Books *and* New Books

Thumbnail Reviews by J. D. MICHIE

A Vagabond Soul.—By Kate Helen Weston. The story of an Australian girl of Irish parentage, who wandered through Sydney and through Melanesia in search of adventure and romance, finding both, together with pain. She refused to marry a man who loved her, tying herself to a rotter instead; and when she had recovered from this mistake, she married again, yet another man, who was taken from her by death. Those who know Australia and Melanesia will recognise many of the better known places.

Some Take a Lover.—By Peter Traill. A splendidly written and unusual story, possessing a light and pleasant touch, but he deals most competently in the real stuff of life and character.

The Curse of Doone.—By Stephen Horler. The theory that Britain is still sprinkled thickly with German spies of superhuman skill and infrahuman spitefulness is so convenient for novelists that, whether true or not, it is likely to continue. In Doone Hall lived Murdoch, the old inventor, and his daughter Cicely. Murdoch's invention was a ray for stopping aeroplane engines at a distance, and the spies were after it. The incidents include kidnappings, two or three murders, hypnotism and a red-hot poker to Cicely's feet. Virtue triumphs and a wedding results.

Evolution and War.—By Reginald Cock. Written from the point of view that the theory of evolution is false, Mr. Cock endeavors to reconcile the teaching of Scripture with such scientific facts as he considers proved, and concludes with an examination of some of the posers put to Mr. W. J. Byran at the famous Dayton trial.

When West Was West.—By Owen Wister. As its title indicates, the new book deals with similar scenes and people to those so graphically described in The Virginian.

The Flying Squad.—By Colonel W. A. Bishop, V.C., and Major R. Stuart Wortley. This is a story of thrilling adventure, of post-war times, written by Colonel Bishop, the well-known aviator, whose war exploits were so brilliant and renowned. Needless to say The Flying Squad is an air novel.

Clowning Through.—By Edward Charles Reed. How Printette, a half-crazy trainer of birds, brings about the happiness of two delightful young people unable to marry because the girl is already married to a scoundrel, is the theme of this charming love story.

The Bride's Progress.—By Harold Weston. This is a clever but daring comedy of a luncheon party in honor of a bride and bridegroom. Brilliant dialogue and a strong denouement.

We Forget Because We Must.—By W. B. Maxwell. Charles Derwent and his wife Enid had everything that they wanted materially from the outset of their married life, and yet were conscious of dissatisfaction. Each time some "tragedy" occurred they swore they would never forget; each time they did; and in the autumn of their lives were forced to admit that their joint existence had not been as bad as they had tried to think.

Wholly set up and printed in Australia at the Victorian Railways Printing Office, Spencer-street, Melbourne, for the Publishers — The Victorian Railways Commissioners.

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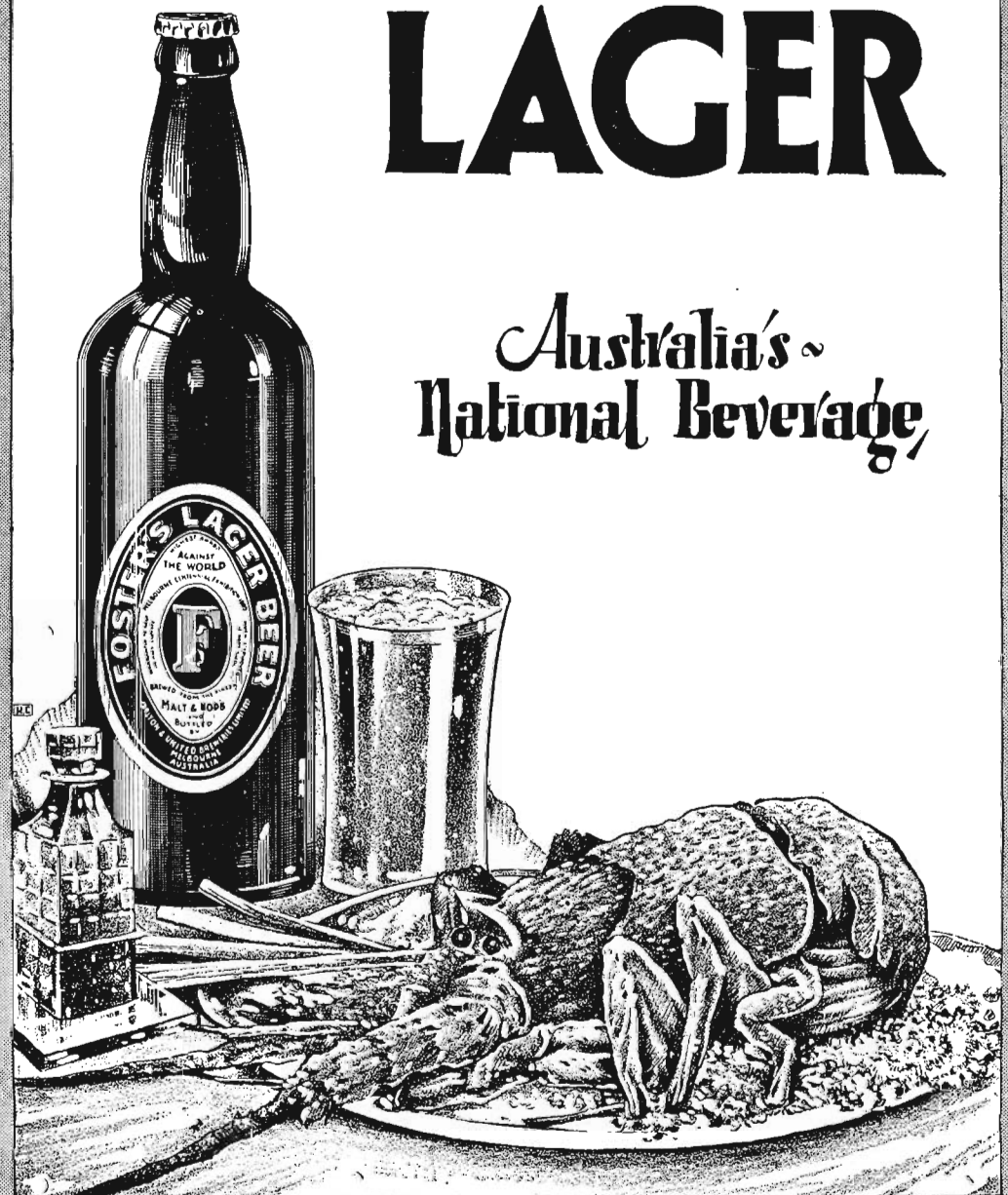
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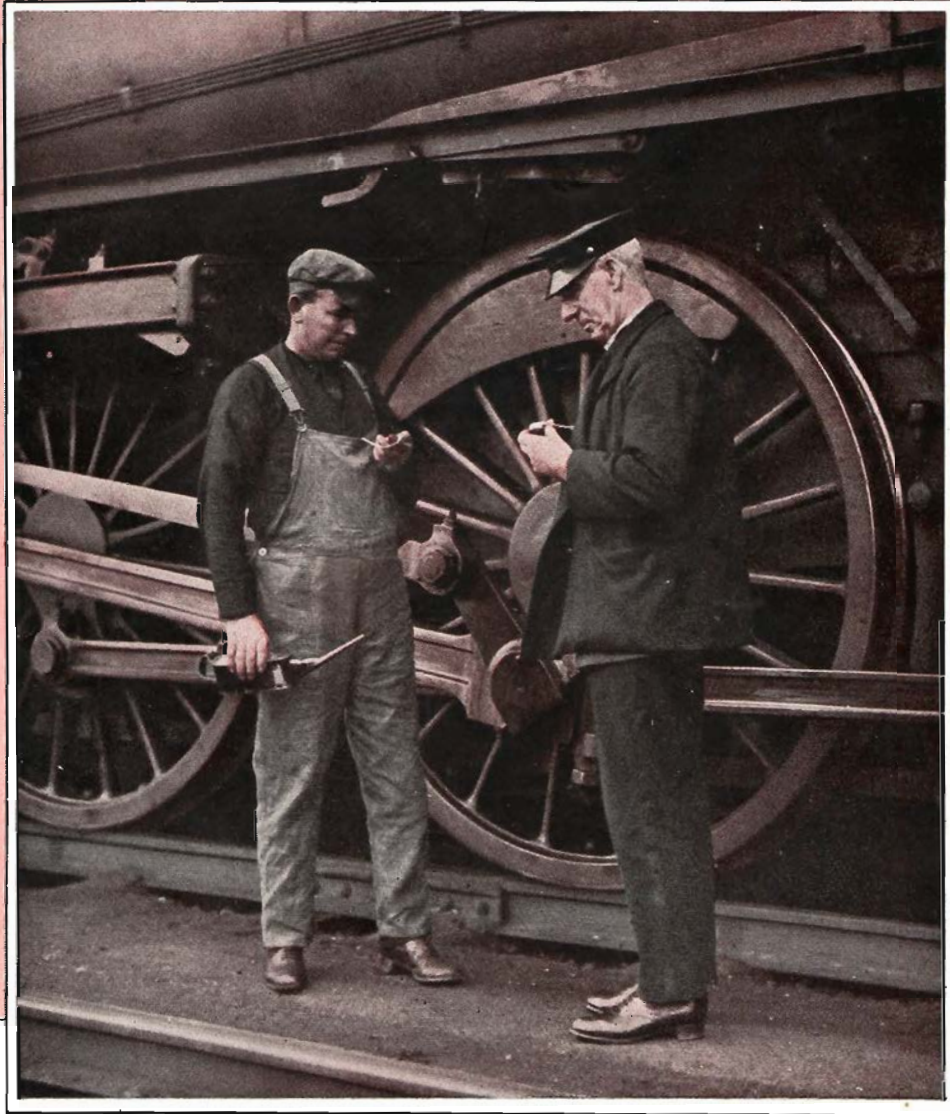
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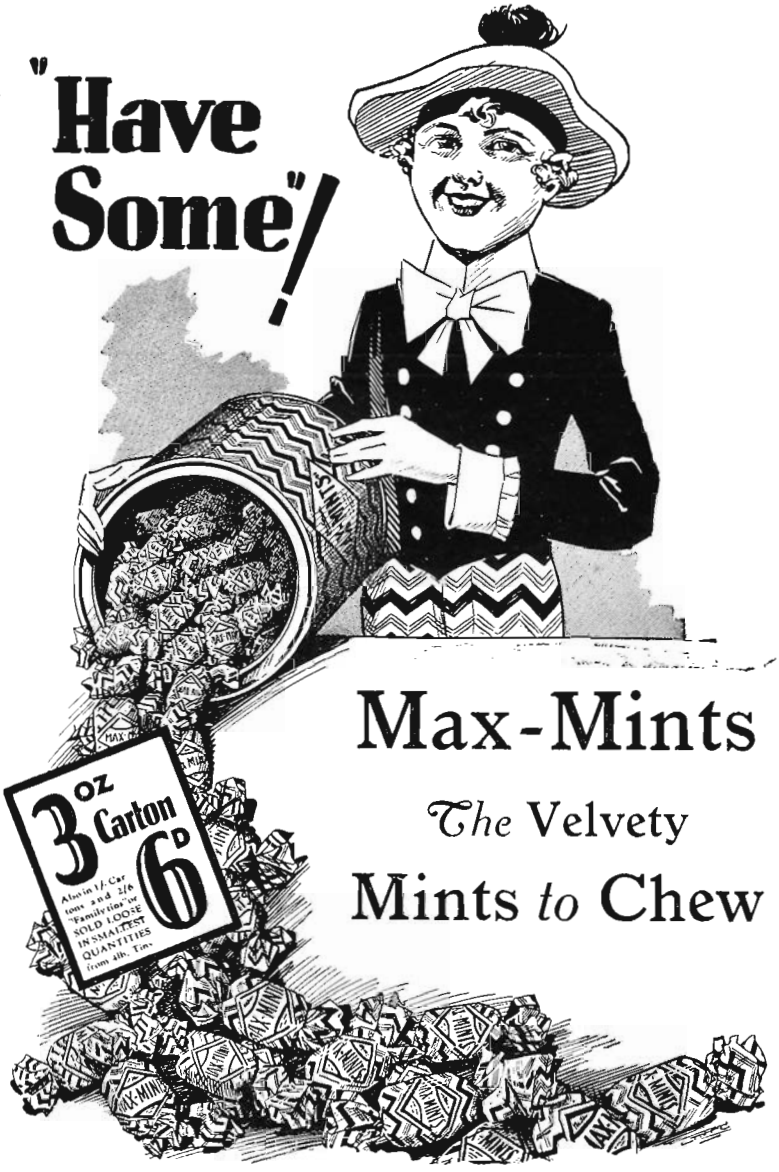


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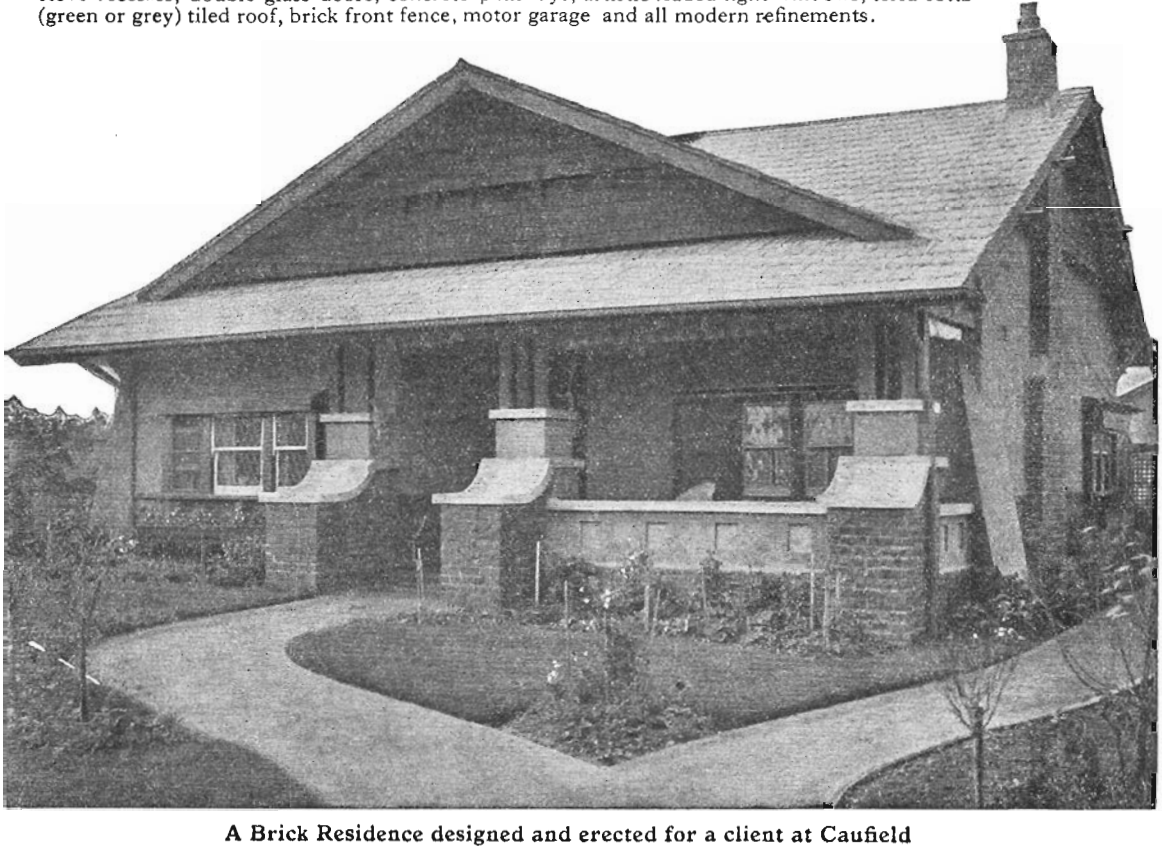
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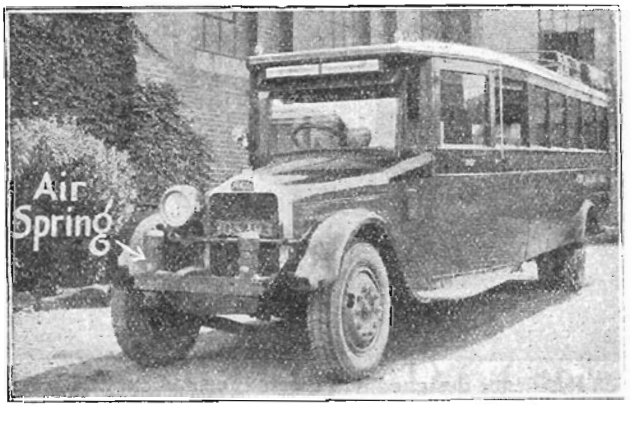
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SAFETY-HEALTH-BETTERMENT

Safety *and* Adventure

By A. V. STENNING

Secretary, Railways Safety Council

SAFETY cannot be regarded as the prime object in life. The most important thing in the world is adventure, and by adventure, I mean a fresh, first-hand experience of life.

Love, friendship, loyalty, knowledge, art, religion, are adventures in which the human spirit goes out to experience the realities of life. If these experiences lack the element of adventure it can only mean that life is not being lived in the keen way that makes it most worth while ; it can only mean that life is deficient in the finer spiritual values.

Evolutionary development has been along this line. It is the daring, vital, vigorous, high-souled man and woman with the courage to face and experience the "ups" and "downs" of the world that have survived.

Yet while that is so, there is danger in living life in this way. Danger is woven into the very warp and woof of life. Danger cannot be taken out of life without leaving life flat and uninteresting any more than the bunkers and other hazards can be taken out of a golf course without making it too easy to be worth playing over.

The Thrill of The Game

The thrill in the game of life, quite as much as in the game of golf, consists not only in the clean long drives down the fairway, but in keeping out of the bunkers, and even more in playing out of the rough.

Here, then, is a straight, clean issue. How is the Safety Movement to be harmonised with a life of adventure ? Have we two opposing concepts : the adventurous life on the one hand, the safe life on the other ? It all depends upon what we mean by "safety." If we mean a passive, sheltered, effortless state of mind and body, then goodbye to adventure. But is that the *real* meaning of "safety" ?

To get a solution we must make a close analysis of the word. There is a ray of light in the realisation that the word "safe" is incomplete by itself, that it must be used with a preposition.

The obvious preposition is "from." But even that does not help matters, for to be safe from something is still negative, it is an avoidance and inhibition. There is another preposition however, that we can use equally well, namely, "in."

And here the difficulty begins to disappear, because "safety in" is distinctly positive. "Safety from" leaves a void, but this void is filled by "safety in."

Now, nature abhors a vacuum, and so does thought and language. Safety then, instead of being merely inhibitory, is, in reality, substitutional. It throws something out, but it puts something else in its place. What is thrown out, and



what is put in its place is for you to say. Personally, I choose to have the bad adventure thrown out and the good adventure brought in ; and because I believe that adventure is in truth the deep, significant value in life, by that token I believe that we have here the real meaning of safety.

Let me explain. You teach a boy to play football safely, or to sail a boat safely, or to use a gun safely. In each case you are showing him how he can have a good adventure instead of a bad.

Instead of the bad adventure of perhaps breaking his collarbone, he can have the good adventure of becoming a champion at the game, and frequently carry his team to victory. Instead of the bad adventure of turning his boat over, and either ending his adventure entirely by drowning or temporarily by a stupid wait for help, he can have the good adventure of sailing on to a thrilling finish. Instead of ending his hunting adventure with a bullet through his leg, he can have the better adventure of the chase.

This is a very different safety from the passive, effortless, safety. Instead of impoverishing life, it does just the opposite. It makes life richer and more adventurous. With "safety first" an equally good slogan would be "safety in more and better adventure."

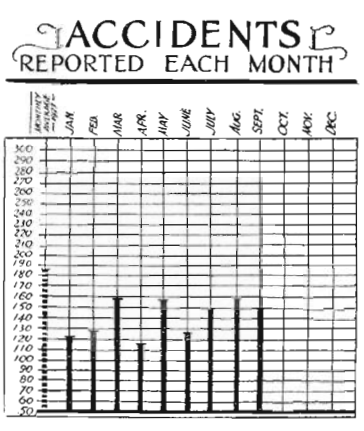
WHY TEETH DECAY

The teeth consist, chiefly, of a lime salt called phosphate of lime. This is one of the lime salts which, like marble, tends to be dissolved or eaten away by acids ; and there is no doubt that the beginnings of teeth-decay are due to the eating away of the enamel by the acid. Where does this acid come from ? It comes from the decay or decomposition of starchy or sugary material, i.e., foodstuff which sticks around the teeth.

Everyone knows that starchy, sugary substances become acid when they "go bad" or ferment and become sour. Bread and water will go sour if it is left, and ordinary harmless germs are allowed to grow in it. So will stewed fruit. When milk "goes bad" it turns sour because the harmless germs change the sugar of milk into acid. Just the same thing happens in our mouths in the starchy, sugary material which sticks around the teeth. There are countless harmless germs in everyone's mouth, and these grow in the warm, moist fragments of biscuits, or whatever it may be, and produce a sourness or acid which tends to eat away or dissolve the lime salts in the enamel of the teeth. It is true that this enamel is very hard, and the eating away goes on slowly ; but it stands to reason that, in a tooth where the enamel is less dense or well-made, the decay will be more rapid, and that is why some teeth are so much more liable to decay than others.

The above explanation makes several points clear. We see why it is bad for children to be always chewing sweets ; why biscuits are bad, expecially at the end of a meal—everyone knows how particles tend to stick in the crevices of the teeth—and why it is good to finish off a meal with an apple or some other fruit which does not cling and stick to the teeth, and the chewing of which will clear the teeth of adherent fragments.

We see, also, why saliva is *alkaline*,



because it then tends to *neutralise* any *acids* formed around the teeth and so protects the enamel from their action. There is no **doubt that healthy saliva is a tooth-protecting fluid**—it may well be said that this is one of its chief functions—and another obvious advantage of the **eating of apples or tart fruits at the end of a meal** is that their tartness causes a free and prolonged flow of the tooth-protecting saliva. Even the sight of a lemon will make our mouths water!

"John, what is this sales resistance we read so much about lately?"

"Sales resistance, my dear, is the triumph of mind over patter."

THRIFT

The only place to live a happy life, says an epigrammatist, is within your income. If you buy what you don't need, you will soon need what you can't buy.

Thrift is another application of safety first; it is unquestionably a factor in betterment; it often safeguards health.

In this connection, an announcement just made by the Commonwealth Savings Bank is of passing interest. The bank is now paying 4 per cent. interest in deposits up to £500, the old rate of 3½ per cent. still applying to amounts in excess of that and up to £1,000. Beyond that and up to £1,300, the 3 per cent. interest rate is paid.

Another new Commonwealth Savings Bank feature is the Purpose Account, any number of which can be opened at any branch, and the nature of the purpose—holidays, Christmas extras, medical expenses, education for the children, etc., need not be disclosed. Any sum from 1/- a week or fortnight can be deposited for not less than three months, and interest at 4 per cent. per annum will be added.

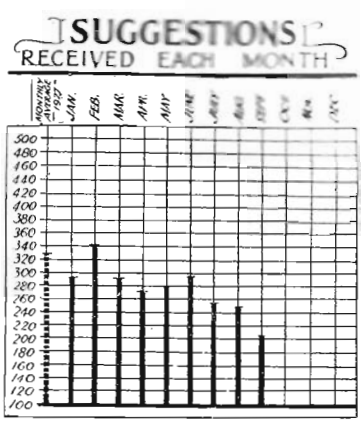
OCTOBER SUGGESTIONS DRIVE

The subject chosen for the tenth suggestion drive, which will be held during October, is—

"**Locomotive Smoke Boxes, Spark Arresters and other Fittings.**"

Suggestions should be submitted to the Betterment and Publicity Board in the usual way.

Suggestions on any other subjects will, of course, also be accepted.



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The following Awards were made during September for adopted suggestions:—

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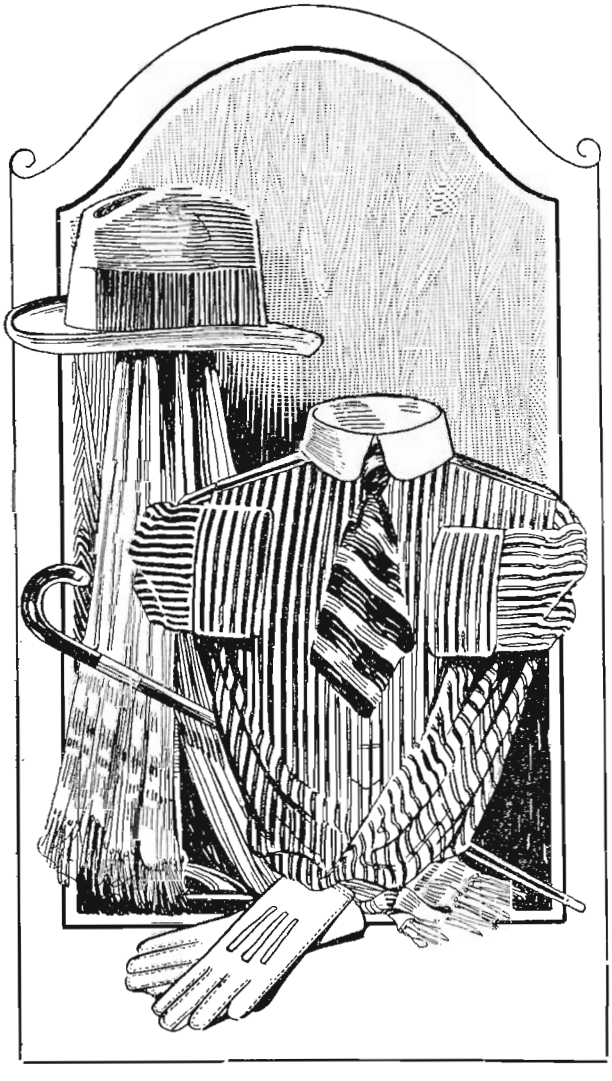
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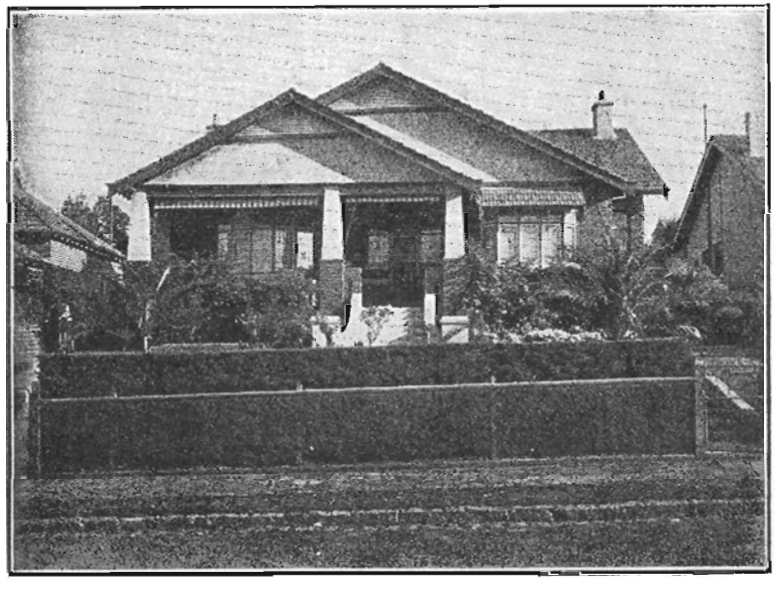
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Courage

THIS is the day of the spectacular. Men and women are doing amazing things on land, sea and in air that nobody dreamed of, a century ago. The world acclaims and lionizes them, and the more daring the achievement, the louder are the plaudits and the faster rain the shekels. If a man fail in a venture, well, poor chap, he was rash, short-sighted or, perhaps, merely a fool.

POPULAR appraisement of the unusual, of the spectacular, is ninety per cent. superficial. The courage that yields success is certainly rightly admitted and extolled, but discrimination is usually lacking. Kingsford Smith and Ulm caught popular imagination with their trans-Pacific and trans-Tasman flights: so did the man who went over Niagara Falls in a rubber ball.

AGAIN, the courage that, with bad luck, ends in failure, is too often forgotten or ignored. And the courage that fires obscure accomplishment is never known. Yet it is the sustained courage of millions of men and women who have maintained and are maintaining, as Emerson says, "equality to the problems before them," that is just as responsible for human progress as the courage of the spectacular. The pioneer who, without the civilised pale, subdued his land, the Mallee farmer and his wife toiling, undaunted, against a bad season, the engine driver, with hundreds of souls in his safe-keeping, straining nightly through the murk to catch the green light, the wage-earner struggling against his family's sickness to keep a brave and uncomplaining front—these are the men and women whose achievements rank with the loudly acclaimed. No sincere, courageous effort is lost in the cosmos where the worth of deeds isn't appraised by popular vote.

COURAGE, after all, is standing up to one's job.

A City's Gateway



—Photo., A. L Reid

THOUSANDS of people pass through this arch at Flinders-street Station to and from their daily round of business and pleasure, yet how many realise its architectural beauty, or that of its striking leadlight which the shadows in this photograph throw into prominent relief?

AVIATION *In* AUS-TRALIA

By

Capt. H. LARKIN



—Photo., Spencer Shier

Capt. Larkin

"THE aeroplane is not in competition with surface transport, but is purely supplementary: it bears the same relation to the train that the telegram bears to the letter—one service creates business for the other," says Capt. Larkin in this article specially written for the V.R. Magazine, in which he outlines the progress of, and, incidentally, predicts a boom in Australian aviation.

THE first successful flight in a heavier than air machine was carried out by the Wright Brothers in America, on December 17, 1903—25 years ago. A study of the development of trains, steamers and motor cars shows that a "boom" sets in about 25 years after the first successful experiment with the respective vehicles. In other words, the public takes a quarter of a century before it will trust any new development in transport. Following this line of reasoning, and bearing in mind the interest now being taken in the development of flying, an aviation "boom" may be safely forecast for the immediate future.

Ideal Country

Australia is an ideal country for the development of aviation, but it is regrettable that the population is only six millions instead of 60 millions. It is fortunate, however, that our small population includes a large number of travellers, and the further outback, the greater the roving spirit seems to be. In the cities a trip to a country or seaside town 50 miles distant is regarded as a fair day's outing, say once or twice a month. In Central Australia, many men (and women) make trips involving 200 or 300 miles in a day of 24 hours, but their idea of pleasure trips is a run into Queensland or up to Darwin.

Safe and Reliable

Since the first successful flight by the Wright Brothers, considerable time has been spent on experimental research work. The Great War acted as an impulse, energy and unlimited money being directed towards the improvement of aircraft. Since the War the aeroplane has definitely taken its place as a rapid means of transport, air travellers are steadily increasing in numbers, and in order to satisfy public demand, the accommodation in modern passenger-carrying aircraft is now just as luxurious as it was precarious 20 years ago.

The safety and reliability of present day aircraft are demonstrated by the records established by the regular aerial mail services throughout the world. There have been accidents, but these are rarely connected with organised aerial mail routes—they are usually due to ill-conceived and irresponsible flights over unorganised routes. Such flights should not be permitted by the authorities. Actually the regulations under the Australian Air Navigation Act, 1920, do prohibit them, but for some obscure reason they are not being adequately enforced.

Organisation is Vital

Without ground organisation (i.e., aerodromes, hangars, fuel supplies, spare parts, etc.), an aeroplane is of little value. There is an immediate demand for the establishment of aerodromes throughout the length and breadth of Australia, and it is regrettable that energetic action has not been taken in this direction during the past eight years. Considerable development would have resulted ere this, and the



Probably nobody in Australia has used the aeroplane for his work more than the Commonwealth's first citizen. The photograph shows Mr. and Mrs. Bruce embarking on a tour.

expenditure of public money on the development of aviation would have resulted in a much wider interest.

In some quarters there is a tendency to develop multi-engined aircraft under the pretext of additional safety. An aeroplane with a single engine of 500 horse power is capable of carrying a paying load of, say, one ton over 500 miles, non-stop, at an average speed of 100 miles per hour. To be a commercial proposition, a machine fitted with three similar engines should carry treble the load over the same distance at the same speed. In actual practice the triple engined machine will not carry double the load, and its speed is considerably below that of the single engined machine. Furthermore, the original capital cost of the triple engined aeroplane is considerably in excess of three single-engined machines.

Single-engined 'Plane Best

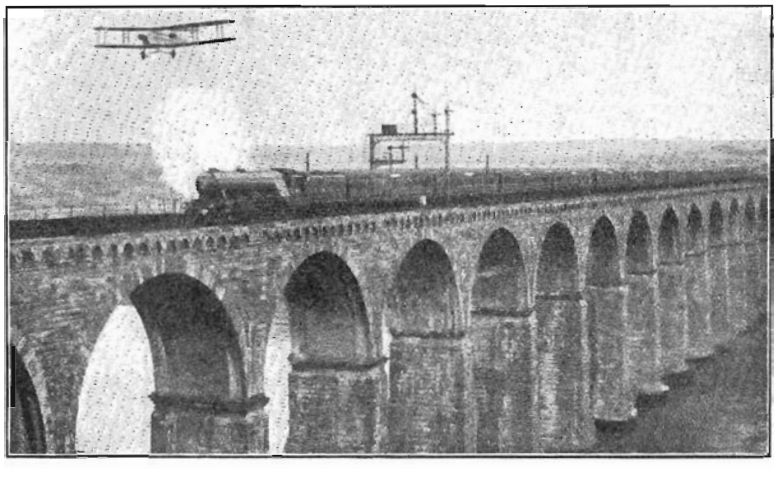
An analysis of the cost per ton-mile clearly rules the multi-engined aeroplane out of court as a commercial proposition. The record of safety created and maintained by the aerial mail services in Australia demonstrates the reliability of the single-engined aeroplane beyond doubt.

When the public has learned more of the technicalities of flying (and appreciates that aircraft do not fall to the earth like stones when engine troubles develop), and when government subsidies diminish or cease altogether, there will be a sudden rush for single-engined aeroplanes carrying the greatest load at the most economical commercial speed. A 500 h.p. single-engined monoplane carrying about 2,200 lbs. at a crushing speed of 90 m.p.h., with a non-stop range of 600 miles is most likely to suit Australian conditions for some years to come.

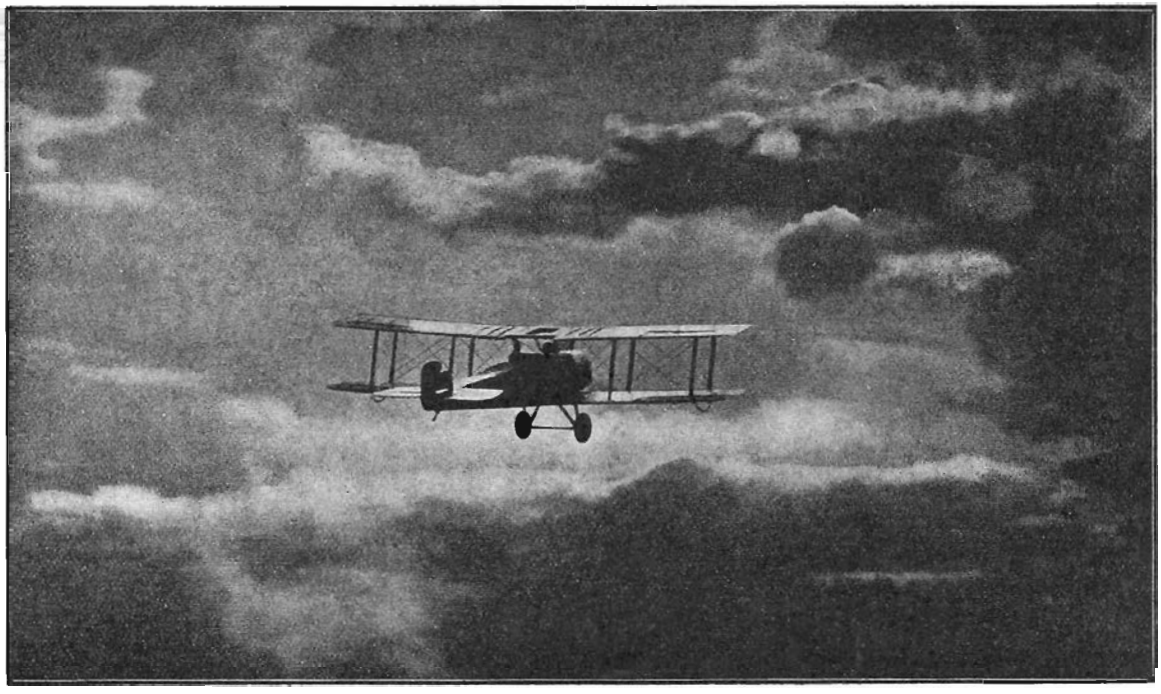
When Speed is Expensive

As in the case of trains, steamships and motor cars, air speed in excess of a certain economical basis is very expensive. For instance, an increase of 100 per cent. in the horse power of an aeroplane will increase the speed of that machine by only 25 per cent., notwithstanding that petrol consumption, maintenance costs, capital cost, etc., are nearly double.

There is a widespread belief that flying will not be safe until helicopters are perfected. Flying is safe now, provided it is conducted reasonably. It is not necessary for aeroplanes to descend or ascend vertically to ensure safety. Provided an aerodrome is available, an aeroplane can be brought into land just as a ship is brought into port. Certain precautions are taken in respect of ships; for example, steerage way must be maintained particularly when navigating near the land. An aeroplane is much the same. Flying speed, which is the equivalent of steerage way, must be maintained by the pilot of the aeroplane, particularly when flying near the ground. Of the thousands of steamers plying for hire day by day, very few accidents resulting from loss of steerage way are



Imperial Airways, Ltd., and the London and North Eastern Railway Company, recently conducted a test of the comparative comfort and speed of air and train travel. As the famous "Flying Scotsman" steamed out at King's Cross station on its daily 396-mile non-stop run an air liner left Croydon on the same route for Edinburgh. The train arrived only 20 minutes behind the aeroplane. The photograph shows the "Flying Scotsman" and the air liner passing over the Royal Border Bridge, at Berwick-on-Tweed, into Scotland.



A D.H. 59 in Flight

recorded. In the air there have been too many accidents from this cause, due to incompetent or reckless pilots. When the Air Navigation Regulations are enforced, and pilots are compelled to take the same safety precautions as masters of steamers, accidents from stalling (i.e., loss of flying speed or steerage way), will become an almost unknown quantity.

Pilots Carefully Selected

From now on, the public cannot refrain from flying because aeroplanes are unsafe. They may have some justification for remaining on the ground because some pilots cannot, or will not, fly safely, but this must soon right itself. There need be no doubts on this score where mail services are concerned, because the managements, regardless of the law, see to it that pilots are carefully selected.

Most people realise that the aeroplane is not in competition with surface transport, but is purely supplementary to it. The aeroplane bears the same relation to the train that the telegram bears to the letter ; one service creates business for the other. The aeroplane enables a business executive to make journeys he might otherwise be unable to contemplate on account of the time involved. Having made the journey and sown the seed for a business transaction, train journeys by members of his staff will in all probability follow, and these visits in turn may result in considerable goods traffic in merchandise, grain, live stock, and so on.

Agistment by Air

During the recent drought in the Riverina, a station-owner made a flight over 200 to 300 miles of country looking for grass for his sheep. From the air he saw clearly where rains had fallen, and which country was in the best condition. He landed at a town, made the necessary arrangements for grazing his sheep on the new pastures, odged an order for trucks, and his flocks were transported by rail a few days later.

The Developmental Factor

New developments help the old ones—Aviation will assist men to see more of their own country in a short space of time. The best of the country will be taken up and developed ; roads, railways, picture theatres and gaols will be built, providing more and more employment until we take a place alongside Great Britain and the United States as one of the greatest English-speaking nations of the World, with a population of 50 millions or more.

To build this nation of the future anp defend it while it is being built, we shall spend our money to the best advantage if we develop aviation.



MAIL TRANSFERRED FROM BALLOON TO TRAIN

THE transfer of mail from a moving dirigible balloon to a moving train was recently accomplished on the Illinois Central System near Lenzburg, Ill. The experiment was carried out by the railroad in co-operation with the Paramount News motion picture people and the army authorities of Scott Field, Belleville, Ill. After following the speeding train for approximately thirty-five miles, the dirigible descended successfully to within a few feet of the roof of one of the cars, where the mail sack was received. The presence of telegraph and power wires, overhead highways traffic towers and railway cuttings complicated the experiment.

Things *we are* Talking About

IN THE NICK OF TIME

SELDOM has Victoria known such a dramatically sudden change in economic outlook as was occasioned by the October rains which came in the nick of time. Uneasiness was in the air even late in August, and when September began to wane with high pressures still dominating the meteorological horizon, dismay at the almost certain prospect of another partial crop failure was frankly expressed, despite the optimism of Mr. Hunt. The financial depression began to deepen, rail freight traffic shrunk further, business slackened even at the Royal Show, and northern sheep men began to look for agistment for their flocks. Every day the wheat farmer looked anxiously into the sky, and every evening his pessimism deepened. The railway reduced its crop estimate by millions of bushels as the grain began to wilt. And then the sky broke and with it the general pessimism. The State is now assured of a good harvest, good pastures, and a good income for a year at least. All of which goes to show that no community should allow its collective tail to droop too soon.

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SUBSIDISING THE ROAD MAN

SOME idea of the extent of the subsidy which the people of Victoria are indirectly paying the road competitor is conveyed by figures in the Annual Report of the Railways Commissioners for last financial year. Roughly, 62 per cent. of Victorian railway capital outlay is invested in track structure. The cost of the lines which have been built in the State now totals £44,934,084; and last year an expenditure of £2,109,404 was necessary for the maintenance of way and works. In other words, 40 per cent. of the Department's passenger revenue, or 36 per cent. of the goods and live stock revenue for the year was spent in track maintenance. On the other side of the picture is the enterprising private competitor operating on a public road, built and maintained at public expense. What would the local greengrocer say if a competitor began to undercut him by calmly starting an opposition business, rent free, in the town hall, post office or police station?

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DECREASE IN PASSENGER BOOKINGS

THE decrease of 400,000-odd passenger journeys in the suburban area, disclosed in the Report, was spread evenly over all the metropolitan lines. Only a few stations registered even small increases. Flinders-street, the most important station, had 11,740,000 journeys during the year, compared with 13,405,000 the year before. St. Kilda, next in order of importance, dropped 129,000 journeys; and Footscray, third busiest passenger station in the suburbs, recorded a decrease of 55,000. Essendon, incidentally, has now moved up to the position of fourth station in the electrified area, leading Ascot Vale, which was fourth the year before, by 96,000 passengers journeys. Elsternwick remains the sixth station, Moonee Ponds the seventh, Caulfield the eighth and Malvern the ninth; but Princes Bridge, behind Spencer-street, Balaclava, Albert Park and Coburg, in that order, at the end of 1926–27, has caught and passed Spencer-street, and is now tenth. Coburg, too, has advanced from thirteenth position to eleventh. Albert Park is twelfth.

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H.C.L.

DESPITE the decrease of £350,000 in working expenses for the year, compared with 1926–27, the influence of h.c.l. is very pronounced in the pages of the Annual Report. The Department's coal consumption, for instance, was 695,183 tons, costing £975,662, or an average of £1 8s. 0.83d. per ton. Had coal supplies been available at the 1913–14 rate—13s. 1.3d. per ton—the Department would have saved £520,028. Pre-war coal prices, in fact, would have cleared away the deficit on the year's work. It is of further interest, by the bye, to note that the total amount of interest which the Department has paid on capital investment in the past 15 years is £37,697,539—nearly one-half of the interest bearing capital itself (now approximately 73½ millions).

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PRAISE, INDEED

A GRACEFUL little tribute to the excellence of the Victorian Railway dining car service was paid at the conclusion of the Sydney Eucharistic Congress by a distinguished visiting delegate who travelled on the express from Melbourne to Sydney, and who, following the tradition established by his "cloth" through several centuries, should possess a discriminating and authoritative opinion on good food and good cooking, quite apart from the fact that he is an experienced traveller. At all events, he asked for and secured from the dining car steward a set of menus which, he said, he would take back with him to Rome. At the same time he declared that the dinner on the train had been the best meal he had eaten on any train in the world. That is the kind of thing, of course, which is helping to build up Victoria's railway reputation overseas, a reputation that will help to stimulate valuable tourist traffic.

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FALLING DOWN ON THE JOB

DECIDEDLY it was a matter for congratulation when the Manufacturing Confectioners' Association of Australia elected to hold its annual conference last month at The Chalet, Mt. Buffalo National Park. But decidedly it was not a matter for congratulation when the special train carrying 80 Melbourne delegates to the conference arrived at Porepunkah about two and a half hours behind time. An unfortunate delay, which should have been avoided and which could have been avoided, marred the commencement of an otherwise thoroughly successful week's combination of business and pleasure for the visiting delegates. The conference was the first of its kind to be held at The Chalet, it was—and is—expected to be the forerunner of many similar conventions, and yet, most inauspiciously, it was the very occasion when a cog in the railway service machine failed. Someone fell down on the job.

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WHAT THE TROUBLE WAS

MELBOURNE looked after its share of the arrangements satisfactorily. Mr. Clapp, who took a keen personal interest in the conference from start to finish, inspected the special train before it left Melbourne, and congratulated the staff on the appearance and condition of the carriages and engine. Running smoothly to schedule, the special reached Benalla on time, to find a depot with no Maitland coal available, and to meet a relief engine with an apprehensive crew and a tender full of very inferior coal. As far as Bowser, the strenuous efforts of the crew kept the wheels in time with the timetable, but skilful firing and careful driving could not overcome the handicap of inferior coal on the stiff climb to Everton, and finally, to cut a long and gloomy

story short, the special crawled heavily into Porepunkah two hours and 23 minutes late—altogether a most unsatisfactory and thoroughly depressing performance.

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PHILOSOPHIC DELEGATES

THE whole affair, of course, has been thrashed out officially. Mr. Clapp, in fact, was waiting at Control for news and explanation of the delay when the special arrived at Porepunkah. Fortunately the delegates themselves were either in philosophic mood or else ignorant of the extent of the delay: those who weren't dining while the engine was laboriously overcoming the gradients on the Bright line, were for the most part watching the screening of departmental films on the train. Obviously, however, neither the absence of complaints from the delegates nor the unqualified success of their subsequent enjoyable stay at The Chalet can serve as an excuse for blinking the eye at an example of poor service. To shirk the unpleasant task of mentioning the incident as fairly as we mention the overwhelming proportion of outstanding examples of *good* service in these columns, would be as big a mistake as to imagine that the fault is likely to recur on a similar trip.

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THE BEST YET

ONCE at The Chalet, delegates and their wives gave themselves up wholeheartedly to the enjoyment of the surroundings and the invigorating atmosphere, when they weren't actually in conference. On one day 125 of them went across to Mt. St. Bernard, constituting the largest party that has ever climbed the mountain at one time. All of them were eulogistic of The Chalet management and service, and of the arrangements made for their welfare by the Tourist Bureau. "It was the best conference we have ever had," was the comment heard on all sides.

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RESONIAN LORD MAYOR

MELBOURNE'S new Lord Mayor (or rather, Lord Mayor elect until November 9), Councillor H. D. Luxton, is an enthusiastic Resonian, and although the duties of office which constitute anything but a sinecure may prevent his joining tours in the immediate future, he still retains very pleasant memories of the sixteenth, which traversed the north-eastern district of the State, and on which the photograph we reproduce was taken. The party was visiting the well-known Kurrumboola station. Councillor Luxton is holding the famous racehorse "Stare."



Melbourne's new Lord Mayor, Cr. H. D. Luxton, enjoys a Reso Tour



The suggested elevation for a building on the east side of Swanston Street, near Princes Bridge, to house the Tourist Bureau, and other offices

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THE CITY'S GATE

SOMETHING really definite and tangible has, at last, emerged from the welter of discussion and conflicting opinion about Melbourne's southern gateway. Most people seemed agreed that some sort of improvement was necessary, but according to the domination of financial, aesthetic, or merely utilitarian influences, protagonists of individual schemes seemed unlikely ever to agree. Experts from the Railways, Tramways, City Council and Town Planning Commission—bodies which are the most affected, and bodies which are obviously the most competent to make a pronouncement—who were appointed to thrash out the whole question from every angle, have decided that a set-back of the Princes Bridge roadway by 33 feet on the eastern side, and the erection of a Government Tourist Bureau architecturally in keeping with the surroundings on the new alignment and over the railway yard, is the best solution. Of course there are still honest critics of the proposal outside the conference bodies, but that is inevitable where so many interests are concerned. The main point is that as a result of the conference a chaotic sea of words has been transformed into a basis for action.

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20,000 SUGGESTIONS

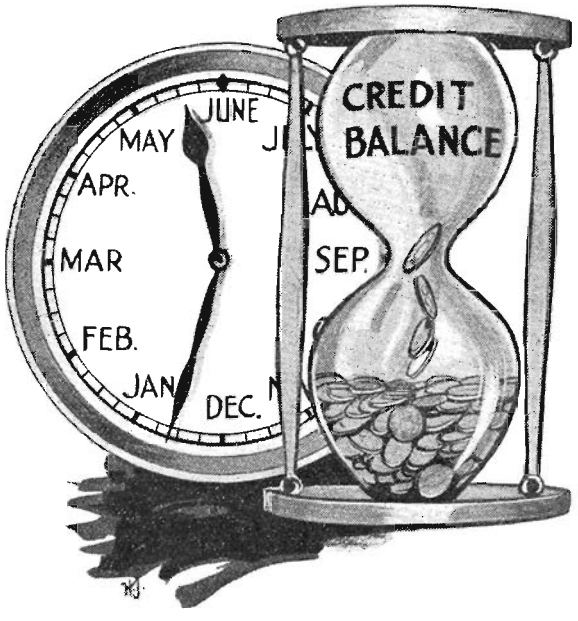
THE first suggestion for improvement in railway working was made to the newly created Suggestions Board on April 1, 1921. The 20,000th was received last month, thereby, on one score alone, more than justifying the existence of the present Railways Betterment and Publicity Board which, by application in the proper quarters of many of the suggestions received, or modification of them, has been able to save the Railways organisation hundreds of thousands of pounds. Awards made for suggestions adopted now aggregate nearly £16,000, of which £2,402 was distributed last financial year.

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A 513-TON TEST

FIVE hundred and thirteen tons of railway engine rolled heavily over the virgin rails of the new Dynon-road and Maribyrnong-river railway bridges last month. Four ponderous "C" class engines made up the tonnage, and the heavy quartette was halted dead in the centre of the main span of each bridge, while keen-eyed rail engineers studied the responses of special testing instruments, which measured deflections and stresses of the structure. Later the engines were cantered across the bridges, like a mighty iron four-in-hand, at a speed of 20 miles an hour, and the resultant oscillation was critically observed. The tests proved eminently satisfactory, and the line, which is designed to relieve the traffic on the main Ballarat and Bendigo tracks, was opened for regular goods traffic towards the end of the month.

1927-28 was a Fortnight TOO SHORT!



By Hugh Richards

THERE weren't enough days in 1927–28. That was the whole trouble.

Had there been 380 days in the last financial year, instead of 366, the Victorian Railways ledger would have balanced nicely. The revenue of 14 extra days (unaccompanied by the working expenses of 14 extra days) would have absorbed the half-million deficit. Two extra weeks would have just made ends meet.

AS it was, the 366-day year brought the Department in a gross revenue of £12,953,039 from all sources, an average earning of roughly £35,500 per day. Offsetting this income was an outgo of £10,166,136 in working expenses, plus £3,340,612 in interest charges and expenses.

Which is to say that the revenue of the Department for 286 days of the year was earmarked for working expenses, and of another 94 days for the interest bill. And, as 94 plus 286 makes 380 days, the railway money scarcity can be represented by a calendar scarcity of 14 days. In other words, additional revenue for a fortnight—*without*, though, additional working expenses for a fortnight—would have sufficed to lift the shadow of a deficit from the service.

Actually, the entire revenue of the service for 213 days was needed to pay salaries and wages alone. Amounting to £7,551,103, the payroll demanded all the revenue earned between July 1, 1927, and January 29, 1928. The coal bill (£975,662) appropriated the revenue for another 27 days—from January 30 to February 25. And the remaining working expenses carried the demands along for a further 46 days.

To meet interest charges in time to avoid a deficit, only 80 days of the financial year then remained. The Department was set the task of earning three-and-a-half millions between April 12 and June 30. And so its earning-unit of £35,500 a day saw it 14 days in arrears on the last day of the financial year. . . . . .

Coal and Wages Took Most

A multitude of items built up the 286-days' worth of working expenses. Coal and wages, already mentioned, were the two biggest individual items. Pensions and gratuities, totalling £213,080, cancelled six days' revenue. Superannuation (£122,870) counter-balanced the system's earnings for 3½ days. Gatekeeping expenses represented nearly 1½ days—£47,142.

Uniforms for Transportation branch men cost £26,282, or 75 per cent. of one day's revenue. Oil, tallow and waste absorbed half-a-day's earnings; water for locomotive power, nine-tenths of a day; legal and medical expenses, one-third of a day; lighting for carriages, half-a-day; repairs to, and renewals of tarpaulins and lashings, nine-tenths of a day; and the official contribution to the Railway Accident and Fire Insurance Fund, four-fifths of a day.

Varying proportions of fuel, materials and labor costs were combined in different branch activities. Maintenance and renewals of the permanent way, for instance, covered an expenditure of £970,371, equal to total service earnings over a period of 27 days. To meet "locomotive maintenance" (£663,633), the Rolling Stock branch laid coal-blackened and grimy hands

on 18 days' revenue; and to meet "refreshment room and dining car expenses" (£397,477), the Refreshment Services branch laid buttery fingers on 11 days' revenue. Working charges of the Main Power Station were £286,133, or the equivalent of eight days' revenue.

Finally, it took the Department 9¾ days for the maintenance of buildings, platforms and fixtures; three days for the maintenance of bridges, culverts and drains; 2⅝ days for the cleaning and so on for carriages; and 2½ days for electrical transmission, distribution system and sub-station expenditure . . .

This analogy between moneybags and days of the year can be elaborated further to cover the Department's revenue transactions for the financial year. Credit cheques, as well as creditors' bills, can be interpreted as calendar units. With the unit for one day still represented as £35,500, the railway goods and live stock revenue of £5,907,173 is translated into 166 days, the passenger revenue of £5,534,308 into 156 days, and the parcels revenue of £531,974 into 15 days.

Providing as it does a simpler standard of comparison, this translation reveals the relative importance of each division of rail traffic in its correct perspective. It is evident that, if the Department had concentrated its operations into set periods of the year, goods freight and parcels revenue combined would have maintained the average earning power of the service, unassisted by any other form of revenue, for 182 days, or, say, one day short of six months. Freight alone would have maintained that average for 10 days longer than passenger fares. And parcels, passengers, goods and live stock together left approximately 29 days of the year for mails, power supply, rentals, refreshment services and similar extraneous activities to find the average daily revenue of the service.

Freight Gave Six Months' Grist

Another appeal to the calendar, therefore, discloses that goods and live stock waybills earned the Department's revenue from July 1 to December 13, 1927; passenger tickets from December 14, 1927, to May 17, 1928; parcel stamps from May 18 to June 1; and minor miscellaneous operations from June 2 to June 30.

Of the miscellaneous operations, rentals supplied an amount representing four days' revenue; while the Refreshment Services branch returned its already mentioned appropriation of 11 days' revenue accompanied by profits representing an additional 2.3 days' revenue—receipts, all told, amounting to £471,929. Mails earned the revenue for 2.5 days of the year, station bookstalls for 2.4 days, advertising for 1.4 days, and electrical power supply for a bare day.

Contributions to the year's work from individual stations ranged from Spencer-street's 62½ days, as represented by £2,210,555, to Tanks-siding's quarter-of-a-second, as represented by 2/1d. Tanks-siding is situated on the Gembrook line and had four passengers during the year. Spencer-street is situated at the west end of Collins-street and had 1,590,820 country passengers and 2,115,192 suburban passengers during the year, besides £1,241,611-worth of freight on goods and live stock, and £184,975-worth of freight on parcels and odds and ends.

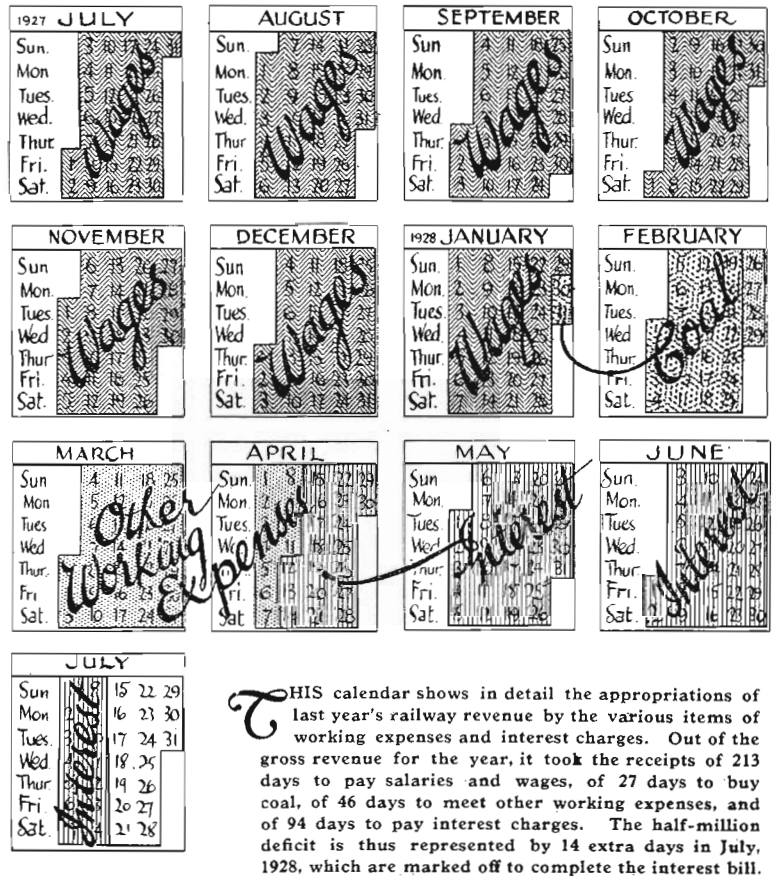
Melbourne's Contribution

Flinders-street, in effect, did the entire work of the Department for 13 days, the Tourist Bureau carried on for 8½ days, and Princes-bridge's proportion of 1½ days brought the collective share of Melbourne up to 85½ days. Spotswood's heavy goods tonnage placed it a clear two days ahead of any other station in the State, its revenue being equivalent to the revenue of the service for 6.7 days of the year. Footscray was next with 4.6 days; then came Ballarat, close up, with 4.2 days, and Bendigo and Geelong a day behind with 3.5 days and 3.2 days respectively. Newmarket's contribution was 2.9 days. Traffic from New South Wales stations could be placed at 7.8 days, and from South Australian stations at 6.3 days.

The Lowest Share

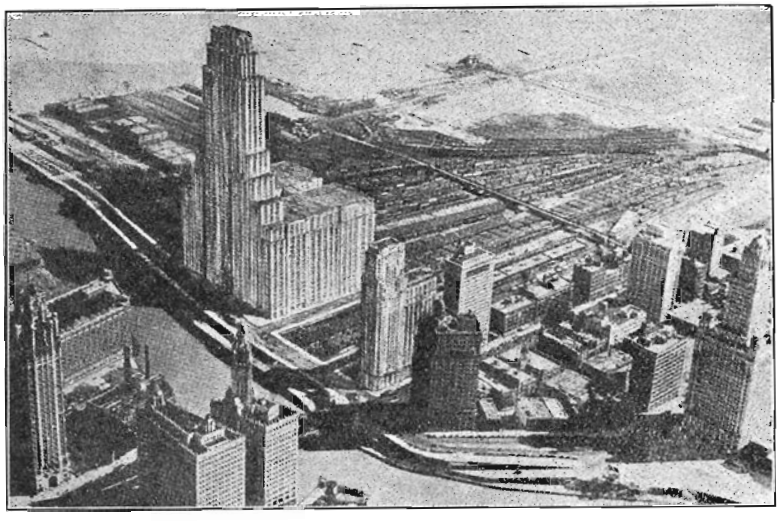
Galvin, on the Geelong line, ran Tanks-siding close for the distinction of having the lowest share of the year's revenue. It, too, had no more than four passengers in 12 months, but their tickets were worth fivepence more than those of the quartette from the Gembrook line station. Its time contribution, therefore, was equivalent to .3 of a second, compared with Tanks-siding's .25 of a second. Other stations whose unimportance lent them a certain conspicuity were Stopping-place, No. 18, out from Coburg, with .44 of a second (3/8d.); Targoora, on the Whitfield line, with .61 of a second (5/1d.); Gooding, on the Walhalla line, with .64 of a second (5/3d.); and David, on the Thorpdale line, with .73 of a second (6/–). . . . . .

Still, if there weren't any seconds, there wouldn't be any hours.



THIS calendar shows in detail the appropriations of last year's railway revenue by the various items of working expenses and interest charges. Out of the gross revenue for the year, it took the receipts of 213 days to pay salaries and wages, of 27 days to buy coal, of 46 days to meet other working expenses, and of 94 days to pay interest charges. The half-million deficit is thus represented by 14 extra days in July, 1928, which are marked off to complete the interest bill.

Lines From Other Lines



Chicago's new Apparel Mart as it will appear in 1930

World's Biggest Building to be Erected Over Railway Tracks

ERECTED over the Illinois Central Railroad tracks, in Chicago, the world's tallest and largest building—a structure 75 storeys high, or 15 floors nearer the sky than the Woolworth Building in New York—is expected to be completed by April 1, 1930. It will cost between £9,000,000 and £10,000,000. A 100-year lease has been negotiated with the Illinois Central Co. for the necessary air rights above the tracks for the building which will be known as the Apparel Manufacturers' Mart, its purpose being primarily the concentration of men's, women's and children's wearing apparel concerns. In addition, it will contain a 1000-room hotel, with facilities on the lower levels for the parking of Pullman cars, a 1200-car garage, two good sized auditoriums, an open air swimming pool on the roof and three clubs. The building will cover two entire city blocks. The railroad will have tracks on the lower level for the direct handling of all the products of the apparel industry within the building. A co-operative police patrol and alarm system to reduce the burglary and liability insurance to the tenants is planned. There will also be a first-aid hospital and an inter-mart telephone system between all tenants.

AMERICA'S "KING GEORGE V."

A SIGNAL compliment has been paid by the Baltimore and Ohio Railroad to the British Great Western Railway, which, last year, sent its newly-constructed "King George V." locomotive across the Atlantic for exhibition at the B. and O. Company's "Fair of the Iron Horse," where its appearance and capabilities evoked considerable admiration. The B. and O. has now built a locomotive embodying several features of the "King George V." as the following letter from the company's Vice-President (Mr. C. W. Galloway) to the Great Western Company indicates:—

"It might interest you to know that we have just finished a locomotive with water tube back end, eliminating entirely stay-bolts. This engine was designed by Col. George H. Emerson, our Chief of Motive Power and Equipment, and was built at our Mt. Clare Shops, Baltimore. I am enclosing you a photograph of it. You will note we have copied the front end from the 'King George V.' and we endeavored to copy the stack, but do not believe we got that quite right in the shape of the copper top. I might trespass upon you to impose the request, if you have a plan of this stack, to send me one that we might copy it correctly.

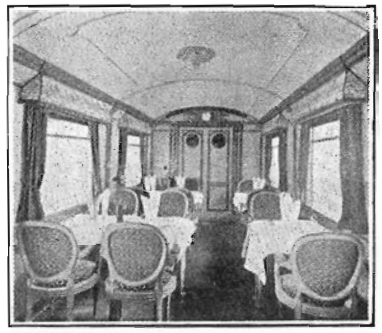
"You will also note that we have endeavored to eliminate all the trimmings usually found on the exterior of an American locomotive, and with the exception of the two air tanks for the automatic brakes, we have concealed everything. The air pump is between the frame opposite the centre of the two back drivers."



B. & O. Co.'s new engine, which embodies many features of the British "King George V."

NEW DINING CAR DECORATION SCHEME

AN entirely new style of interior decoration and the substitution of separate, movable armchairs for fixed seats has been introduced by the London and North-Eastern Railway on the famous "Flying Scotsman." Additional airiness and light have been obtained by raising the cornice line by arranging that the roof decoration becomes a complement of the pilasters and side walls. Delicately-toned coloring produces a harmonious atmosphere, and there is a complete absence of French-polished timber in the panelling or furniture. An ingenious lighting scheme which substitutes concealed lights behind artistic pelmets over the side windows for the older roof lamp fittings gives a restful, well-diffused light without shadow. Unobtrusive art shades are used in the color scheme such as soft blue and stone, red and stone and green and stone.



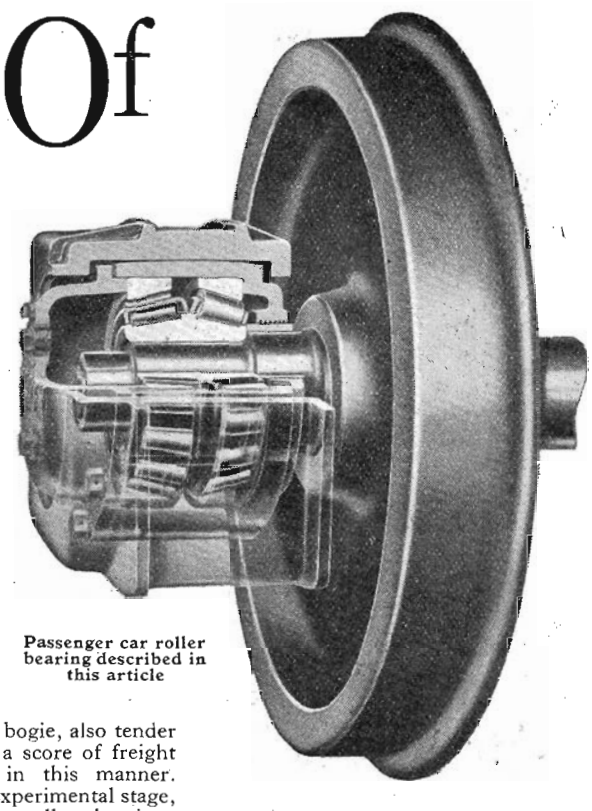
Restaurant Car on the famous "Flying Scotsman"

INSTALMENT HOLIDAY TICKETS

HOLIDAY tickets on the instalment plan is an experiment being tried by the London and North-Eastern Railway this year. At certain stations arrangements have been made whereby anybody can go to the booking office and buy a transport ticket to the value of 1/–, 2/6, 5/– and so on when he or she feels that the odd shillings will not be missed. Subsequently these transport tickets in the aggregate are exchanged for a ticket of the same value to the desired holiday destination.

The Trend Of Car Design

By R. R. Cannington



Passenger car roller bearing described in this article

AT our request, Mr. Cannington of the V.R. Rolling Stock Drawing Office, here gives, in article form, notes of some of the features of a particularly interesting lecture which he delivered at the Railway Lecture Hall at Jolimont, last month.

IN the year 1877 the first Victorian bogie car, known as the Ballarat American, was placed in service, the wooden body and underframe being built integral, and mounted on two four wheel bogies, having numerous parts.

In recent years, however, the manufacture of steel castings of large size, the strength of which one can rely upon, has enabled the accumulation of many parts in a single unit, thus dispensing with a vast amount of labor, with the uncertainty of error, and having the advantage of considerably lightening the structure. With a six-wheel built-up bogie, the frame, horn cheeks, spring shoes, transoms, crossbars with the attached brake and swing link brackets are now made of one casting, weighing approximately two tons, with machining reduced to a minimum. It is no exaggeration to state that from 1000 to 1200 separate parts are dispensed with by this method of manufacture.

A comparison of the latest channel side electric motor coach bogie with that of the cast steel type, lately installed on Suburban cars at Jolimont, shows a saving of 770 separate parts. What a gain where construction is concerned, but what an additional gain with maintenance! And what an advantage as regards the safety aspect!

Perhaps that portion of the passenger car now attracting most attention is the bearing or the portion in the axlebox which transfers the load from the stationary to the revolving members. I refer to the roller bearing. In America today, hundreds of passenger cars, a few engine pony and bogie, also tender wheels, and perhaps a score of freight cars, are equipped in this manner. Although still in the experimental stage, there are in service roller bearings which have been in active commission for well over six years, and which have given a life of over 1,000,000 miles.

How the Roller Bearing Works

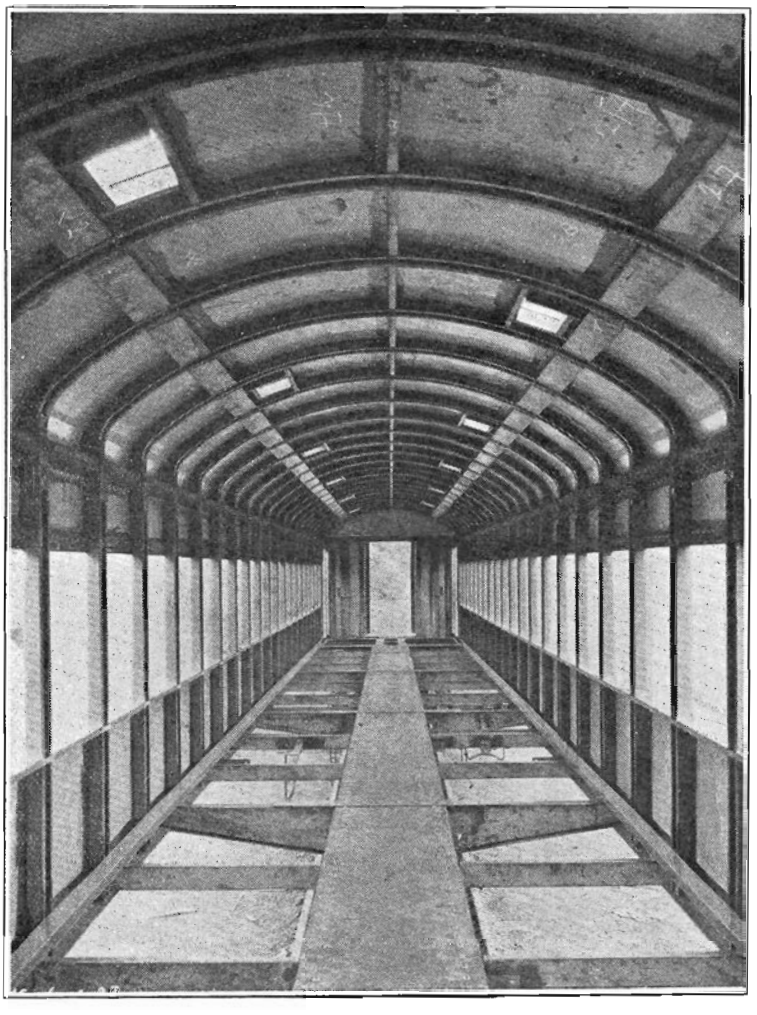
The illustration at the head of this article shows a passenger car roller bearing, which consists of an inner race press fit to the journal, an outer race in two cone sections press fit to an inner housing of the axlebox, two sets of tapered rollers held in a cage, these having a neat fit between the inner and outer races, and revolve therein. Lateral and vertical thrusts are taken by the rollers and transferred to the journal. Grease lubrication is used. Twelve bearings of this type will look after an 80-ton car, and require but little attention—say, once a month for additional lubrication—and inspection only when cars are shopped every 18 months to two years.

Among many other advantages advanced for the roller bearings are greatly reduced starting resistance, improved coasting qualities, reduced operating costs by a saving of labor in inspection, improved riding qualities gained by the elimination of lateral wear on brasses, and the elimination of hot boxes.

The field is ripe for some method of reducing the tractive effort needed of locomotives in starting a train, and the use of the roller bearing is an effective step in this direction. Consideration, however, must be given to track, grade and curvature.

The controlling factors in car design are: the vertical forces induced by body passenger or freight loads; the horizontal draw and buffing forces; the strength of available materials; and the maximum outline permissible to enable the vehicles to pass along the tracks over which they are to run. For freight cars, types of loading control capacities or floor areas, and climatic conditions also are governing factors. Hence in Australia the open type gondola is the general purpose car, while in America the box car is supreme. Moreover, in our country, while being able to absorb a small proportion of large capacity cars of 30 and 40 tons, in America the average car loading is around 28 tons, and vehicles of 70, 100 and 120 tons are not unknown with average car capacity of 45 tons. Our figures are 9 tons load capacity, and 14.5 tons car capacity average.

With the English system of side buffing and continuous drawgear, the practice with the bogie car is to have a light underframe to take these draw and buffing shocks with a separate wooden body bolted to the underframe. This light frame had the virtue in it that its lightness allowed of a give or elasticity in the members sufficient to resist the shocks induced by ordinary buffing, but as soon as these



Fabricated superstructure of a steel and aluminium passenger car

reached the n ture of a collision then the body was severed from the underframe which buckled. The ends of the body usually caved in, and in many cases telescoping of car bodies resulted, the underframes becoming wrecks.

Rigid Car Backbone

With the central buffer, design has always been for a very rigid car backbone. This centre member was of strength, not only sufficient to meet end buffing shocks, but also to provide rigidly to withstand collision forces, in addition to being able to carry the vertical loads transposed through the attached cross members.

In 1909 America went in for steel cars. With this construction, the weight of cars increased to some extent over that of the wooden car, but not excessively when it is considered that strength also was increased.

With a passenger car underframe of the end platform type, the whole of the end is formed by a one piece casting. Between these castings is a built-up girder of great strength.

The superstructure, as shown in the second illustration, is formed as a separate unit in the shape of a girder and held by side sheathing above and below the window openings. In comparison with the underframe, the sides are relatively weak, but are of adequate strength to support the body loading, prevent bulging and resist side-swiping collisions.

Owing to a prevalence of rear end collisons resulting in many fatalities, government regulations in America force the construction of strong anti-telescoping steel ends of exceptional strength, some of the structural members being upwards of 12 inches deep, and tied and braced well to the roof and underframe. This end will withstand forces of 400,000 lbs. acting 18 inches above floor line. These are well into collision figures.

Two floors are laid, the lower of steel plates on which is insulation and a thin Keystone plating on which is a composition flooring in the form of a cement. This is sanitary and sound deadening.

The roof is a steel girder with steel plating. To insulate the walls, ends and roof against heat and cold, a felt covering is pinned to the outer sheathing. This insulation varies from $\frac{1}{2}$ inch to $1\frac{1}{2}$ inches thick according to climatic conditions.

The interior of earlier cars was of wood. This was followed with steel grained to imitate wood, and later of steel painted in plain colors relieved with ornamentation.

Lighter Metal in Vogue

This type of construction is heavy; therefore the latest development is for using a lighter metal on all parts wherein the least strength is required. Thus aluminium and duralumin are used in large quantities with a corresponding decrease in car weight.

On many American cars, the sheets, pressings, mouldings, sub-flooring, doors and desk framing are all of duralumin, and will later be found that many of the structural shapes can be also used from this product. Already sections of up to 6-inch channels are being manufactured in the detruded form. I have seen a tram car in which everything except the wheels, axles, brake gear, window glass and the fibre seats was of duralumin.

The trend in design is toward the metal car in which those members taking the primary forces will be of steel in the form of structural shapes or steel castings (it is not at all outside the bounds of possibilities to cast the whole underframe in a single unit), and those parts which take only the secondary forces or are used merely for ornamentation and to give shapes, will be of a much lighter metal than steel.

That the all-metal car can have an internal appearance equal if not superior, to that with wood finish, is amply shown by the Pullman sleeping cars now in use between Melbourne and Adelaide. Here you have the art of the upholsterer and the painter combined with that of the sheet metal worker giving a most pleasing effect.

Briefly, the outstanding points with these all-steel safety cars are immense strength of underframe, body end graining, draft and buffing gear, the absence of door openings in car sides, the use of steel castings for reducing maintenance and increasing strength, fireproof flooring and interior fittings, and the elimination of noise.

Future cars will have lightness with strength, yet retaining all the degrees of comfort of the present day. With this it is necessary to concentrate on standardisation, so that first cost and maintenance are brought within the measure wherein it is possible to compete successfully with the road vehicle in giving service to the public.

Representative Railroaders

No. 14

Conductor J. COLLIGAN

By R. H. JUNIOR

Caricature by AUGUS MAC

BISHOPS, butlers and Jack Colligan have much in common. An air of ponderous gravity, of weighty dignity, of unshakeable imperturbability is their common heritage. Alike portentous and compelling in bearing and utterance, solemn and polysyllabic in diction, uncompromisingly respectable, inflexible and omniscient, they exhibit in greater or lesser degree unmistakable traits of a sombre Jehovah complex.

Contemplate Jack Colligan, for example, as he benevolently dominates the passengers in the parlor car of the Sydney Limited. Watch him as he assembles himself impressively on the threshold of the car, imposing and broadchested, conductor's cap surmounting a masterful brow. Regard the measured play of the muscles of his jaw as he pronounces, "Seymour. Five minutes. Daily papers may be purchased here."

Replace that conductor's cap with a bald, shining pate, spread a broad white shirt-front across that expanse of uniform coat, and then await confidently the cultured, suave announcement, "Tea is served in the Blue Room, madam," in the manner of one of Arlen's or Phillip Oppenheim's best-trained aristocratic servitors.

And then switch the butler collar round back to front, modestly black-out 75 per cent. of the shirt, perch a pair of black-taped spectacles on the imperious nose, and lean back in comfortable expectation of an authoritative and essentially orthodox discourse on the new prayer book. . . . . .

Sacrilegious, therefore, sounds the suggestion that Jack Colligan started his railway career as a goods laborer. The suggestion, however, is based on incontrovertible fact. Colligan himself is the first to proclaim it. It is incomprehensible that he should see nothing incongruous in that early beginning of his, when, back in 1885, he lumped fruit and flour in the Melbourne goods sheds, trolleying a laden truck in entire ignorance of the destiny which the Fates were preparing for him. So might a juvenile bishop-to-be have delivered bread on a baker's cart.

The wheels ground slowly but remorselessly. Within a year the unmatured Colligan qualities have attracted the attention of authority. Something in the young man's dignified control of his trolley appealed to the foreman. In '86 the Perishable Shed night shift was working under the stern supervisory eye of John Colligan.

Inside another three years, he had taken a bigger step forward, and was acquiring poise and assurance as Spencer-street's first perambulating porter, a sort of advance Man in Grey, without the grey. And a Colligan suggestion almost immediately foreshadowed the appointment of that present-day official. The perambulating porter discovered that his perambulations and his flow of cultured verbal advice were interrupted by continual requests for travellers to carry bags, mind babies and check tickets. To indicate that the perambulating one was not a porter,



Colligan urged "that a distinctive uniform be provided."

But here Tommy Boyce appeared on the scene as first Railways Inquiry Officer at Spencer-street, and Colligan moved along a path of promotion flanked with prostrate bodies. He was appointed sleeping car conductor on the Perseverance, one of the two sleepers which then ran to Portland via Ararat. Snores and billowing sheets wafted him towards the parlor car of the Sydney Limited.

It was while he was a junior conductor on the Perseverance that Colligan was primarily responsible for saving the Adelaide Express from a disastrous accident during the terrible May floods of 1891. Through pouring rain, the express, which had picked up Colligan's sleeper at Ararat, roared towards the long curving run into Bacchus Marsh. For days it had been raining, and a reservoir of floodwater had been dammed behind the high railway embankment known as the Dogtrap. Like blotting paper, the base of the embankment had absorbed the imprisoned water, and the insidious weakening of the foundations had brought collapse dangerously and unexpectedly near.

The driver of the express scented danger as he approached the embankment. He rolled to an uneasy standstill on the Dogtrap, and the stout, red-faced guard stumped along the sodden track to exchange views with him. The rain was falling in torrents, and sleepers and rails were quivering and trembling beside the menacing sheet of dammed water which spread its rain-lashed surface heavily to the right. An apprehensive guard eventually retraced his steps to protect the rear of the stationary train, and a dubious train crew considered.

Then along through the rain splashed Conductor Colligan in his overcoat. "Well, driver, what are the symptoms?" he asked. "The symptoms, my lad," replied the driver, with a glance at the straining track, "are those of a pudding in a boiler."

"Why not go on then?" urged Colligan. "The weight of the train must be weakening the bank. You can't do worse by going on. The chances are that we'll get through."

The driver was doubtful. The track might be worse further on. The devil you know . . . . . Still . . . . .

The guard was recalled and was inclined to favor the idea. He was willing to go on if the driver was. The driver decided that he was, and the express crawled safely into the Marsh station. Ten minutes after, the Dogtrap was swept by the floodwaters into the valley sixty feet below.

"Dogtrap," said the driver fervently to Colligan, "I don't know your name, but I doubt whether this express would be here now, if you hadn't been on board." . . . . . .

Continuously for 32 years now, Jack Colligan has held august sway in the parlor car of the Sydney Limited, a discreet and impressive major-domo. In his tie is a pin which was presented to him by Dame Nellie Melba. Gravely and ceremoniously he acknowledges the familiar salutations of the Commonwealth's politicians, business magnates and leaders of thought, as they travel between Melbourne and Sydney. Every regular Limited traveller knows him.

"Harold Clapp runs the Victorian Railways," said the managing editor of one of Australia's biggest dailies, "but Jack Colligan runs the Sydney Limited."

Farmer: Thought you said you had plowed the ten-acre field.

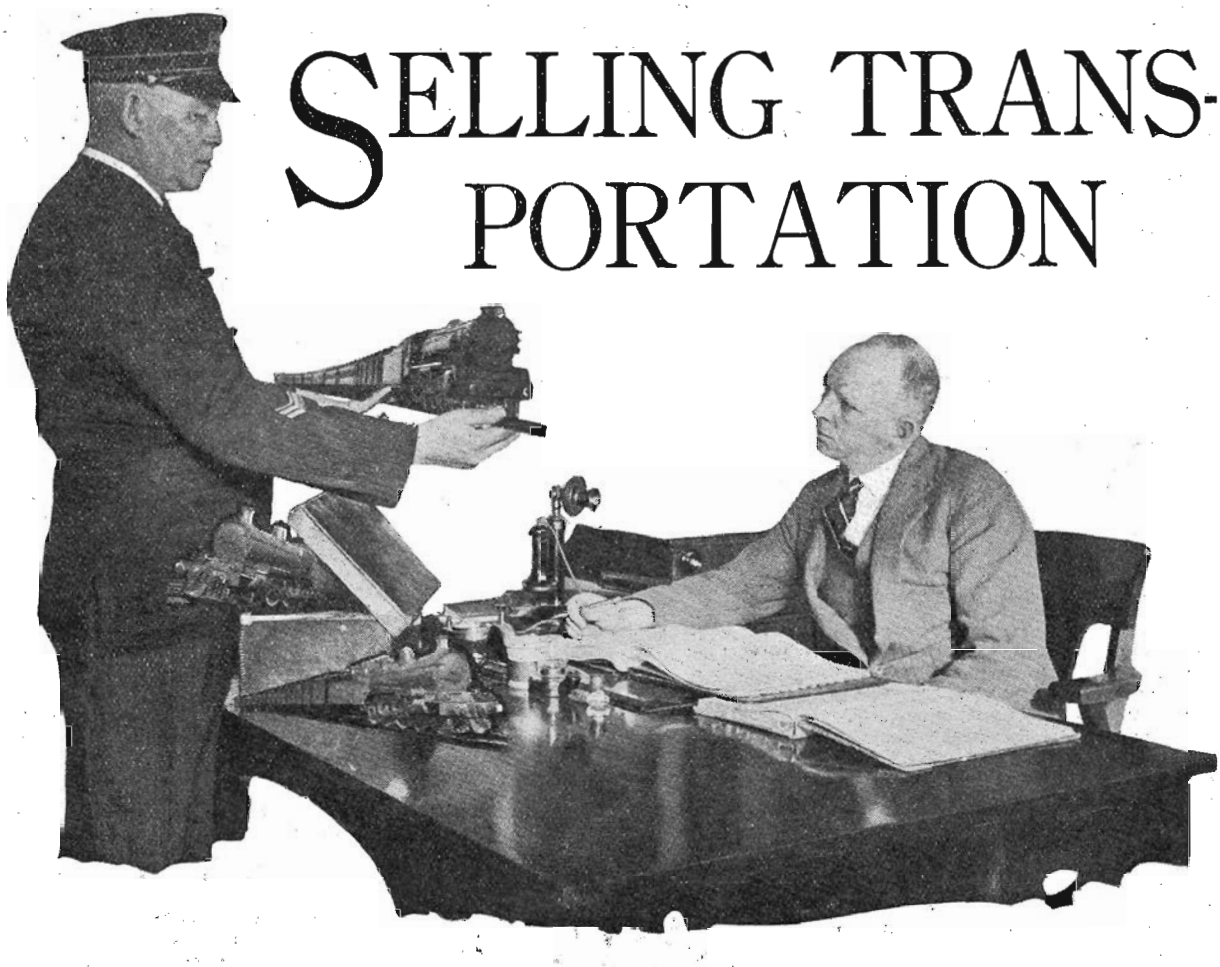
Plowman: No; I only said I was thinking about plowing it.

Farmer: Oh, I see you've merely turned it over in your mind.



FIFTY-THREE YEARS AGO.—A photograph of the Spencer-street station staff, taken in 1875. As far as is known, Porter Gregory (sitting on platform, third from left) is the only man still alive. He is now 89 years of age, and is living at Box Hill. At the time of the photograph, the station comprised two platforms. In the left background is the bookstall which was kept by Mr. Woinarski, father of the distinguished judge.

SELLING TRANSPORTATION



By RICHARD HUGHES

CONCEIVABLY, The Age of Salesmanship will be posterity's label for this third decade of the 20th century. Keen and effective salesmanship, in these days of fierce specialised competition, has been raised to the dignity of a semi-art. There is an insatiable demand for the man who can sell things, the man who can win business, the man who can make an actual customer out of a potential customer, and a potential customer out of a non-customer.

Big business, in fact, sees success or failure nowadays in the standard of salesmanship which it is able to maintain, whether that Big Business be represented by the merchant, the producer, the importer, the manufacturer or the exporter—or the railway.

This article, and a second one which will appear in the next issue of the V.R. Magazine, will apply the modern idea of salesmanship to railroad practice. The theme this month is the vital need for salesmanship, and all that salesmanship implies, in 20th century railroading.

PUTTING it broadly, there may be said to be three different and distinct forms of salesmanship. There is negative salesmanship, represented by a minus sign; there is positive salesmanship, represented by a plus sign; and there is super-salesmanship, represented—sometimes—by a multiplication sign. The negative salesman sits down and waits for business to drift along. The positive salesman invites business to enter. And the super-salesman drags business in by the scruff.

In the business world's struggle for existence—a sort of commercial survival of the fittest—the negative salesman is a fast-vanishing species . . . . perforce. The predominating type is the positive salesman, although the hustling methods of the super-salesman are coming more and more into evidence.

Super Salesmanship

Super-salesmanship it is which swells the morning mail of the politician and the public man with sales letters, throws a cordon of earnest, well-dressed young men around the housewife's door, pushing the go-getter with the glib word "personal" on his lips into the sanctum of the unsuspecting business man, and moves occasional bald-headed economists to anguished protest against the wholesale flouting of the sacred principle that demand alone must be the creator of supply.

The super-salesman's simple creed is that demand must meet supply. The fostering of a demand where no demand previously existed is his sole

raison d'etre. With the advent of mass-production and mass-distribution, he discovers early that the mountain of demand would not readily come to the Muhammad of supply. Obviously, the only thing to do was to take Muhammad to the mountain. And, at the same time of course, to make the mountain large enough to hold Muhammad's attention.

In short, super-salesmanship creates wants. It is primarily the weapon of offence of the *new* product or manufacture—the article which must either earn demand by waiting until the conventional advertising and publicity of positive salesmanship tells the public what it is, what it does and how well it does it, or else create demand by the high-pressure methods of super- salesmanship. Signs are not wanting that super-salesmanship points the way to positive salesmanship of the future, just as positive salesmanship pointed the way to the negative salesmanship of mid-Victorian days.

Positive Salesmanship's Growth

In those serene days of no-competition, when most communities had their one tailor, their one storekeeper, their one blacksmith, their one newspaper, their own bootmaker and their own undertaker, negative salesmanship jogged along with placid success, and advertising was unnecessary and wasteful. But in the wake of competition came the need for advertising—crude at first, bright, interesting and piquant later—and inevitably the first faint stirrings of positive salesmanship. The keener firms realised that the time had gone when they could sit back and wait for the business to come to them. Business had to be sought, encouraged, invited. The firms which were slow in this realisation gradually ceased to be firms. Survival of the fittest. . . . .

In much that same position of awakening positive salesmanship the railways of the world find themselves today. Increasingly there is recognition of the fact that, whereas in the past the railway had merely to concern itself with the *manufacture* of transportation, it must now learn to *sell* it as well. Competition in the carrying business has very definitely arrived. The internal combustion engine has thrown down a petrol tin as a gage of battle. The honk of the road motor is menacing the chime whistle of the steam locomotive.

No longer can the railway afford to wait for business. It must seek business. It cannot wait for the merchant and the traveller to buy service. It must go to the merchant and the traveller and sell service. It must hold what it has retained. It must win back what it has lost. It must shake off the incubus of negative salesmanship and find fresh impetus in the aspirations of positive salesmanship.

Moreover, there is the element of unfairness in the basis of road competition which places the railway at a further disadvantage. The rubber-tyred competitor sells its service on a road which is built and maintained for it at the public expense. The railway, on the other hand, must sell its service at a charge which will enable it to construct and maintain every foot of permanent way on which it operates. It is as though the long-established butcher found his prices being undercut by a rival who had set up an opposition business in the municipal town hall to avoid paying shop rent . . . . . .

Railway Salesman's Job

And so the transportation salesman takes his place in the motley ranks of shoe, soap, clothing, food and furniture salesmen. He sells miles of passenger travel or of freight carriage in exactly the same way as his brother-sellers vend their particular lines. He is selling the community one of civilisation's most vital services. He is providing a market for the merchant and a means of travel for the holiday-maker.

This idea of railway salesmanship naturally presupposes a personal consciousness in every railwayman of the individual part which he plays in the sale of transportation. For it is not only the commercial agent, the station-master, the booking clerk, the parcels porter or the goods checker who is a salesman. There are the indirect salesmen—the tradesmen, the professional men, the clerks, the electrical engineers, the storemen, the refreshment room staffs, the dining car chefs, the draughtsmen—all exerting an influence on the quality of the service which the direct salesmen are canvassing.

The railwayman who makes entries of lost property in a ledger, the railwayman who counts silver ceaselessly in the cash office, the railwayman who draws plans of buildings, the railwayman who inspects bridges, the railwayman who bakes raisin bread, and the railwayman who builds rolling stock are, without exception, members of a big carrying business, equally dependent for their livelihood on the successful sale of the commodity which they are jointly helping to produce.

Must Have The Goods

Transportation must be sold, but the quality of the purchased service must be the best. The keenest salesman, the most persistent super-salesman can seldom sell the public a bad article twice.

Here, finally, the element of self-interest lends stimulus and vigor to direct and indirect salesmanship. The business which cannot sell what it is producing is a failing business. The salesman who is unable to sell his line of goods is at a dead-end. Opportunity never knocks at the door of a failing business. The most it can do is to open the door. . . . . .

Sketchily this article has outlined the need for and the influence of effective salesmanship. But the actual functions of the keen transportation salesman, the methods which he will find most successful in the pursuit and retention of business, the achievements which have been realised, and which are being realised in the railway world generally, and the Victorian portion of it in particular—these aspects of a subject vital to the wellbeing of the modern railroad must await discussion in a further article.

The RAILWAY LOCOMOTIVE



I AM the indefatigable servant of man.
I have speed, endurance, strength and courage.
I work untiring, through tempest calm or storm.
I face, unflinching, all new lands, supplying to man a vital need.
I fear no distance, however great it be.
I am of giant stature, competent to perform my many and varied duties
I am the solution of one of man's most harassing problems.
I carry him in comfort where his fancy guide him.
I haul his goods to their place of sale.
I have broken the chain of bondage which once restricted man to a definite locality.
I foster a spirit of intercourse between men.
I encourage man in his productive effort.
I am the life-blood of industrial prosperity.
I afford work to some and pleasure to many.
I have developed to so great an extent that all countries recognise me.
I am firm in the knowledge that to man I am indispensable.
I realise my duty to civilisation, and am proud of my title—The Railway Locomotive.

—*M. F. Brennan.*

"Well, well, youngster, why the tears?" asked a charitably disposed gentleman of a street urchin begging for money.

"Why, mister, my poor father is dead, my mother is dead, my grandfather is in heaven, all my brothers an' sisters are gone and buried, an' if I have to go back home without any money they'll knock the stuffin' out o' me."

The METAL of the FUTURE

By LEO T. BREARLEY, Engineer of Tests, Victorian Railways

KNOWN only for a mere century, aluminium, the youngster of the metal world, is destined to play a very big part in future engineering construction. Although soft in its pure state, its alloys, since Wilm produced duralumin, in 1909, have steadily improved its value, and there is no reason to suppose finality has yet been reached.

Already aluminium, and most of its known alloys, can be made into sound reliable castings with more ease and certainty than can steel or even cast iron, and it has other advantages which Mr. Brearley here explains.

THERE is probably nothing in the crust of this world of ours so useful as clay. From it we make the bricks for the houses in which to settle our families and, of course, the half bricks with which to settle our arguments. It is the first stage of m'lady's frail china, and the last stage of our frail existence.

It is mostly silicate of aluminium, and from it metallic aluminium was first isolated by Wohler in 1828. Having been known for a mere century it is one of the youngest metals.

Other metals more easily reduced from the ore were accidental discoveries. Man could hardly help producing metals like tin and lead. Sooner or later a piece of ore was sure to find its way into the domestic fire and be reduced to the metal, or even be put in the fire intentionally; for we know that it was usual to boil water by dropping hot stones into it before there were any utensils available fit to boil water in by external heating.

So the earliest known metals were those most easily produced such as tin and copper, and the mixture of the two which we call bronze.

As man's metallurgical skill and knowledge increased, he found he could produce other metals even more useful; the most important of these was iron.

From Iron to Wrought Iron and Steel

In the course of time, man found out how to manipulate the crude and rather brittle cast iron, so as to produce the tough, ductile and forgeable metal we call wrought iron; the change is due to the removal of the carbon contained in the iron, though the early workers did not know this.

At a still later date it was found that if, after the carbon had been removed a little of it were put back, or if it were not completely removed, the metal produced could still be forged, and at will could be made tough and soft like wrought iron, or hard, much harder than most cast iron. This was the beginning of the Steel age. Of course the discovery of steel added enormously to the possibilities of tool making, both useful and destructive, from safety razors to howitzer guns, and mankind has both benefited and suffered much in consequence.

Useful as steel has been, it has certain disadvantages, the worst of which is the ease with which it corrodes (rusts); this has been overcome by the addition of chromium, by galvanizing and in other ways, but only at added expense.

It is also rather heavy, which prevents it being used in place of wood for many purposes.

Other Disadvantages of Steel

Its use is also limited by its high melting point, steel castings are fickle and difficult to produce, and are probably only tolerated because none of the known metals having low melting points have the required strength and toughness. Another consequence of its high melting point and its liability to rust is that its scrap value is comparatively low.

These are the features of steel which will probably result in its being replaced in the future, and its most likely successor is aluminium.

Within living memory, aluminium was only a laboratory curiosity, the methods of isolating it were tedious and costly, and, being little known, it was in no demand.

As better methods of manufacture were evolved and the price was reduced, there grew up a demand for the new metal, but so long as it was used in its pure state, its feature for extensive constructional work did not seem bright. Like most other metals in the pure state, aluminium is soft.

When the alloys of aluminium with other metals were investigated, it was found that its properties could be very considerably improved, and about 1909, a German called Wilm produced a forgeable alloy, now known as duralumin, having a strength equal to that of mild steel, and being only a little heavier than pure aluminium.

This alloy has since been improved on, and there is no reason to suppose that finality has been reached, aluminium alloys having strength and toughness equal to, or even greater than, any of the steels now available are not possible. The number of possible alloying combinations requiring to be investigated is immense, and the results so far produced are only the result of scratching the surface of the subject.

Duralumin contains about four per cent. of copper and about half of one per cent. each of magnesium and manganese, the remainder being aluminium. Its specific gravity is 2.8; the specific gravity of pure aluminium is 2.7 and that of steel is 7.8.

One of the interesting features of duralumin is that it does not develop its full strength immediately on heat treatment. An increase in strength is noticeable about an hour after treatment, and this increase continues to be noticeable for several days, usually rising in three days from 17 to 26 tons per square inch, after which the rate of increase slows down so as to be barely noticeable.

Protective Rust

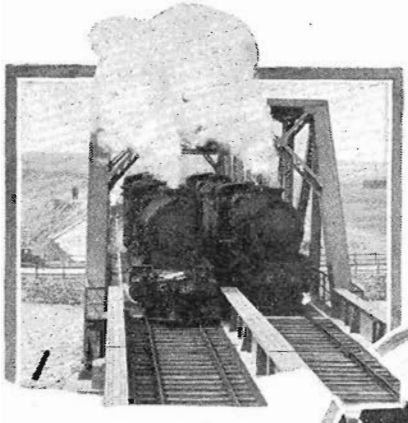
Like iron and steel, aluminium oxidizes on exposure, but with the difference that the oxide formed tends to protect it, and the wastage from exposure decreases and eventually almost stops, whereas the oxide formed on iron and steel (rust), instead of protecting, actually assists the further wastage of the underlying metal, and the rate of wastage increases with time.

A process of protecting aluminium known as anodic oxidation depends on the formation of an impervious skin of oxide, and is very effective.

Steel can be protected by its oxides in that it can be "blued" like a clock spring or "browned" like a rifle barrel. This certainly reduces the

Concluded on page 46

The MONTH









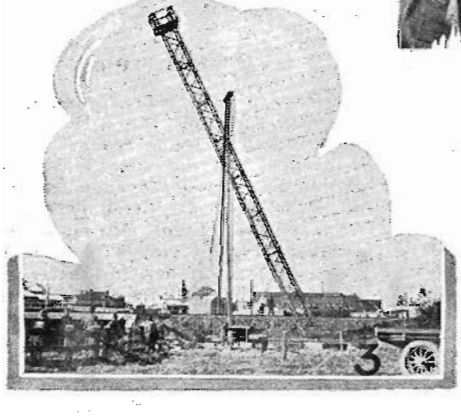


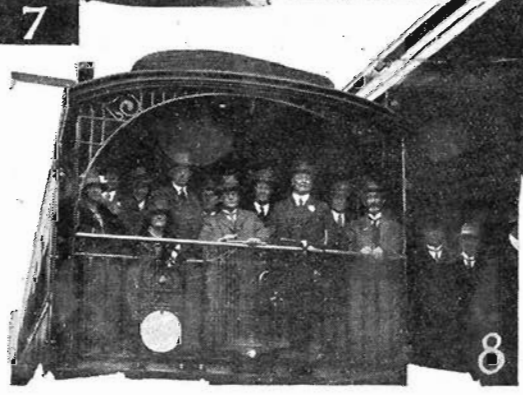












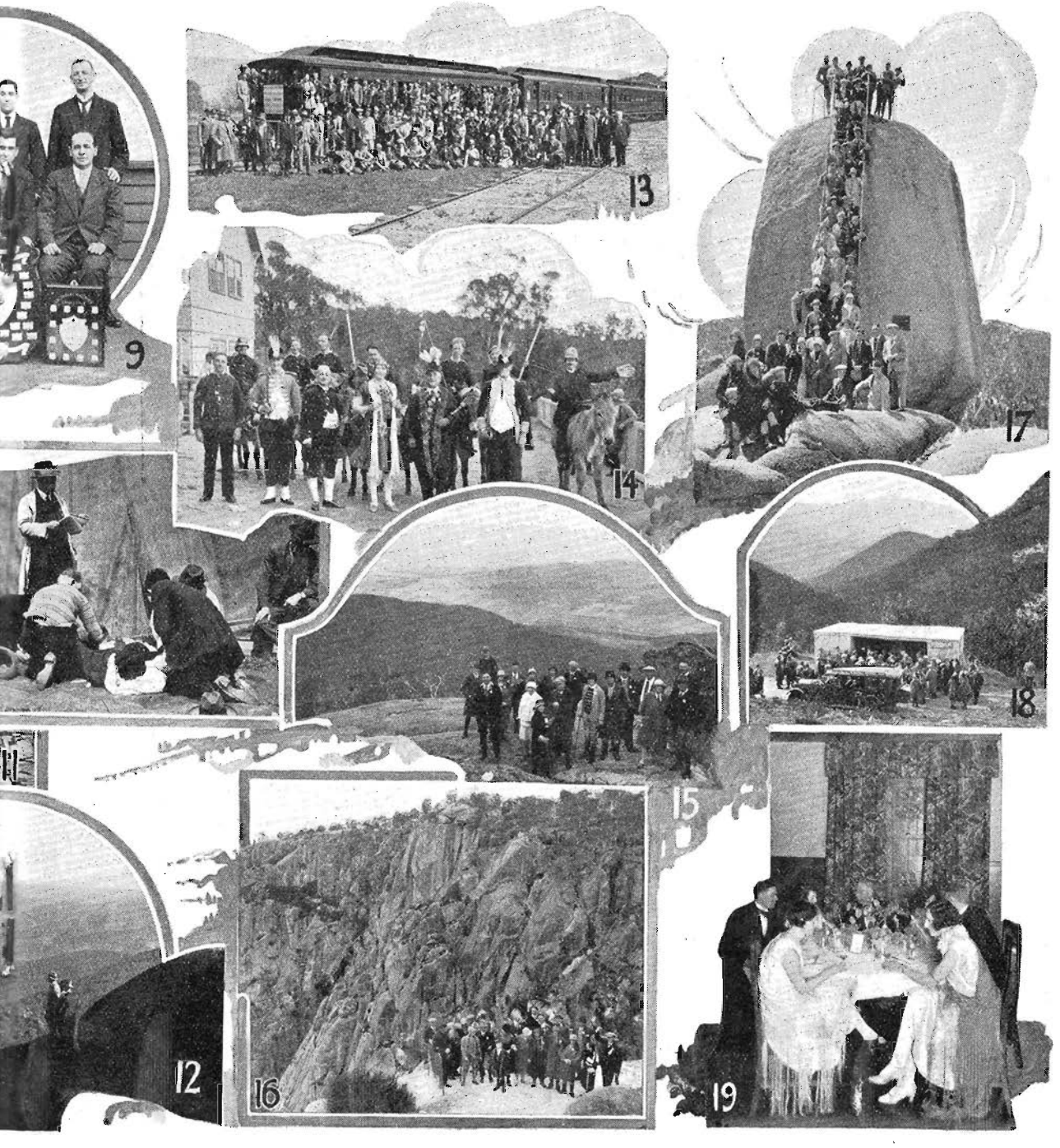


1. Testing the new bridge over the Maribyrnong River, at Footscray, on the Footscray-Tottenham line. Four C class engines were used.
2. Testing Engineer C. A. Masterton recording the strain effects as the engines passed.
3. One of the 90-feet steel masts being erected for the Dandenong railway yard floodlighting scheme.

4 and 5. Demonstrations of the "daily dozen" to members of the Railway Head Office Staff, during Health Week, by physical culture experts.

6. The louvre truck from which apples were successfully sold between Ararat and Hopetoun on October 16 and 17.

in PICTURES



7. The Papal Legate, Cardinal Cerretti, arriving at Spencer-street after the Sydney Eucharistic Congress. With him is Archbishop Mannix.
8. Departure of the Reso Train for West Australia on October 9.
9. Head Office Team, winners of the V.R. Ambulance Competition at Lilydale on October 17.
10. An event in the Competition.
11 to 19. Members of the Manufacturing Confectioners' Association who held their Annual Conference at Mt. Buffalo National Park, last month.

Railway Outposts

No. 6—DUNOLLY

DOTTED round and sometimes far-flung from the larger centres of railway activity in Victoria are the seventh, eighth and ninth class stations that feed in revenue as the watchful outposts of an army feed in intelligence to the main bodies they protect.

This series of articles is an attempt to summarise the work and characteristics of a few of these essential railway outposts.



1. The station yard. Dunolly's timber traffic is extensive.
2. S.M. McKay and Operating Porter Lyndon.
3. Dunolly station, "down end."
4. The station approach garden with the stationmaster's residence in the background.

LAST financial year, the seventh class railway station of Dunolly was one of the very few stations in the State to show a revenue increase over the preceding year. Station and staff triumphed over financial depression and crop failure with £16,291, compared with £13,631 for the year before. Gravel—12,600 tons of it—contributed £4,992, and other big helpings of grist came from 240 tons of soap and 7,887 tons of firewood.

For Dunolly has its soap factory and three firewood mills. The gravel which now spreads itself over Victoria's long ribbons of roads has in the past been feverishly ransacked by thousands of miners. Gold once brought a population of 55,000 to Dunolly. The Welcome Stranger nugget, the largest in the world, was found some little distance from the present township. Incidentally, there was, a week or so ago, a rush to peg out more claims in the neighborhood, following the discovery of £1400-worth of gold in a reef within six feet of the surface by two Dunolly Council employes.

Gold-Rush Legacy

The gold-boom days have left the town a legacy of many fine public buildings, and a compact little community of about one thousand is now prospering on the fruits of the more settled industries which followed that hectic era.

Local railway control is vested in Stationmaster F. C. Mackay, whose assistants are Operating Porter W. Lyndon and Lad Porter D. W. Robertson. From Dunolly the S.M. supervises seven other stations, including all the stations on the Tarnagulla line, which branches off the main track at Dunolly.

System is Supreme

System reigns supreme in the Dunolly offices—two airy, well-lighted rooms with plenty of elbow-space and plenty of cupboards. Papers, books and waybills are, for the great part, kept under cover, and constant war is waged against dust and litter.

On the plot of open ground which forms the approach to the station and separates the platform from the S.M's. residence, Stationmaster Mackay's predecessor, Stationmaster O'Connor, laid out a neat garden with gravelled walks, flowers and shrubs. So well tended has the garden been since, that a first, a second and a third prize for the district have been won in the annual station garden competitions during the past three years. And last year the S.M. planted 100 pines beside the line on the Maryborough side of the station.

Good Service Counts

A keen member of the local Progress Association, Stationmaster Mackay keeps in close touch with all rail customers in the district. The town is served by a licensed 'bus route, but, nevertheless, the railway passenger traffic at the station last year totalled 4,266 "in" and 4,976 "out" travellers. Good service has won appreciation and retained it.

The Dunolly staff is out for another £3,000 revenue increase this year.

NO TEARS

New Boarder: "When I left my last boarding place the landlady wept."

Landlady: "Well, I won't. I always collect in advance."

UP-COUNTRY

AS RECORDED BY RAILWAY DISTRICT SUPERINTENDENTS

Northern Outlook Improves

The beneficial October rains have entirely altered the crop outlook in the north. Wheatgrowers generally are now decidedly optimistic. Along the Balranald line many acres that were considered practically lost are now expected to return two to three bags an acre, while earlier sowings will yield a good average crop.

Show Traffic Smaller

Show passenger traffic from the country this year was lighter from all districts. Anxiety in the wheat areas was largely responsible.

New Industries

Nobels (Aust.) Ltd. have established a leather cloth factory at Deer Park. About 100 men are employed there at present and a daily average of 13 trucks of material is being received. Completion of the building is expected early in February. The new textile industry in Ballarat is doing a thriving business, and it has been arranged to extend the premises. The Ballarat Freezing Works have again reopened and large quantities of stock are being received.

Riverina Wool

The despatch of wool from the Riverina is nearly completed, and the final tally is expected to approximate that of last season. Rail handling of this traffic has been done very satisfactorily and without a single complaint from the wool agents. To date 82,000 bales have been despatched from Northern District stations.

Agistment Demand Ceases

During September, and prior to the recent rains, live stock traffic was very heavy in the Northern District, many large cosignments being trucked for grass country. With the rain, however, came a cessation of this traffic, and the value of both sheep and cattle has since risen appreciably.

Refreshment Rooms Popular

Refreshment Room patronage both at Bendigo and Echuca, has been a marked feature of the football traffic which has just finished for the season. Both footballers and "fans" have availed themselves fully of the service. Secretaries of the various clubs in the Northern District have expressed appreciation of the rail service generally during the past season.

More New Hotels

General expansion of business in the north has been followed by the erection of two new up-to-date and substantial hotels, one at Wakool and the other at Robinvale.

Maffra Beet Prospects

Although Gippsland suffered least in the recent dry period, a number of beet crops planted in the Maffra district failed to germinate for lack of moisture. The position, however, has now improved, and further planting, which is being pushed on rapidly, is expected to yield a good crop.

Favored Wonthaggi

Wonthaggi has been well favored with rain, even during the dry period. The total fall for the nine months of 1928 was about 26 inches. Butter factories report an increased turnover on last year's and stock are in splendid condition. Incidentally herd-testing in the district has proved so successful that a second unit of the Wonthaggi Association has just been formed.

Gippsland Wool Success

Gippsland is rapidly growing in importance as a wool district. The present season promises to be very satisfactory and profitable. A flock of 6,000 wethers, shorn a week or two back, averaged 112 lbs. of fleece.

Walhalla Timber Traffic

Timber traffic on the Walhalla line shows a good deal of buoyancy. From 12 to 14 trucks a day are being loaded at Collins' Siding, and the sawmillers report that they cannot fulfil all the orders they are receiving.

Heavy Potato Crop at Trentham

The potato crop in the Trentham district is very heavy this year. From Trentham station no fewer than 12,016 bags were despatched, making a total of 43,871 for the season.

Maryborough District Wheat Prospects

South of Woomelang, in the Maryborough district, an almost record wheat yield is now expected. Satisfactory crop results should be obtained in the Murrayville line districts, but along the Meringur line very little commercial grain is expected to be harvested, although further rains and cool weather until Christmas may considerably alter the position.

New Spa Becoming Popular

Tourist traffic to Vaughan Springs, near Castlemaine, has greatly increased of late. A 12-gallon a minute flow of mineral water has been obtained by boring. The Government Geologist has reported on the water as follows:—"It is highly mineralised, and, being highly charged with carbonic acid gas, provides a potable water not excelled by that of the best mineral springs in the State."

Good Market Outlook for Sultanas

Reports received in Maryborough from London state that "as regards good, medium and finer qualities of Australian sultanas, there is every prospect of realising satisfactory prices in the future, as there appears to be nothing to compete with them."

Wind Damage to Crops

Although rains in the Seymour district have generally revived wheat crops to a remarkable degree, and have, in some cases, increased the probable yield by 25 to 50 per cent., subsequent high winds have played havoc with advanced crops in other localities. Reports from Yarrawonga indicate that where a harvest of 360,000 was anticipated, the yield will now be less than 200,000 bushels.

Rain Benefits Orchardists

Orchardists in the Seymour district have benefited considerably by the October downpour. Not only was it opportune for swelling apricots and the buds on peach and pear trees, but it has obviated the heavy task of early irrigation. At Shepparton and Ardmona the showing of stone fruits is highly satisfactory, despite last season's heavy yield. Wind damage, however, is reported from some localities.

Successful Tobacco Growers

Backed by 20 years' experience of tobacco-growing, Messrs. McNamara & Sons, of Myrtleford, are producing a high grade of leaf. A recent sale of 29 tons of their product to the British Australasian Tobacco Company realised more than £6,000. Up to 3/3 a lb. was paid for the best quality leaf. This is the best season yet experienced by Messrs. McNamara.

Where to Spend a Holiday

DELIGHTFUL DAYLESFORD



Apart from its delightful climate and situation (2040 feet above sea-level) Daylesford is the Spa centre of Australia. Numerous springs are not only mineral and medicinal, but radio-active and energising—a property proved in only two other springs in the world. Picturesque walks and drives are a feature of the district. Sport, particularly fishing, is excellent, and accommodation is good. The photographs show: 1. Loddon Falls; 2. View from Wombat Hill; 3. Pavilion at Hepburn Springs; 4. Sailor's Falls; 5. Sailor's Creek; 6. Jubilee Lake.

Railmen of the Month

Third Time



THE stalwart form of Stationmaster Pat Cahill was perched high above the bustling crowds on the showgrounds platform again last month. For the third year in succession, the popular Patrick directed the Royal Show traffic and supervised railway arrangements at Flemington with characteristic Cahill capacity. He draws level, therefore, with Duncan Considine who also ran the show trains three years in succession. Stationmaster Ted Hally, now at Essendon, once had the job for seven years running.

Got His Penny

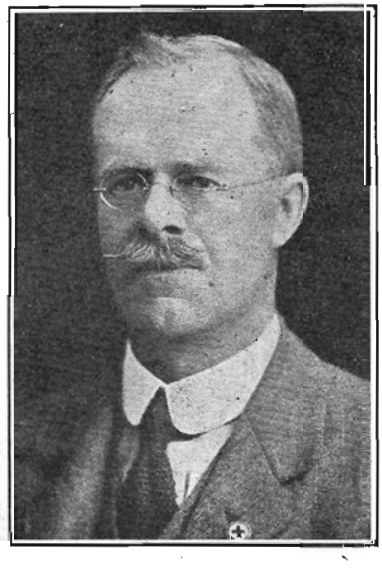
SAYING good-bye to its transferred Station-master, Bill Brittain, the other night, Mansfield chuckled at the point which the chairman of the meeting, Mr. D. P. Begley, raised in proof of the S.M's. tender solicitude for the departmental finances. "I remember once," said the chairman, "when Mr. Brittain went into four points in decimals to prove that I must pay an extra penny in freight. And I had to admit he was right." Everybody present applauded that testimony to the S.M's. departmental zeal as enthusiastically as they endorsed the chairman's further comment that the S.M. had shown a corresponding regard for the needs and wishes of railway users during the whole of his five-year term at Mansfield. Major E. T. Begley then came to light with a wallet of notes from the townspeople, the blushing S.M. made a thoroughly satisfactory response, and S.M. Bill Sechtig, fresh from Bonnie Doon, was welcomed to his new headquarters.

No More Truck Tracing

CHEERFUL Ned Regan, chief clerk in the Truck Records Room for years past, has perforce abandoned the ceaseless pursuit of elusive trucks and gone into early retirement after 44 years on the job. His health is causing his family and his friends some concern, and medical advice insisted that he take things quietly. Ned put in most of his career in the goods train world, and his sense of anticipation of the movements of temporarily missing trucks was uncanny at times. He and his little staff have put up plenty of records in the rapid tracing of "wanted" vehicles. Everybody hopes that he will now put up another record for speed in overtaking good health again.

Designed Flinders-street

CHIEF Architect J. H. Fawcett, just retired, was the man who, in conjunction with the late Mr. H. Ashworth, designed Flinders-st. railway station. He also put the two extra storeys on the old Head Office roof and designed the standard shapes of the handsome substations in the electrified area. He had a fine taste in color values and decorative effects, and found the task of beflagging and floodlighting metropolitan railway stations for the visit of the Duke and Duchess of York a congenial one. Probably he was the only expert among those who planned the whole scheme of city building decoration on that occasion who had performed similar work in honor of the visit of the King and Queen when Duke and Duchess of Cornwall and York, in 1901. And in between, he flourished bunting and produced thousands of colored electric



light globes for the two American fleets and the Prince of Wales. He started in the Victorian Railways as an architectural draughtsman in 1889, and has been Chief Architect since 1919. The farewell gift of the Way and Works branch was a portable wireless set and a case of pipes.

November Birthdays

SPENCER-street railway station has more than a fair share of November's railway birthdays. Stationmaster W. H. McCulloch and Chief Booking Clerk J. J. Halpin can congratulate each other on the 13th, Clerk H. V. Cox of the Inwards Parcels Office celebrates on the 15th, and Conductor Jack Colligan of the Sydney Limited will be due for "many happy returns" on the 26th. Some other anniversaries in the service include :



Mr. D. Cameron

Engineer C. Melhuish of the Signal and Telegraph branch, on the second ; Man Power Officer H. G. Jones of North Melbourne Loco., on the fifth ; Stationmaster A. Johnston of Ballarat, on the sixth ; Chairman D. Cameron of the Staff Board, on the seventh ; Senior Clerk F. W. Millane of Oakleigh, on the eighth ; Train Running Officer W. Killeen of Geelong, on the ninth ; Percy Maher of Room 2, on the 14th ; Guard H. W. Bowman of Ballarat, and Shunter O. Blewett of Bendigo, on the 15th ; Storeman-in-Charge Sam Turner of Oakleigh, on the 16th ; District Superintendent A. G. Fletcher of Geelong, Advertising Manager A. W. Keown, and Signal and Telegraph Supervisor C. Blee, on the 18th ; Sub-foreman Bill Roberts of Newport Workshops, on the 20th ; Roadmaster H. P. Nolan of Ballarat, Shunter C. Perkins of Melbourne Yard, and Chief Clerk J. S. Rees, on the 21st ; Transportation Stores Officer H. Turner, on the 23rd ; Designing Engineer B. H. Stone, on the 25th ; Block and Signal Inspector W. J. Pearson of Ballarat, on the 29th ; and Clerk S. L. Greer of the Metropolitan Timekeeper's staff, on the 30th.

Chief Commissioner Retires

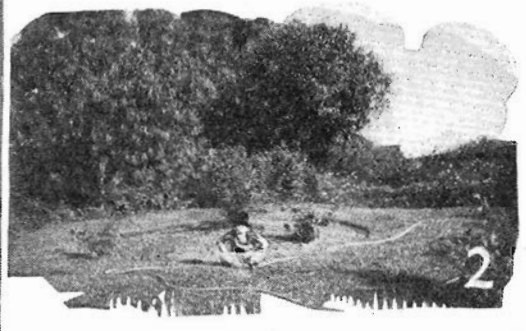
A HEAD office railwayman was farewelled by a select little gathering at the Australia last month on retiring from the position of Chief Commissioner. He wasn't, however, Chief Commissioner in the railway world, but Chief Commissioner in the Victorian scout world. His name is Charles Middleton, and he is a senior clerk on the staff of the Victorian Railways Estate Office. Mr. Middleton has been interested in the Baden-Powell business for a life time. He has been in turn assistant scoutmaster, scoutmaster, district scoutmaster and Chief Scout Commissioner. The new scout commissioner pointed out at the little farewell gathering that, when Mr. Middleton became commissioner, there were only 5,000 scouts in Victoria. Now there are 17,000.

Continued on page 44

Snaps Round *The* System

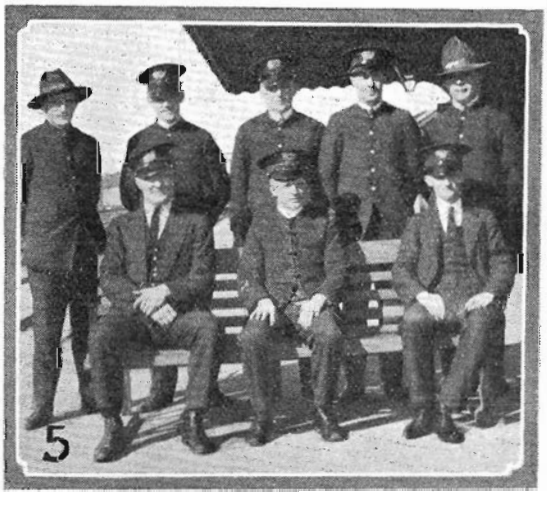
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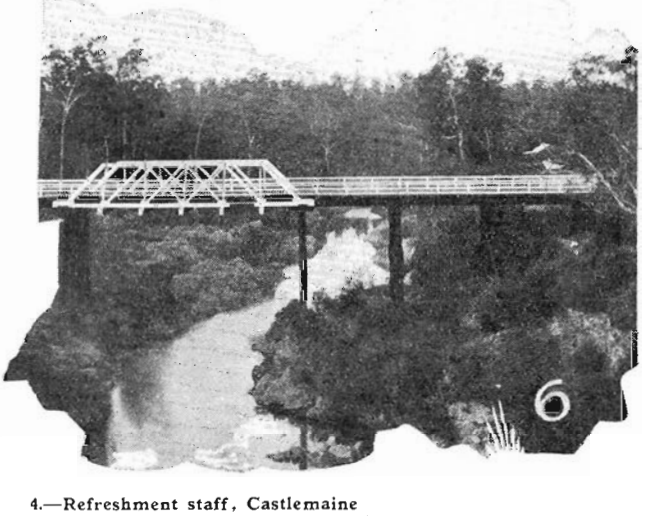












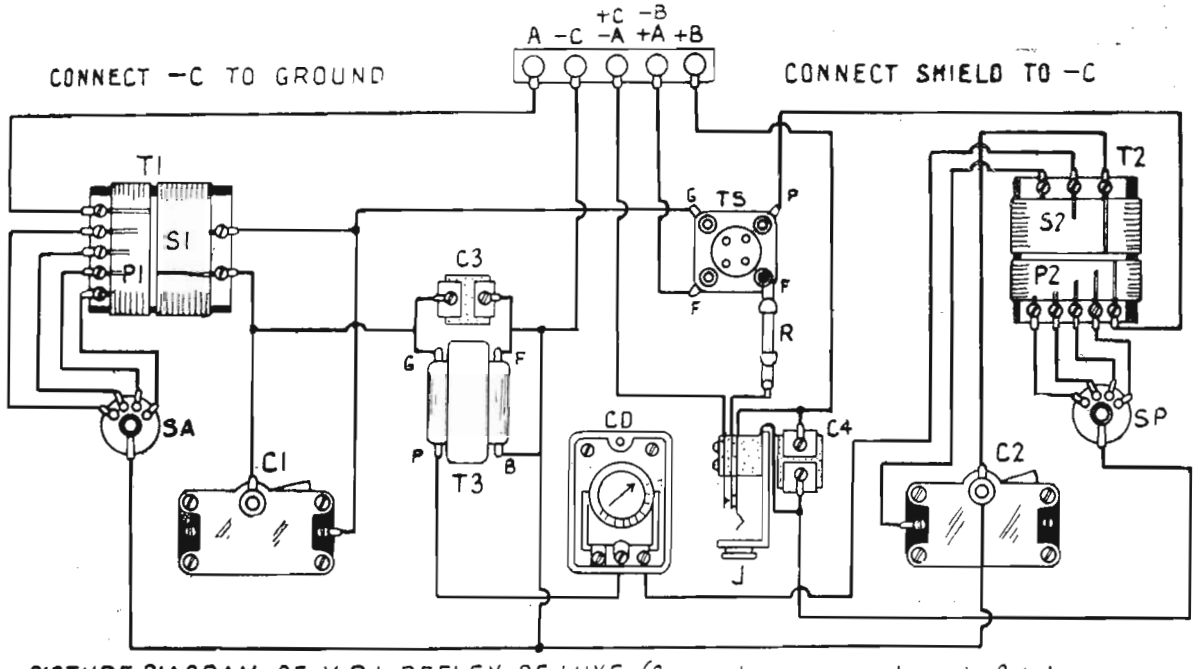
1.—Goods train at Gisborne
2.—A corner of the Benalla V.R. Institute Garden
3.—Loading green peas at Drysdale
4.—Refreshment staff, Castlemaine
5.—Toolamba station staff
6.—Nowa Nowa road bridge snapped from the railway bridge



By "AERIO"

The Reflex De Luxe

BEYOND doubt this is the loudest and most sensitive single valve receiver ever tested out by "Aerio." It was tried out with many others in the quest for a simple speaker-set suitable for use in the suburbs.



PICTURE DIAGRAM OF V.R.I. REFLEX DE LUXE (Correct lay-out was shewn in October issue

THE circuit originally appeared in the hook-up book of the Carborundum Company, Niagara Falls, N.Y., entitled "Carborundum in Radio," and immediately on hooking up, it was recognised as more than meeting the requirements looked for.

During experiments, it was found capable of speaker strength at 75 miles from the A class stations, using a good aerial system, and at a little less than half that distance all the locals came in at speaker strength.

At Belgrave, using a rather poorly insulated aerial right among the hills, all interstate stations have been received at phone strength.

How to build the Set

The October ssue of this Magazine contained details for the construction of the coil kits T1 and T2, illustrated lay-out and panel dimensions, with list of components. Both issues are necessary for the successful construction of the set.

All parts should be mounted before commencing the wiring. Mount those on the panel first; then fix panel to baseboard and lay out the remaining components in the positions indicated in diagram published last month. In this connection it should be noted that in the wiring diagram accompanying this article, the positions of several components have been changed in order to illustrate the wiring better. The original lay-out should be strictly adhered to, however.

The Shield

The Shield (S) is of No. 20 gauge aluminium, but brass, copper, tin, zinc, or other sheet materials may be used. A sheet 8½ inches wide and 6¾ inches high will be required. Half an inch is bent at right angles along the shorter length, to come flush against back of panel, and half an inch at right-angles along the bottom to come flush against baseboard. The shield, when ready for mounting, will then measure 8 inches by 6¼ inches. It should be bolted on to the panel and screwed down to baseboard and will assist in keeping the panel nice and rigid.

This shield, connected to the A battery circuit, allows greater amplification without undue self-oscillation

and avoids interaction between high and low frequency components.

Wiring

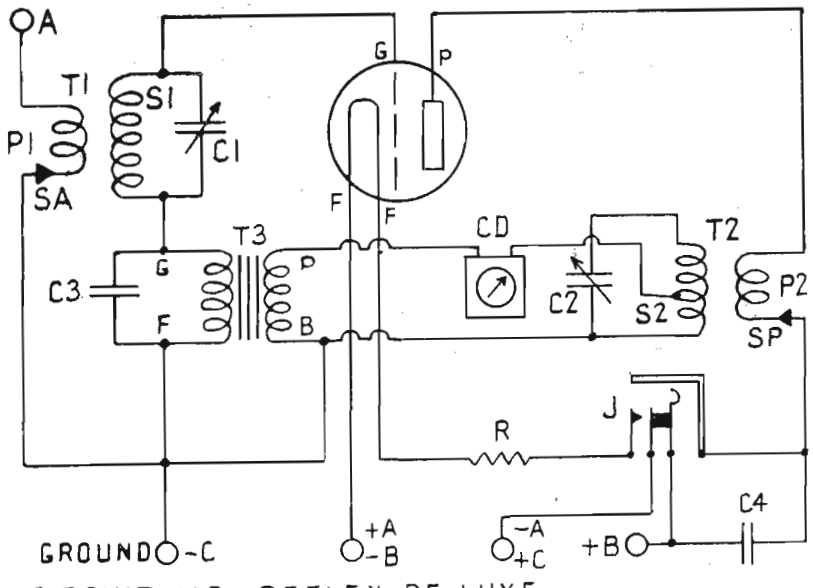
When all the components have been mounted, the wiring may be proceeded with. This should be carried out with bus-bar, with all junctions soldered. Where terminals are provided on the components the bus-bar should be soldered on to 'soldering lugs' which are then to be placed on the terminals. Where wires cross they should do so at right angles and with at least one-inch space between them. The four leads that pass through the shield should be carefully insulated in order not to touch the metal. This may be effectually done by slipping lengths of "sleeving" or "spaghetti" over the wire.

Carborundum Stabilizing Unit

The carborundum stabilizing unit plays a very important part in the success of this receiver, as the electrically controlled detector permits operation at the peak of regeneration throughout the entire wavelength range. This unit comprises carborundum fixed detector, potentiometer, built-in mica condenser and small dry cell, the whole being assembled and mounted as a single component, enabling the detector impedance to be regulated by the turn of a knob so that it exactly matches or meets the requirements of the circuit. This small dry cell will require replacing every 3 to 6 months. Both selectivity and sensitivity are dependent on this detector.

Further Notes

The circuit as shown, with a good 3½ to 1 or 4 to 1 ratio audio frequency transformer, will not oscillate at audio frequencies; but should this occur (as evidenced by howling that is not affected by turning the condensers), it may be stopped by connecting a variable high resistance across the secondary terminals (G. and F.) of the audio frequency transformer (T3). This resistance should have a minimum value of about 50,000 ohms and a maximum value of about 500,000.



CIRCUIT. V.R.I. REFLEX DE LUXE

In the original hook-up either a UX 201a or a UX 199 (or corresponding valves) were recommended, but the results referred to herein were obtained with a B406 and may be even bettered with a B409. The latter valve is, however, very heavy on the batteries, and my personal recommendation would be the B406. If a 201A is used, a 6 volt accumulator will be required. The 199 or B406 valves will require 3 dry cells for the filaments.

The B battery must be at least 90 volts, and may with advantage be increased to 135 volts (3 blocks of 45 volts).

The C battery should be adjustable from 3 to 9 volts, but one 4½-volt block was found sufficient with the B406 valve used.

The variable condensers are the wavelength controls. The inductance switches regulate the volume and are not very critical except when tuning in very distant stations. The detector unit should be adjusted for the strongest and clearest signals.

The aerial should consist of 7/20 enamelled copper wire, or alternately a single No. 14 enamelled copper wire. If situated beyond 20 miles from the A class stations it should be 100 feet in length, otherwise it should be limited to 60 feet to obtain selectivity. It should be as high as possible. Certainly not less than 30 feet. A good water-pipe earth is suitable. Notes on aerials and earths have already appeared in these pages.

TOO MUCH WORK

And no play makes Jack a dull boy. How true this old adage is. No man can get the best out of life unless he has a certain amount of pleasure mixed with his work.

S. B. Radio Receivers have been designed with the definite purpose of fulfilling the man's and his family's pleasure.

RADIO S. B RECEIVERS

PLEASURE WHEREVER YOU BE

Send Coupon Today

S.B. Radio Products, Llaneast Street, opp. Post Office, Malvern

Please forward your free illustrated folder entitled *World Progress* to this address—

Name.....

Address.....

COUPON NOV. R.M.

A certain dear old lady always made it her business to visit the poor patients in the hospital.

On one occasion she approached a much-bandaged individual who was sitting up in bed, and after a little preliminary talk she said to him, very sympathetically:

"I suppose your wife must miss you a good deal."

"No, mum," came the prompt reply; "she's got a wonderful aim for a woman."

Railwaymen in Sport

By Reg. Hunt



Members of the V.R.I. Harriers' Club which is progressing rapidly, and with considerable enthusiasm on the part of its members. The average attendance at training on Tuesdays and Thursdays at the Motordrome is more than 30, about three times as many as that of any other Club. Try-outs were arranged at Blackburn on October 28 to select teams for the track season which begins on November 3.

COBURG LINE FOOTBALL DANCE

More than 200 supporters and friends of the Coburg Line Football Club attended the dance and social evening held in the Brunswick Town Hall on October 12, to celebrate the winning of the 1928 premiership of the Railways Association.

The hall was tastefully decorated by the ladies, the Club's colors, red and white, being much in evidence. It fell to my lot to present the Commissioners' Cup to the President (Mr. Reg. Bowman), together with 25 gold medals to the players. Numerous other presentations, to the value of £35, were made to various players and supporters in recognition of their services during the season.

The Social Secretary (Mr. W. Keppell) was the recipient of a gold-mounted pen, Mrs. Keppell of a gold watch, and the Misses Keppell a clock and bangle. An enlarged photo of the team was given to the President.

It was a most successful function, thoroughly enjoyed by all and a credit to the organizing ability of the Social Committee of which Mr. F. Salvana is President, Mr. W. Keppell Secretary, and Mr. W. Coad Assistant Secretary.

CRICKET SEASON STARTS

The Cricket season commenced for the V.R. Cricket Association on October 15, teams from eight branches of the service competing. The outside ground at South Melbourne has been secured, and a keen competition is expected for the Commissioners' Cup and premiership. All matches will commence at 2.45 p.m. Following is the draw for November :—

November 2—Jolimont Yard v. Telegraph.
,, 5—Coburg Line v. Melbourne Yard.
,, 9—Signalmen v. Jolimont Yard
,, 12—Loco. North v. Newport Shops
,, 13—Melbourne Yard v. Telegraph.
,, 16—Jolimont Yard v. Way and Works.
,, 19—Loco. North v. Telegraph.
,, 20—Signalmen v. Newport.
,, 23—Coburg v. Jolimont Yard.
,, 26—Melbourne Yard v. Way and Works
,, 27—Coburg v. Newport.
,, 30—Signalmen v. Telegraph.

On October 15, Coburg Line (120—Colson 47 n.o., Wilmot 26, Ellis 6-36, and Carton 3-23) defeated Signalmen 65 (Berry 25, O'Toole 14, Yemm 4-36).

INTERBRANCH TENNIS

The following are the results, during October, of the Railway Head Office Interbranch Tennis Competition :—

SECTION 1

September 20—(a) Signal and Telegraph No. 2 (4 sets 24 games) d. Rolling Stock No. 2 (8 games); Osborne-Williams (S. and T.) d. Harford-Eddington (R.S.) 6-2, 6-2; Keay-Hosking (S. and T.) d. O'Donnell-Anthony (R.S.) 6-4, 6-0.

(b) Electrical Branch (3 sets 22 games) d. Stores Branch (1 set 17 games); Macaulay-Lane (St.) d. Donaldson-Coulson (El.) 6-4, 5-6, Delaney-Lee (El.) d. Holdaway-Milne (St.) 6-3, 6-3.

October 2—(a) Electrical Branch (3 sets 21 games) d. Traffic No. 1 (1 set 15 games; Donaldson-Coulson (El.) d. Roberts-Cooke (T.) 6-4, 6-3; Delaney-Lee (El.) d. Conroy-Peart (T.) 3-6, 6-2.

(b) Secretary's No. 1 (3 sets 21 games) d. Accountancy No. 1 (1 set 17 games); Letham-Stenning (S.) d. Cobham-Davies (A.) 6-4, 6-2; Lester-McIver (A.) d. Baird-Sutcliffe (S.) 6-3, 5-6.

October 4—(a) Stores Branch (2 sets 21 games) d. Signal and Telegraph No. 2 (2 sets 20 games); Williams-Osborne (S. and T.) d. Lane-Macaulay (St.) 6-4, 5-6; Lilley-Milne (St.) d. Keay-Hosking (S. and T.) 6-3, 5-6.

October 16—(a) Secretary's No. 1 (2 sets 19 games) d. Stores Branch (2 sets 16 games); Stenning-Letham (Sec.) d. Lane-Macaulay (St.) 4-6, 6-1; Baird-Sutcliffe (Sec.) drew with Lilley-Smith (St.) 6-3, 3-6.

(b) Accountancy No. 1 (3 sets 23 games) d. Transportation No. 2 (1 set 18 games); Cobham–McIver (A.) d. Wright–L'Hullier (T.) 6–3, 6–4; Davies–Rolfe (A.) drew with Williams–Uhd (T.) 6–5, 5–6.

SECTION 2

September 25—Signal and Telegraph No. 1 (3 sets 20 games) d. Rolling Stock No. 1 (1 set 17 games); Ahern–Renfree (R.S.) d. McIver–Melhuish (S. and T.) 4–6, 6–2; Arnold–Butterfield (S. and T.) d. Hawkins–Harford (R.S.) 6–5, 6–2.

(b) Way and Works Branch (4 sets 24 games) d. Auditor of Receipts (13 games); McDonald–Howard (W. and W.) d. Thomas–Urquhart (A. of R.) 6–3, 6–5; Barrow–Burns (W. and W.) d. Palmer–Whitby (A. of R.) 6–2, 6–3.

October 9—Traffic Branch No. 2 (3 sets 22 games) d. Secretary's Branch No. 2 (1 set 15 games) Cobham–Ross (T.) d. Fowler–Cheong (S.) 6–3, 6–4; Brady–Dredge (T.) d. Hodgens–Hennessy (S.) 6–2, 4–6.

(b) Transportation No. 1 (4 sets 24 games) d. Accountancy Branch No. 2 (11 games); Ryan–Black (T. d. Whitford–Roberts (A.) 6–2, 6–2; Lewis–Perry (T.) d. Rolfe–Carmichael (A.) 6–5, 6–2.

October 11—Auditor of Receipts (3 sets 21 games) d. Secretary's Branch No. 2 (1 set 18 games); Fowler–Cheong (S.) d. Thomas–Urquhart (A. of R.) 4–6, 6–3; Palmer–Boyd (A. of R.) d. Hodgens–Hennessy (Sec.) 6–3, 6–5.

(b) Way and Works Branch (3 sets 23 games) d. Rolling Stock No. 1 (1 set 11 games); McDonald–Howard (W. and W.) d. Ahern–Renfree (R.S.) 6–2, 6–0; Barrow–Davies (W. and W.) d. Turton–Hawkins (R.S.) 5–6, 6–3.

PREMIERSHIP POSITIONS
SECTION 1

TEAM.	GAMES.							
	P	W	L	D	For	Agt	Pts	Ptg
1—Elec. Bch.	2	2	0	0	43	32	4	57
2—Acty No. 1	3	2	1	0	61	48	4	56
3—Sec. No. 1	3	2	1	0	57	54	4	51
4—Sig. and Tel. No. 2	2	1	1	0	44	29	2	60
5—Trs. No. 2	2	1	1	0	39	40	2	50
6—Secs. Bch.	3	1	2	0	54	61	2	47
7—Trf. Bch. No. 1	2	0	2	0	24	42	0	36
8—Rol. Stck. No. 2	1	0	1	0	8	24	0	25

SECTION 2

TEAM.	GAMES.							
	P	W	L	D	For	Agt	Pts	Pcg
1—W. & W. Branch	2	2	0	0	47	24	4	66
2—Trs. No. 1	1	1	0	0	24	11	2	69
3—Trf. Bch. No. 2	1	1	0	0	22	15	2	60
4—Sig. & Tel. No. 1	1	1	0	0	20	17	2	54
5—Aud.ofRts.	2	1	1	0	34	42	2	45
6—Sec. No. 2	2	0	2	0	33	43	0	43
7—Rol. Stk. No. 1	2	0	2	0	28	43	0	40
8—Act. No. 2	1	0	1	0	11	24	0	82

A KEEN SPORTSMAN



Mr. W. Lewis is a Locomotive Driver at North Melbourne and is a sporting enthusiast. He is President of the Wednesday Football League, of the Railways Wednesday Club, Vice-President of the Railways Cricket Association and Hon. Sec. of the North Loco Cricket Club. In addition, he takes a great interest in industrialism, and is regarded as one of the keenest students of economics in the Railways Department. He has been Chairman and Secretary for two and five years, respectively, of the Central Branch of the Victorian Division of the Australian Federated Union of Locomotive Enginemen. He is obviously a busy man.

WONTHAGGI'S RECORD

Much has been written from time to time of the interest shown by railwaymen in sporting and other matters connected with the town in which they are residing. Wonthaggi Railwaymen claim that no town in Victoria can equal their activities in the realm of local sport. The following summary certainly strongly supports their claim:

Driver W. Stibbs is President and Train Examiner Burge is Secretary of the Wonthaggi and District Musical and Elocutionary Society.

Guard D. McLean is Secretary, and Clerk N. Darcy Assistant Secretary of the local Football Club. Playing members of the team are Clerk A. R. White, Shunter Braybon, Train Examiners O'Brien and Hosking, and Lad Porter C. Coady.

The lastnamed won the 440 yards handicap at the last Stawell Easter meeting.

Senior Clerk L. Cummins in addition to winning the local Golf Championship, captained the Wonthaggi Club which won the S.E. Gippsland Pennant. Guard McLean and Drivers Grainger and Thorne, also played in the winning team.

Lad Porters Coridas and Hegarty are leading members in the local Cycling Club, and lads H. J. Ceady and A. Carmichael of the Athletic Club.

Senior Clerk Cummins and Train Examiner Hosking play with the Wonthaggi Cricket Club, and Goods Clerk A. R. White is Captain of the South Dudley Tennis Club.

Driver Stibbs and Clerk T. Wright were unsuccessful candidates at the last election for the Borough Council. However, they polled well, and intend to have another try—perhaps with more success.

A challenge is issued to any town, of similar size, to beat this record. Are there any acceptors?

INTERSTATE BOXING AND WRESTLING

Railway representatives did remarkably well at the Interstate Railways Boxing and Wrestling Championships which were held recently at Adelaide. For various reasons there were only two States represented, Victoria and New South Wales.

Victorian wrestlers won the featherweight, light weight, middle weight and heavy weight championships. They also won three boxing championships, the bantam weight, light weight and heavy weight. The contests were very spirited and interesting.

The following were the results in the various sections:—

WRESTLING

Feather—F. Nugent (Victoria) beat W. Flin (N.S.W.).
Light—V. Zaremba (Victoria) beat H. Sutton (N.S.W.).
Middle—G. McGrath (Victoria) beat H. Graco (N.S.W.).
Heavy—G. Northausen (Victoria) walkover.

BOXING

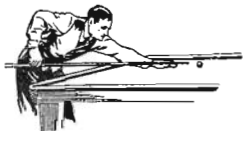
Bantam—J. W. Haines (Victoria) beat R Brown (N.S.W.).
Feather—C. Riley (N.S.W.) beat J. Angell (Victoria).
Light—R. O'Haire (Victoria) beat A. Moss (N.S.W.).
Middle—R. Arrow (N.S.W.) beat L. W. Potter (S.A.).
Welter—E. Pearce (N.S.W.) beat G. Stevens (Victoria).
Heavy—J. M. Maher (Victoria) beat A. Bennett (N.S.W.).

MIDDLEWEIGHT

R. Arrow (winner of N.S.W. and S.A. bout) beat D. McDonald (Victoria).

GOLF WINS

The V.R. Interstate team again won the Championship in N.S. Wales, last month, against the strongest team the Mother State has ever placed in the field. The Secretary and Manager (Mr. Con Lynch) reports a successful and enjoyable trip.



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PLAYING THE GAME

PREPARED by the Railways Betterment and Publicity Board for Dennys Lascelles, Ltd., Annual, 1928, the following article which sets out some cogent reasons why the primary producer should use his railways to the exclusion of the road competitor, is here republished by courtesy of the Annual, and in response to several requests.

"NO, I'm sending in my wool by road this year."

"Why?"

"Oh, I don't know. Jones, who runs those trucks, made me a good proposition. And it might be quicker. There's nothing like competition to liven things up."

Thus, unthinkingly, perhaps, another man helps to build up the burden of taxation that hits industry, primary and secondary alike, and fails to play the game towards the one-and-three quarter million people in the State who are just as interested in keeping down taxation as he is. Admittedly there are many like him, but five hundred economic wrongs don't make an economical right.

Free choice of transport? Of course. But how many of us have an unqualified free choice in anything which affects, however remotely, the welfare of other people? If we had, society wouldn't hold together five minutes.

Here's the point in a nutshell. Railways were built with the woolgrowers' money for the woolgrower's benefit. The wheat grower, the dairyman, the mixed farmer, the timber man and the cattleman were equally responsible, of course, and they are all shareholders. As a shareholder in a business, would you subsidise a competitor to take some of it away and damage other plant or stock-in-trade that you own in doing it? *Would* you? And would it be fair to other shareholders?

But that exactly is what the sheepman is doing by employing road services to take his wool to market. He is paying the motor-owner to do him out of his railway business, and to damage the roads—*his* roads, the repairs and maintenance of which he has to pay for—into the bargain. And, mark the point, the commercial road user is not even adequately charged for his use of the roads.

Apart from playing the game, is it business?

Still the Most Reliable Way

It isn't as if the railway is an effete, out-of-date, inefficient, haphazard sort of organisation. World experts agree that it must serve communities for many years to come. It is still the most reliable means of inland transport the State—for that matter, any State—has. Wool is classed as urgent loading and is always given an ample supply of trucks and tarpaulins. Clips are loaded free at all man-in-charge stations, and no delays are allowed to impede the progress of Victoria's golden fleece to market and the seaboard.

The Railways is not out for profits at the expense of service, but for service—good service—at cost price. For the last financial year it was given at under cost price. And because the railway people know that the prosperity of the community and its railways depend on that of its primary producers, the line brings them manures, cattle food, wire netting, and other low grade freight at cheap rates as well as gives them the best clip handling service. On the other hand the road competitor refuses the low grade freight, but makes a bold bid for the cream of the traffic, such as groceries for country storekeepers, with wool, when he can get it, as his backloading to the city. That's not service.

Road competition would not be uneconomic if there were a big enough market to support all forms of commercial transportation. But there isn't. The market is over supplied, and primary producers, more than anybody else, know what that means. And when such a glut affects their own transportation business—the railways—their hands must, of necessity, dig into their own pockets to make good the loss.

More universal use of the railway must obviously result, in the long run, in lower fares and freights. The excess production of any commodity has the effect of cheapening it. And when the demand for greater mass production of transport involves playing the game more according to the rules, besides putting more money in one's pocket, or, rather, taking less out—well, the argument is unanswerable.

P.F.

P. J. KIRWAN



PATRICK J. Kirwan was a name to reckon with in the Victorian Railways of 40 years ago. The stern but just old disciplinarian died at Geelong a few weeks ago, 91 years old. He joined the service in September, 1860, at 23 years of age, and although only 56 was retired in 1893 by the severe retrenchment measures of the Government. He was then District Traffic Superintendent. At one time, Mr. T. B. Molomby, present Commissioner, was his clerk.

The Last Mile-Post

THOMAS SCOTT

IN his 93rd year, Thomas Scott died at his home in Elwood last month. Formerly a senior porter at Middle Brighton, he has been on the retired list for the past 30 years and more. He was active to the last, and had been looking forward eagerly to this year's season of big cricket. His son, W. J. Scott once played for Australia against "Plum" Warner's eleven.

T. W. LEE



AGED 61, Mr. T. W. Lee, of the Revision Bureau in the head office Accountancy branch, died early last month. He had 39 years' service with wide experience in the Transportation and Traffic branches. Off and on, he was stationed at every station in Gippsland, besides being stationmaster at Jeetho and Kaniva. Six years ago he was transferred to the Traffic branch as Special Checking Officer, where he remained until the formation of the Revision Bureau.



Conducted by EILEEN to whom all communications for this feature should be sent.



A simple but smart frock for coming summer wear. The width at lower edge of the skirt is about 2¼ yards. The blouse requires about 1¼ yards of 39-inch bordered crepe-de-chine, the skirt, vestee, sleeves, collar and facing, 2½ yards of 39-inch plain, and the bodice lining, 1⅛ yard of 36-inch mull. The frock offers a choice of two neck lines: instead of the open front finished with revers rolled with the collar, as illustrated, it may be cut diagonally and finished with a band having tie-strings which tie in a bow. Made in two shades of flannel it may be adapted to sports wear.

ATTRACTIVENESS

THE popular girl makes the best of herself and of other people. She cultivates, consciously or unconsciously those qualities which attract—a sunny disposition, an agreeable manner, deference to the opinion of her elders, and watchfulness for the comfort of others.

The really popular girl is willing to sacrifice the pleasure of hearing her own voice and listen to the often tiring one of another. The girl who knows how to listen attentively soon acquires a reputation for her charm of manner. And the girl who has tact—well! multitudes shall rise and call her blessed.

Any girl who begins her social campaign with the idea that people do not like her, need never expect to be a success. The very thought of it breeds self-consciousness, diffidence, and often sulkiness. You must like people, and show that you do, if you want them to be interested in you—which, however, is very far removed from forwardness or "gush."

Don't be Too Forward!

The girl who is a little diffident stands more chance of being popular in the end than the girl who is too forward. The diffident girl will gain confidence in her own abilities to cultivate all her resources. She will improve her mind by reading good literature; her manners will become easier as she watches her elder sisters or other girls in their behaviour, both with men and women. Little questions of etiquette are solved for her by observing others.

And, finally, she will find out that the secret of popularity is a secret of the heart. It is the secret of kindness to others, enthusiastic interest in what concerns them. Like charity, popularity should begin at home.

Wipe japanned articles with warm soapy water; dry, sprinkle with flour, leave for a time, and then dust and polish.

To relieve a headache quickly, add three or four cloves to a strong cup of tea.

IN *the* KITCHEN

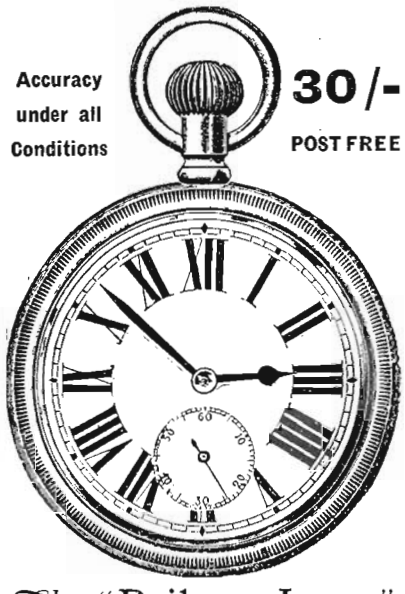
Two oz. cornflower, 1½ pint milk, 4 oz. sugar, 2 oranges (juice and grated rind), ½ oz. butter, 2 eggs. Mix the milk gradually with the cornflour, put into a saucepan and bring to the boil; add the butter, sugar and the yolks of eggs and boil for 8 minutes, stirring constantly. Stir in the juice and grated rind of oranges and allow to cool. Beat up the whites of eggs to a stiff froth and stir lightly into the sponge, bring to the boil again for a moment, set in a mould, turn out when firm. This may be made with water instead of milk and served with whipped cream round the dish.

To Make Banana and Passion-fruit Dessert.—Slice 6 bananas into thin rings and sprinkle with sugar; cover with the following mixture, which makes an excellent substitute for cream: boil 1½ breakfastcups milk and 1 tablespoon sugar. Mix 1 heaped dessertspoon cornflour with a little cold milk and add to milk when boiling; stir for a few seconds and add the pulp of 3 passion-fruit, pour over while fairly hot, as this brings the banana flavor into the mixture. When cool sprinkle freely with desiccated cocoanut and serve.

To Make Quince Jelly.—Take 6 quinces, 6 pints water and 4 lb. sugar; wipe the quinces but do not cut them, and put all together in a preserving pan. Boil without stirring for 3 hours. If on being tested it is not sufficiently jellied, boil a little longer. When done, lift the fruit and put the liquid into pots. The quinces when cold will be coated with red jelly and are delicious served with cream or custard.

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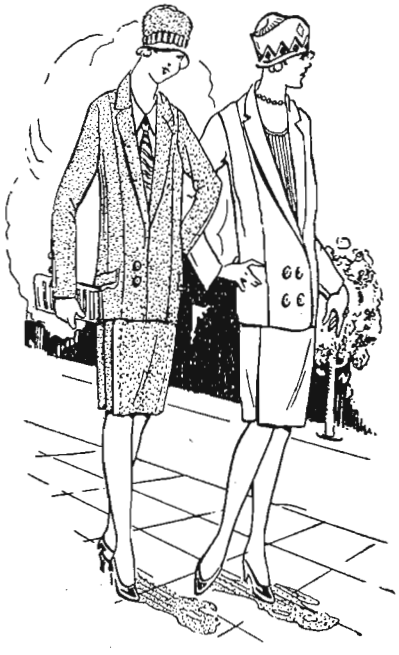
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EXAMS. THIS MONTH

THE annual examinations of the Institute educational classes will be held at Melbourne and country centres during the week ending November 24. Students who intend sitting are asked to advise their respective instructors as soon as possible so that the necessary accommodation may be provided. All eligible students are urged to sit.

Special prizes, available to Institute students, are the "Harold W. Clapp" (under three divisions); the "Arthur E. Hyland" and the "J. C. M. Rolland" prizes. The last-named (£5 5s.) is donated each year by Mr. Rolland of Willaura, Victoria, for presentation to "the most diligent and persistent student of Railway working in any of its technical aspects, who, by his record in class attendances and examination work has manifested his earnestness to become a proficient railwayman."

The following are awarded as first prizes in all subjects:—

"T. H. Woodroffe" (presented by Mr. T. H. Woodroffe, late Chief Mechanical Engineer).

"Peter Alexander" Memorial.

"W. E. Brown" Memorial.

In addition the Council awards a second prize for each subject (in each grade) of the examination, and an Institute certificate to each student who passes in any examination.

Examinations will be held at all centres as follow:—

Monday, November 19—Station Accounts and Management, 7.30 p.m.; Algebra, 7.30 p.m.

Tuesday, November 20—English Course, 7.30 p.m.; Engine Working, 7.30 p.m.; Bookkeeping, 7. 30 p.m.

Wednesday, November 21—Electricity and Magnetism, 7.30 p.m.; Westinghouse Brake, 7.30 p.m.

Thursday, November 22—Mechanical Drawing, 7. 30 p.m.; Safeworking, 7.30 p.m.

Shorthand and typewriting examinations are arranged by the examiner. Engine working and Westinghouse brake students who are eligible to sit for the examinations are reminded that the classification of grades for examination has been altered to comply with the changed conditions as to rates, pay, etc., resulting from the Federal Arbitration Court's Award of April 1, 1925.

The Senior Grade comprises all drivers and fitters and senior firemen who are in receipt, for at least six months prior to the date of the examination, of the maximum rate of pay for the position awarded by the Award, and first prize winners at any previous Junior Grade examinations.

The Junior Grade comprises all firemen who are receiving less than the maximum rate of pay provided in the award, apprentices and others, except first prize winners in the same subjects.

Correspondence course students who have answered and sent in for correction not less than 55 per cent. of the total number of papers in any course this year are eligible to sit for the examinations to be held during the week ending November 25.

WHO'S NEXT?

LAST month, we recorded the achievement of 16-year old Lad Porter K. S. Cairns, of Darebin, who, within 14 months of joining the railway service, secured ticket-checker's, telegraph and ambulance certificates. We suggested that this was a record of successful study, but—

The challenge has been taken up by M. Morganti of the Metropolitan Superintendent's train control staff who, at the age of 16, and after only nine months' service, had qualified in second and third class telegraph and the country and suburban ticket-checker's examinations. Within another four months he had qualified in first class telegraph and ambulance, making a total of six certificates in 13 months.

We should be very interested in any similar or better record.

BENDIGO INSTITUTE SCHOLARSHIP

The Bendigo branch of the Institute is again offering from the beginning of next year a scholarship for competition among the children of qualified members of the Institute attending schools in the northern districts extending north from Harcourt to Robinvale, Kulwin, Echuca, Cohuna, Yungera, Kilmore and Wedderburn.

The scholarship will be tenable under certain conditions for three years at the district school or technical school nearest the home of the successful candidate, and will carry an allowance of £10 per annum. The subjects of examination will be those prescribed for junior scholarships.

Full information may be obtained from the Honorary Secretary, Victorian Railways Institute, Bendigo, to whom applications to compete for the scholarship should be made at once.

OUYEN CENTRE

The Ouyen branch of the Institute, during the past month, commenced a class in engine working and Westinghouse brake with Mr. A. G. Jennings, acting driver, as instructor.

Present indications are that the class will be a successful one.

VETERANS' CLUB ACTIVITIES

Features of the October meeting of the Retired Railwaymen's Club was the large number of new members attending, and the increased interest in club matters shown generally.

Excellent reports were received about the weekly euchre and card tournaments, and the fine trophies received from various donors were received and acknowledged by the winners.

Both old-time dance socials, it was reported, had proved a big success, and a further social and dance was arranged to wind up the series. Fortnightly or monthly old-time dances will be held next winter.

The club is fortunate in having a strong committee, the members of which do not spare themselves in their efforts to carry out the various functions in a worthy manner.

DEBATERS STILL UNDEFEATED

Last month the V.R. Debating Society held its final meeting for the season. It was decided to go into recess until next year when members will again commence activities.

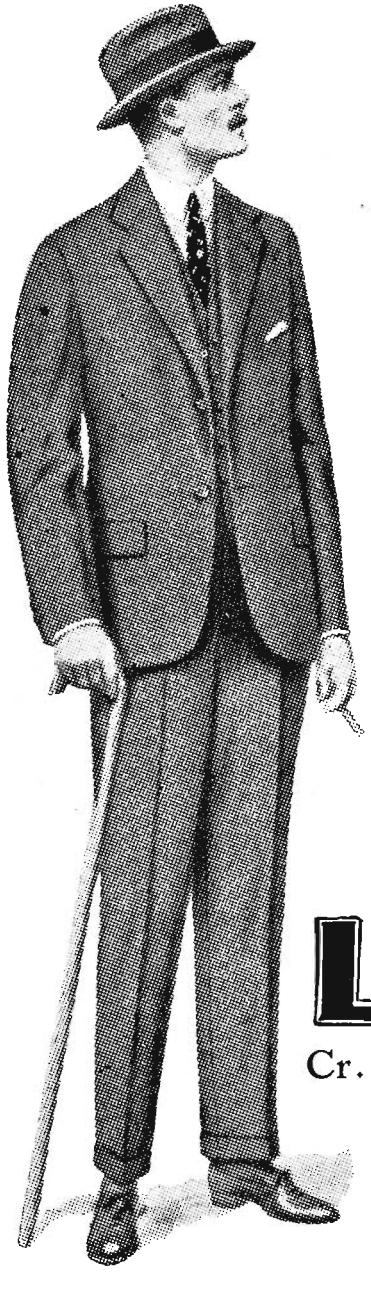
The competition for the *Herald* Shield has now entered upon the semi-final stage, the V.R.I. representatives, together with the C.Y.M.S., being the only unbeaten teams.

The V.R.I. team maintained its unblemished record by securing a two-point victory in the final round. Their opponents, the Workers' Educational Association, had not been defeated previously, thus giving the victors cause for satisfaction in a two-fold sense.

The sympathy of all railwaymen is extended to Stationmaster J. Carnegie of Tungamah on the death of his wife on September 11. For some time Mrs. Carnegie had experienced poor health.

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I AM directed by my executive to take the first opportunity of conveying to you their sincere thanks for the efficiency of the service rendered by your Department in Sydney to our Congress visitors. At the same time may I express my admiration for the courtesy and efficiency of your representative.

—Rev. Jas. Meany, Hon. Organiser, Twenty-ninth International Eucharistic Congress, St. Mary's-road, Sydney, writing to the Chairman of Victorian Railways Commissioners.

AN IDEAL HOLIDAY

I HAVE just returned from a trip to the Chalet at Mt. Buffalo, and I wish to express my deep appreciation of your perfect transport arrangements, the unremitting kindness of Mr. and Mrs. Avery, and the splendid work of your representative, Mr. Jordan, who spared no effort in making the visit a memorable and happy one to every member of the large party under his care. It has proved to be one of the happiest and most enjoyable holidays I have ever had.

—Mr. S. G. Coad, 115 New-street, Middle Brighton, writing to Railways Commissioners.

"DID EVERYTHING WE ASKED"

I HAVE been going to write you ever since the "Back to Echuca" to thank you for the way in which you sent the special train away from Melbourne and for the get up of the train. We were quite delighted with the way you treated us, and feel that it is only fair that you should know how much we appreciated your service. You did everything we asked you to do within your power. Will you kindly accept our thanks for all you did?

—Mr. Hart Hicks, secretary, "Back to Echuca," writing to the Secretary for Railways.

RAILWAY USERS' LEAGUE TRIBUTE

WE desire particularly to refer to the spirit of co-operation for the public good which now permeates all ranks of the railway service. Everywhere we find your officers and men—those in high positions and those in the workers' ranks alike—keen on rendering the best service, and not only doing the duty expected of them, but going out of their way to assist and to oblige. These kind and considerate acts are in daily evidence throughout the service, throughout the State, and we assure you that they are noticed and appreciated.

Your wide experience and vast knowledge of railroad matters, and your width and depth of vision, have enabled you to plan, not only for today and for tomorrow, but for the years to come. Your activities, designed for the betterment of the State, and therefore for the betterment, also, of the State's largest industry, the Railways, have extended over a field of operations that a man of lesser vision would never have dreamt of. You have been the means of increasing the productiveness of our pasture lands, and you have likewise pointed the way to increasing the value of our stock. You have made markets for our oranges and lemons and our raisins and other dried fruits where none existed before; your calls to us to "Eat More Fruit" have been irresistible, and markets for the products of our fertile irrigated lands have, therefore, been stabilised, and our settlers' success assured.

The value of your Better Farming Train—that wonderful travelling exhibition with experts to impart technical, scientific, practical and homely knowledge to our country people on the best ways to improve their pastures, their crops, their flocks, their herds, their methods of working in the fields and in their homes, and even on how to bring up their babies—those most worthy assets of the State—must increase as the years go by, adding wealth and worth to the State and lustre to your name.

In all these, and in very many other respects which the scope of this address cannot encompass, you have been a real benefactor to our State. We hope you will long continue to keep your good work going, and we assure you, once more, that we stand ready and willing to give you a helping hand.

—Extract from a written tribute handed to the Chairman of Railways Commissioners by the Country Railway Users' League of Victoria.

APPRECIATIVE FOOTBALLERS

ON behalf of the Central Gippsland Football Association, comprising clubs from Yallourn, Moe, Trafalgar, Yarragon, Warragul, Drouin, Iona and Nar-Nar-Goon, it affords me very great pleasure to bring under your notice the fact that committees of the above clubs, officials of the Association, and supporters of football generally throughout the districts served by the trains, appreciate very much indeed the civility extended and attention given to patrons of the football specials throughout the season by the railway officials, and of the harmony which exists between them and us to our mutual advantage. The regular reports on results of specials and the satisfactory arrangements made and carried out with regard to the running of the trains by the Head Office have also been appreciated.

It is also pleasing to note that the Association has benefited to the extent of the full 10 per cent. on the total revenue, and this, notwithstanding the fact that the season, especially for potato growers, has been an exceptionally bad one.

—Mr. Chas. L. Appleton, secretary, writing to the Railways Commissioners.

PROMPT ACTION AVOIDS FATALITY

MIGHT I take the liberty of bringing under your notice the action of a railway guard in connection with an accident in which I was involved at the Princes Bridge railway station recently.

On that occasion, I accidentally slipped between the platform and the running board of an electric train and sustained very severe injuries to my right leg. Had it not been for the very prompt action of the guard of the train in question, in stopping the train and extricating me from a particularly dangerous position, I would most assuredly have lost my life.

From inquiries I am informed that the officer who acted so promptly in this case is Guard Chapple. I am not aware of his private address. Therefore, I would esteem it a great favor if you could see your way clear to convey to him my sincerest thanks for the great service he rendered to me on that occasion.

—Senior Constable H. Brown, Police Hospital, Melbourne, writing to the Chairman of Commissioners.

SUCCESSFUL OUTING

WE, the undersigned, desire to express our appreciation of the arrangements made by yourself and staff for the conveyance of our pupils to and from Werribee. Also, through you, we wish to thank the local stationmaster and his assistant for their willing co-operation.

—Messrs. G. Ellingsen (headmaster) and E. L. Olholm (sportsmaster), Central School, Footscray, writing to the Chief Timetables Officer.

CARS BY RAIL

REFERRING to the new rates for transporting motor cars from Melbourne, we are pleased to advise that since the introduction of the new rates we have had six cars trucked from Melbourne. Four of these were for Horsham, and one each to Murtoa and Warracknabeal. Transit has been rapid. The cars arrived in excellent condition, were promptly placed for unloading, and the attention given by Mr. Booth and his staff left nothing to be desired. When approached by railway officials who sought a share of our business, we promptly informed them they would get the biggest share at these new rates providing the service proved satisfactory.

We congratulate you on the excellent service being rendered, and look forward to making a lot of use of your transportation.

—Mr. R. G. White, W.B. Motors, Horsham, writing to the Railways District Supt., Ballarat.

"EXCELLENT AND EFFICIENT SERVICE"

A FEW weeks ago my furniture was sent up to here from Footscray. It was landed at the West Footscray Goods between 10 and 11 o'clock on the Friday and arrived here at Lake Boga (205 miles) the following day (Saturday) at 5.0 p.m. without even so much as a scratch on any of the articles. I now desire to thank the employes of the Department through you for the excellent and efficient service given. To everyone I have come in contact I have mentioned the good work. To the station staff at Lake Boga, I also desire to add my special thanks for their kindly assistance and courteousness on the above occasion and since.

—Mr. Leo. H. Reichert, Lake Boga, writing to the Secretary for Railways.

"WE KNOW NOW"

AT the conclusion of our trip to Yallourn, the members of the Melbourne University Commerce Society requested me to convey to you their hearty appreciation of the very excellent service rendered by your staff. The exceptional attention to every detail and the enthusiastic co-operation of all your officers deserves more than passing comment. We will not soon forget Show Day 1928. It is not possible for us to refer to all your officers by name, but we specially wish you to convey our sincerest thanks to the following:—

To Mr. Maher who so courteously scheduled the trip in the initial stages, and who went out of his way to instruct the undersigned in the art of "graphing" trips.

To Mr. Campbell of the Refreshment Services who made all sorts of helpful suggestions, and who, in consenting to a "cut" in the tariff, demonstrated that he had a genuine interest in our affairs.

To Mr. Young, also of the Refreshment Services who, in fighting like a tiger to get five farthings' profit on cigarettes, made us feel that he had a proprietary interest in the Railways, and who at every stage of the journey showed his great consideration in ways too numerous to mention. (We like a man who is not too dignified to work in his shirt sleeves).

To the girls who would persist in filling up our cups with excellent tea, and who worked like Trojans in washing up the dishes between the sittings on the Yallourn platform.

To the engine driver who, in fixing the step

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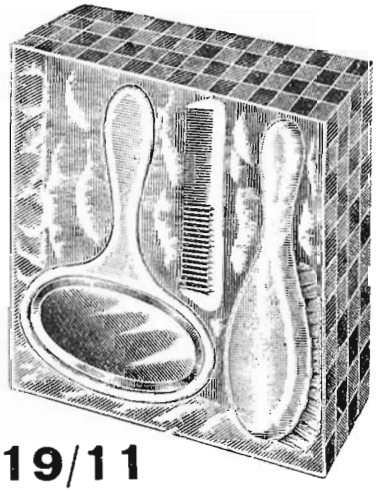
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adders, " at the double," demonstrated that he was delighted to earn his wages.

To the Stationmaster at Yallourn who so graciously, at our suggestion, ran two trips at the " open cut " in place of the one that was scheduled.

We know now how it is possible for you to give an enthusiastic address on " our Railways " such as you delivered before us earlier in the year.

—Mr. C. V. Janes, secretary, writing to the Chairman of Railways Commissioners.

HEADMASTER'S THANKS

I DESIRE to express appreciation of the consideration of the railway officials on the occasion of the trip made by the pupils of this school. My school teams had to meet Hamilton High School in the three final contests, at Ararat, and in order to accommodate these teams and enable them to return, the matches had to be played after 3 p.m. This meant the return of Horsham school by the Adelaide Express at night. Through the courtesy of the railway officials, accommodation was reserved on this train, which enabled my teams of children to travel under the adequate supervision of teachers. Staff and parents of children greatly appreciated this.

—The Headmaster, Horsham High School, writing to the Railways District Supt., Ballarat.

25 YEARS' SATISFACTION

WE would like to thank the members of the Inwards Parcels Department for their kindness and courtesy in notifying us of a parcel that had not been quite correctly addressed, and which we collected this morning. For more than twenty-five years we have been receiving parcels from country stations, pretty regularly, and in only two instances have they failed to arrive. This was not due to pilfering but to having been sent in the wrong direction, and we received compensation from the Department for them.

In view of the many statements of " pilfering on the railways " in the daily press, I think it is up to those who have not found the railway department staffed with thieves to say so.

—Mr. M. Dufty, 45 Princes-street, Kew, writing to the Chairman of Railways Commissioners.

SUIT CASE RECOVERED

I WAS a passenger to Melbourne by the Sydney Express. Owing to an accident on the line, the train was very much delayed, and in the confusion of changing from one train to another a small suit case of great personal value to me was left behind, under the seat. On arriving in Melbourne, no luggage was available, but I wish to tell you that it arrived the next day and the small case was forwarded to me. I was treated with utmost courtesy and attention by everyone, and will be grateful if you will accept on behalf of your Department and convey to the officials of the Cloak Room at Melbourne my sincere thanks.

—Miss Lucy Rowe, Lumeah, Domain-road, South Yarra, writing to the Chairman of Railways Commissioners.

A MAN'S CREED

I believe in the stuff I am handing out, in the organisation I am working for, and in my ability to get results. I believe that honest stuff can be passed out to honest men by honest methods. I believe in working, not weeping; in boosting not knocking; and in the pleasure of my job. I believe that a man gets what he goes after, that one deed done today is worth two deeds tomorrow, and that no man is down and out until he has lost faith in himself. I believe in today and the work I am doing, in tomorrow and the work I hope to do, and in the sure reward which the future holds. I believe in courtesy, in kindness, in generosity, in good cheer, in friendship, and in honest competition. I believe there is something doing, somewhere, for every man ready to do it. I believe I'm ready—RIGHT NOW.

—Elbert Hubbard

FURNITURE REMOVED SAFELY

MY furniture was consigned from the Geelong station by a carrier engaged by me. On the following Monday morning it arrived at Bruthen. It was carried 237 miles over the railways and arrived without a scratch or break, with the exception of a case of household tinware which had broken open, but the contents were intact. This speaks well of the excellent loading and carriage by railway employes. I also wish to state that the officials at the Geelong Goods Shed and at Bruthen station were very courteous and did their utmost to meet my requirements.

—Mr. E. J. Baker, State School 3176, Mossiface, writing to the Secretary for Railways.

AN ENJOYABLE WEEK

ON behalf of those girls and myself who spent a week at Buffalo during the September vacation, I wish to thank you and all concerned for the enjoyment we derived. Such a holiday we realise is entirely due to efficiency in every quarter. The attention of Mr. and Mrs. Avery and staff and of our guide, Mr. Olney, left nothing to be desired.

—Miss Emily M. Burston, Fintona Girls' School, Camberwell, writing to the Manager, Government Tourist Bureau.

SQUARE DEALS

ON behalf of this firm, I wish to thank you for the trouble you have been to in getting our Mr. E. L. Barrett a berth on the Transcontinental next Saturday. It was a matter of very great urgency to this firm, and will result in benefit to the farmers of W. A. I would also like to take this opportunity of thanking your Department for the trouble they always take in smoothing out difficulties with this firm. It used not so to be, but for the last few years we have been encouraged to seek out the responsible officers from whom we have always got justice. Sometimes we are right and sometimes we are wrong, but the modern methods of conducting the Railways are a great credit to the Commissioners and a great help to the community.

—Mr. W. Barrett, chairman Barrett Bros., and Burston and Co., Pty., Ltd., Queen-street, Melbourne, writing to the Chairman, Railways Betterment and Publicity Board.

COURTESY APPRECIATED

THIS morning we received advice per telephone from a member of your staff advising that some motor truck wheels, addressed to us, were awaiting our pick-up, and our reason for now writing is to express our very keen appreciation of the courtesy extended to us in this way. As a matter of fact we received advice per mail, on even date, from our customer that he was sending the wheels and that he desired them to be returned by the earliest possible train; and we had already instructed our carrier to obtain possession of the said wheels. The telephone message was of material help, inasmuch as it indicated the right quarter to which we should go in order to secure the wheels.

—Mr. G. Halg, Secretary, E. A. Machin & Co., Pty., Ltd., 525 Elizabeth-street, Melbourne, writing to the Stationmaster, Flinders-street.

YALLOURN TRIP APPRECIATED

ON behalf of the council and members of the Society of Chemical Industry of Victoria who took part in the excursion to Yallourn, I desire to express our very great appreciation of the facilities provided by your Department, and of the numerous acts of consideration for our comfort shown by your kindly and efficient staffs of the Special Trains Branch and the Refreshment Services Branch. I should be glad if you would convey to the steward on the train and the other members of the staff concerned our grateful recognition of their attention and efficient service.

—Mr. O. G. Reynolds, hon. secretary, writing to the Secretary for Railways.

TO CORRESPONDENTS

A.R.—The first Railway Commissioners were appointed in 1883.

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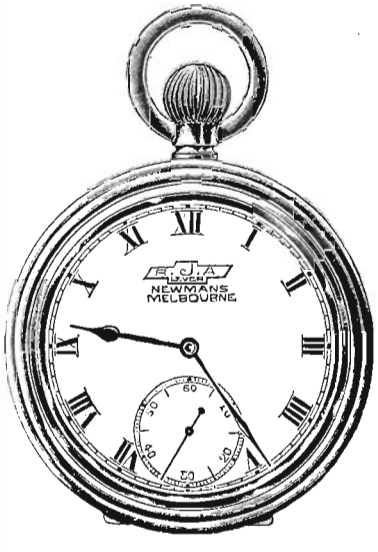
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THIRTY-FIVE YEARS AGO

Extracts from the Victorian Railways *Gazette* for November, 1893 :—

IT has been announced in the daily press that on the Coburg line the Commissioners intend to try the experiment of making a uniform rate for the whole line. This is practically an extension of the Zone system, and the innovation will be watched with interest.

A MEETING of railway employes was held in the Traffic Union rooms last month to consider the advisability of forming a co-operative store. Mr. Claringbold, the Chairman, read a draft prospectus, which provided for a capital of £3,000 in one-pound shares . . . . . The meeting was adjourned for a week to allow of printed circulars being sent round to ensure a good working committee.

"UNITAS Societatis Stabilitas" is the motto of another railway association which has just come into existence, and though last it promises not to be least among those already established. It is announced under the comprehensive title of the Victorian Railways Association, and has for its objects those similar to the present societies.

THE road versus rail traffic has been further considered by the Commissioners, and a decision has been made to reduce the rate between Melbourne and Geelong to 3s. per ton. A goods train will now run from Melbourne to Ballarat each night, also, and thus deliver goods within 12 hours of receipt.

Railmen of the Month

Continued from page 29

WITH 46 years service behind him, popular old "Toots" McGregor of the Auditor of Receipts branch gathered the first instalment of his pension to him last month. Acting Auditor Falconer presented him with the staff's farewell gift of a phonograph and wireless set.

GOODS Porter Frank Cheswright of Euroa was presented with a wallet of notes by the townspeople last month, on the eve of his transfer to Warragul. "Most courteous and obliging in his duties, and popular with all doing business at the station, and the tradespeople in particular," comments the *Euroa Advertiser*.



Surprisingly, there was as much congratulation as regret in the farewell speeches which accompanied big Bill Addicoat on his transfer from the Balaclava ticket window to the Armadale dating press. The regrets were natural, of course; but the congratulations were in recognition of Bill having attained the proud dignity

Concluded on page 46

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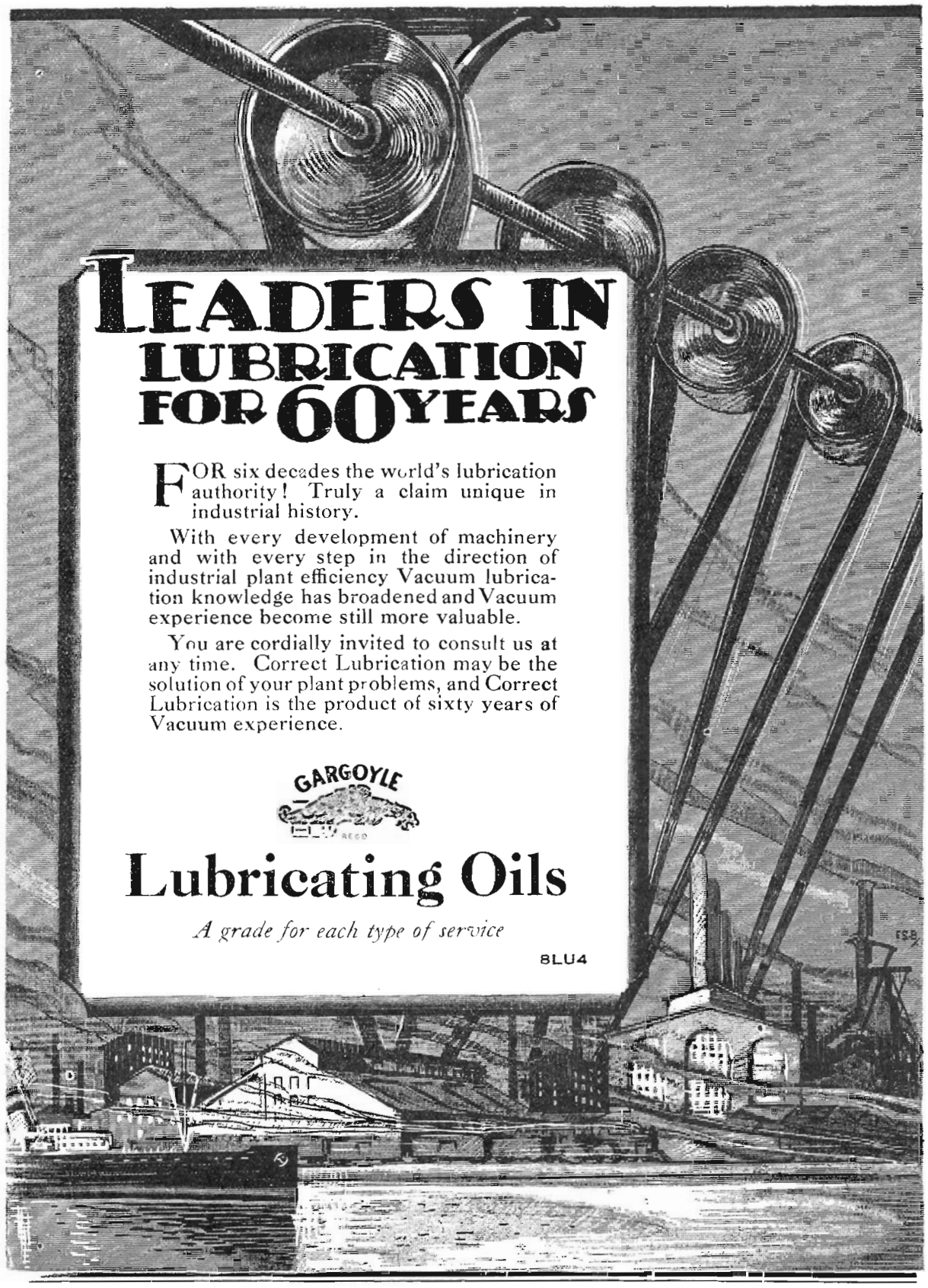
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The Metal of the Future

Continued from page 23

liability to rusting, but does not afford a really effective protection, and the latter process is by no means easy or simple. If these processes were entirely satisfactory, they would, of course, be much more widely applied than they are.

Aluminium, and most of its known alloys, are easily melted, and can be made into sound reliable castings with more ease and certainty than can steel or even cast iron. For the same reason its reclamation value is higher than that of steel.

Aluminium is at present made from bauxite, a mineral consisting of oxide of aluminium. It is the richest and most convenient ore available. As the supplies of bauxite become worked out, and as metallurgical knowledge increases, the production of aluminium from lower grade minerals will probably become general, and it is from clay, which exists in such abundance, that the metal for our locomotives, bridges, and ships of the future, will probably be made.

Aluminium is a metal of scientific origin, it was not found as the result of a happy accident, it was deliberately sought. Its future will be built up by painstaking and orderly investigation.

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Railmen of the Month

Continued from page 44

of paternity. He was the hero, it will be remembered, in the rout of two bandits, and capture of one, who tried to get away with £150 worth of railway cash at Balaclava 10 months or so ago.

Two members of the Ascot Vale staff, Clerk T. Jones and Porter V. Giblett, having joined the Benedicts, were presented respectively with an oxidised salad bowl and an eight-day clock by the staff at the hands of A.S.M. Hamilton, last month.

A railwayman for 42 years, Assistant Chief Booking Clerk Fred. Kendall of Flinders-street, slipped away from the musical jingle of silver and the eternal click-click-click of the dating presses last month. The staff gave him a three-valve wireless set.

With 41 years' service behind him, Passenger Guard John Wolfe of Geelong handed in his leather bucket, lamp and green flag the other week. The South-western district will miss him.

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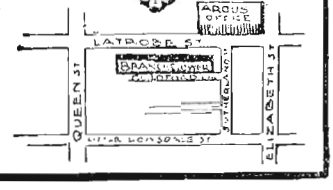
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Books *and* New Books

Thumbnail Reviews by J. D. MICHIE

The Foundation of Modern Civilisation.—By H. C. Thomas and W. A. Haman. The book deals with the growth of Christianity, Nationalism and the English Parliament, and devotes an interesting chapter to the commercial revolution and development of trade. It is the first of a series of three books which are to deal with the social rather than the militant side of man's progress, from primitive to modern times.

The Mating Call.—By Rex Beach. An enjoyable novel. The characters are sharply outlined in vividly differentiated dialogue. The young Deputy Sheriff talks like a real Florida cracker. The young Russian countess, whom Major Hatten, war-hero and orange-grower, marries at Ellis Island under the belief that she is a Russian peasant, has the most delicious accent. The plot is unusual and gripping. Hatten is very attractive to women, yet always they let him down.

Mr. Blettsworthy on Rampole Island.—By H. G. Wells. There is a creative energy behind the story which infuses it with an unflagging vitality through all its stages; even minor characters and trivialities of detail seem alive in the author's hands without effort. The story settles down to begin in earnest with Mr. Blettsworthy's experiences at Oxford, following which the story unfolds in the most interesting fashion.

Juggernaut.—By Alice Campbell. A mystery story you will not be able to put down once you have started reading it. Esther Rowe, anxious to remain in Cannes, obtains a situation as assistant to a strange, dour old doctor with a formidable personality. Almost at once she finds herself on the fringe of a mystery concerning Lady Clifford and her elderly husband. The old man is taken ill and the doctor and Esther go to attend him. Juggernaut grows more enthralling with every chapter.

The Walls of Jericho.—By Rudolph Fisher. Eugene O'Neil, Carl Van Vechten and other American writers have written in realistic fashion of the negro problem in the United States. Mr. Fisher gives us the life of the black quarter in New York at first hand, and his tragi-comedy of an ambitious negro who endeavored to escape from Harlem by buying a house near the whites, and thereby offended his own fellow negroes, is powerfully sketched.

Swan Song.—By John Galsworthy. With this volume Mr. Galsworthy's "Forsyte" cycle comes to an end. When one compares this book with the earlier ones of the Saga it is impossible not to observe a loss of artistry, and to regret that a series that began and continued so spaciously should tend towards a mechanical commentary on events of the day.

Short Circuits.—By Stephen Leacock. The latest Stephen Leacock book is particularly notable for the wide fields in which the author lets his fancies play. Its three hundred and thirty odd pages are divided into nine sections and an epilogue, and each section subdivides into anything from three to thirteen sketches and burlesques. The book is, in short, a roving burlesque, making all walks of life yield it copy.

Wholly set up and printed in Australia at the Victorian Railways Printing Office, Spencer-street, Melbourne, for the Publishers — The Victorian Railways Commissioners.

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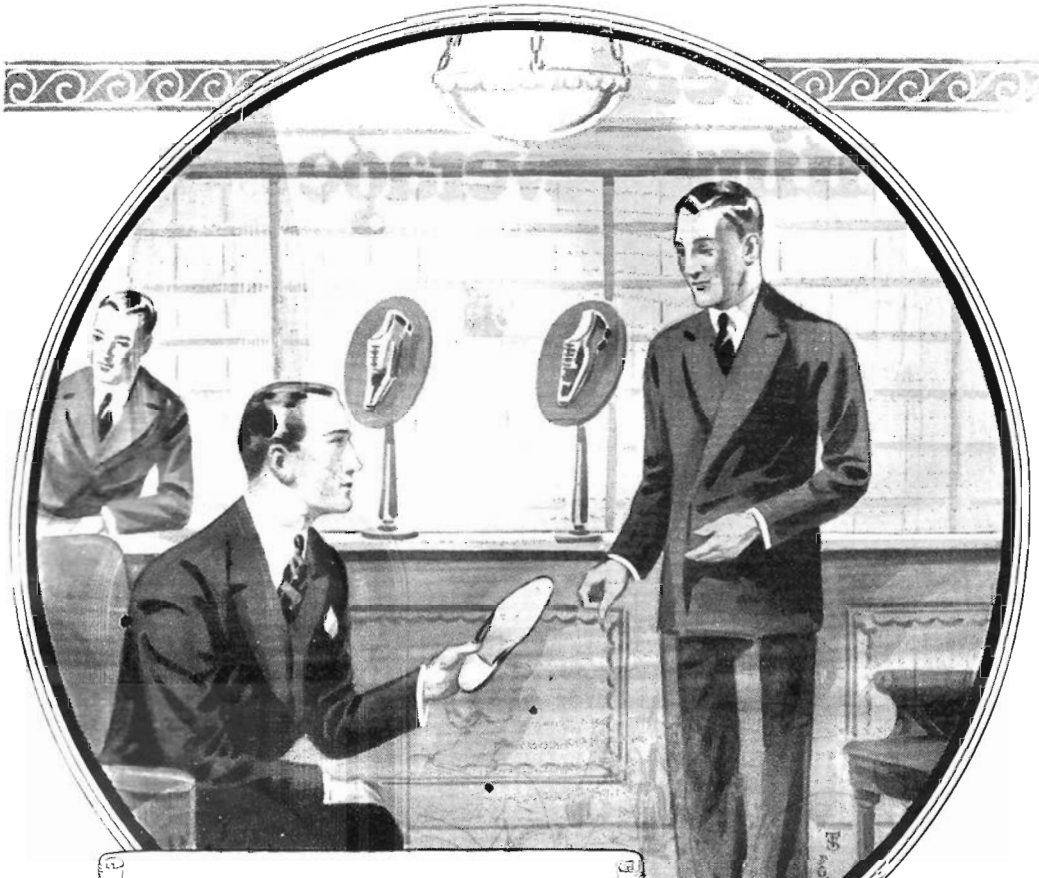
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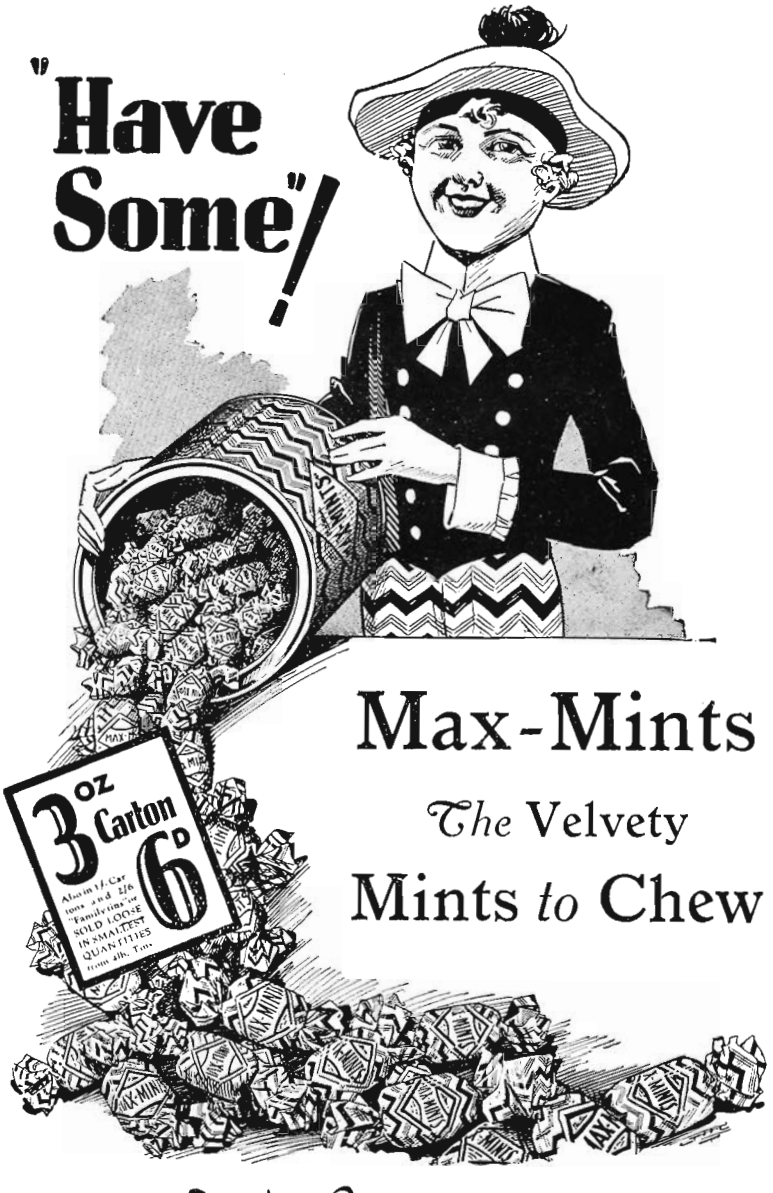
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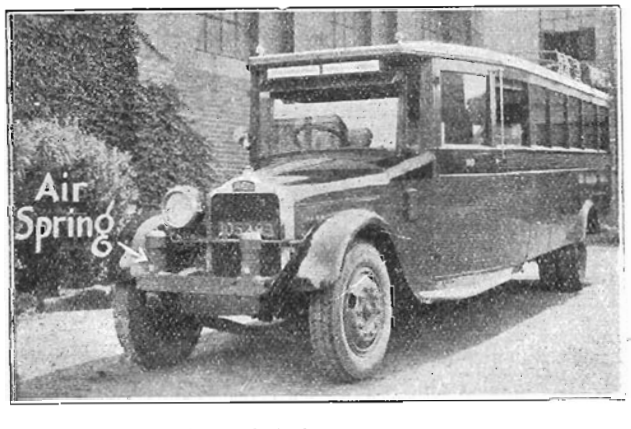
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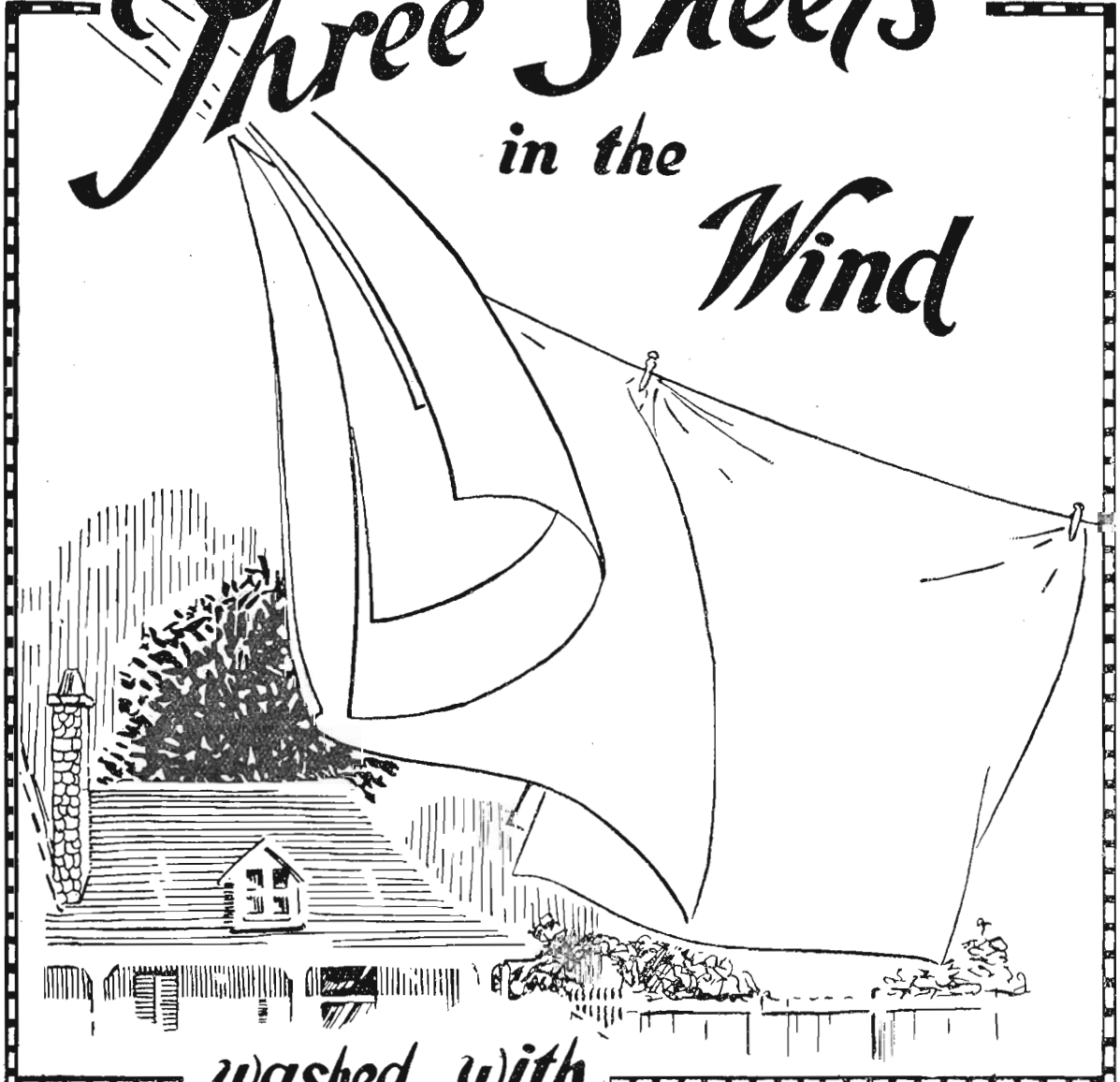
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SAFETY-HEALTH-BETTERMENT

A Little Thing *that* Counts!

By A. V. STENNING

Secretary, Railways Safety Council

A NEEDLE is a mighty useful little instrument, even if it has been given only one eye. As long as its eye remains intact, it will retain its usefulness. If the eye becomes clogged up with dirt, rusted, or broken in any way, its days of usefulness are over. The very life of the needle depends on its single eye, for, while the point must be sharp, the eye carries the thread, and probably it would be wise to take up the thread of my argument at this point. Which paradoxically is "the eye."

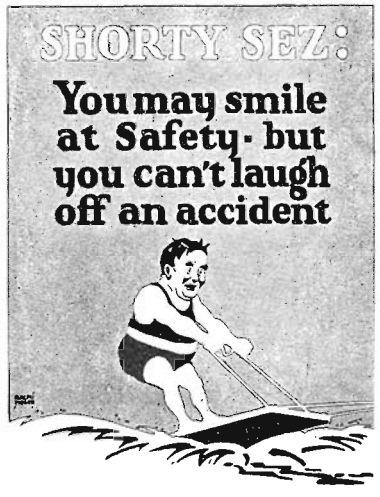
Now what I have said concerning the needle finds its counterpart in man; except, of course, that nature has endowed him with two eyes instead of one. The thread of his life is, indeed, carried by the manner in which he uses his eyes.

From my own personal experiences I am convinced that it is often necessary to pass through the shadows of deprivation and suffering to make one realise how bright the world is, and to appreciate fully the good things in it. We must frequently experience the lack or loss of a thing to know its true value. How much better the world would seem to us all if we could appreciate things while they are ours to possess!

But such is human nature. That which is placed far above any money value is often sacrificed for nothing. Health destroyed by dissipation or neglect is valued too late as a great treasure. Life that is most precious and sacred is placed in danger for no better reason than to accomplish some insignificant object, or for no reason at all.

Let me ask you what value you place on your hands or your feet, or what consideration you would take for an eye? You would, of course, tell me that money could not pay for these, and yet money is sometimes more carefully guarded by the owner than the members of the body I have mentioned.

It is hardly necessary for me to say that the eye is a most sensitive organ,



and can withstand very little abuse. The hand that is broken or crushed may be nursed back to normal, but the tiniest laceration often means the destruction of the eye; and very often when one eye is destroyed, the other also is affected.

But each day there are men engaged in out Workshops and Depots inviting such a fate. Goggles have been provided as a protection for the eyes for men who work on grinding wheels, and in many other positions necessitating eye protection, but unfortunately too often these goggles are not worn.

For the purpose of illustration let us consider for a moment "Eye-glass v. Glass-eye." If you happen to be in the former grouping, you will observe closely; if in the latter, you will be closely observed, particularly if somebody is on your blind side. In either case, however, whether in the formation of the words or in actual life, it is important where you place the eye. If you consider the eye first you have eye-glass, whereas, if you consider the eye last, you have glass-eye. Either is yours for the choosing, but choose wisely!

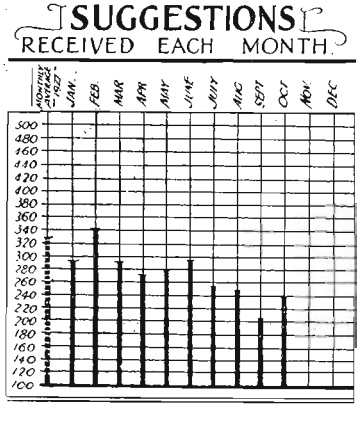
The far-sighted man is able to see an emery wheel or grindstone through goggles. He is also able to see that he is preserving and conserving his most valuable asset, good eyesight, and that he will be able to go on living a useful life for many years to come.

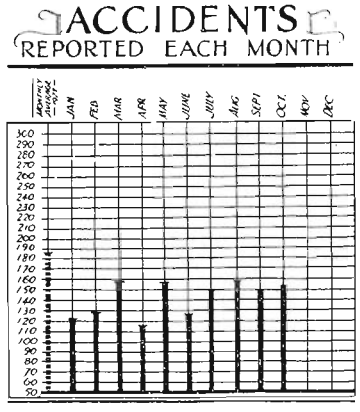
The short-sighted man is unable to see an emery wheel or grindstone through goggles on account of time lost in putting them on. He does, however, see the image of his pay dangling between him and the emery wheel or grindstone. Images will not stop emery, but emery, on the other hand, will stop images, and does, as he finds out to his sorrow when he finds a piece of emery embedded in his eye. He is unable to work. Was he short-sighted? Figure it out for yourself.

In my boyhood days, when I spent many happy hours playing marbles, the "commons," or those made of common clay, were less valuable than the "glassies." Depending on the brilliant hues of the "glassy" we would often swap many "commons" for one "glassy." Now we have grown up and many things have reversed themselves. No one when considering the eye would give up one "common" (eye) for a million "glassies."

Take every precaution to conserve your vision, that the days to come may be as full of happiness as the "marble" days of childhood!

Continued on page 6





Known *to All* Railwaymen

PERHAPS no personality is better known to Railwaymen than Tommy Coles—this dapper, alert figure, who manages to combine business with pleasure in such an engaging manner. We find him with a cheery "happy to meet you" smile at 101 Swanston-street, over Stewart Dawson's, busily engaged supervising the well stocked city showrooms of R. J. Byers and Co. It is from this firm that the wise railwayman makes his Mercery and Tailoring purchases, for the goods on show are carefully selected from the world's best Mercery markets.

For several years now this energetic business man has controlled in conjunction with his uncle, Mr. R. J. Byers, the well known Tailoring and Mercery business of R. J. Byers and Co. By allowing Mr. Coles to hold the reins of office, Mr. Byers has been able of late years to devote more leisure hours to the closer study of the intricate game of Bowls, and he is now in the happy position of being able to look back with pride on his life's work, and know that it will be carried on in a manner that will entirely meet with his approval. For Tommy enters into the spirit of business with just the same amount of enthusiasm that he displays in everything he undertakes.

He is happy to be able to combine with business ability a sound knowledge of the finer points of practical tailoring, in search of which he visited London, Paris and New York, and completed his studies by attending for three months the English Tailor and Cutter's Academy of London. His appointment to the Board of Management of the Master Tailors' Association of Victoria bears testimony to his status in commercial life.

Away from the worries of business Tommy shows a keen interest in all branches of sport. For many years he has been an ardent supporter of the Fitzroy Football Club, and quite recently was prevailed upon to use his energies in the organising of a movement for the betterment of the club. As secretary of the newly formed Fitzroy Progressive party he has, with his customary enthusiasm and thoroughness, been working solidly for the progress of the club, and his method of getting things done has won for him the entire support of those members who have the progress of the club at heart.



No one realises better, that success is not just something to be easily gained, but rather it is something that has to be strongly fought for with all the talents at one's command. This is just where Tommy wins; because, although he is gifted with more than the usual amount of perception and organising ability, he realises that each one concerned in the fight must be considered before action is taken. It seems quite reasonably certain then that, with this spirit predominating, the Fitzroy Football Club will take a new lease of life and return to that position which it so proudly held some years back.

Have You an Idea ?

YOU have a shilling, I have a shilling.
We swap.
Now you have my shilling, and I have your shilling,
We are no better off.
You have an idea, I have an idea.
We swap.
Now you have two ideas, and I have two ideas,
Both are richer.
What you gave you have,
What you got I did not lose.
This is co-operation.

Worst Aid

"It takes too much time to go to the dispensary for first aid treatment. That scratch didn't amount to anything. I can fix up cuts and scratches myself. I've never had blood poisoning yet."

You've heard all these excuses for neglecting slight injuries. But very few injuries that result in serious infections look serious at first, and every man who has ever had a serious case of infection has had previous wounds heal up without any trouble.

The fellow who practises "worst aid" on himself and others without having any training in the treatment of injuries, helps to increase the time lost through infection. In fact, unskilled treatment may aggravate the results.

In preventing an infection promptness counts. Get the proper treatment at once. Ordinary first aid methods are useless the next day or even a few hours later when the germs of infection have started their deadly work.

Remember—"An ounce of prevention is worth a ton of cure!"



December Suggestions Drive

The subject chosen for the 12th suggestions drive, which will be held during December is—

"**Water Supply and Conservation.**"

Suggestions should be submitted to the Betterment and Publicity Board in the usual way.

Suggestions on any other subjects will, of course, also be accepted.

Benefit by Your Ideas

The following Awards were made during October for adopted suggestions :—

Total amount ... £76
Highest amount ... £25

Arrangements now exist for the placing of adopted suggestions of particular merit before the Railways of the various States, also the Commonwealth and New Zealand Railways.

The Lost Idea

He had the thought he could improve upon
The working method they had followed long,
An easier way in which it might be done,
Yet he was timid, fearing to be wrong.
He'd thought it out. "It ought to work," said he,
"I wonder what they'd say should I suggest it?
I wonder if they'd think enough of me
To pay attention to it or to test it."

Still in his breast he kept his secret hid,
Thinking and fearing there was nothing to it,
Until one day another came who did
The work in just the way he'd thought to do it.

Lost was his chance. Had he but spoken when
The thought was born, then his had been the glory;
But life will seldom wait for timid men,
The bold rise high, and that's another story.

The moral's plain and clearly understood,
There's none, I think, today who will deny it;
A good idea isn't any good
Unless you also have the pluck to try it.

EDGAR GUEST.



A Bag With Holes

IN every walk of life there are to be found travellers who are putting their money into a bag with holes.

It is such an easy matter to drop your savings into some so-called investment that turns out to be worthless.

It is just as easy to waste your money on trifles.

A Pound in the Bank is worth two that are lost!

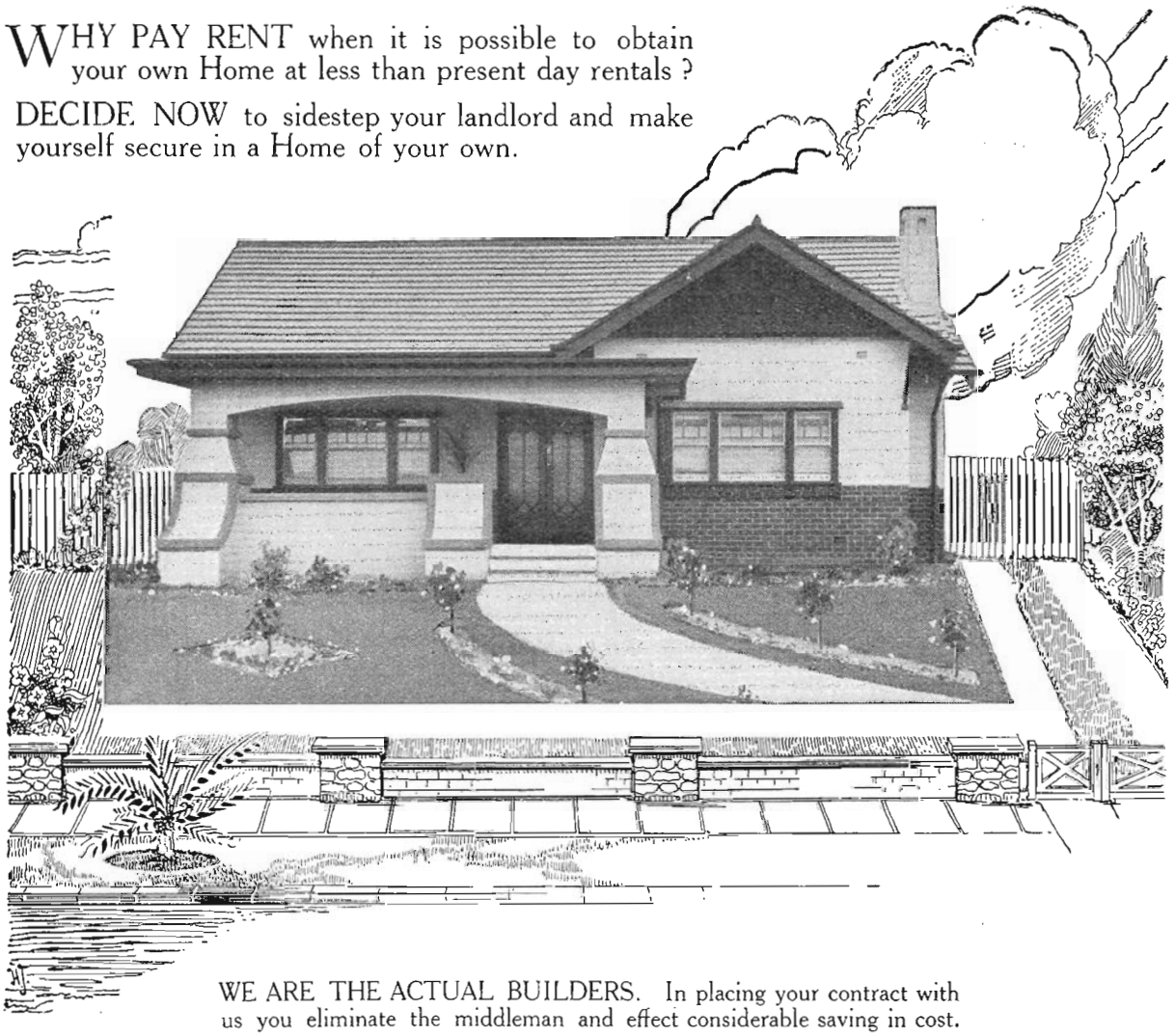
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REPAYMENTS are absolutely the lowest in Melbourne, being only 3/6 per week for each £100 borrowed, this payment covers both Principal and Interest at £7 per cent. You are not restricted in any way. You may sell or let at any time.

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OUR SPECIFICATIONS provide for all the latest labour saving devices, and above all, our Homes are DISTINCT and soundly constructed.

EVERY BUILDING is carried out under the personal supervision of a competent Architect, thus ensuring complete satisfaction to our clients.

INSPECT OUR MODEL HOME which is open day and night on Golf Links Estate, Camberwell, and it will convince you that dealing direct with the actual builder, who has no large overhead expenses, is the only way to receive a first class job at a minimum of cost.

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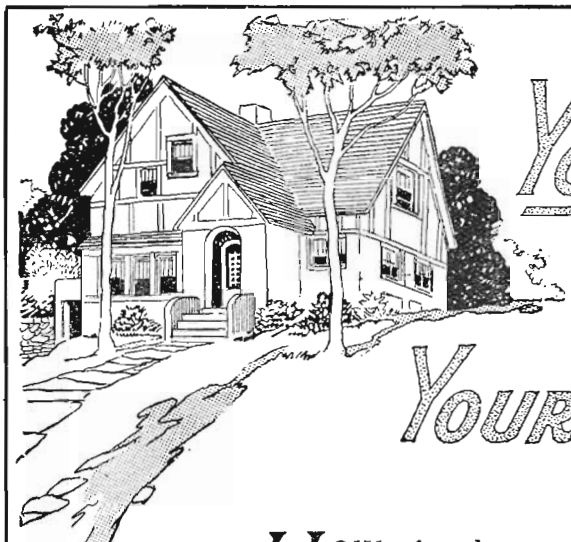
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Contributed articles, paragraphs, verse, and photographic prints (negatives are not required) must reach the Editor, care Betterment and Publicity Board, Railways Department, Spencer-street ('Phone Railways 393), NOT later than the 12th of each month. Correspondence relating thereto is carried free over the Railways.

Communications in regard to advertising should be addressed to the Manager Railway Advertising Division, Savings Bank Buildings, corner of Spencer and Collins-streets, Melbourne ('Phone C. 6414 or Railways 139).

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Peace *and* Goodwill

LET'S be open, and frank, and hearty! Let's extend the glad hand! Let's forget the petty criticisms and small-minded judgments that some folks pass upon us! Let's put aside the suspicion and distrust that breed national bickerings, community strifes, class antagonisms and disruptive wormings that eschew honest daylight! Away with them—Christmas is here with its spirit of peace and goodwill!

THE year has had its gloomy fill of strife, failure, pessimism and selfishness. The bitterness of the waterfront, the harsh recriminations of the hustings, the discouraging grain yields, the depressing shrinkage of business and rail revenue, the ungracious rumblings of dour discontent, the furtive sharp practices for paltry gain, the sting of poverty—all have left their mark. But let Christmas wipe the slate for a clean start again in 1929!

GENEROUS southern sunshine gives our Christmas advantage over the old-world Yuletide. Let it search every nook and cranny of our make-up: let it destroy the germs that insidiously weaken co-operative effort: let it revivify the spirit of peace and goodwill!

Holidays *this Way*, Please!



A new aspect of Nos. 9 and 10 platforms at Spencer-st., from which much of the Christmas passenger traffic will depart.

—Photo A. L. Reid



CHRISTMAS DINNER *on the* SYDNEY LIMITED

By Hannibal Jones

Serenely full, the epicure would say,
" Fate cannot harm me, I have dined today."
—Sydney Smith.

CHRISTMAS Day has perhaps the lightest interstate railway travel of any day in the year, and the Christmas dinners served in the steel dining car on the Sydney Limited will be comparatively few in number . . . But they will be appetisingly high in quality.

AT eight o'clock on Christmas morning, one chef, three cooks, two kitchen-hands, seven bakers and five butchers will turn their 18 pairs of hands to the preparation of a huge Christmas dinner for Sydney Limited travellers. Chef A. R. Cousins and Manager Lindsay McClelland of the Dining Car Depot will have discussed and drawn up the menu ; and the railway provedore, under the direction of Superintendent Bracher, will have seen that the joints, the poultry, the vegetables and the fish are available in sufficiency.

There will be a procession of raw products from butchery and store to kitchen and bakery. The butchers will be cutting up the joints, preparing the pickled pork, plucking the poultry and making the fat. The bakers will be filling the ovens with embryonic mince pies and raisin bread, slices and tarts.

In the Depot Kitchen

And in the white-appointed depot kitchen the chef will have paraded his cooking staff with their soup ladles at the present. One cook will be immersed in the manufacture of something like half-a-hundredweight of plum pudding, desisting temporarily at 11 o'clock to freeze a couple of churns of ice cream. Another will be reverently handling the pathetic corpses of large fresh schnapper and deftly stuffing lamb cutlets with ham for the entree. The third will be titillating the roasting joints and poultry and watching the potatoes brown crisply.

Through the warm and fragrant scene of industry will move the aloof, white-clad figure of the chef, in his wake a respectful acolyte of a pantry-boy. The chef will taste and salt, coax the soups, garnish, sauces and gravies to piquancy, add the master touches, approve or reject, direct and advise.

The all-important turkeys—some eight or more 14 lb. birds—will first plumb the depths of the ovens, followed closely by the beef and the roast pork.



Poultry, fish and meat ready for the Limited

Altogether, the weight of the joints and the poultry for the Limited's Christmas dinner will be approximately 1½ cwt. In addition, a hundredweight of succulent schnapper will be conveyed from the depot to the kitchen of the dining car, as well as 50 lb. of peas, a 22 lb. case of tomatoes and a hundredweight of potaotes. Besides, of course, the plum pudding and the ice cream.

The appearance of that ice cream on an Australian Christmas menu is evidence that the railway traveller is inclined to compromise with the dictates of customs at the Christmas table. He can eat and enjoy a roasting mid-winter dinner on a roasting mid-summer day, but he also welcomes the opportunity of absorbing a substantial portion or two of ice cream. Not that he is a traitor to his heritage. Like every Australian, he carries the burden of an English Christmas dinner lightly, and even with a certain zest.

On Christmas Day last year, in fact, 60 per cent. of the diners on the Sydney Limited called for plum pudding and brandy sauce; while, three nights before, with much the same menu offering, only 30 per cent. of the diners were able to resist the lure of wine jelly, dessert or peche Melba, and to choose plum pudding. And that substantial increase in the demand for pudding was recorded on a Christmas Day when the travelling conditions were so warm and so supremely unpuddingy that ice cream consumption was three times as great as on the non-Christmas day.

Diners Eat More Fruit

Incidentally, an interesting field for speculation is opened up by the sudden comparative slump in entree orders on that Christmas Day. One pictures the dining travellers averting their eyes resolutely from the second course in preparation for their contemplated onslaught on the plum pudding.

On the other hand, however, there was a much keener edge on the fresh fruit appetite of the Christmas diners than of the week-day diners. When allowance is made for the larger numbers travelling on the Limited on the week-day, the perplexing discovery is made that the Christmas diners, who avoided the entree and preferred plum pudding, ate, man for man, practically three times as many apricots, peaches, apples and oranges as their predecessors did earlier in the week. Puzzling indeed are the vagaries of the human palate, whether complicated or simplified by the influence of seasonable predilections . . .

Constant Xmas Dinner Demand

From the Refreshment branch point of view, Christmas Day custom in the dining car is an undersized traveller with the appetite of a dyspeptic—comparatively speaking, that is. On ordinary days he is liable to develop the girth and appetite of a Falstaff with disconcerting unexpectedness, or again to shrink to dyspeptic dimensions with little or no warning. Right up to the departure time of the Limited the Dining Car Depot is kept posted with the bookings on the express so that the element of uncertainty can be reduced to a minimum. The demand for Christmas dinner, however, is more or less a constant one. The train is always a light one, the number of dinners correspondingly the same.

And, in any case, the managing and catering are in hands which are as capable as they are experienced. This Christmas dinner will be the eighth which Manager McClelland has provided for interstate travellers, and the second which Chef Cousins has cooked and prepared.

The chef is one of the fast-vanishing old school, reared from boyhood in the kitchen, and conversant with all the inner mysteries of the art of cooking. He has been the master of the kitchen in several big hotels in Melbourne and Adelaide, including a long term at the Australia and at the old exclusive Savoy.

From his knowledge and experience, the chef is emphatic that the dinner served in the railway dining cars is equal in standard to the most expensive *table d'hote* menu offered in the city's highest-priced hotels.

"I have prepared," he says, "a dinner for a party of 18 in a big hotel on Derby night which cost, with liquor, no less than £144. And yet that dinner, so far as quality is concerned, was no better than our five-shilling dining car meal.

Would Cost 19/6 in U.S.A.

"I have compared our *table d'hote* menu with the menu of a typical English railway dinner, and the *a la carte* menu of a typical American diner. In the former case, the English price was the same as ours, but the menu offered simply a three-course meal—no entree, one soup compared with our choice of two, one joint beside our choice of three. In the American comparison, I carefully selected sufficient items from the *a la carte* prices to build up a *table d'hote* meal the equivalent of our five-shilling dinner. The American price totalled approximately 19s. 6d."

The chef is a stout protagonist of the use of Anglican terms on the dining car menu. "If we were the French railways," there might be something appropriate in the use of French language on our railway menus. But why use French terms on a Victorian railway menu? It would be just as logical to write in Italian or German or Czecho-Slovakian."

However, the language is a small matter beside the dinner. A Victorian Railways dining car meal by

Concluded on page 54



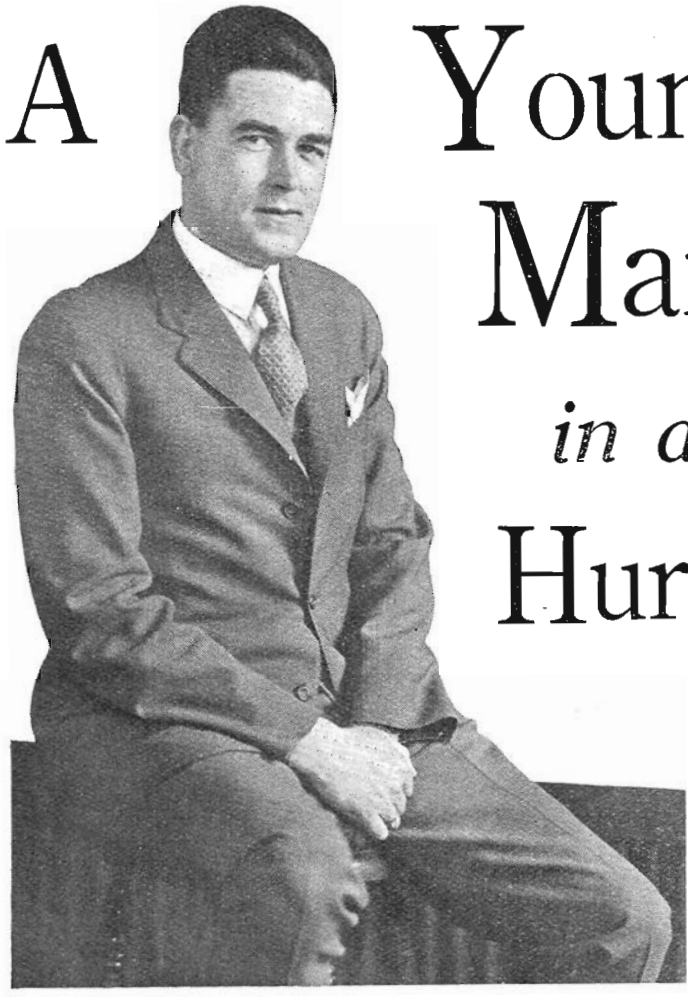
Preparing joints in the Railway butchery

A Young Man in a Hurry

ON Christmas Day, 15 to 20 years ago, schoolboy Dave Nolan made up his mind that he would have a £1,000-a-year job by the time he was thirty.

On the sixth of this month, electrical engineer David John Nolan of the Victorian Railways has his thirtieth birthday, and before Christmas Day this year he will have exchanged his position of railway engineer at £600 a year for that of Superintendent of Power with the Sydney Municipal Commission at £1,100 a year.

He aimed high, but he aimed straight.



Mr. David Nolan

IT would be neither unseasonable nor inappropriate to refer to the transfer of the Nolan brain, experience and personality from Melbourne to Sydney as a generous interstate Christmas box. In Victoria David Nolan was born, in Victoria he was educated, and in Victoria he found and grasped his opportunities. He left a Victorian job for his experience overseas, and he returned again to a Victorian job with that experience. And now the Sydney Municipal Commission celebrates the approach of the festive season by availing itself of his services as the controlling influence behind the supply of power from its Pyrmont and Bunnerong stations.

Primarily, of course, the appointment is a well-deserved recognition of the capacity and experience of the young Victorian engineer. But it has more than a primary significance. It is a striking tribute to the efficacy of the Victorian Railways department's liberal apprenticeship policy, and a distinct compliment to the service as a whole.

Phenomenal Record

Viewed from any angle, this young man's record is a phenomenal one. Within a decade of his entering the railway service as an apprentice electrical fitter, he was a fully fledged engineer, and had picked up two-and-a-half years' sifted gleanings with the big General Electric Company of America, and with Messrs. McLellan and Junkersfeld, the New York consulting engineers and contractors. Even his present four-figure appointment is separated from his apprenticeship days by an interval of only 13½ years. David John Nolan is a young man in a hurry. When he entered the railway service in 1915, the Newport Technical College for apprentices was an unrealised ambition, but a Commissioners' scholarship helped him to an engineering course at the Workingmen's College plus an allowance of £150 a year. He had his diploma of electrical and mechanical engineering by the end of 1919, and came into the Department as an engineering assistant in 1920.

Followed his experience in Uncle Sam Land, his probing study of railway electrification, high tension transmission systems, and steam and hydro-development schemes with the General Electric, and his experience in charge of the testing staff of McLellan and Junkersfeld. The General Electric's chief engineer at Schenectady declares that "... we have had many representatives from foreign countries associated with us for limited periods of time, and I unhesitatingly say that Mr. Nolan is among the very best we have had working with us." Colonel Junkersfeld doubled the Victorian's salary with two unsought increases during his 12 months' stay with the New York firm, and Nolan finally returned to Victoria with a cabin-trunk neatly packed with glowing testimonials, and a brain neatly packed with sound ideas.

As engineer-in-charge of the power division of the Electrical Engineering branch, the 26-year-oldster began to have a big say in maintenance, operating and testing procedure at Newport "A" and "B" power stations. He relieved in administrative positions at the two stations, he was the Department's witness on behalf of his branch in the main 44-hour case before the Arbitration Court, and he collaborated with the acting chairman of the Staff Board on a special board of inquiry which investigated various phases of branch administration.

For some months in 1926, also, he assisted Mr. W. H. Sawyer in his survey of the financial and engineering affairs of the State Electricity Commission.

He thus brings an old head on young shoulders to the service of the Sydney Municipal Commission. That he will make a success of the new job needs no laboring. That he is by ordinary standards at least 15 years ahead of himself is just as obvious.

And equally clear is the fact that the Victorian Railways Department has real cause for regret in its inability to hold his services.

Things we are Talking About

CHRISTMAS

WITH almost incredible swiftness Christmas recurs to break the daily round with its rush and excitement and the sense of "something in the air." It seems a mere matter of weeks since we were talking, in these columns, of fattening geese, of shops a-blossom with seasonable fal-lals, of perspiring Santa Clauses' of railwaymen taking off their collective coat and rolling up their collective shirt-sleeves in preparation for the holiday exodus from city to beach, bush and hill. Yet here it all is again, after a year packed with incident, controversy, and ups and downs generally. Downs, unfortunately, have predominated as far as prosperity and general well-being are concerned. But a period of preponderating ups is, we hope, at hand. Therein lies the difference between the atmosphere of Christmas 1927 and 1928.

OUTSIDE THE PALE

THE misgivings of a year ago, unfortunately to a large extent realised, have given place to a much more cheerful outlook. As a consequence, Christmas trade, including the passenger carrying trade, should benefit. By the latter, of course, we refer exclusively to the railways. We express no faith, hope, or even charity, as far as the road competitor's business is concerned. Which sentiment may seem un-Christmassy, but piracy is outside the pale of any sort of sentiment. A tradesman would hardly send a box of cigars to a rival who had tried to burn down his shop.

RAIL COMPETITORS' TACTICS

INCIDENTALLY, the tactics employed by some of the railways' rivals to filch traffic originally created by the train are, in themselves, calculated to inspire anything but the spirit of goodwill. Many stationmasters are familiar with the libels and damaging half-truths about the railways which road competitors disseminate among potential freight-space purchasers, but it takes a motor tourist agency to misrepresent its own service to catch custom. The agency in question advertised a certain tour the itinerary of which included "two days at the Mt. Buffalo Chalet." Part of two days was certainly spent there by the trusting tourist, but as he arrived about 5 p.m. on one day and left according to the non-disclosed program about 10 a.m. on the next, he actually occupied his room for something less than one day. If he protested, he was informed by the tour conductor that the others wanted to push on with the tour. The irony of the whole thing is that the main attraction of the motor tour belongs to the railways.

BUSINESS RECOVERY INDICATED

NEVERTHELESS, rail business has already started to pick up again, despite competition and despite the increase in privately-owned cars. Cup traffic gave an unmistakeable indication of the condition of affairs that will help to make a brighter Christmas this year. Electric trains took 46,268 people to Flemington, compared with 44,453 on Cup Day, 1927, while trains to the hills and beaches were better patronised. Flinders-street bookings on all lines showed 37,985 passenger-journeys, against 34,998 on the previous Cup Day. Another and perhaps more convincing indication of returning business is the fact that the total railway revenue of £4,078,383 for the first third of the financial year is only a mere £280 below that for the corresponding period last year. October goods traffic was mainly responsible for the improvement, particularly that of the last ten days of the month, when the total revenue of £362,111 was £42,278 higher than for the same period last year.

WHEAT PROSPECTS

HOPES are now centred on the wheat traffic which promises much. The latest outside estimate of the State's crop is between forty and forty-two million bushels compared with last year's meagre twenty-six millions. A forty-five million bushel yield has been forecast by the railways, and this is probably nearer the mark. Abnormal activity in cornsack business, by the way, followed the October rains, and was reflected in rail traffic. From October 22 to November 10—17 working days, excluding Cup Day—no fewer than 882 trucks were loaded out of Melbourne Goods with 7,652 tons of cornsacks.

WANTON VANDALISM

WHEN the Railways Department goes out of its way to give the best service possible, and as often happens, cheerfully undertakes a mass of detailed arrangement to provide special trains, it least of all expects its efforts to be repaid with gratuitous acts of vandalism. But that precisely is what occured at the beginning of last month when three specials were provided to take Technical students from the metropolis to the Victorian Technical Schools' Sports at Maryborough. For no apparent reason, other than congenital lack of restraint, sections of the boys ran amok and, among other things, broke 40 carriage windows, wrenched off 24 window bars, cut and hacked eight seats and smashed four partition glasses. Hat racks, arm rests, louvres, deck lights and lavatory fittings also suffered from the unwelcome attentions of these young hoodlums whose upbringing doesn't seem to have included elementary instruction in ordinary manners, let alone respect for property. The extent of the damage was no less than £37 9s. Brighton and Caulfield students were the worst offenders, although others from South Melbourne, Richmond, Collingwood, and so on, were anything but blameless.

GENEROUS GIVING

FROM time to time charitable appeals are made throughout the Railways Department, and the response invariably shows that railwaymen are no whit less endowed with the instinct to give generously than are their fellows in other walks of life. Recently the Commissioners permitted the circulation of subscription lists for the Austin Hospital, which besides being the only hospital in Victoria for chronic diseases is the only medical charity in Melbourne equipped with cancer wards. The appeal was made for £100,000 to increase the hospital accommodation and improve its equipment, in view of the fact that it was turning away more patients than it could accept. Railwaymen's response of £457 4s. 8d. elicited the following note of thanks from the hospital authorities, last month:

I am desired . . . . to thank you very heartily and to ask that you will kindly convey to the contributors an expression of our sincere gratitude and appreciation. That such a handsome gift should reach our hands at this particular juncture, when the resources of the Hospital are strained to the utmost, is indeed satisfactory and encouraging. All the same it is the spontaneity and readiness exhibited by the givers in their desire to preserve the integrity and usefulness of our great institution that affords us the greater pleasure.

BACK IN '62

APROPOS the introduction of the railway summer timetable, a correspondent sends us some interesting details of the timetable issued in July, 1862. All the necessary information was contained in a book of 24 pages, 2½ inches by 2¼ inches. The Government lines concerned were those between Melbourne and Kyneton, Ballarat via Geelong, Williamstown and Essendon, and the table of fares shows that third-class travel had just been abolished. Monthly tickets, it appears, were issued between Melbourne and Williamstown, Footscray and Essendon, at rates ranging from 12s. 6d. to 35s. A sheet timetable of the period is now in the possession of the Historical Society of Victoria. It was issued for the St. Kilda and Brighton Railway, and was probably the last in use before the closing of the loop line across Albert Park which connected the St. Kilda and Windsor (then Chapel-street) stations. Seven trains ran daily between 7.50 a.m. and 7.40 p.m., with eight on Saturdays and five on Sundays. Even 66 years ago, there, apparently, were trains to the beach on the Sabbath to provide possible critics with argument about the introduction of the Continental Sunday—argument still as cherished as it is groundless.

COMPLETE CONFIDENCE IN RAILWAYS

THAT the railway management has the complete confidence of the vast majority of people in the State has been overwhelmingly demonstrated, of late, in the resolutions of various business groups, and in published letters of appreciation and other testimonials. Perhaps one of the most spontaneous of the last-named was that of Mr. T. S. Nettlefold, chairman of the Brotherhood of Resonians, who, in proposing Mr. Clapp's health at the inaugural dinner of the Brotherhood last month, suggested that when next the Governor was confronted with the resignation of a Ministry he should send for Mr. Clapp and ask him to form a Government. The applause that greeted the remark was probably heard two blocks away.

RESO IDEA SPREADING

NEARLY two hundred Resonians from all over the State attended the dinner at which a real sense of brotherhood seemed to break down all formality, and the fact that most of the diners wore their Reso buttons helped to strengthen that sense. Travel is one of the greatest *media* in the world for the stimulation of individual friendships, especially when journeys are undertaken with a common object. Subsequent gatherings such as the Reso dinner help to cement those friendships. "The Reso idea," said Mr. C. D. Lloyd, a much-travelled Resonian, in proposing the toast of "Reso," "appears to me as enshrining service, comradeship and community spirit. It is now only the beginning of a gigantic idea that is going to spread."

SQUARE OR UNIFORM GAUGE?

MR. MOLOMBY who, in the absence of Mr. Clapp, replied to the toast of the Railways Commissioners, which, by the way, was most enthusiastically honored, introduced a note of sound commonsense into the civic square controversy which has been agitating the press and public for months. "All who have been on interstate tours," he said, "have been inconvenienced by the break of gauge in our Australian railways. The idea has recently been pushed in Victoria for the creation of a civic square. The Railways Commissioners say that if millions of money are to be spent, let us start on the unification of railway gauges. It would add materially to the prosperity of Victoria as well as adding greatly to the comfort of travellers." The remarkable thing was that in the resultant chorus of "hear, hears" from Resonians, sixty per cent. or so of whom represented city interests, there was not a single dissentient.

N.Z'S. "COMMERCE TRAIN"

MR. LLOYD'S prediction that Reso is only the beginning of a gigantic idea that is going to spread is already moving toward fulfilment. New South Wales has followed Victoria's example and is preparing a special train to tour the State. Particulars of the first tour are expected any day. New Zealand has caught the spirit of the thing and has already made a start with a "Commerce Train" which, organised by the Railway Department in conjunction with the Auckland Chamber of Commerce, recently made a very successful tour of the Auckland Province. By a recent mail copies were received of a set of Commerce Train News sheets, daily publications on this train, which are similar to, but more elaborate, than the Victorian Reso Bulletins. The Reso idea has, it is understood, extended even to England.

SOUTH AFRICA ADMIRES S. 300

SOUTH African railwaymen are displaying great interest in the published reports of Victoria's new Pacific engine, according to a Capetown correspondent who regularly receives the V.R. Magazine. "Several men," he writes, "who are engine drivers or who are in the workshops, live near me, and, at times, have dropped in to see the latest reports. The foreman of the works says he thinks that this is the biggest job to be done in the Southern Hemisphere. He added: 'The V.R. is evidently a go-ahead railway and knows something about locos.'"

FREIGHT ON MAILS

THE big task of compiling the amount of freight which mails will bring to the railway during the next two years has just been successfully completed. Since 1917 mails have been charged half parcels rates, with a percentage increase mutually agreed upon to cover subsequent higher operating costs. Biennially, on 26 specified weighing days, every bag of mails despatched from every station is weighed and recorded, and particulars are sent to a special staff of rates' experts working under the supervision of Special Officer J. E. McDowell. These determine the annual amount of freight payable by the Post Office for the next two years. Some idea of the extent of the mail traffic over the railway can be gauged from the fact that the average weight of mail matter sent from Melbourne to the four other mainland capitals was 20,348 lbs. per day during the weighing period, while the weight of the overseas mail arriving at Melbourne by one boat for the three eastern states was 60 tons.

TEAM WORK IN EMERGENCY

CALLED upon to stand up to a sudden emergency, recently, Bendigo railway district acquitted itself with considerable credit. The emergency was the failure of a bridge between Arcadia and Toolamba, which necessitated the diversion of all traffic to and from the Goulburn Valley, through Bendigo and Echuca. Quick work was needed — and forthcoming — to provide the extra engines and crews and to formulate suitable schedules for the suddenly increased traffic which included a number of livestock specials on the Tocumwal, Picola, Cobram and Dookie lines. With all these, time, of course, was the essence of the contract. Station staffs had to be strengthened to provide a continuous day and night service, while the yard staffs at Bendigo and Echuca had to stand up to considerable pressure of work. For the last 48 hours of the traffic diversion, no fewer than 3,746 vehicles were handled at Bendigo, and 151 goods trains arrived and departed. The whole thing was just another object-lesson in what willing team-work can accomplish.

Handling The Christmas Mail



Mr. Brown

By
H. P. BROWN
M.I.E.E., M.B.E.
Director-General of Posts and Telegraphs

FORTY-four millions of letters and small packets—an average of roughly seven per head of Australia's population—and 1,176,000 parcels passed through the General Post Offices of the Commonwealth's six capital cities during last year's Christmas rush.

How this colossal mountain of mail was handled and will again be handled this Christmas, and how its efficient despatch would be impossible without rail transportation, is explained by Mr. Brown in this article specially written for the Railways Magazine.

WHY should this subject interest readers of the Victorian Railways Magazine? The reason is not far to seek. If the Post Office load were taken off the railways the result would give concern to railway managers, and would necessitate a great curtailment in the number of railway employees. This almost sounds as though there were a threat to dispense with the services of the railways in the conveyance of Post Office mails. Frankly, the Post Office could not function to meet present day requirements if the railways did not exist to perform its transportation work.

Fortunately, our railway system has been conceived and developed in an amazing way. The length of track available throughout the Commonwealth, and the places served, constitute an achievement of which we all may be proud. Its extent, its ramifications, its trail through extensive areas, where population is sparse, make an impressive accomplishment for a population which even today totals only six and a quarter millions.

Gauge Break Hinders Business

The one sad thought is the absence of a uniform gauge. I must not labour this point, however, for it has been treated at length elsewhere, and I will restrict myself to an expression of the wish that our statesmen may find it possible to vigorously pursue the policy which has already been initiated on certain important interstate routes.

To attain the result of our dreams will need a lot of courage and a lot of money. It behoves everyone of us to understand the significance of such a transformation in our railway system, and having appreciated the value to ourselves and to posterity, to go forward with a constant urge in support of those in whose hands we have entrusted the destinies of our nation.

This is rather drifting from my subject, but it is to be remembered that delays and enhanced costs, due to handling all freight at points where break of gauge occur, have their detrimental effect on the mail business of the Post Office.

The Post Office transportation bill for mails sent by railway reaches a total of half a million pounds annually, and the Victorian Railways collect roughly one-fifth of that sum.

Christmas is the peak season of the year for postal business. The volume of the traffic is vastly in excess of that to be dealt with during any other portion of the twelve months. Christmas is the season when we consciously remind ourselves of our friends—in many instances friends we seldom have the privilege of seeing. We like to mark the occasion by sending a letter or card of good wishes, sometimes a parcel containing a gift.

287,000 Mailbags in 12 Days

Last Christmas, letters and small packets sent through the General Post Offices alone of the six capital cities, during the two weeks prior to Christmas Day, totalled 44 millions—roughly seven each, on the average, for every man, woman and child in the Commonwealth—and, during the same period, 1,176,000 parcels were handled in these six offices. The number of bags of mail matter totalled 287,000.

In the Post Office we have the same difficulties as those confronting the Railways, difficulties which make the rendering of service unduly costly, and which also react on the public and cause them unavoidable inconvenience. So many people want to do the same thing at the same time. They all want to travel to the city together and go home together. They want to speak on the telephone at the same time, send telegrams and post letters also at the same time.

Costly Convention

One is almost driven to the conclusion that in some respects our lives are too well ordered, and we conform too rigidly to convention. We have to pay for our methods and for the routine we insist upon following. In all the transportation and communication services there is the inevitable strap-hanging or its counterpart. I observed an interesting attempt to overcome some of these disabilities in a large factory overseas, employing some thirty thousand hands. The staff commenced work in groups, and of course left off in groups. The several groups started at quarter hour intervals, and they also finished at similar intervals. As a consequence the staff were able to travel backward and forward in greater comfort.

There is a daily congestion of business in the Post Office which handicaps the staff, and makes their condition of employment less pleasant than it need otherwise be. People write their letters at all hours of the working day, but they seem loth to part with them until just before the last postal collection is due to be made. They need an ultimatum to induce them to deposit their correspondence in the letter boxes.

At Christmas time, when the average individual posts perhaps ten times his normal number of letters, packets and parcels, and holds back their dispatch to the latest possible date before Christmas, the strain thrown on the Post Office is heavy indeed. Were it not for the fine spirit in which the staff tackle their job, and for the close co-operation and invaluable help of the Railways, a large volume of the Christmas greetings and presents would not reach their recipients until the New Year. Christmas Day would not have the joy it does have in many households.

300 Extra Men Employed

Last year our heaviest daily postings of letters, etc., were on the 19th, and of parcels on the 22nd of December.

Nearly 300 additional men were employed in the mail branch during the fortnight prior to Christmas Day, 1927, and the staff expenditure for that period was increased by over £10,000.

The treatment of a letter through the post seems a simple operation, and I admit there is nothing very difficult



Typical scene at the General Post Office, Melbourne, when a heavy mail arrives

about it if the organization is good, and all parties concerned co-operate. But the great volume to be treated simultaneously, the need for rapid dispatch and delivery, the preparation to catch trains departing to schedule, the brief period which many persons deem sufficient for the staff to treat their letter—forgetting perhaps that thousands of others are also content to give the Post Office the minimum time—the inadequate, badly written and frequently inaccurate instructions to the Post Office concerning the person and his whereabouts for whom the correspondence is intended, pile up for the postal official a problem which is not easy to solve to the satisfaction of an exacting public.

The Course of a Letter

But we must not complain. It is our job, and we are glad to do it cheerfully ; we could do it better if the public gave us a better chance. We have our shortcomings, and we recognise that others also must have theirs.

May I sketch the gauntlet which a letter has to run after it is written and until it reaches the person for whom it was written ?

It requires to be placed in an envelope, which should be addressed with clear instructions to the person intended. The envelope is sealed, and to it is affixed that mysterious piece of paper we know as a postage stamp, which gives the user the greatest value for money of any of his purchases. A walk to the nearest pillar box and the deposition of the letter through the slot relieves the sender of any further responsibility.

In due time the letter collector arrives, possibly in a mail van, and transfers the letter to a bag which is subsequently emptied on to a large specially designed table in the mail sorting room. The piles of letters which converge there are arranged with the addresses uppermost, and the bundles of letters so " faced-up " are conveyed to a machine capable of impressing the office date stamp on 600 letters a minute.

The letters then go in trays to the primary sorting racks, where they are subdivided into some 50 odd groups. The individual groups from each sorting position are collected together and are transferred in trays to the final sorting racks, where they are separated into possibly 40 groups, representing on the average about 100 post offices. This process brings letters in the same groups together for enclosure in the relative mail bag, which is labelled to the office of destination, securely tied and sealed. The bags are transported by motor to the railway station, and checked off into the mail vans of their respective trains. At the railway station of destination they are checked over to the postal official, transported to the local post office, and the contents go through a further sorting process. The letters for local delivery are picked out and sorted into postmen's routes. Each postman then takes those proper to his route, and makes a further sorting to conform to the actual order of the walk or beat which has been prescribed for him to follow. The letters for this purpose must be arranged in street order, and then in order of the street numbers. The use of the householder's letter-box and a blast of the departmental whistle enables the Post Office to complete its obligations.



A poster used by the Post Office to inculcate the "Help Us to Help You" spirit at Christmas

The simplest possible case has been described, but the reader, if so disposed, can visualise the operation when a letter must be handled at several intermediate offices owing to the impracticability of establishing a direct mail service between each town or village, and every other town or village not only in the Commonwealth but throughout the world.

Safe and Careful Handling

Having in mind the association between the Postal and Railways Departments in the conveyance of mails to their destination, it will be appreciated that their safe transport and due delivery can be assured only if all concerned fully recognise the need of safe custody and careful handling during transmission.

I have said nothing of sea-transportation, customs examination of overseas mail matter, road services in areas not served by railway, and I have omitted mention of many stumbling blocks which retard the easy flow of correspondence from the street pillar receptacle to the door or the premises where the letter is to reach its rightful owner.

The road services in the Commonwealth are worthy of mention. The individual services reach the remarkable total of 5,157, and the payment made by the Post Office for these services costs roughly £600,000 per annum. When one recollects the isolation of some of the residences within this huge continent, and considers that there is scarcely one which is not served directly by the Post Office, it will be realised what a task is undertaken in respect of a letter bearing a three half-penny stamp, which is destined for one of these habitations. It is no uncommon thing for the Post Office to spend as much as £10 annually over and above all the office routine and railway transportation service to provide the road service delivery to one adult.

Economic and expeditious traffic circulation, which means the best routing of mail matter from and to every post office, is an exacting study. Herein is scope for financial wastage and poor service, but opportunity for the skilful organiser and the alert mind.

What P.O. Has to Contend With

Having sketched the treatment of a letter through the post, I must leave the reader to visualise what is entailed in dealing with 44,000,000 letters, cards, packets, etc., and 1,176,000 parcels in the two weeks preceding Christmas Day—an interesting mental process when we sit back comfortably after a good Christmas dinner.

We lose a few letters, and we lose a few parcels ; we have not yet attained perfection in the Post Office. Our efforts are directed to a realisation of the ideal ; human nature stops us from reaching that high water-mark.

Apart from our own sins, the public hand us about 40,000 unaddressed letters during the year, and nearly 4,000,000 incorrectly or inadequately addressed letters, and one can only hope that they are not surprised or aggrieved when the clairvoyants of the Post Office fail to completely discharge the obligations which are entered into when the Department sells a postage stamp—not for its intrinsic worth, but for the service it is capable of commanding.

Like the railway staff, the Post Office employees work to give service to the whole community. Communication and transportation facilities are the life-blood of social intercourse and commercial activities, and it is a grand thing to be privileged an association with such vital enterprises which afford the greatest opportunity to serve our fellow men and enhance the prosperity of our country.

At Christmas time both jobs are specially arduous, but what a delight there is in achievement !



IS *the*— Railway Doomed?

By
T. F. BRENNAN
F. I. C. A.
Chief Accountant
Victorian Railways

BECAUSE production without transportation to its market is valueless, and because no other known transport system than the railways can cope with a 146-mile haul, which was last season's average for wheat—Victoria's mainstay of wealth—it follows that, on the Government Statist's figures, £40,000,000, at least, of Wimmera and Mallee land values would utterly disappear with the scrapping of the railways. Other provinces would be more or less similarly affected.

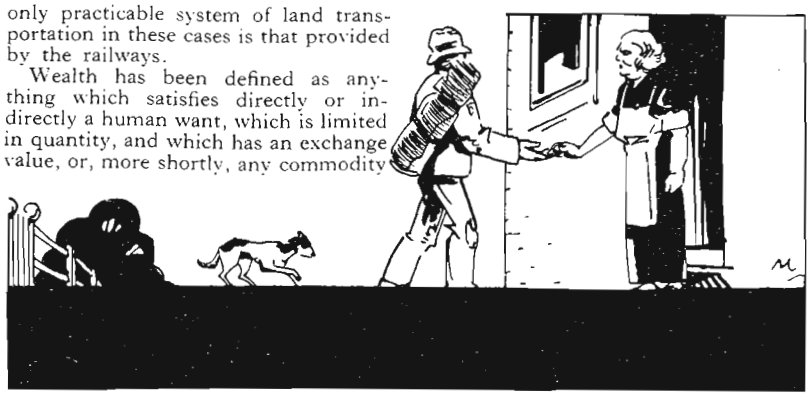
Road transport, which is largely supported by the wealth which the railways essentially help to create, has its appeal and its use; but, whatever happens, the indispensable railways service must be maintained. These points are tellingly made by Mr. Brennan in this article.

FROM time to time statements have been made in relation to the Railways that their usefulness is approaching the end, and that they should be scrapped in favor of good roads. Some little time since, it was reported in the press that the President of the National Roads Association had publicly stated that good roads were even more necessary than railways.

Wherever men meet, these statements, or statements of a like nature, are discussed, and what appears to be a not inconsiderable proportion of capable business men accepts the view that the railways are doomed to extinction. It is clear, therefore, that there is need for setting out the facts showing the position which the railways occupy in the economic life of the community.

In the first place it may be affirmed with confidence that, next to the land, an efficient system of transportation is at least equal in importance to any other important factor in the production of wealth from what are known as the primary industries. And for other than very limited distances, the only practicable system of land transportation in these cases is that provided by the railways.

Wealth has been defined as anything which satisfies directly or indirectly a human want, which is limited in quantity, and which has an exchange value, or, more shortly, any commodity which has exchange value.

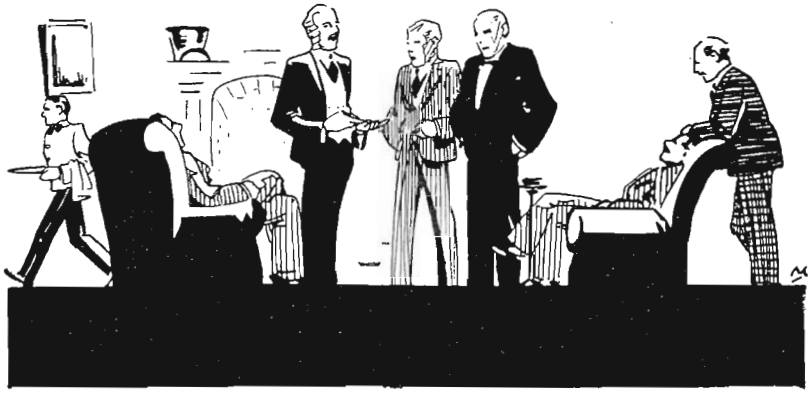


Wealth has been defined as anything which satisfies a human want

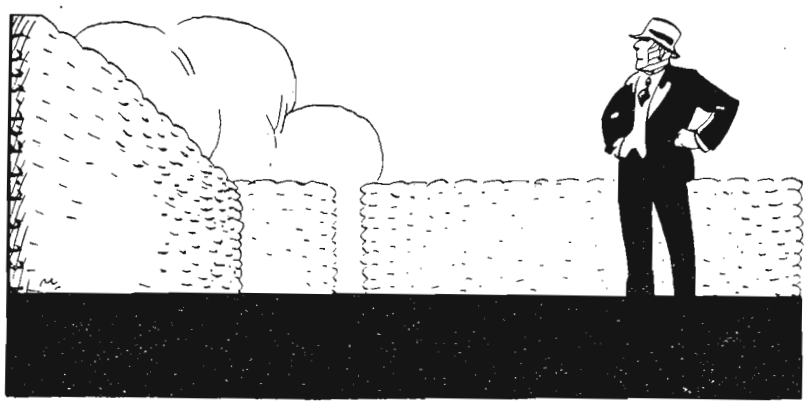
The factors which are necessary for production are land, labor and capital, with which is frequently associated organisation. No one of these can function without the assistance and combination of the others; but the results accruing from their successful combination will be nullified in most cases unless the product can be taken to the consumer, and this involves transportation.

The need for adequate transportation was demonstrated to the great disadvantage of Australia during the war years, when owing to the shortage of shipping facilities our surplus stocks of wheat had to be piled in great stacks to await the means of shipping them overseas. In many cases considerable loss was sustained by reason of the damages suffered in the stacks, and had it not been for the special steps taken to meet the abnormal situation in every State in Australia, and the generous assistance extended to us by Britain, our position would have been a very serious one. We had in excess of our needs millions of tons of wheat which would have had great value if it could have been transported to those who wanted it; but, in the absence of transportation, it lay useless in the stacks in danger of rotting until the required ships again became available.

A like position would immediately arise in the absence of facilities to



Wherever men meet these statements are discussed



We had in excess of our needs millions of tons of wheat

transport our surplus wheat from the points at which it is produced to the seaboard. Except for its exchangeable value most of the wheat produced in Victoria—in the Mallee district, for instance—is of no use to the producers in, or to the inhabitants of, that district. It must, therefore, be transported to the market, and as far as the land transportation is concerned, the only possible means of profitably achieving this end are provided by the railways.

The primary industries are of supreme importance to Victoria, and, while most of them are greatly dependent upon the railways, wheat, the most important of them all, could not, as regards the great bulk of it, be profitably produced unless it could be transported to the consumers or to the seaboard by rail. And if it could not be produced at a profit, production would certainly cease. That position follows as a matter of course.

It is not necessary to labor this point, and the next one which comes up for consideration is: what is the value to Victoria of its primary production, and to what extent is the State dependent thereon for its prosperity? It may be well to repeat that, as regards a primary product such as wheat, the only practicable means of transporting the great bulk of it from where it is grown to the market and thus to the consumers, are provided by the railways.

No Railways, No Wheat

The average haul of wheat in Victoria in the year 1926–27 was 173 miles, and in 1927–28 146 miles. This is far too great to allow of any other known system of transportation to deal with it.

Assume then, if it be possible to do so, that the railways were withdrawn or abolished. It may be at once postulated: no railways, no wheat. What then would be the position of the State?

Information furnished by the Victorian Government Statist shows, in respect of two provinces—the Wimmera and the Mallee—that in the year 1926–27—

The value of the rateable property was	£49,500,000
The population was	98,000
The estimated value of the products was	£13,700,000
of which the value attributable to cultivation was	£12,100,000

Without the railways wheat could not be produced in those provinces because it would not be profitable to produce it. Inquiries from those who are fully experienced elicit the like statement in every instance, namely, that without wheat the Mallee lands would not be productive, and would revert to their original state.

Wealth Would Vanish Like Mist

The Wimmera is more favorably situated. The breeding of sheep and cattle could be successfully carried on, but a most important adjunct to that industry would be lost if the growing of wheat became unprofitable, and the consequent loss of value would, it is stated by competent authorities, be enormous. In those two provinces it is conservatively estimated that the loss of value, under present conditions, if wheat could not be profitably produced, would be not less than four-fifths of the value of the rateable property, that is, not less than £40,000,000 of now existing value would be utterly lost. It would simply disappear—vanish like mist before the unclouded sun.

The effect in the other provinces of the State would be more or less similar to that in the Wimmera and the Mallee, although, as the distance from the seaboard became less, the effect would be less serious.

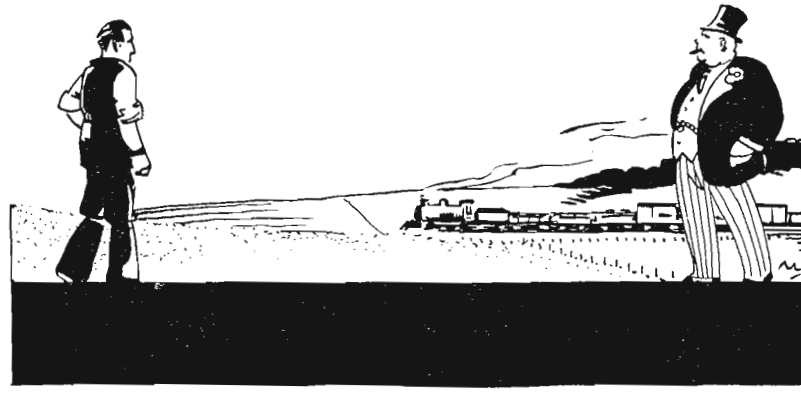
It must now be emphasised that the railways are, and always have been, one of the essential factors in the production of the wealth of this State. They are indispensable to the maintenance of the existing wealth as well as to the production of further wealth, and nothing has yet been evolved which can replace them in regard to what is known as low grade traffic.

Essential Factor of Wealth

Taking the case one step further, then, the position is that the wealth of the State is based on four factors—land, labor, capital and transportation, as has been mentioned—and that, next to the land, the railways are at least equal to any other productive factor. Most of the road transportation is based on the State's wealth, and the difference between the two systems may thus be fairly stated that while the railways constitute one of the pillars of the State's wealth, the pillar which supports the major portion of the road transportation is the wealth just mentioned.

Road transportation will always appeal to many, and if the community desires to have it—an extra or super service to a great extent—and is able and willing to pay for it, there would appear to be no good reason why it should not be maintained.

But it is beyond question that before all others, the indispensable service—the railway service—must be maintained, and equally it is beyond question that that service must be paid for.



The State's wealth is based on four factors—land, labor, capital and transportation

LINES *from* Other Lines

How England Goes Away For Christmas



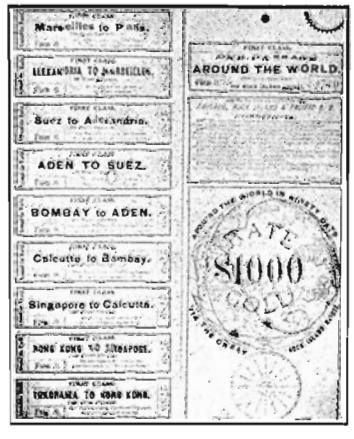
[These pictures give some idea of the holiday rush at famous London railway termini
Left—Paddington Station (G.W.R.) *Right*—Waterloo (Southern R.)

Dog-Power Railroad

RUNNING north from Nome, Alaska, for about eighty miles across Seward peninsula, is the most remarkable railroad in the world. Its motive power is supplied by dogs. Of narrow-gauge construction, it was built between 1900 and 1906 to carry supplies to the mines north of Nome. Twenty-pound rails were laid on sleepers placed across slabs piled on the tundra. Proper ballasting was impossible in most places, and knuckle-jointed locomotives were used to overcome the unevenness of the track. By 1911, the richest and most productive gold deposits on the peninsula had been worked out. There was not sufficient traffic for the railroad; and service was discontinued. The locomotives and cars were allowed to gather rust on sidings, and for years the track lay more or less neglected. Dog drivers then built some flange-wheeled cars, and to-day the abandoned track is a well-travelled thoroughfare. With a half dozen dogs, two men can make 40 or 50 miles a day with ease. With more dogs, and travelling slower, considerable loads of freight can be transported. Two years ago the territorial government bought the line and right-of-way, and it is now being put in repair especially for the use of dog teams.

Round the World in '72

PORTION of a round-the-world ticket issued in 1872 by the Chicago, Rock Island and Pacific is shown in the illustration. The fare was then 1,000 dollars per person. The ticket consisted of a number of coupons, each good between two of the cities visited by the tour. One unusual feature was the timely comment printed on each coupon. The Marseilles-Paris coupon said: "Buck up, get on your store clothes. Buy the old lady and girls gowns here." The Suez-Alexandria coupon carries this surprising announcement: "Stop off at Cairo and lay in your mummies. You can get nine varieties of lice on you here." Biblical references were not omitted. The Aden-Suez coupon



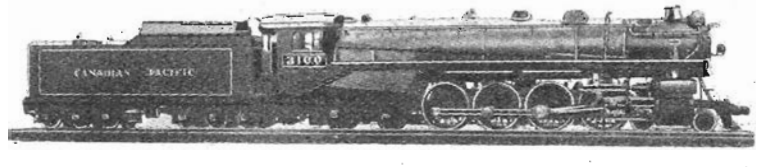
read: "You are now crossing the Red Sea. Pharoah tried it once and got wet;" while the Bombay-Aden coupon said: "This is where Adam and Eve started business." The well-known roughness of the English Channel is indicated by the following on the Calais-Dover coupon: "Hire servant to hold bucket for you. Pull down your vest and wipe chin before landing." The Liverpool-New York coupon carries this parting injunction: "You're 'round the world now. Next time bring your own wife."

Europe's Largest Station

PARIS, in the near future, will possess the largest railway terminus in Europe. It is now being constructed for the Eastern Railroad, and will have a frontage of 590 feet, and 30 platforms under cover, varying from 900 to 1,000 feet in length. The new terminal will handle about 26,000,000 passengers, and the station will rank as one of the largest in the world. Hitherto Leipzig, in Germany, claimed the largest European passenger terminus

Empire's Largest Passenger Engine

THE largest passenger locomotive in the British Empire emerged from Angus shops, Montreal, in August last, under her own steam. She is nearly 100 ft. long, with a tractive effort of 60,800 lb., equal to 3,685 H.P. The new K-1-A class locomotive has been built from designs originated in the Motive Power Department of the Canadian Pacific Railway in the company's own shops by its own employees. Two of these engines have been constructed, and they will first be operated on the Montreal-Toronto run. Although its weight, 424,000 lb. is greater than that of any other passenger engine in Canada, the extensive use of Canadian nickel-steel parts has reduced it to a minimum, and the high ratio of tractive power to weight is a notable feature. Other features are a one-piece cast-steel locomotive bed, a tender with a water bottom underframe, boiler pressure of 275 lb., the highest of any locomotive in Canada, and a length of engine and tender of 97 ft. 5 ins. There are eight pairs of wheels, a four-wheel leading truck, eight drivers, and a four-wheel trailing truck. The driving wheels have a diameter of 75 in., and the cast nickel-steel cylinders are 25½ tons by 30 in. The coal capacity is 18½ tons, and water capacity 12,000 imperial gallons. A mechanical stoker considerably lightens the duties of the fireman.



The C.P.R.'s new passenger locomotive

Behind *the* LEVERS



By

HUGH RICHARDS



WHAT know they of signalling who only signal-boxes know?

From the train, the signal-box is a mysterious building where shadowy figures, seen dimly through walls of glass, move leisurely behind a line of shining levers. The layman who spends an hour in a busy box during the peak traffic must revise his preconceived and uninformed ideas of the nature of the work which goes on there.

MY experience always has been that the more you know about signals the less you know about them. Shallow draughts at the Pierian spring of railway safeworking I invariably find more satisfying than the most copious swallowings. The greater learning, in fact, and not the little, seems to be the dangerous thing.

If you can rest content with a fairly confident appreciation of the significance of red, green and yellow lights, and if your passion for enlightenment is satisfied with a vague knowledge of the different positions of the signal arms, the whole thing seems reasonably simple and straightforward. It is the rash attempt to progress from that kindergarten stage to the higher realms of learning that brings perplexities crowding around you, thick and fast.

There is nothing simple about anything then. A heterogeneous collection of home signals and repeater signals and disc signals and advance starting signals, dances before your glazed eyes, bell codes ring deafeningly in your ears, mechanical and electrical interlocking nips your incautious fingers, complications trip your blundering feet, and a blanket of bewilderment descends on your head. The wise soul withdraws into its former state of happy vagueness. . . .

So, at any rate, it has ever been with me. So it was, for instance, on the Friday evening last month, when, thirsting for knowledge, I climbed a score of steps to open the door of the big "C" signal-box in Flinders-street yard.

"C" box, I discovered, was a self-contained, glass-walled island surrounded by a sea of electric trains, and inhabited by four humans, two clocks, a bristling array of uncountable signal levers, and a weird miscellany of blinking lights, handless alarm clocks and other unidentifiable gadgets. The four humans were wrestling in a hearty and seemingly careless manner with the stiff levers, their activity being in marked contrast with the impassive attitude of the fourth, who was writing boredly at a table near the fireplace.

The glass windows shook with the reverberations of a passing electric train. Smooth carriage roofs slid by on a level with the signal-box floor. Wheels hammered against rails, leaving a trembling and uneasy silence behind them.

Signalman Harold Jones, the uncrowned king of the glassed island, crashed over a lever as the top rear windows of the guard's van passed. He might have been a gunner firing a last shot at a retreating enemy. Dark, active and supremely capable, he was wearing two pairs of trousers as a sort of compromise for the absence of a coat. He tapped an omp-tiddly-omp-omp message on a bell key, looked at the clock and frowned, and looked at me and smiled.

"Five o'clock rush has just started," he observed, "although things were actually busier a couple of hours ago when all the units were bein g marshalled from the yard on to their trains at Flinders-street. At the present moment—"

A bell exploded beside me, four 'phones rang simultaneously, and six levers were crashed back into upright positions at the far end of the box.

"AT the present moment, I say," continued Harold Jones evenly, "we are just getting on nicely and quietly."

The man was no exaggerator. I watched him bound off to answer two 'phones at once, listened to him soothe some irritable unknown who was concerned about the state of "number six road," and ruminated on the different shades of meaning of the adverbs "nicely" and "quietly."

The shriek of another electric train heralded the swift, clamorous passage of more swaying carrige roofs. They swept past the glass side of the box and, lurching and rocking, showed open doors, windows and wheels as the train curved around the "down" end of the box . . . . . a confused

impression of pink faces, dark suits and light frocks, newspapers and silk stockings. Melbourne was going home.

Meanwhile I was meeting the remaining 75 per cent. of the "C" box population. There was George Mullins, whose grey moustache surmounted a perpetual and infectious half-smile, earnest Joe Bailey, displaying worn tennis shoes, and Terry Tighe, the juvenile block recorder. Good fellows all of them.

I stood back and watched them. My layman's mind made an heroic attempt to fathom the depths of their purposeful operations. Harold Jones was obviously the ruling influence. He addressed staccato remarks to his accomplices . . . "Ten Box Hill, George . . . Twelve Oakleigh, Joe, . . . I'll take that country." Like the theme of a spirited fugue, a constant ringing of bells accompanied this cryptic vocal effort. Bells rang in the most unexpected quarters. They rang in minor key. They achieved a crescendo effect. They rang singly. One mingled with another in effective obligato.

"Bell codes," Harold Jones told me, as he wrenched down two vertical levers and snapped three others into the erect, square-shouldered attitude. "Each train has its code call. Jolimont or 'A' box lets us know by bell-code what train is coming. We fix points and signals accordingly and pass the word along to the next box as soon as the train has passed."

He pointed through the glass. Carriage roofs swept by the box. "There," said Jones, "goes the 17 Darling. I'll ring it on to Jolimont now." He clacked casually on the bell key. "That's all there is to it."

He reflected. "You want," he pronounced, "to know your timetable. That's the big thing in signalling. Know your timetable. You see, you've only got two-minute headway between trains at peak times. You've got to anticipate, to know what's coming, to remember what time you've got . . ."

Three 'phones rang joyously ('phones never ring singly in a signal-box). Harold Jones dealt with them in strict rotation, then had serious speech with George Mullins.

"That 33 Kew is running late." The two studied the clock. "We'll have to let the 35 Darling out ahead of it. I'll ring Jolimont and tell them to give it a good go so it won't hold up the Kew outside Richmond." . . .

I WAS becoming absorbed in the weird assortment of gadgets perched above the frame of shining levers. A row of five circular lights winked sombrely at me, now black, now white. I had a furtive feeling that I ought to acknowledge the solemn salutations. Beneath the five flickering white lights, a longer row of colored lights opened and shut and changed from red to green as easily as they changed from green to red. I scrutinised them with growing curiosity while the glass walls shook to the passage of electric trains while those eternal bells rang and rang, while the three signalmen slammed and crashed the signal levers, and while the block recorder made his ceaseless entries of train movements in the train register book.

Harold Jones read my thoughts. "Those five white lights tell us whether the five platform roads which they represent are occupied or not. When the light shows, it means that the road is empty; when it is blotted out, it means that a train has passed into it. See?"

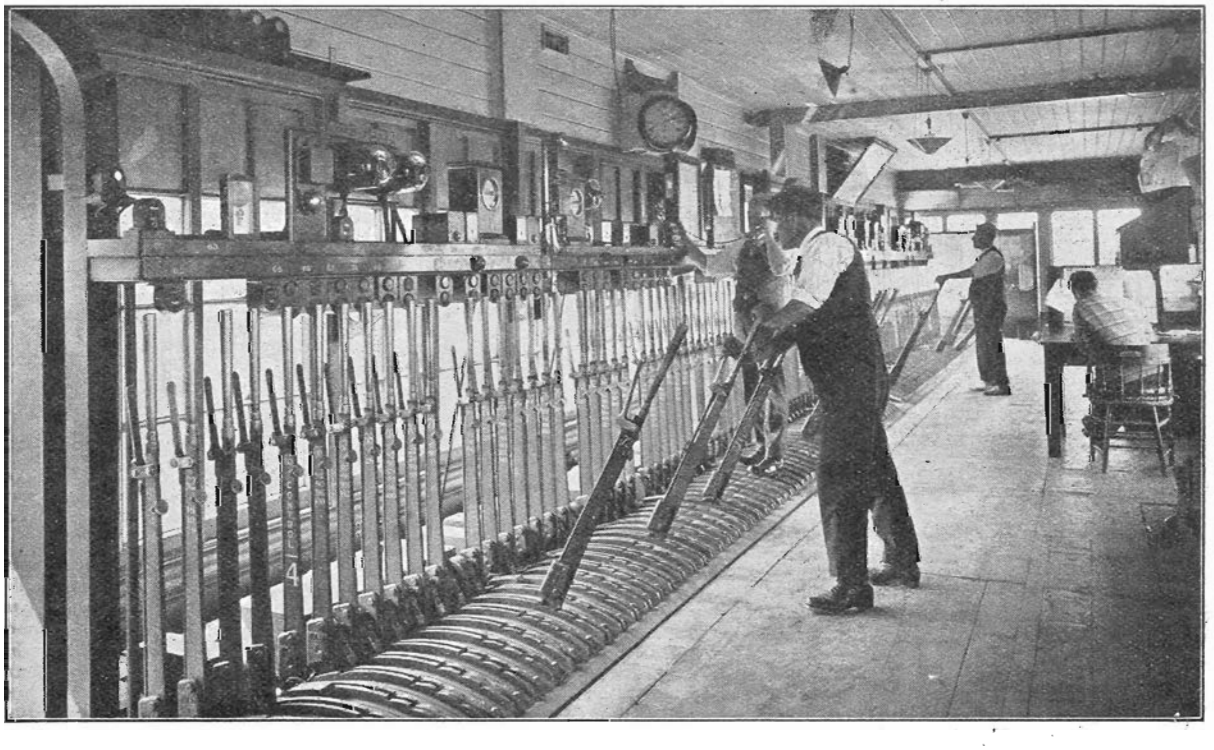
I saw. "And those colored lights?"

Encyclopaedic Harold raised his voice above the thunder of a passing spark. "Those? They show us what indications the signal arms and lights are showing. From the box we can't actually see all the signals which we operate. So they bring the signals into the box for us. All those greens glowing over there show that the signals which they represent are at 'all clear;' all the reds, that they are at 'danger.'"

The thing was getting a bit complicated. I persevered. "These here now? What on earth . . .?" My roving eye and questioning finger had fastened on to a couple of queer objects protruding from a panel. They were a cross between a glass pudding-basin and an infernal machine.

"They are our time releases." Jones was quite open about it. "They

Concluded on page 50



Interior of "C" signal box at Flinders-street

Representative Railroaders

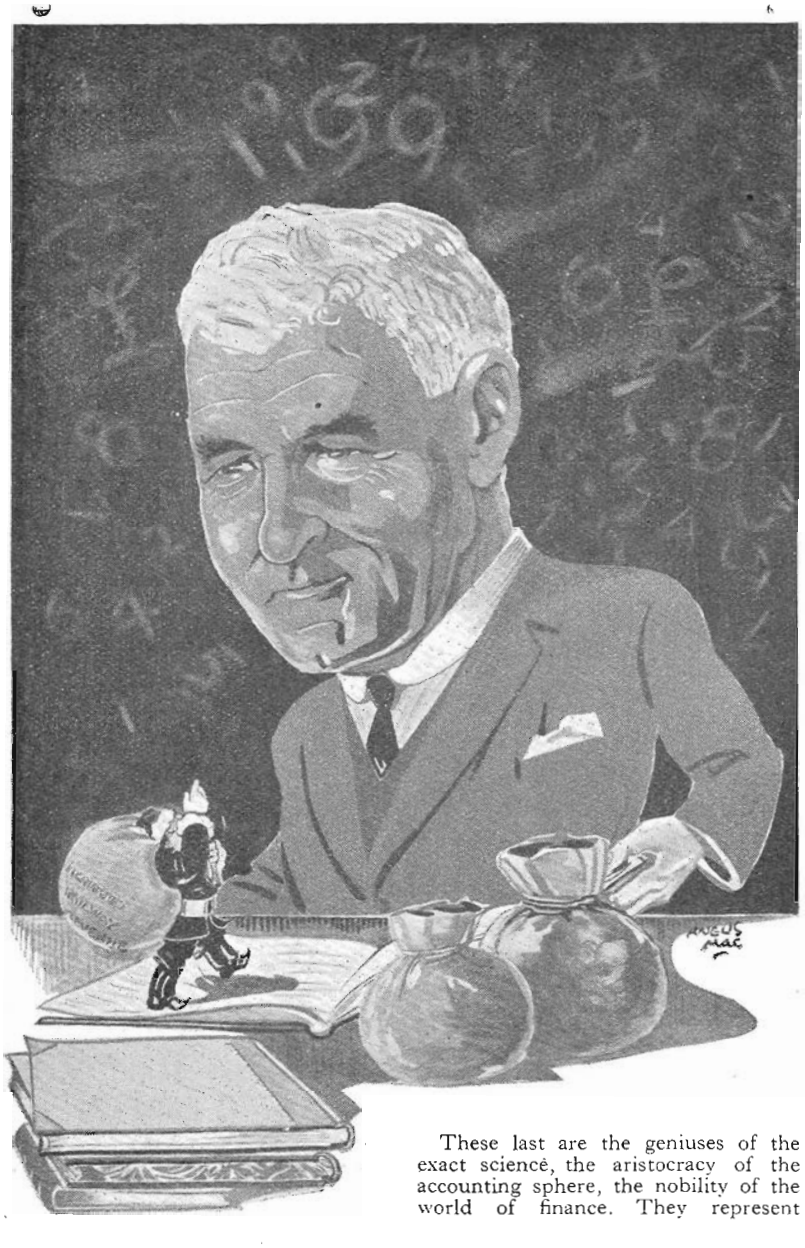
No. 15

CHIEF ACCOUNTANT T. F. BRENNAN, F.I.C.A.

By R. H. JUNIOR

Caricature by ANGUS MAC

SOME men are born to mathematics, some achieve mathematics, and some have mathematics thrust upon them. Others again—a rare and distinguished company—are not only born to mathematics but, achieving mathematics, find mathematics thrust upon them.



These last are the geniuses of the exact science, the aristocracy of the accounting sphere, the nobility of the world of finance. They represent the enlightenment of mathematics just as Lord Randolph Churchill, with his famous inquiry over a decimal-bespattered statement as to the "meaning of all these damned little dots," represents the ignorance of mathematics. They clutch a tablebook in the cradle, gorge on algebraic equations in the class room, and burst, precocious, with a flurry of chartered accountants' certificates into the hall of fame.

Prominent among them is Thomas Francis Brennan, Chief Accountant in the Victorian Railways since the beginning of the War—a man who took to figures like Ponsford takes to centuries, who deliberately sought the statistical path of the accountant when a youthful clerk in the Water Supply Department, and who was, in 1902, the only eligible public servant in Victoria with qualifications for the position of auditor in the office of the Attorney-General.

He has absorbed figures for a lifetime without absorbing any of their dryness or hardness. He has the tidiest of minds and the kindliest of minds. He radiates benevolence and he exudes keenness. He is 50 per cent. a Cheeryble brother and 50 per cent. a University professor of mathematics. He is a jolly, good-natured uncle going out to have a game of cricket with the kids with a book-keeper's ledger and a ready reckoner under his arm. He is Father Christmas with a seat on the Stock Exchange.

. . .

There was a reorganisation of the Victorian Railways Accountancy branch under the Tait regime. Colonel J. W. Hacker was appointed Chief Accountant, and in 1906 T. F. Brennan was selected from the Auditor-General's staff as a fully-qualified public servant who was eminently suitable for the position of Assistant Accountant. Commissioner Tait was ever a good chooser.

Shunning the limelight during his subsequent 22 years with the Railways Department, Mr. Brennan has worked solidly and safely as second man and first man of the branch. His methods are as sound as the Bank of England—never spectacular but always effective. He is scrupulously fair in his administration and always accessible. "The boss would never

try to put anything over you," say his staff. "There is no one harder to worst in an argument than T. F. Brennan," said a prominent Union leader, "but there's no one I'd rather go to on a deputation. He's as keen as a razor, but as straight as a die."

Since General Superintendent Molomby became third Commissioner, Chief Accountant Brennan has been Honorary President of the Victorian Railways Institute. He is also president of the Head Office Tennis Association, and not merely an ornamental president either. It is a Brennan habit to do things properly.

The gloom of the financial depression has in no way clouded his natural outlook of healthy optimism. Miles of figure-columns, bushels of dreary balance-sheets and growing interest charges have never succeeded in damping his optimism. A seasonable gift of increased rail revenue from Father Christmas this month will justify his unfaltering confidence in the future. It is a Christmas gift which is indicated, anyway . . . .

As far back as 1911, it was the chief accountant who, with Commissioner Shannon (then Chief Mechanical Engineer), raised the warning cry of "'ware depreciation!" They had traversed the whole question of providing a fund to meet the wear and tear of rolling stock as it occurred, instead of piling the whole cost of replacement on to the expenses of the particular year in which the item of stock was actually passed out of commission. As financial chief Mr. Brennan has ever since been in the van of the long fight for the establishment of that fund. He will not be satisfied that his accounting house is in order until the fund materialises. Nor will the Commissioners.

Before his appointment as successor to Colonel Hacker, Assistant Accountant Brennan tightened his grip on his railway position by two notable achievements outside the Department. In 1911 he acted with Mr. A. Laughton as a Royal Commission of Inquiry into the affairs of the Colonial Mutual Life Assurance Society. And in 1913 he went to investigate the accounting system and financial methods of the Tasmanian Railways Department. Both appointments—and the success which he achieved in each of them—put a brighter polish on his already shining reputation.

Inevitably he is today a vigorous champion of the value of a training in accountancy for ambitious youth. His own experience, his own progress, have naturally colored his regard for the advantages and merits of the training. The higher mathematics avoid dead-ends, broaden and discipline. No "Go West, young man!" for T. F. Brennan.

"Go accounting, young man!" he urges kindly and firmly.

What Salesmanship Can Do

By RICHARD HUGHES

SKETCHILY this article has outlined the need for and the influence of effective salesmanship. But the actual functions of the keen transportation salesman, the methods which he will find most successful in the pursuit and retention of business, the achievements which have been realised and which are being realised in the railway world generally, and the Victorian portion of it in particular—these aspects of a subject vital to the well-being of the modern railroad must await discussion in a further article."

These concluding words of the article, "Selling Transportation," in the November issue of the V.R. Magazine, serve as the best introduction to this second article on the subject of salesmanship and its place in 20th century railroading.

"BUSINESS is sensitive," someone has said; "it goes only where it is invited, and stays only where it is well treated."

The point needs no laboring. The successful salesman builds up sales on a foundation of goodwill—goodwill being the disposition of a pleased customer to return to the place where he has been well treated. The business which plays fast-and-loose with its custom and displays "Take it or Leave it" notices in its windows, is concreting that foundation of goodwill . . . for its rival. If it has a monopoly, it is adopting the most effective method of submerging itself beneath a flood of competition; if it has no monopoly, it is heading itself in the direction of its solicitor's office for information regarding insolvency schedules.

Salesman's Biggest Asset

The keen salesman pastes the word "goodwill" in his hat. He recognises goodwill as his biggest asset, implying as it does satisfaction with service standards, a mutual confidence, a tendency to come again, and an inclination to talk to others about that confidence and satisfaction. He realises, moreover, that goodwill is easier to lose than to gain. Like a good name, it is won by many actions, but lost by one.

If the railway stationmaster—the direct, full-time transportation salesman—has managed to establish goodwill relations between himself and the rail users in his district, he has taken the first important step in the consolidation of his position against the attacks of the road competitor. Even superficially cheaper fares and rates will not tempt the satisfied rail user to the road. It is the dissatisfied rail user, the disgruntled one, the victim of poor service, whom the road competitor marks down for his own. A personal interest in the requirements and difficulties of the rail user, consistently good service, unfailing patience and courtesy—that way lies goodwill. . . . .

Intelligent anticipation plays a big part in effective railway salesmanship. One stationmaster in northern Victoria heard a rumor that a road competitor intended to operate a regular motor service in his district inside three months. He did not wait until three months had passed to see if there was any truth in the rumor. He immediately canvassed every freight consignor in the neighborhood and secured promises of continued railway support. The rumor proved to be founded on fact, but the forestalled competitor was compelled to sell his motor lorries.

Tact and diplomacy are the essentials of salesmanship. The railway salesman can avoid neither opposition nor criticism. He must know the merits of the railway case against the road man, and he must be able to present that simple and straightforward case clearly and forcibly.

He may find himself in the position of the peaceable stationmaster who arrived at a midland station and took dismayed stock of a firmly entrenched competition which had practically hamstrung the railway traffic. One of the local publicans who received all his supplies by road was a prominent member of the district progress association, and the S.M. expressed justifiable surprise at the man's short-sighted discouragement of the public utility which had put the town on the map.

The Soft Answer

A garbled version of the stationmaster's remarks reached the ears of the publican. Breathing fire and vengeance, he came up to the station and urged the S.M. to step out and get his "block knocked off." The S.M. stepped out with alacrity and used his tongue with such effective persuasion that the publican's clenched fist became an extended open palm.

"Never saw it that way before," he confessed as he shook hands. "You'll get all my business from now on."

That case for the railway can b restated here very simply. "Th

railway's aim," it runs, " is service at cost. Last year it was service at less than cost. To help the primary producer, the railway carries manures, wire netting, cattle food and other low-grade freight at rates which are unprofitable. It looks for a certain reasonable profit on high-grade freight, silks, groceries and so on, to balance that voluntarily accepted loss. And for the carriage of that high-grade freight it meets keen competition from road operators, who refuse to handle the unpaying, low-grade freight, and who run their services on roads built and maintained at the general public expense.

" The primary producer, therefore, who chooses private road transport places himself in the position of a shareholder who is subsidising a competitor to take some of his business and at the same time to damage some other plant that he also owns.

" Simultaneously, he is making the prospect of reduced freights and fares on the public railway an increasingly remote one."

Essential the World Over

As was made clear in last month's article, this chaotic and illogical state of affairs is not peculiar to Victoria and Australia. Keen and vigorous methods of railway salesmanship to combat identical conditions are in demand the world over. Charles E. Parks, Director of the Department of Railway Station Management with the Canadian National Railways, has laid it down that " the outstanding personal qualifications of the allround traffic man are :—business judgment, personal tact and diplomacy, the ability to mix and speak well in public, and a well-organised mind."

He goes further and declares that " the hundred per cent. railway salesman " must meet the following educational requirements :—

(1) He must have a general knowledge of the sources of supply and demand, which includes a broad acquaintance with the needs and resources of all sections of the country. This knowledge must be detailed and specialised in regard to the industries and resources of the territory served by the rails of his own road.

(2) A knowledge of geography, particularly transportation geography, is a fundamental educational requirement.

(3) Familiarity with present traffic policies and a knowledge of the history of freight traffic development from the earliest times.

(4) A knowledge of the principles and fundamentals of rates and rate-making, including the interpretation and application of tariffs.

(5) Familiarity with the details of the freight service offered by the carriers, including the export and import business.

(6) Current transportation subjects.

(7) A certain amount of legal knowledge, particularly the laws of carriers of goods and the history of railway regulation.

(8) A knowledge of the fundamentals of salesmanship.

Charles E. Parks doesn't seem to have forgotten anything. . . .

Get Traffic Committees and Go-getter Boards are concrete evidences of the advance of the salesmanship idea in American railway practice. " Are You a ' Getter ' or a ' Forgetter '?" demand headlines in the railway magazines. . . " It is not so much the large movements which make the earnings grow as it is the steady volume of the many small transactions. . . . If every department on the railroad which is represented on a Get Traffic Commitee should send in one Traffic Tip a month, freight and passenger business would be immeasurably increased. . . . Every person and every bit of movable goods mean possible business for the company. Every newspaper contains items suggesting freight or passenger traffic. The freight and passenger agents on each division are looking for Traffic Tip cards and for clippings from which they can secure new patrons. . . . . The Traffic Department is ready to co-operate further by sending speakers to meetings. . . . The value of every job on the railroad is affected by the company's amount of business, which in turn is influenced by the loyalty and initiative of its employes. . . ."

These Traffic Tip cards are a sort of advice note sent along to the company's commercial department by a clerk, a conductor, a stenographer or some other railway employe who has heard that somebody near the company's line is moving, or that somebody is sending a litter of pigs somewhere, or that somebody else is sending a carload of vegetables somewhere else.

A tip of this description brings the salesman on to a long list of names of go-getters in the company's magazine. Here, for instance, in one issue of the Santa Fe Magazine are six pages of the names of employes who have brought business to the railroad, none of whom was employed for the primary purpose of directly selling service as a freight or passenger agent would be.

Everybody's Doing It

The voluntary salesmen include Pullman conductors, firemen, train despatchers, auditors, storekeepers and laborers. In the first column of names alone, the amount of passenger business attained is represented by as many as 88 long-trip passengers, who presumably would have travelled by other means had they been left alone. The showing in freight is equally impressive. Here is one man who secured eight cars of coffee for shipment from San Francisco to Los Angeles. Here is a claim clerk who sold transport for three carloads of automobiles from Detroit to Bakersfield in California. There is a yardmaster who secured six cars of canned fruit for long runs.

" Increased earnings mean increased payrolls " seems to be the practical viewpoint of these go-getters.

It is difficult, by the way, to link up some aspects of the salesmanship idea in American railroading with Victorian railway practice. A Victorian railwayman, for example, could hardly imagine one of his district superintendents issuing an official circular to station staff which contained passages like : " That boy Somerville over at Clearwater is surely leading you all a chase. He is situated in a little town competing with another railroad and road trucks galore, but is sending in long lists of routed orders from day to day. . . . And Agent Osborn at Spivey writes to tell us, ' Have been talking to our merchants about shipping by freight instead of by truck, and nearly all of their shipments are coming by freight now.' That's fine, that's fine ! Osborn is getting the business away from the trucks through sheer personality."

Dont's for Salesman

Nor is it easy to see Victorian stationmasters enthusing wildly over the issue of little shiny buttons to those members of the staff who have proved themselves effective transportation salesmen. At least one big Yankee company has adopted that idea. . . .

But now, in conclusion, to summarise the qualities of the effective railway salesman in Victoria. Or—as I have already quoted the comprehensive qualifications insisted upon by Charles E. Parks of the Canadian National Railways—let me twist the summary into a recapitulation of what the railway salesman should *not* be and should *not* do. The following eight methods are guaranteed to lose any railway salesman 100 per cent. of his business—and his job, too :—

(1) Be disloyal to your job.

(2) Try to convert the road user to the railway by abusing him.

(3) Tell the man who comes asking for passenger fares and freight rates to " write to head office " or to " find out."

(4) Urge the traveller who asks you particulars about the timetable to "use his own eyes."

(5) Convey the "take it or leave it" impression to all possible customers. Grunting in reply to questions succeeds admirably.

(6) Make it clear on all occasions that you're supremely uninterested in the convenience of travellers and freight consignors.

(7) Always let the other fellow say " please " and " thank you."

(8) Sleep on the job.

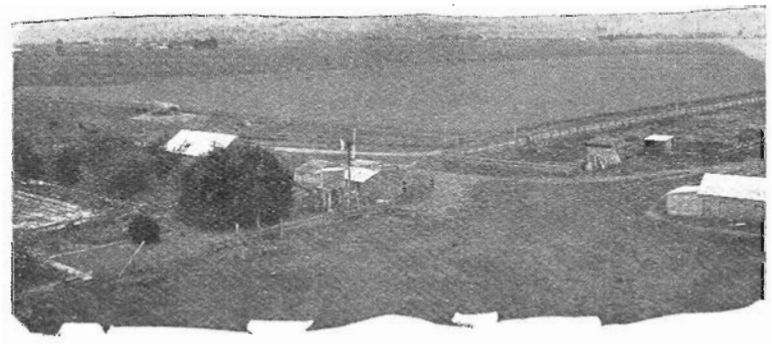
RAILWAY OUT-POSTS No. 7—LINDENOW

DOTTED round, and sometimes farflung from the larger centres of railway activity in Victoria are the seventh, eighth and ninth class stations that feed in revenue as the watchful outposts of an army feed in intelligence to the main bodies they protect.
This series of articles will attempt to summarise the work of a few of these essential railway outposts.



The station staff with samples of the district's principal product

IF Father Christmas wants to make a hit with the farmers of Lindenow this month, he would be well advised to slip higher market prices for good maize into their stockings on the 25th. Just now, maize prices affect the pocket of the Lindenow settler more than the price of any other crop. There are 10,000 acres under cultivation on the famous Lindenow Flats, and four-fifths of that area is under maize. The average yield is 60 bushels to the acre.



A section of the famous Flats

Lindenow maize, locals claim, is the world's best. When acclimatised and naturalised on the Flats over a period of five years, imported seed produces a bigger cob of maize with a heavier grain half as big again as the highest quality imported seed. The local maize, furthermore, is the only variety in the world impervious to the weevil. Station-master A. W. Collins, of Lindenow, holds some five-year-old samples of local maize which are still entirely free from weevil.

Maize comprises 53 per cent. of the annual goods tonnage from Lindenow station, and 55 per cent. of the tonnage from Hillside, which is supervised by the Lindenow S.M. Of the remaining items of freight, firewood runs to 27 per cent. at Lindenow, and beet to 35 per cent. at Hillside. The total goods traffic for last financial year at both these stations was 13,497 tons, worth £12,520 revenue, or a £1,600 increase in a bad year.

Stationmaster Collins, an agricultural authority as well as a transportation authority, is keenly interested in the proposal to increase the acreage under wheat on the Lindenow Flats. With proper seed selection, up-to-date methods and reasonable care, he sees certain success in the idea. And certain railway freight, too.

The railway has always been the best way at Lindenow. Competitive traffic does not exist. Farmers have assured the S.M. that their produce is earmarked for the railway truck. Woolgrowers emphasise, season after season, that there is no fear of the road carrier appropriating any of their wool, even though he came with tears in his eyes and lower freights in his hands. Not for nothing has the Lindenow railway staff justified a feeling of confidence in the reliability of railway service.

Some little time ago, a large quantity of grain had been purchased at a good price from Lindenow farmers for delivery at the railhead by a specified time. A sudden collapse of the market moves the buyers to pious hopes that the farmers would not meet their commitments in time, so that there could be cancellation of part of the order. The farmers appealed to the Stationmaster for a fair go, and the S.M. saw that they got it. District Superintendent and depot stations filled the yard with empties and the shed with tarpaulins, and special trains lifted the trucks as soon as they were loaded. On the last day of delivery, many agents of the buyers were in personal attendance to cancel all untrucked orders. Every bag, however, was loaded to time.

Lindenow outpost is a service outpost.



The station and goods shed

The MONTH









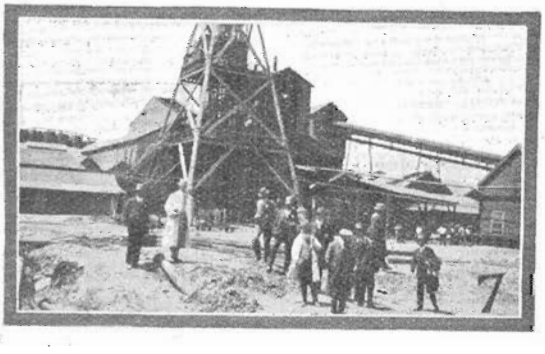














1.—A section of the crowd that greeted the English cricketers on their arrival at Spencer-street last month
2.—A. P. Freeman (right centre) greets "Mat" Ellis on the platform. E. Tyldesley is next to him
3.—J. B. Hobbs and E. ("Patsy") Hendren alighting from the train
4.—Warwick Armstrong (left) assures "Patsy" Hendren, in the station yard, that Australia will regain the Ashes
5.—The Trans-Australian Reso train which recently conveyed 60 Victorians on a tour of the West
6.—The W.A. Reso train into which Resonians changed at Kalgoorlie
7.—The party inspecting the famous Great Boulder mine at Kalgoorlie

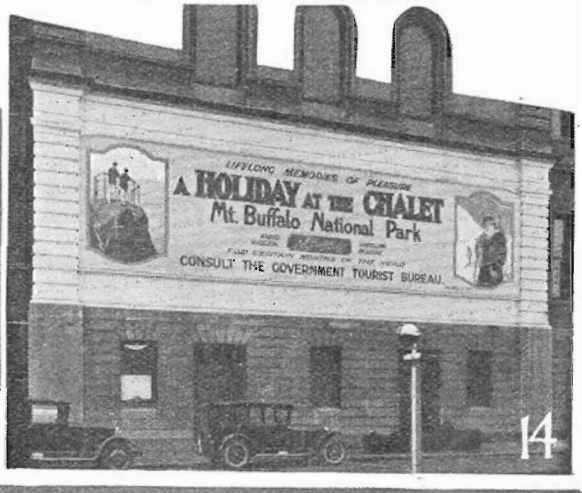
in PICTURES













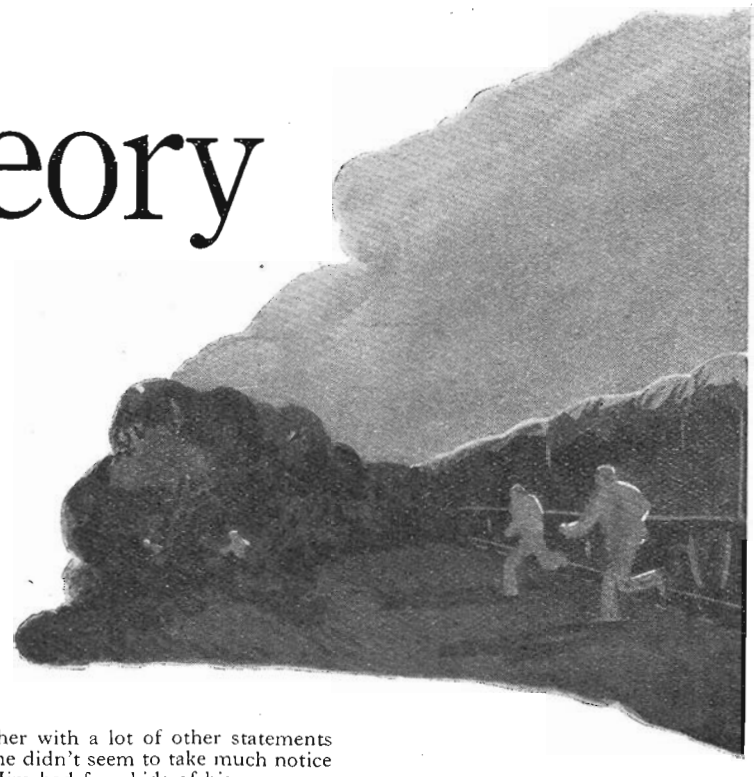




8.—Resonians "buggy-riding" to the Lake Hart Salt works
10, 11, 12.—Wayside halts on the tour
9.—Dookie farmers listening to a lecture by one of the Agricultural Experts on the Better Farming Train on the train's recent tour of the Goulburn Valley district
13.—Computing the Post Office's mail freight bill for next two years, last month. This is done by Railway staff at the General Post Office biennially
14.—The renovated Mt. Buffalo advertisement on the rear wall of Railway Head Office. It was repainted last month
15.—Cup Day at Flemington. A train load of Statesman's supporters (?)

According To Theory

By COVOT



IT'S a long, long time now since Jim Leighton came to me and told me that he and his wife had decided to take care of Joan, the infant daughter of the late widow Harper. I remember that he spoke rather quietly as if he were just a little ashamed of his decision, and I remember that I rated him very soundly at the time for being one of those short-sighted fools who let the kindness of their heart overrule the wisdom of their better judgment.

You see, the widow Harper was not really a widow, although we called her one. Her husband had run foul of the police down in Melbourne some two years before, and had earned himself fifteen years or so free board and lodging for a little affair with a gun. So when I thought of his daughter I was just a wee bit frightened.

It was all very well to talk about the influence of environment, but I had never believed that environment could have the slightest effect on traits that were a child's natural inheritance. If a child were born in the gutter he would still be dirt, even though he were a millionaire. That was my idea of it, and I had read of nothing to make me change my views. If we set a black Orphington on an egg, and the father of that egg was a white Leghorn, then the chicken is going to have some white Leghorn in him even though the hen that hatched him be the world's champion foster mother.

I didn't know whether that was a parallel case or not, but it agreed with my argument, so I pitched it up at Jim together with a lot of other statements that he didn't seem to take much notice of. Jim had four kids of his own anyway, plump healthy sons. What did he want a daughter for? He was only a fireman at the time, with still another few years to go before he could hope to be full-time driving, and he found it hard enough to keep his home going and fill those four hungry stomachs, I can tell you. But he was one of those optimists who believe that another little drop won't do them any harm, and Joan Harper found a home in his house instead of in the cold, grey Orphanage on the hill.

Yet I must confess that when I first set eyes on the kid my opposition to the environment theory was considerably weakened. I am a man who likes kids (except when they live next door or sit behind me in the theatre), and if ever a kid was born to be liked, Joan Harper was.

She was just six, with a head of black satiny hair, a skin a shade dark as if sunburnt, and the roundest pair of brown eyes that ever a man saw smile at him. I think it was her appearance that made Mrs. Jim Leighton so anxious to provide a home for her, and I know that when she had lived with them for six months they would not have parted with her for all the lifeless gems of Christendom.

She had a way with her that few children have. In all those years of her childhood I do not remember that I once heard her cry. Frown she would, of course, but her frown was only one of a series of expressions that were due to her natural coquettishness, and not to any particular mood of passion. Up with the lark, to bed with the fowls, and every hour in between crammed with happiness at the sheer joy of living, that was Joan's recipe for health. After five years I could have written a treatise on environment that would have astounded the most learned professor of psychology.

There were no further additions to the Leighton family. The four boys grew up with Joan, and she was as good a sister to them as any boys ever had. Jim Leighton was a fully-fledged driver long before this, and what with the long shifts and the two eldest boys working, there was enough money coming in to put the family in a comfortable position. The eldest boys had decided to take on making



He was just in time to see two men disappear among the trees with two detectives in pursuit

engines at Newport instead of driving them, and it pleased Jim well enough. Then the third boy joined a bank, and the fourth went on the land, and for the greater part of the day Mrs. Leighton had only Joan to keep her company in the house. It was then that she learnt to appreciate Joan more than she could ever have appreciated a daughter of her own. Joan gave one the impression that she had never forgotten that it was to the Leightons that she owed her position in life, and she did all that was necessary without the usual woman's groaning and complaining. Which all helped the Leighton family to move together in perfect harmony.

THAT was about the time of the raids on goods trains, concerning which you may have seen something in the papers. Trains were leaving Albury with the contents of the trucks checked and intact, but on arrival at Melbourne there were usually a few trucks in each train that failed to agree with the waybills by a considerable amount. Special inquiry men were quickly on the job, but a month passed without the discovery of the cause of the leakage. All that they could say for certain was that the goods were removed from the trucks somewhere between Albury and Seymour, but just where on that hundred and thirty mile stretch remained a mystery. The Department paid claims on every second day of the week, and the S.I.O's. girded their loins and went forth to battle.

Strangely enough it was Jim Leighton's trains that suffered most from the activities of the marauders. He was doing the north-eastern run with freights pretty regularly, and as sure as he landed a train at Spencer-street his truck totals would be out a few bales of merchandise or a few gross of electrical sundries. That was a thing that was likely to turn Jim's hair grey in a month. All his life he had been working for the good of the service, trying to win the Superintendents' trust in him, and now it seemed that his reputation was shadowed if not stained.

At least, that was what he believed; but if he had devoted a bit more thought to the subject he would have seen that the only reason his trucks were pillaged was that he always made the up run in the night time. At almost every stop he made at signals there were trees beside the line shadowing his train, and what could be easier than for a few astute thieves to break open a truck and trundle the goods away into the darkness. Of course he kept a lookout, and the Guard kept a lookout, but it was impossible for either of them to distinguish things clearly over the whole length of the train. But with a couple of S.I O's. in every tenth truck things were a bit different, and it looked as if the thieves were in for a surprise.

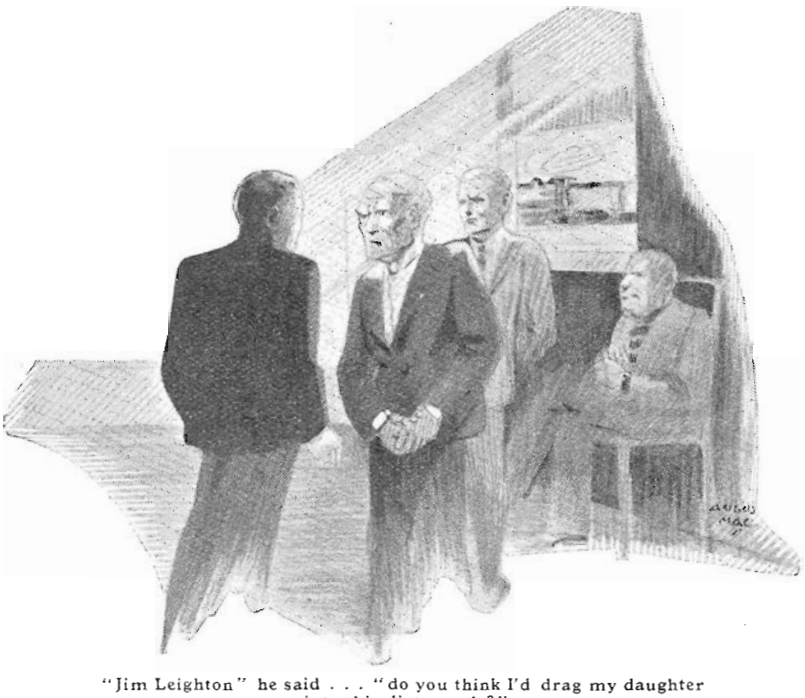
And so it turned out. Jim had pulled up at the distant signal approaching Seymour, one night in Christmas week, and after waiting there for five minutes with the red light still against him, he got impatient and tootled his whistle. The third blast had hardly died away when there was a crackle of revolver shots in the darkness, and he ducked beneath the safety chain and pelted back along the track. He was just in time to see two men disappear amongst the trees with two detectives in vain pursuit, and beside the train there was another detective just picking himself up off the ballast

"Just missed 'em," cried this chap excitedly. "I had one by the collar and he slipped off his coat and got away." He held up a blue twill coat. "There ought to be a clue here, anyway." He ran through the pockets. "Nothing," he said. "Hullo! Wait a bit. Here's something." He felt in the breast pocket and produced an envelope holding a letter.

By this time the guard had come up with his lantern and the S.I.O. held up the letter for the three to read.

"Driver Leighton will be on the Goods train each night this week (it said). He should stop at the Seymour Distant Signal at about 10.15. If you are too frightened to come nearer to Melbourne, get on his train there and do what I told you to.—Joan."

I was not there, but I can imagine the terrible shock it was to Jim Leighton. He was still showing signs of his shaking when he came to see me on the following day, and when I heard what he had to tell me all my ideas about environment came bounding back to me like a rubber ball from a wall. There was only one Joan who could write like that and supply these particulars, and that was Joan Harper.



"Jim Leighton" he said . . . "do you think I'd drag my daughter into this dirty work?"

Here was her heritage awakening in her and breaking free from the bonds that we thought care and education had pinioned it with forever. What a life she must have led, taking the bread from these good people when they could scarce afford to feed their own brood; taking all the comforts that their home had to offer her, and then helping to plot against them like the retainers of the kings of old. It occured to me at the moment that the devil must have brown eyes and that black hair had added to the allurement of the sirens that had sought to beguile Ulysses. I thought of all the smiles that had delighted me as the grimaces of a hypocrite, and all the friendship that was in my heart had turned to loathing.

"WE'LL see her together," I said. "I know that you could never face her alone."

So together we went down the street, feeling closer together than we had done for many a day. Joan was there at the door as soon as we opened it, her usual bright smile upon her healthy face, a little cretonne apron tied around her trim little waist.

"Daddy Leighton," she said. "You haven't been home all night. Where have you been?"

"You'll learn soon enough, Joan," I said. "Come into the sitting-room. We want to talk to you."

She followed us in readily enough, just a little frown of enquiry clouding her face, and I pulled out the letter.

"Is that yours?" I asked.

She picked it up and her face went slowly white as she looked at it. But her brown eyes looked at mine steadily enough.

"Yes," she said. "Why?"

"It was taken off a man who tried to rob Mr. Leighton's train last night," I said. "What have you got to say about it?"

She leant back against the table and her eyes were wide and bright. I could not help gazing at those eyes. They seemed capable of expressing every emotion possible in a human breast.

"You—you think that I supplied them with information," she said. "Would you believe that of me?"

"Unless you can explain that letter there is nothing else that we can believe," said Jim.

"I can explain the letter, but I won't," she cried. "I know what you think of me. You think that because my father was a thief I must be a thief. Why did you ever give me a home if you had no faith in me? Why didn't you let me die?"

"Hush, girl," I said quietly. "We only ask you to explain."

"I won't," she said. "I—I can't."

"Then get out of my house," said Jim. "I'll have no helper of thieves under my roof. Get out."

She looked at me, and in that one glance there was an expression of helplessness and an appeal for at least one heart with faith in her. My heart was hard towards her, but I could not resist that silent cry for one protector in her time of need. I held out my arm to her involuntarily, and she put her head on my chest and sobbed for what I believe was the first time in her life.

"You could keep her here until she found some place to go," I suggested.

"No," said Jim. "Get her out of my sight."

So she packed her things and we went out together.

It was strange of me to act like this. I remember that as I went down the steps I was wondering why on earth I should have stepped in as a protector to the girl who was, by her own admission, clearly not worthy of protection. But all sorts of silly thoughts were filling my head, and I was thinking that it was not right that children should suffer for the sins of their fathers, and that no child should be held responsible for the suppression of evil instincts that were born in her. Being weak willed was all that this girl was guilty of. Was it right that she should be driven from her home because of a weakness that was, after all, the real weakness of nine-tenths of humanity? Yet, I guess that behind all my excuses to myself there were the real reasons of my love for her and my inability to rid myself of my last shreds of faith in her. The action of Jim Leighton in driving her from his home needs no words of mine to defend it. The worry of the last two months had frayed his nerves, and the discovery that his foster-daughter was concerned in the robberies that had brought him so much unhappiness was the last straw. He had done the only thing that he had thought right in the circumstances, and it was not for me to blame him.

But with Joan Harper housed in my home the last of my faith in her went slowly from me. She had not been under my roof three days before she was skipping around as lightly as any spring sparrow, and enjoying herself as if there had never been any Leightons in the world. That, to my mind, was proof of how heartless she really was. If her association with the thieves had been brought about by some uncontrollable impulse, then her better self should have urged her to show some repentance when she had been brought to the realisation of the error of her ways. But for her there was none of that. She faced the world with a wilful arrogance that seemed intended to prove to the Leightons that she was indeed what they thought she was, and gloried in the fact.

Mind you, I only saw the face that she presented to me and to the world. What her thoughts were and what her demeanor was when she got away from us all to the recesses of my garden, or the privacy of her room, I never tried to discover. I housed her for a month, then all my distrust in the efforts of environment came back to me, and I turned her from me. She went I know not where.

Meanwhile the raids on goods trains had recommenced. The S.I.O.'s had thought that the scare they had given the thieves would have warned them off the line for good, but the thieves evidently had stronger nerves than they had been given credit for. The pilfering went on for a few weeks in spite of all precautions. Then the thieves picked on the wrong truck somewhere up near Benalla, and this time the S.I.O.'s made no mistake. They pounced on the two thieves and brought them down to Spencer-street, where the chief S.I.O. called on Jim Leighton to lay some evidence against them. Jim had learnt to rely a lot on me, so he took me with him.

We entered the room there, and there were the two thieves sitting on chairs against the wall. Oldish men they were, both of them, with the real gaol-bird look about them and shifty eyes. The chief called out Jim Leighton's name, and one of them looked up.

"Leighton?" he said. "Are you the Leighton that reared young Joan Harper?"

"I am," said Jim, looking at him. "And to my sorrow."

"How d'ya mean 'to your sorrow'. She hasn't turned dirt on you?"

"She has," said Jim. "I put her out of my house two months ago for helping you at your thieving tricks. She was too true to type."

The fellow got out of his chair and went across to the chief.

"Look here," he said. "Let us get this right. I gave you my name a while ago as Edwin Halcomb. It's not. It's Edwin Harper. Joan is my daughter."

"I should have guessed it," said Jim.

"Why should you have guessed it?" The fellow turned on him. "Has Joan ever given signs of being a thief?"

"She wrote that letter we found in your pocket giving you particulars of my train."

Harper came across to him and looked straight into his eyes. "Jim Leighton," he said, "I took you to be a man with a big heart and plenty of brains. You're nothing but a narrow-visioned fool. Do you think that I'd drag my daughter into this dirty work? Not if we were set to pinch the first instalment of the national debt."

"Then, what about that letter."

"Listen and I'll tell you. A year ago I came out of gaol, and mighty glad I was to see the world, I can tell you. The first thing that I did was to go back to the old town and make a search for Joan, and one of my old cobbers told me about how you'd taken her into your home and made a lady out of her. Mr. Leighton, I appreciated that. You can call me a thief and a gangster if you like, but I never had any thoughts about allowing Joan to follow in her father's footsteps. When a man puts in fifteen years behind the bars he gets a lot of time to think over things, and I spent a lot of my years worrying over Joan. I was thinking that they might have put her into one of these Orphanages, and shoved her out on the world just at the time when a girl needs a friendly hand to help her on.

"That was why I was so pleased when I found out what you'd done for her, and I came back to Melbourne and put in many a morning on the street corner by your house watching her scrubbing the verandah and polishing the windows. But I heard everyone calling her Miss Harper, and it jarred me. It occured to me then that you had never really adopted her. You had just given her a home in a way that they'd never allow nowadays, and she was still getting around with a name hanging to her that branded her as the daughter of a thief. I would have seen you then and there and fixed up the adoption papers with you and got you to change her name, but the police gave me the office that Melbourne wasn't the proper place for my health, and I had to get.

"So I wrote to Joan and found that you'd made more than a lady out of her, Mr. Leighton. You'd made her a woman, and she understood everything that I had to tell her just as I had sometimes hoped she would. She knew nothing of the way I was touching off the goods trains. A few years in gaol can change a man's outlook on life, but it can never change a man like to me to a new mode of living. I suppose she guessed that I was mixed up in it when she heard how you'd got that letter and wouldn't run the risk of putting me away. I really intended to have a word with you that night, honest I did. And now you've hounded Joan out of your home because she lived up to the principles that you'd been so busy pounding into her. Mr. Leighton, an orphanage might have given her a better go."

Jim looked at me and I looked at him. But neither of us saw the other because we were thinking of what big fools we'd been, and wondering what we could do to redeem ourselves. I'm afraid the evidence that Jim laid against Harper on that afternoon wasn't half as damning as it should have been, and the hand that signed the sheet was hard put to it to hold the pen.

"WHAT can we do?" asked Jim, when we stood on the pavement again.

"I know what I'm going to do," I said. "I'm going straight home, and I've got somebody there who will find Joan if anyone can. You can just go back to work and wait. You'll have Joan home within a week."

And I did go home. I flung my hat on the hallstand and went straight across to my son Jack who was just home from his work at the share-broker's.

"Jack," I said. "There's been a great injustice done. I want you to find Joan and find her quickly."

"Find her?" said Jack. "That'll be easy. I married her three days ago."

I just stared at him. So here was the explanation of all Joan's happiness in my home. What did she care for the rest of the world when she had found one heart with full faith in her. The rest of the world had misjudged her. They were not worth considering. Let them think what they liked. That must have been her attitude. I smiled at Jack and my smile told him that God was still in His Heaven and that all was right with the world.

"Dad," he said. "I'm the happiest man on earth."

But I had to dispute that statement. I had to claim that honor for myself.

DON'T QUIT!

WHEN things go wrong, as they sometimes will,
When the road you're trudging seems all up hill;
When you want to smile, but you have to sigh,
When the funds are low and the debts are high,
When care is pressing you down a bit,
Rest, if you must, but do not quit.

Life is queer, with its twists and turns,
As every one of us sometime learns;
And many a failure turns about
When he might have won had he stuck it out.
Don't give up, though the pace seems slow—
You may succeed with another blow.

Often the goal is nearer than
It seems to faint and faltering man;
Often the struggle he's given up,
When he'd almost grasped the victor's cup.
And he'd learned too late, when the light had shown,
How close he was to the golden crown.

Success is failure turned inside out—
The silver tint of the clouds of doubt,
And you can never tell how close you are
It may be near when it seems so far;
So stick to the fight when you're hardest hit—
It's when things seem worst that you must not quit.

UP-COUNTRY

Wheat Prospects Strengthened

Favorable weather throughout November has strengthened prospects of a good wheat harvest in the Bendigo district. A conservative estimate now places the yield at a little better than that for 1926–27, when about 4½ million bags were railed to the seaboard. Geelong district expects a record harvest.

Busy Stock Traffic

Bendigo Stock Sales now play a highly important part in that district's rail activities. Each Monday special stock trains arrive from all northern lines, stock are quickly discharged, auctioned, and reloaded for transport to the farms of their new owners on the same day. On a recent Monday 240 trucks were received for the sales, and 140 were loaded out subsequently. This was by no means a record.

Freight Revival on Losing Line

A gravel dump was recently secured between Nintingbool and Symthesdale by influential Melbourne people. The idea was to erect a plant to obtain the fine gold. At the same time they worked up a connection to manufacture and supply concrete fencing posts and other similar articles. They have now contracted with the Railways Department to build a private siding which, it is expected, will prove remunerative to a line which has been steadily losing freight business.

Young Farmers' Clubs

The boys' and girls' farm club movement is steadily gaining ground in the Ballarat district. The Ballarat Agricultural Society held special competitions at last month's annual show, and the Railways Department has agreed to convey a number of young prizewinners to and from next year's Royal Show in Melbourne.

Favored Bairnsdale

Bairnsdale and district are particularly favored this season. Oats, wheat, and peas are healthy and vigorous, grass is abundant, dairying is in a sound position, with a tendency for the cream supply to increase, stock are in excellent condition, the wool clip is heavier and better than heretofore, satisfactory lambing percentages have been the general rule, and fruit trees give promise of a heavy yield.

Impetus to Flax Growing

Flax cultivation has, of late, received great impetus in the Leongatha district, and support is being accorded by Australian Country Industries Ltd. Hitherto neglected land in the shire has been found suitable for cultivation, and as a result of awakened interest, it is hoped to establish a mill at Leongatha next year.

Butter and Wheat Displace Maize

Less maize is being grown in the Orbost district this year because of increased attention to dairying. The Orbost Butter Factory has just concluded a highly successful year with a greatly increased turnover. Altogether, 263 tons of butter—27 tons more than during the previous year—were manufactured, and the average price paid for butter fat was 1/7½ per lb. A considerable portion of the Lindenow Flats hitherto used entirely for maize growing has, this season, been devoted to wheat and barley. Wheat grown there last season yielded 50 bushels to the acre, and barley 60 bushels.

A GOLDEN COW

A WORLD'S record for butter-fat production has, it is reported, been established by a Friesian cow belonging to Mr. A. J. Findlay, of Upper Towong, near Cudgewa. For 136 days, the animal has given an average of 8·45 per cent. butter-fat, the figures for September being no less than 9·5 per cent., in which month it gave 1,305 lbs. of milk. The average yield in Australasia and America for Friesian cows is about 3·4 per cent. butter-fat.

Not only is the butter-fat content abnormally high, but both the quality and quantity of milk usually associated with Friesians is well maintained. The cow's highest yield of milk during the period was in June when it reached 51 lbs. a day. Dairying experts thinks that the animal is a throwback to some ancestor of high-producing strain.

Aphis Pest will Cost Growers £50,000

Green aphis has attacked the peach trees practically throughout the Seymour district, as a result of the continuation of cool, showery weather, throughout November. Spraying and other methods of combating the trouble have not proved very successful, and considerable damage has been done. The pest attacks the leaf veins, which causes the leaves to shrivel up and fall off, leaving no protection for the fruit. Growers, it is estimated, will lose £50,000.

Heavy Clips at Boisdale

Very heavy wool clips are being obtained in the Boisdale district. Sheep which cut 5-lb. last year, are yielding up to 7-lb. A highly satisfactory percentage of lambs was marked throughout the district.

Shepparton's Rainfall

Shepparton district's rainfall this year to the end of October, was 2338 points compared with 1167 points for the whole of last year. Although the early expectations of a record harvest will not be realised, owing to the dry winter and early spring, the later rains have assured good crop yields. The first deliveries of wheat were made late last month.

Hen's Nest in Tree

According to Guard Bert Adamthwaite, of Bright, one of his hens has taken the most unusual course of nesting in a tree. Remarking the bird flying noisily into the tree recently, he drove it down, but the performance was repeated. Investigating, he was astonished to find a comfortable nest in the tree fork with five eggs in it. He has decided to let the nest remain for the hen to hatch the eggs, as he is curious to watch how she will get her brood to earth. According to the Alpine *Observer*, one sceptic has suggested that the eggs had been placed in the nest to coax the hen to produce a new kind of fruit.

Heavier Wool Traffic This Year

So far, wool traffic has shown a decided increase over that of last year. Geelong reports the receipt to date of no fewer that 110,324 bales, compared with 97,322 bales for the same period last season. In addition, 4,160 bales from the local sales have been railed to Melbourne for shipment overseas. That the wool is being expeditiously handled is instanced by the fact that, on November 15, 700 bales for shipment by the liner Ferndale lying at Victoria Dock were lodged for despatch at Geelong Station. Loading began at 7.30 a.m. and was finished in time for the despatch of the wool by a special train at 12.30 p.m. Seymour district is also well up on last year's wool traffic figures. The first batch of 15,000 bales from the Albury sales was handled last month.

Geelong Pier Reopened

After several months spent in repairs and improvements, the railway pier at Geelong has been reopened for coal traffic. The whole of the repairs are expected to be completed before the grain season begins.

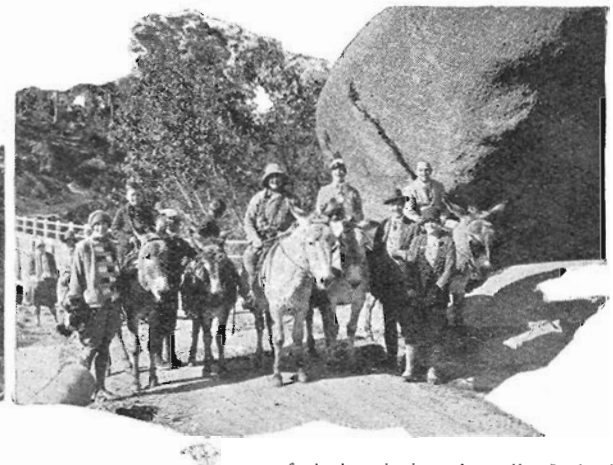
Concluded on page 54

Where to Spend a Holiday

By A.M.

Mt. Buffalo National Park





I hadn't thought of going to Buffalo. Of course I had read the nicely worded advertisements in the railway carriages: "But have you seen the Original?" That one made me smile—so shrewdly worded, I thought.

Then I was sent on leave.

"Well, its Buffalo weather, and you'll strike a crowd," my friends suggested. I hesitated and was—no, not lost, but saved.

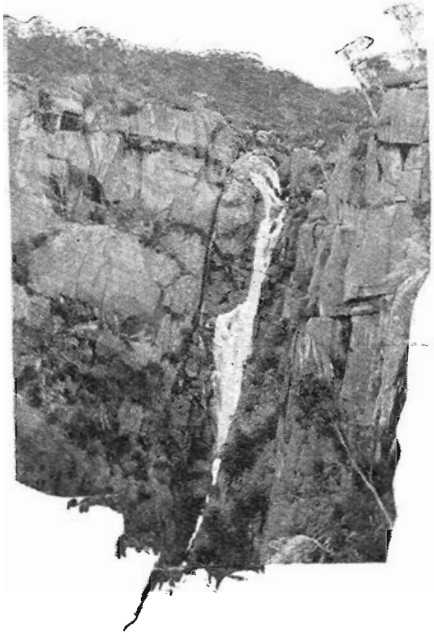
At the Tourist Bureau I purchased my coupon ticket, containing everything from "soup" tickets (as the boys called them) to "accommodation at the Chalet for one week." The day before I left I received a personal note from the Bureau welcoming me to the tour party, and advising me of its personnel. It warmed my heart. I felt at home.

I soon espied our tour conductor on the platform.

"That's him with the button in his coat," someone said (we soon learned to call him "Jimmy"). Altogether I met six people before we reached North Melbourne. One I soon knew. I tripped over her feet getting in. That started it.

We knew our room numbers before Porepunkah. We dumped our luggage on the platform there, and the next time we saw it was in our own room at the Chalet. After a magnificent moonlight drive we stepped into the Chalet lounge, drank coffee and went to bed. No trouble about registering and booking in, no moneys to pay or receipts to collect. We had been relieved of a batch of coupons much further down the track, and we put our coupon books away for a week to enjoy ourselves. And we did.

I am sorry for those who have not seen the skyline at sunrise from Bent's



Lookout—that magnificent panorama of myriad-colored hills and vales, topped with the fleecy whiteness of those giants Bogong, Feathertop and their friends. We walked, we rode, we drove, a happy party with always something to interest us. We sent piercing echoes down Echo Rock, waved arms from the mighty Monolith, and scaled the heights of majestic Mt. Dunn.

We danced, we sang, realising to the full the joys of a holiday "mid unparalleled surroundings."

And the Chalet, believe me it is no mere guest house. Its motto is "This is your House," and the staff makes one feel that it is. Actually I don't know what Chalet means, but to me it signifies cheeriness, comfort and cleanliness. The table is equal to that of the best city hotels. ("And its all in the £6 15s." was the wondering catch-phrase of our prize gourmet each time he folded his serviette).

How the time flew!

And then the day before we left, the sky grew overcast; great grey clouds drifted past leaving in their wake duller, darker clouds high in the heavens.

Then we saw them, swirling, spinning, rolling, frolicking down to earth—snowflakes!

It snowed all day and the Buffalo took unto itself its own matchless mantle of beauty. We wallowed in it. We gave it and we got it—in the neck, and in our mouths, in our ears and in our boots. We didn't care, our holiday was complete. We were ready—no, we were not ready to go home. But there is not going to be any anti-climax.

I don't know when (for you can "Buffalo" at any time of the year equally well), but I am coming back. There is nothing I would rather be doing than standing on those Chalet steps with our gallant fifty, shouting over Bent's toward old Bogong that now familiar song—

Buffalo! Buffalo! hear the old familiar cry.
Buffalo! Buffalo! take a trip before you die.
With your old toboggan and your pair of skis.
You don't give a d—— if you bark your knees.
Buffalo! Buffalo! Here we are again, Buffalo!

TO CORRESPONDENTS

A2.—The annual holiday pass issued to railway officers and employees brings the inclusive cost of a week at Mt. Buffalo to £5 15s. during the currency of the £6 15s. rate.

Railmen of the Month

Good Finish



TIGHTENING his last fishbolt one day last month, Ganger Bob Jaensch of Chewton length, finished a 40-year term with the Way and Works branch. Appropriately enough, in his final year of service, Bob and his gang carried off the first prize of £45 for the best-kept length in the Northern district. Farewelled before leaving, he was presented by Road Foreman E. Leheny with a travelling rug for himself and a silver sugar basin for Mrs. Bob.

From Locos. to Briefs

CLERK D. P. Donegan of North Melbourne Loco., has transferred his interest from steam locomotives to lawyer's briefs. He had five years' railway service before entering the legal world. The Acting Metropolitan Rolling Stock Superintendent, supported vocally by the wealth of administrative talent at the loco. depot, presented the departing clerk with a gold chased eversharp pencil and a fountain pen.

Left His Mark

BILL Hulse, just retired from the Government Tourist Bureau after 39 years service, has left his mark in the Victorian railway world. He was the first president of the officers' division of the A.R.U., and for several months acted as federal secretary of the Union. Runner-up to Jim Fogarty in the poll for election of employes' representative on the Board of Discipline, he has played the part of Jim's deputy on several occasions. A J.P. and A.N.A. man off the job, he has also been the successful secretary and organiser of Echuca's two "Back To" movements. He was at the Bureau for 14 years.

Oldest Inhabitant Retires

ONE of the very oldest inhabitants of railways' head office retired last month, when Senior Watchman Jim Duncan finished his last four-to-midnight shift. He came to head office when the building was taken over from the contractors, James Moore and Co., in 1891, and with the exception of a couple of months out carpentering, has guarded the big building by night ever since. He saw the building pass from the kerosene lamp age into the gas era, and remembers when there were some 200 kerosene lamps on the tables in the offices. Before that, he played as a boy on the vacant site where the head office now stands.

Walked 27,000 Miles

For 15 years, while the building was a three-storey one, Jim Duncan patrolled the long corridors five times every night. In that time, therefore, he walked approximately 27,000 miles. Simultaneously—taking into consideration the four flights of steps which he climbed on those lonely patrols, and putting his weight at 11 stone—he may he said to have lifted a total weight of 951,000 tons in those 15 years. He can tell a good story of the time the head office was mistaken for the Sailors' Home, which was then located in the present building of the Metropolitan Board of Works, opposite Spencer-street Station. The iron fence around the northern end of the railway building was of the same type as that fronting the Sailors' Home, and one dark night a demi-semi-sober sailor from the "Loch Lomond" vaulted over the railway fence under



the impression that it was the Sailors' Home fence. Instead of landing in a soft garden, however, he fell 20 feet or more on to the asphalt at the basement of the building, injuring his back. A couple of nights later, an officer from another ship, in the same condition, did exactly the same thing. But he escaped with a cut forehead.

December Birthdays

ELECTRICAL and Rolling Stock branches share the bulk of this month's collection of Victorian Railway birthdays, although the only branch chief with a December anniversary is Chief Accountant T. F. Brennan, who will benevolently accept congratulations on the 30th. A fragmentary list of others whom we can call to mind at the moment is :



Mr. M. J. Brennan

M. J. Brennan of the Powers machines, on the first; Superintendent W. Robert of Road Motor Services, on the second; Assistant Engineer R. R. Cannington, and Metropolitan District Rolling Stock Superintendent W. H. Deasey, on the fourth; Driver T. H. Gronn of Ballarat, on the fifth; Rolling Stock Clerk S. C. Jones, on the seventh; Electrical Running Inspector John Rist and Clerk Jim Withell of Maryborough, on the eighth; Jim Meares of Room 2, and Driver-in-charge W. House of Mildura, on the ninth; District Rolling Stock Superintendent E. Jackson of Ballarat, ex-Chief Mechanical Engineer A. E. Smith, and Chemist C. McTaggart of Newport, on the tenth; Shunter P. J. Green of Seymour, on the eleventh; Inspector of Ironwork T. F. Clarke, on the twelfth; Hall Officer Rubin Fisk, on the fourteenth; Les. Wright, of Room 4, on the fifteenth; Driver F. N. Palmer, of Maryborough on the eighteenth; Examining Officer E. J. Kavanagh, on the twenty-first; District Superintendent W. Tredinnick of Bendigo, and Electrical Superintendent J. D. Ravenscroft, on the twenty-third; Train Running Officer C. J. Abberton, Travelling Auditor E. Coope, Fireman T. de Graff of Ballarat, and Rolling Stock Clerk H. Ruff of Dandenong, on Christmas Day; Superintendent of Loco. Running A. Stamp, on the twenty-sixth; Artist H. Jack, of the Advertising Division, on the twenty-seventh; Assistant Superintendent W. Arundel of the Melbourne Goods, on the twenty-ninth; and Clerk J. McArthur of Room 9, on the thirtieth.

Lindenow Man

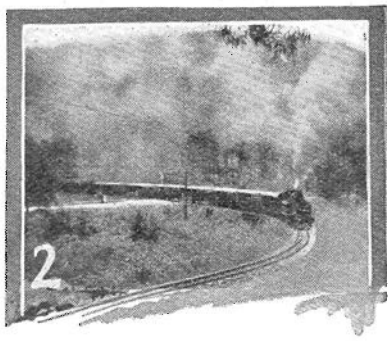
IF ever any S.M. was or is marked down for the charge of Lindenow station, Arthur W. Collins is that man. His father took over the railway line from the contractors for the Commissioners when it was completed as far as Lindenow in the early eighties. He himself had his first taste of operating portering at the same place a matter of some 18 years ago. There he met and married Mrs. Collins, and there, after service abroad with the A.I.F., he finally settled down as Stationmaster with his little family six years ago. He has another link with the district in his wife's grandparents, the late Mr. and Mrs. J. Hall, who were among the earliest pioneers to settle on the famous Lindenow Flats. They arrived there from Port Albert by bullock waggon eighty years ago. Besides being one of the district's keenest railwaymen, S.M. Collins is an authority on maize growing and French bean culture. There is no place like Lindenow or the Lindenow Flats, he declares.

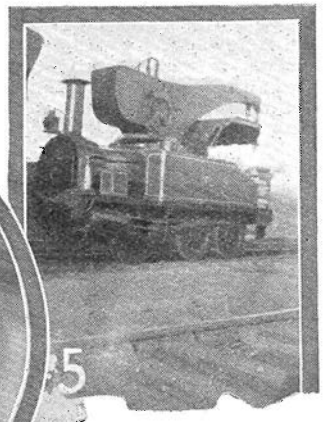
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SNAPS *round* The System

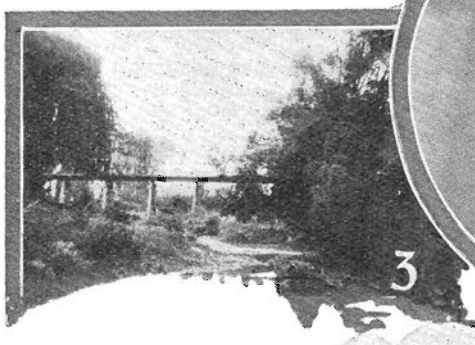
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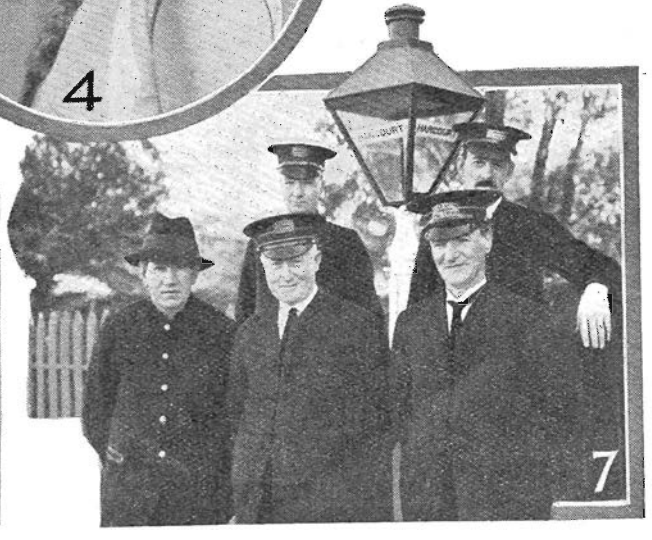












1.—Off for the holidays. The Sydney express at Spencer-street
2.—Narrow-gauge train leaving Ferntree Gully
3.—Railway bridge over the Loddon River at Guildford
4.—Service with a smile—a Toolamba Refreshment Room girl
5.—Steam crane at North Melbourne
6.—Special Ganger Doolan and his relaying gang at Glenrowan
7.—Harcourt station staff



By "AERIO"

HOME MADE

A Suitable and Inexpensive Kit of Fixed Condensers and Resistances which may be easily made in the Home Workshop

THERE can be no doubt that the wireless enthusiast who is experimentally inclined and wishes to try out the various new circuits published in the technical press from time to time will derive a good deal of satisfaction, as well as a considerable saving in expenditure, in making up the kit of fixed condensers and resistances herein described.

FIXED CONDENSERS

On Workshop Sheet No. 1 (accompanying this article) the reader will find a set of full size patterns for fixed condenser templates to be used in the construction of a variety of small capacity fixed condensers such as are specified in modern circuits.

To make up a template it is only necessary to cut out the pattern and paste it on one side of a sheet of zinc or tinplate, which is then cut to form a rigid and permanent pattern, or in other words a template.

If the constructor does not wish to mutilate his copy of the magazine he can of course trace the template patterns on to a sheet of thin paper which in turn is pasted on to zinc or tin sheet to form the templates.

Diagrams A to F are templates for marking off the copper-foil plates, the mica templates being marked AA to FF. The values of the made up condensers are also shown. Thus, by means of the six sets of templates and accompanying chart, one can make up a dozen condensers of different values, the completed kit being probably the handiest outfit in the experimental junk box. Makeshifts can be made up from tinfoil (silver paper) separated with notepaper instead of mica.

FIXED RESISTORS

If the filament potential of a modern dull-emitter valve is permanently set at the maker's specified figure, no further adjustments are necessary, for the valve will function efficiently at all times providing the accumulator is kept up to the mark.

This means, of course, that we can use a very simple and compact form of fixed resistance, or resistor, in place of the usual variable resistance or rheostat, and the result is a great saving of space on the panel or baseboard of the set, and fewer control knobs. Moreover, a number of fixed resistors may be made up easily at home at a trifling cost.

To find the approximate length and correct gauge of resistance wire to use it is only necessary to study the figures on the valve, glance at the table shown on the accompanying Workshop Sheet, and observe the simple rule—Resistance equals the voltage to be dropped divided by the filament current.

Thus, assuming a 4-volt accumulator and a valve requiring say, ·1 ampere at 3·5 volts, the voltage to be dropped, or "resisted" is ·5, and if this is divided by the current consumption of the valve which is ·1 ampere, we get

·5 — ·1 — 5 ohms.

Now for the length and gauge of resistance wire. From the table it will be seen that No. 28 gauge is a likely proposition, this giving a resistance of 4 ohms per yard; thus, for a resistance of 5 ohms we shall require 1¼ yards. But the smaller the gauge of wire the greater the resistance per yard, and since our aim is compactness, it would seem better to use a shorter length of finer wire, such as No. 30 gauge, which gives a resistance of 5·58 ohms per yard.

In this case we can use less than a yard, but what of the current carrying capacities of these finer wires? Will the resistance become overloaded, and heat up when in use? This may be quickly ascertained by glancing at the third column in the table, where it will be seen that the safe load capacity of No. 30 gauge wire is ·5 ampere. Our valve takes only ·1 ampere, so there is of course a large margin of safety.

Having now decided upon the gauge and approximate amount of wire, the EXACT amount can be ascertained by a simple test with a voltmeter. It is assumed, of course, that one cuts off a length of wire several inches in excess of the amount indicated in the table, for it is always better to cut off too much than too little.

OBTAINING THE EXACT RESISTANCE

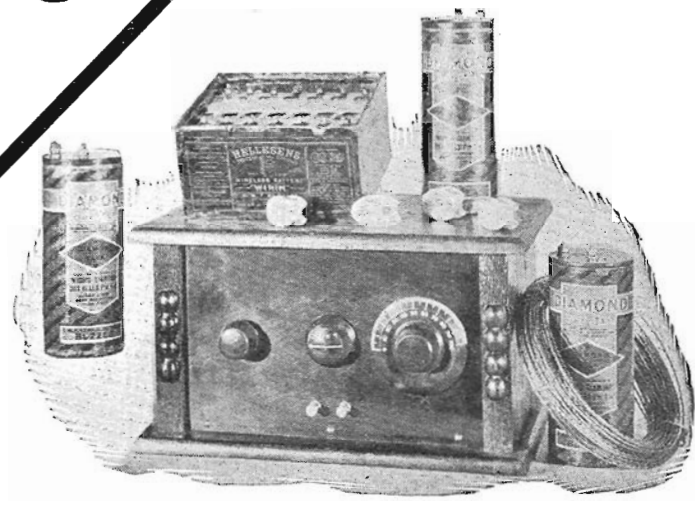
Place the valve in a spare valve holder, connect one filament terminal to one side of the accumulator with a length of copper wire, and connect the other filament terminal to the other side of the accumulator by means of the selected length of resistance wire, which, assuming No. 30 S.W.G. Eureka wire and a dull-emitter requiring a resistance of 4 or 5 ohms, should be about 30 or 36 inches in length. Arrange this wire so that it lies flat on the bench, connect the voltmeter across the two filaments terminals on valve holder and gradually decrease the length of wire until the voltmeter accurately registers the voltage specified by the makers of the valve.

If now the exact length of wire is carefully measured, and noted, it is a simple matter to cut off similar lengths and make up any number of resistors for use in conjunction with valves of the same type.

MOUNTING THE RESISTANCE WIRE

When the correct length of wire has been ascertained and cut, it should be mounted by winding around a suitable former. This may be made from a short length of ebonite tubing, or a flat strip of ebonite, fibre, leather, wood, etc., cut to shape illustrated at "G" on the Workshop Sheet. In deciding upon the material from which to cut the former, it should be borne in mind that in the event of a sustained short circuit across the valve holder or the connecting of a higher voltage than usual across the A battery terminals, this resistance wire would heat up in

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Two Valve Set

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(Speaker extra from 25s.)

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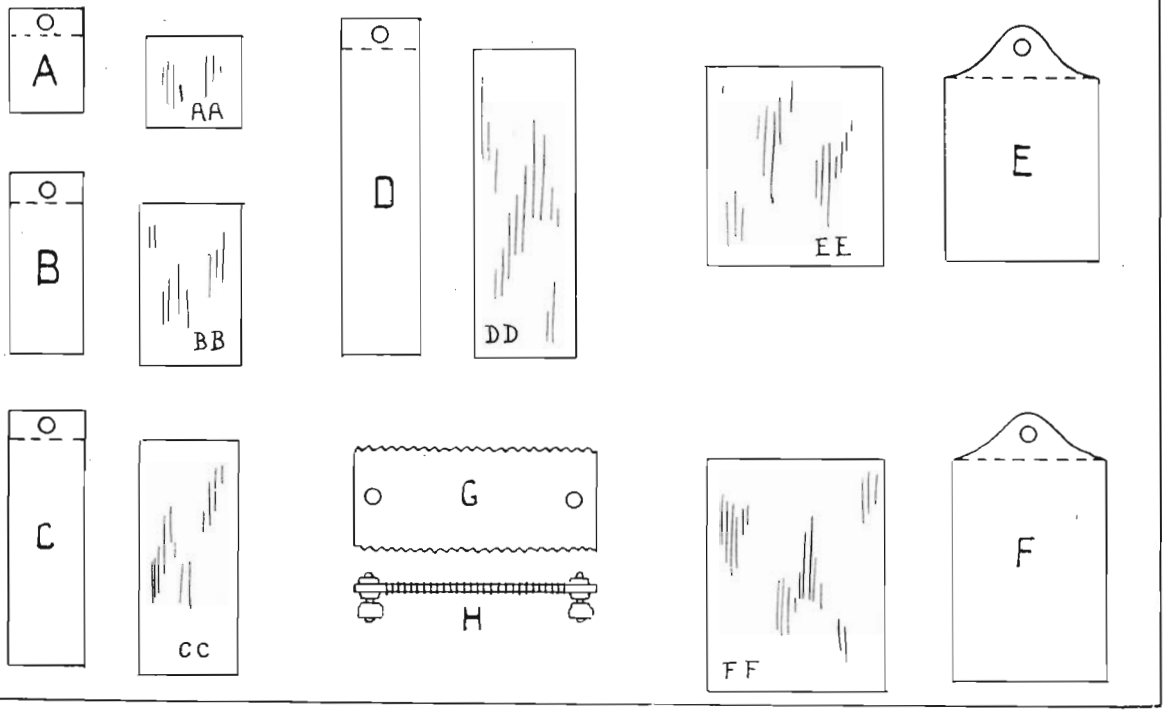
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Address .....

3RI WIRELESS CLUB 3RI

WORKSHOP SHEET No. 1



the same way as a commercial rheostat, and would probably burn out, and if wound on inflammable material there would be a risk of it taking fire. Provided, however, you are satisfied that this risk is non-existent the wire may be just as effectively wound on cardboard.

Explanation of Workshop Sheet—

FIXED CONDENSERS

Copper Foil and Mica

Template	No. of Foils	Approx. Cap in MFds.
A	2	·0001
B	2	·0002
B	6	·001
C	2	·0003
C	4	·0009
C	6	·0015
D	2	·0004
D	6	·002
E	2	·0005
E	6	·0025
F	2	·0006
F	6	·003

FIXED RESISTORS

Eureka Resistance Wire

Size S.W.G.	Ohmic Resistance per yard	Current Capacity
18	·37	4·0
20	·66	3·0
22	1·10	2·0
24	1·77	1·5
26	2·65	1·0
28	4·0	0·75
30	5·35	0·5
32	7·35	0·25

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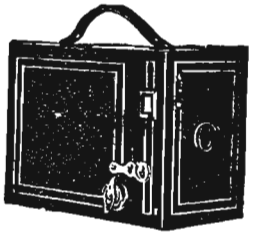
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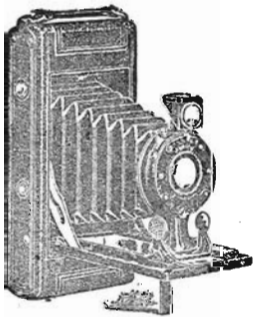
Headphones

All best makes, from **10/-**



Columbia Batteries

We are Distributors

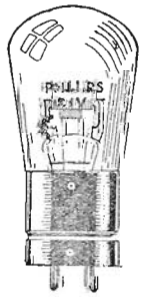


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Railwaymen in Sport

By Reg. Hunt



Incidents in the Secretary's v. Signals Branch match, last month

CRICKET

Railways Association Games

Matches in the Railways Cricket Association Competition are now in full swing and already some good performances have been registered. Three teams (Coburg, Jolimont Yard and Way and Works) have not yet suffered defeat. The best individual performances are :—Batting, O'Brien (Newport) 124 ; Anthony (Telegraph) 67 ; Brown (Way and Works) 87 n.o. ; Haughton (Jolimont Yard) 57 n.o. ; Bowling—Norman (North Loco.)8–22 ; Fletcher (Melbourne Yard) 6–21 ; Purdey (Telegraph) 5–23 ; O'Brien (Jolimont Yard) 3–2.

A lunch-time cricket association has been formed at the Spotswood Reclamation Depot with five teams and, as in football, much enthusiasm is being displayed, and there is keen rivalry between the various sections. Three matches have been played, and the premiership list is—

	Played.	Won.
Nonferrous ...	3	3
Plant Yard ...	3	2
Reclamation W'kshop	3	2
Sleeper Sawmill ...	3	0
Reclamation Yard ...	3	0

The annual match between the Secretary's and Signals and Telegraph branches, played at the Albert Ground, was won by the S. and T. branch.

Scores—Secretary's 235 (Baird 87 n.o., Cheong 28, Sutcliffe 2–28).

Signals and Telegraph—5 for 255 (McCrae 110 n.o. and 5 for 56, Hosking 103).

The enjoyable cricket of the day was followed by dancing, held at the Palms, Alexandra Avenue, in the evening, when the notables from both branches and their friends gathered to pass the hours to the strains of an excellent orchestra arranged by Messrs. Lewis and Farrelly.

The Railways Cricket Club, at Bendigo, has again entered a team in the mid-week competition, which was inaugurated in 1926. The team won the premiership in 1926–27, and was runner-up in 1927–28. The club is in a good financial position, and has Mr. W. Tredennick (District Superintendent) as President, and Mr. H. Page as Secretary. A good season is anticipated. Mr. G. Yule, who was secretary last year, has been appointed to a similar position in the Bendigo Cricket Association, and is going to have a very busy season in view of the visit of the English XI.

The club has won the two matches already played, the scores being—Railways, 5–109 (Murray 35 n.o., Prince 25) v. Theatricals 105 ; Railways 9–50 v. Bread Carters 39.

The Competition is for the Sutton Cup in the mid week association.

Mr. W. Willsher of the Maryborough District Superintendent's Office has been elected President of the Maryborough and District Tennis Association. He was secretary for and made a wonderful success of the 1927 and 1928 Foundation Day Grass Tournaments.

Mr. C. B. Smith, Stationmaster at Romsey, is Secretary and Treasurer of the local Cricket Club.

FOOTBALL

Premiership Smoke Social

The Railways team celebrated the winning of the Wednesday League premiership at a smoke social in the Loco. Hall, North Melbourne, on Saturday November 3, the President (Mr. W. Lewis) occupying the chair.

A number of presentations were made including a kit bag to each player, a gold fountain pen to Mr. Clifford (Hon. Sec.), and a football, suitably mounted, to A. Morrison the champion goal kicker. Mr. Clifford, in proposing the toast of the Commissioners and Heads of Branches, made appreciative reference to the privileges granted the club, when visiting other States, and to the assistance received in the matter of getting players away from duty to take part in the matches.

A dinner-hour competition was held last winter ; five teams (Fitters, Yard, Blacksmiths, Boilershop and Sheet Metal Shop) taking part. The matches were played for four quarters of 10 minutes each, the premiership being won by Boilershop, which defeated Fitters in a grand final by one point, with the scores 7–4 to 7–3.

The competition aroused a great deal of interest, and was very well organised. They had an independent tribunal for dealing with players reported, and the matches were umpired "free" by League umpires. Mr. Leslie, Workshops Manager, rendered valuable assistance, and was the

A Group of Neighbours

Stood around watching and discussing Mr. Smith and his Son Jim starting off on their new Ace quality cycles. They exclaimed as one, how lucky they are to have two such strong, serviceable, easy running cycles; the quick, economical transport for all purposes, travelling to work and on pleasure jaunts.

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means of having a portion of the Depot set apart for the sport.

It is intended to enter a team for the Commissioners' Cup next season.

TENNIS

Head Office Association

Singles and Doubles Championships have been commenced. The present holders are—Singles : G. J. Ryan ; Doubles : A. W. and G. A. Cobham.

Singles—Those remaining are L. H. Arnold, A. V. Stenning, G. E. Barrow, F. Habgood, W. Wright, G. Cobham and A. W. Cobham.

Doubles—Ahern – Ryan, Letham – Stenning, McIver - Howard, Block – Habgood, Cobham – Howard, Block – Habgood, Cobham – Cobham, Osborne – Williams, Barrow – Davies, McIver – Arnold.

Result of games played during November :—

No. 1 Section.—Elect. Bch., 4 sets 24 games d. Rolling Stock 0.7
Traffic No. 1, 3.19 d. Sig. and Tel. (2) 1.11
Trans. No 2, 3.21 d. Traf. (1) 1.12
Sec. No. 1, 4.24 d. Rolling Stock (2) 0.1

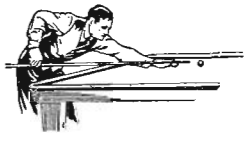
No. 2 Section.—Sig. and Tel., 3.23 d. Way and Works 1.20
Trans. No. 1, 4.24 d. A. of Receipts 0.12
Sig. and Tel. No. 1, 4.24 d. Ac. (2) 0.9

TENNIS PREMIERSHIP TABLE
No.1 Section

TEAM	GAMES						
	P	W	L	For	Agst	Pts	Pcg
1—Elec. Bch.	3	3	0	67	39	6	62
2—Secs. Bch.	4	3	1	81	55	6	60
3—Acts. Bch. No. 1	3	2	1	61	48	4	56
4—Tran. Bch. No. 2	3	2	1	60	52	4	54
5—Sig. & Tel. No. 2	3	1	2	55	36	2	60
6—Stores B.	3	1	2	54	61	2	47
7—Traf. Bch. No. 1	4	1	3	43	74	2	37
8—Rol. Stck. No. 2	3	0	3	16	72	0	18

No. 2 Section

TEAM	GAMES						
	P	W	L	For	Agt	Pts	Pc
1—Sig & Tel. No. 1	3	3	0	67	46	6	59
2—Tran. Bch. No. 1	2	2	0	48	23	4	68
3—W. and W.	3	2	1	67	47	4	59
4—Traf. Bch. No. 2	1	1	0	22	15	2	60
5—Aud. of R. Bch.	3	1	2	46	66	2	41
6—Secs. Bch. No. 2	2	0	2	33	43	0	43
7— Rol. St. Bch. No. 1	2	0	2	28	43	0	39
8—Acts. Bch. No. 2	2	0	2	20	48	0	29



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DIMBOOLA ACCEPTS CHALLENGE

Dimboola has accepted the challenge issued in last month's Magazine by Wonthaggi, and has put up a good reply. Here it is—

Football Club—(Premiers—Wimmera League '28). Committee—Works Foreman Guilfoyle, Train Examiner Suiter, Guards Stanistreet and Healy. Players–Vanman Healy, Shunter Arnott and Laborer Taylor.

Dimboola 2nd 18—Players : Porter Mahoney ; Clerk J. T. Stewart.

Rowing Club—Driver Fortington (Captain) ; Rowing members—Firemen W. Salter and Adcock, Porters T. Salter, Sheed ; Clerks W. Tom and J. T. Stewart.

Cycling Club—Clerks W. Tom and J. T. Stewart ; latter is also Secretary, and finished in Dunlop Grand Prix, several Warrnambools, Goulburn–Sydney and other big road races.

M.U.I.O.O.F. — President : Guard Williams.

Band—Playing members, Guards L. and J. Wright, Porter Prendergast.

Clerk J. P. Stewart is evidently an all round athlete of no mean order.

My correspondent laconically ends his letter with " Beat that ! "

Who is the next acceptor ?

HARRIERS WIN FIRST RUN

The V.R. Harriers registered their first win of the season by defeating Malvern in " C " grade, by 38 points to 31. The following were successful : 100 yards, A. Chambers ; 10 3-5 secs ; One mile run, R. Guyot ; Pole Vault, T. Shatwill, height 8 ft. 4 ins. ; Discus throw, R. Read, 85 ft. 10 in.

In " D " grade they were narrowly defeated by Ivanhoe by 29 to 23 points. E. T. Reid won the mile walk and R. Gilchrist the high jump.

GOLF

Writing of the recent Interstate Railway Golfing Championship meeting in New South Wales, at which Victoria, despite the opposition of the strongest team N.S.W. had ever put into the field, carried off the honors, Mr. Con Lynch, Secretary and Manager of the Victorian team, pays a tribute to the hospitality of the Mother State.

" Not the least pleasurable feature of the golfing holiday," he says, " was the ever-changing panoramic views encountered on the journeys to and from the various links on which the games were played. In the selection of the courses a very happy choice was made to give the visitors variety and the maximum of enjoyment. For instance, in Long Reef and Pymble the features were entirely dissimilar giving the strongest of contrasts, not only in the lay out but in the situation of the links. It would not be fitting if this closed without a tribute to the hospitality which both the Victorian and S.A. teams enjoyed at the hands of the members of the New South Wales Branch of the Golf Union. At every turn, both in providing transport and in the multiplicity of good things supplied for the comfort of their visitors, the New South Wales hosts vied one with the other in making the holiday a happy and memorable one. Particularly in this respect mention should be made of the president of the New South Wales Association, Mr. E. J. Doran, whose kindness, thoughtfulness and generous hospitality contributed so greatly to the pleasure and enjoyment of every member of both the visiting teams. Nor should the popular secretary of the New South Wales Golf Club, Mr. Jack Ross, be forgotten. To this gentleman's organisation, foresight and untiring energy, visitors are indebted for making the holiday possible. It would be hard to find more generous and likeable sportsmen than the Railway Golfers of New South Wales. Last, but not least, the heartiest thanks of the visitors are due to the ladies of the New South Wales party who contributed so much to the pleasure of the trip by thoughtfully providing those necessaries which made for the comfort and well being of their visitors. God bless them."

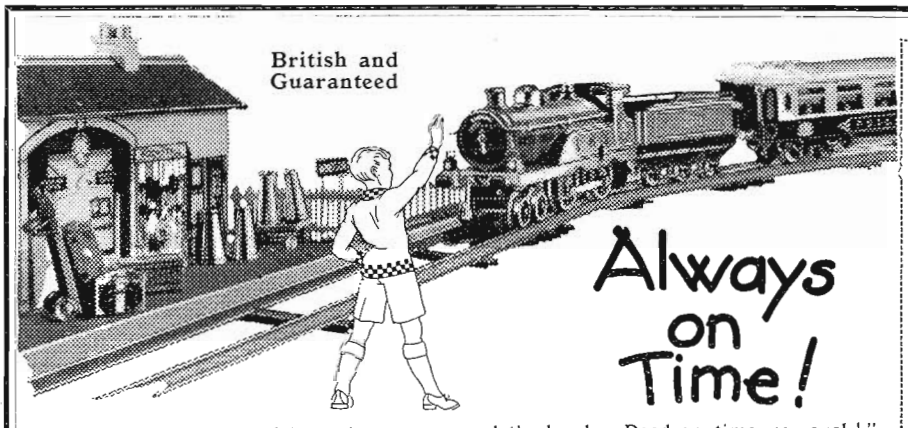
THIRTY-FIVE YEARS AGO

Extracts from the Victorian Railways *Gazette* of December, 1893 :—

THE Railways Commissioners have been reappointed for a term ending March 31, 1894, when it is understood that Messrs. Francis and Kibble will retire. At the end of that time we may expect to see some further development towards obtaining the services of an American expert. It is announced that Mr. Robert Reid, a member of the Cabinet, who is on a Commission to England and America, is also instructed to look out for such a man.

THE Victorian Railways Calendar for 1894 is now ready. We are pleased to state that the Railways Commissioners have adopted it as the official calendar instead of the usual Bradshaw. . . . The leading feature in the calendar is a compendium of all the principal railway events in the colonies.

THE committee of the Traffic Union is desirous of obtaining good, active agents among the railway staff for the purpose of selling shares in the Railways Co-operative Cash Store.



Always on Time!

"That's her signal—and here she comes round the bend. Dead on time, as usual!"

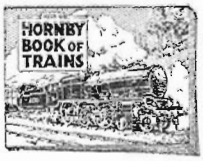
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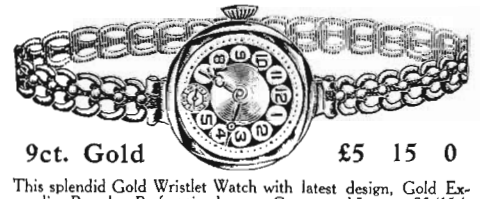
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Conducted by EILEEN to whom all communications for this feature should be sent.

The Clothes-Peg in a New Role

WHILE most of us know the value of the clothes-peg on wash day yet it is doubtful if many housewives think of it as an aid in the daily routine of kitchen work. One housekeeper, however, who has been more alert to its latent possibilities than most of us, has found out the following uses for it :—

A clothes-peg is the best thing for scraping an aluminum pan, when scraping becomes necessary, since it leaves no disfiguring scratches and marks.

When the glass stopper in the vinegar cruet sticks, a clothes-peg makes a good handy wrench to remove it.

A clothes-peg is just the thing to loosen the metal stopper of the hot-water bottle which refuses to be turned by hand.

A clothes-peg also comes in handy for turning the key when a box of sardines is being opened.

A handful of clothes-pegs and a little direction will amuse the children and keep them happily out from under a busy mother's feet while the activities of the kitchen are progessing.

Increased length of life is assured to clothes-pegs if the housewife puts them, when new, into a bucket and covers them with boiling water to which a little washing soda has been added, lets them soak for about half an hour, rinses them in cold water and dries them in the sun.

Dont's for the Kitchen

Don't put soup meat on the fire in hot water. Use cold water with a little salt to extract the nutriment.

Don't put fish with skin into boiling water, as too high a temperature contracts the skin and makes the fish look unsightly.

Don't salt liver before frying. Salt it afterwards, for salt causes liver in hot fat to shrivel and toughen.

Don't cover with lid when boiling, nor add salt to green vegetables, if it is desired that their color be retained.

Don't overheat fat or butter when frying eggs, as this will blister and make them stick to the pan.

Don't boil coffee. Coffee boiled is coffee spoiled.

Christmas Party Frocks for the Kiddies



A. Bloomer Frock, including Embroidery Design. Designed for 2 to 6 years. Size 2 requires 1¾ 39-inch rayon. A decorative effect may be achieved by using contrasting colored fabric for the trimming bands. B. Frock, including Embroidery Design. Designed for 4 to 12 years. Size 6 requires 2¼ yards 39-inch crepe de Chine. This party frock, distinguished by its curving, daintily embroidered flounces is pretty in voile. C. Frock, designed for 2 to 6 years. Size 4 requires 2½ yards 36-inch figured voile. Instead of the gracefully cascading stimming-pieces at the sides which tie at the under-arm seams, tiny puff sleeves may be used. D. Frock, designed for 2 to 6 years. Size 4 requires 2 yards 39-inch chins silk. This frock is delightful in figured voile with plain collar. The deep collar is finished with scallop. E. Bloomer frock, including embroidery design for 2 to 6 years. Size 2 requires 2⅜ yards 36-inch lawn. The collar may be omitted and tiny puffed sleeves may be attached to the square yoke.



What Shall I Wear?

SUMMER and in a few weeks Xmas—holidays—visitors. Ryding's have made special provisions to cater for all milady's dress needs to suit those special occasions.

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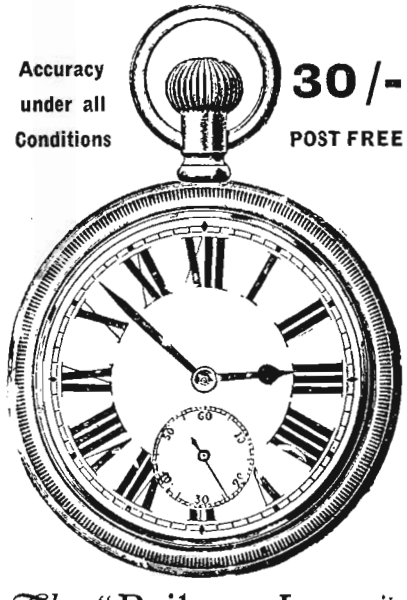
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Rail Users Say—

YEARS OF SERVICE

THIS is to confirm our conversation in regard to you having for me 25 horse trucks to load at Werribee, and I have to thank you very much, indeed, for all the help you have given to me in every way in regard to my loading horses at Werribee for a great many years. Up to the present, after trucking many thousands of horses, I am delighted to be able to say that I have so far not had a horse killed on the railways. This I attach to the care and attention that you have always given to my requirements.
—Mr. S. Margrett, "Cotswold," Macquarie-road, Toorak, writing to the V.R. Live Stock Agent.

HELP IN SICKNESS

I FEEL I must write and extend to you my deep appreciation for your kindness regarding my invalid brother's trip from Swan Hill to Melbourne. Notwithstanding his severe illness he had a most comfortable journey, as all concerned, from the highest to the lowest employes, showed him the utmost kindness. I desire to thank specially the guard of the train and his assistant, on his behalf; and hope you will convey the same to them.
—Mr. L. Wright, 169 High-street, Kew, writing to the Chairman of Railways Commissioners.

A FRIEND IN NEED

I WISH to bring under your notice a young gentleman by the name of Davidson, a relieving porter, I am told, of Nyah West. My daughter who was travelling from Wonthaggi to her home at Tudor, via Nyah West, came as far as Castlemaine on Monday and took the Tuesday train from Bendigo, but found she could only get as far as Swan Hill that evening, and as she had sent her luggage on from Wonthaggi to Nyah West, she was stranded in Swan Hill. However, she wired me and I met her in Swan Hill. On reaching Nyah West on our return journey, though late in the evening, this young gentleman, Mr. Davidson, did everything possible for her in getting her luggage for her, and also locating her small bag that she had left under the seat in her carriage when leaving the train at Swan Hill, and I hear, is having it sent on to her by train and mail to Tudor tomorrow.

Now, Sir, I hope that this young gentleman will receive commendation from your Department, as I consider he is justly entitled to it. I may say that we are comparative strangers to this district and have never met this young gentleman before.
—Mr. S. A. Douglas, Tudor, via Swan Hill, writing to the Secretary for Railways.

"WHATSOEVER THY HAND—"

ONE of your officials from the local station came into my shop one evening. I had just received an urgent request by 'phone to send a bottle of medicine to Fish Creek by the evening train. I asked him how it would be possible for me to get it away as the station closed at 6 p.m. He asked me if it were ready. I said no, I had just received the message. He said: "Well, I'll call back in half an hour and get it, and you need have no worry about it." Now this man was off duty. It was nothing to his benefit in any way to go to so much trouble—but what a spirit of service!

I have told many people of this incident. You seem to instil the right spirit and tone into your Department. While one set of workers evidently work by the tick of the clock, the railway chaps evidently still believe in that old maxim—"Whatsoever thy hand findeth to do, do it with all thy might."

In conclusion, I might mention that the same high standard of courteous service is adopted by our esteemed Station-master. Urgent medicine frequently comes along that I must get as soon as the train comes in. Although it is three hours after closing time, the parcel is always given at once to my messenger.
—Mr. Malcolm E. MacGillivray, Bair-street, Leongatha, writing to the Chairman of Railways Commissioners.

SATISFIED EXCURSIONISTS

MY Committee desire me to express their satisfaction in regard to the train you provided for our excursion to the Royal Show on September 24. Especially we would like to mention how courteous Mr. Searle was throughout arrangements, and also all dealings we had with Mr. Penrose and staff locally. We would also thank those who were responsible for our safe journey both ways.
—Mr. Chas. Silbereisen, Queenscliff State School, writing to the Railways Commissioners.

ARRIVED GOOD-OH!

I WISH to express my thanks to you and the staff for the excellent arrangements made for the transit of my poultry to and from the Bendigo Show. They arrived good-oh! One hundred and six exhibits entailed a good deal of work, but I was greatly assisted by their early arrival at the Show. Thanking you again.
—Mr. S. Lukeis, 905 Skipton-street, Ballarat, writing to the Bendigo Railways District Superintendent.

NOT A HITCH

I DESIRE to thank you and your staff between here and Ballarat for the keen attention and promptness given to our parcel of photos in their hurried despatch to and from Ballarat. We had to depend entirely on your staff for the prompt and safe delivery of the parcel to our blockmaker in Ballarat, also the return of the blocks by the following night's express, in order to secure an illustrated report of the Warracknabeal Show. There was not a hitch in the whole chain of operations, and I very much appreciate the work of the railway staff in so materially assisting us.

The Agricultural Society and townspeople generally greatly appreciate the illustrated report which does much to advertise the town and district, and as every minute was important, it only required a slip at any point to have completely destroyed the issue and the hard work put in. Your action in notifying the staff as to the urgency of the parcels and the importance of careful handling resulted in a smooth, trouble-free run right through.
—Mr. R. J. Pearson, Proprietor, Warracknabeal *Herald*, writing to the Ballarat Railways District Superintendent.

CONGRATULATIONS, NOT COMPLAINTS

ON July 1, we commenced using corrugated cardboard boxes for packing our goods, in place of wooden boxes. This was in the nature of an experiment and we were quite prepared to receive complaints from our customers that these cartons were arriving in a broken condition.

However, we were pleasantly surprised, as time went by, to note an entire absence of complaints, and on the contrary to receive a number of congratulatory remarks on the new system. This state of affairs is entirely due to the good treatment meted out to us by the various officials in all parts of the country who have occasion to handle our goods, particularly the loading staffs at Bendigo and Golden Square.

We are very pleased indeed to be able to say that the local staffs, at all times, are most anxious to help us in every possible way. These latter remarks also apply to the clerical employes.
—Foggitt Jones Pty. Ltd. (per C. Jacobs), writing to the Editor V.R. Magazine.

MONEY PROMPTLY RECOVERED

I DESIRE to thank the stationmaster and staff of Carnegie for their promptness and courtesy in recovering for me a bag of money left in the 6.55 p.m. train from Melbourne to Oakleigh this evening.
—Mr. L. Wilson, "Emoh Ruo," 27 Poston-avenue, Malvern, writing to the Railways Commissioners.

COURTEOUS ATTENTION

I DESIRE to record in your pages, my appreciation of kind attention received recently from two country stationmasters. Travelling to Melbourne, I accidently dropped a pair of gloves from the train at Trafalgar station, notifying the Yarragon stationmaster, who undertook to communicate with Trafalgar. I was delighted to receive the gloves safely a few days later. Again, with thanks, for this courteous attention.
—Mrs. Geraldine Moorhead, 10 Lynedock-avenue, East St. Kilda, writing to the Editor V.R. Magazine.

PLEASURE TO DO BUSINESS.

ON behalf of the Victorian Christian Endeavour Union, I desire to express our very best thanks for the very courteous and helpful treatment that we have always received from your officers.

We would particularly like to express this just now, because, in connection with the arrangements for conveying delegates to Perth for the 17th Australasian C.E. convention, early this month, many difficulties were encountered, but all, so far as your Department is concerned, were successfully overcome. Your officers in the Transportation Branch, especially Messrs. Meares, Maher and Stani-street (Passenger Train Services), Messrs. Reilly and Luff (General Passenger and Freight Agent's section) and the staffs at the booking offices at the Tourist Bureau and Spencer-street station were always most obliging.

In consequence, it is always a pleasure for me personally, and for the Union, to do business with your Department, and we feel that the words of appreciation and thanks are due.
—Mr. C. W. Rodd, Hon. General Secretary, Victorian Christian Endeavor Union, 288 Little Collins-street, Melbourne, writing to the Chairman of Victorian Railways Commissioners.

"CONTENTED" FEET

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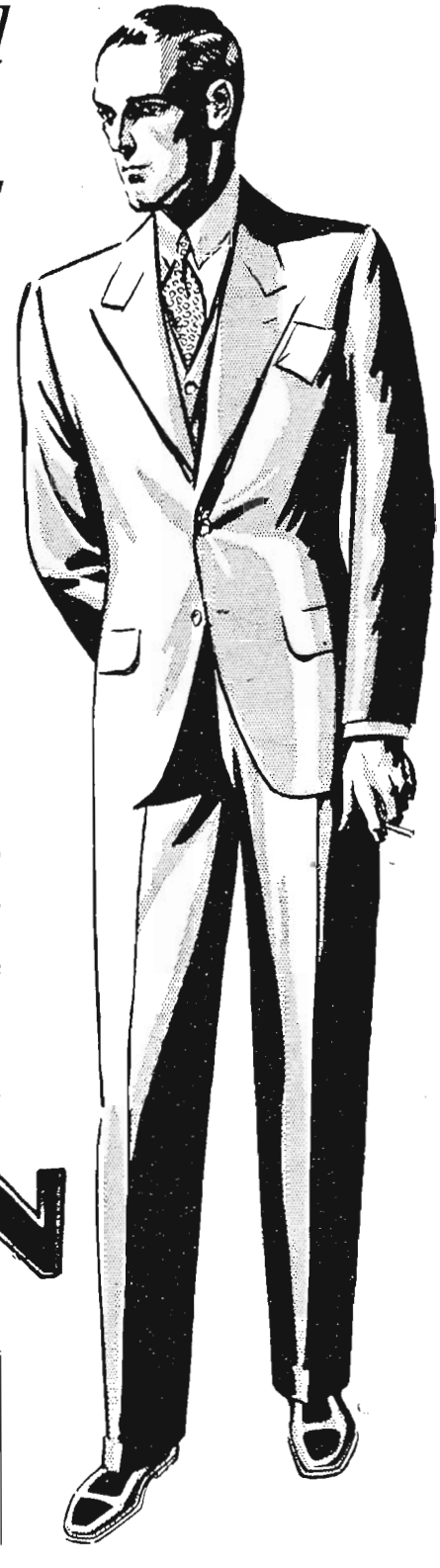
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Behind The Levers *Continued from page 23*

give the signalman the opportunity, when he needs it, of changing his mind in a safe and leisurely manner. When I give a proceed signal with an electrically operated signal, I can't change that route or put my lever back to a normal position until the train has passed over that route, or until," he tapped one of the glass pudding-basins, "I operate this time release. There is a little time-hand in this apparatus and it takes a minute to tick over and operate the release. I can then make the change, but, having been compelled to wait and think, can't make any rash movements. I couldn't, for instance, move points while a train is passing over them. That's all."

It seemed to me that it ought to be. I regarded the signalmen with a new respect. Safeworking and science . . .

"And here," Jones continued, "is one of our backlocking instruments." He indicated the object which I had previously mistaken for a handless alarm clock. On closer inspection, I now discovered that, besides lacking hands, it differed from the conventional alarms in having the word "Free" printed across the centre of its face beneath half-a-dozen assorted numerals.

"That," Jones explained, "has practically the same function as the time release. Only it influences mechanical signal levers, not the electric variety. I pull a lever across, set my track, and automatically backlock the lever. That word 'free' on the face of this back locking instrument then changes to 'locked.' To get control of that section again before the train passes through, my only course then is to break a paper seal at the side of the instrument, press a button, see that word 'locked' give way to 'free' again, and find that I can operate my lever immediately. The back locking instrument, in fact, is a time release without a time limit and working with mechanically operated signals instead of electrically operated signals."

HERE the signalman in "D" box rang furiously. "That you, Harold?" I strolled off a couple of yards and accepted George Mullin's invitation to drag down one of the point-levers. I grabbed the smooth handle and pulled. I gripped harder and pulled again. I changed my grip and pulled a third time, desperately. The confounded thing was immovable. I strained savagely and then loosened my aching fingers.

"Stone in the points?" I suggested brazenly.

George Mullins smiled, clutched the handle, bent his body lightly and moved the lever effortlessly into its notch.

"Simple, once you've got the knack. You pulled with your arms. You must get the swing of your body behind the lever. Nothing in it then. It's just a case of knowing how."

"The whole secret of signal work, though," added George, as a comprehensive afterthought, "is to know your timetable. Know your timetable and you're right."

Timetable. I thought of time releases, of low speed press-buttons, of bell codes, of color lights, of signal procedure, of interlocking, of backlocking . . . and marvelled.

And, marvelling, I looked at the clock. "Twenty-five, Box Hill, George . . See to that stick for the up Camberwell." I had spent an hour and a half in the rarefied atmosphere of higher railway safeworking. I said "good-bye" dazedly.

Joe Bailey was washing his hands as I made my exit. He nodded to me over the soapsuds.

"You want," said Joe earnestly, "to know your timetable."

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STRIKING BRITISH RAIL FIGURES

RECENT railway returns made by the British Ministry of Transport disclose that the railway industry, which is the largest private undertaking in the country, earned more than £220,000,000 and expended £177,000,000 last year. Capital expenditure to date is nearly £1,000,000,000, maintenance and renewals costs averaging £40,000,000 a year. Britain's rail tracks would stretch twice round the world, and 4,000,000 sleepers, 206,000 tons of steel rails, and nearly 500 miles of fencing are used each year to keep them in repair. The railways carried 1,650,000,000 passengers, 325,000,000 tons of freight (including 199,000,000 tons of coal) last year. Together, they own 24,013 steam engines, 94 rail motors, 4,575 electric coaches, and 51,465 ordinary steam coaches with a seating capacity of 2,792,726. The railways employ 683,077 persons and pay them more that £100,000,000 a year.

AN APPRECIATION

(To the Editor of Victorian Railways Magazine.)

Sir,—I am a constant reader of the above, and the more the years speed onward the more eager I become to peruse the book from cover to cover. Articles and other matters to be found therein are practical and forceful, and are of intrinsic worth to all who have the pleasure of reading them

Such is the opinion of the writer and hundreds of others. The reader can rest assured that it is the earnest desire of the editor and staff to publish a work which is educational, instructive and enjoyable. Especially are the contents of the Magazine a source of interest and pleasure to one who has retired from the service. What vast work of construction has been accomplished since my retirement in 1896! I entered the service in 1874 as a casual clerk.

Wishing you, Sir, and your staff long tenure of office to enable you to successfully steer the good and worthy ship—The Railways Magazine.

Yours faithfully,
FRED. G. WILKINSON,
Ex Engine Driver Pensioner.
313 High-street, Bendigo.

Railmen of the Month

Continued from page 36

Operating Porter R. J. Simpson was presented with a xylonite shaving outfit by the Irymple Station Staff on his transfer to Stratford Junction, last month.

Stationmaster H. M. Harries, of Murrayville, was given a send off by local residents last month, on his transfer to Northcote. Mrs. Harries was presented with a silver entree dish.

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Mather's Commercial College

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Of the eleven Candidates who passed the recent Law Courts Examination (150 words a minute) 5 were presented by this College.

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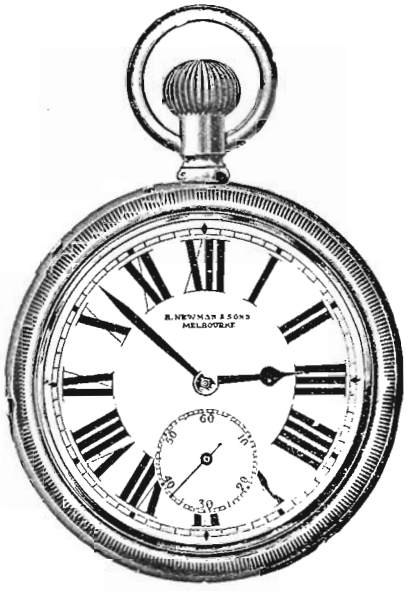
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THE Commonwealth Savings Bank of Australia will in future pay interest at the rate of 4% on the first £500 of deposits, 3½% on excess over this amount up to £1,000, and 3% on excess over £1,000 up to £1,300.

Society Accounts, 4% on full balances.

Purpose Accounts

Purpose Accounts may now be opened at any Branch of the Bank, to provide for special expenditure, such as holiday expenses, medical expenses, Christmas extras, higher education for the children, purchase of expensive articles, etc.

From one shilling per week, or fortnight, may be lodged for a period of three months or more, and interest at 4% will be added.

Any number of Purpose Accounts may be opened, and the nature of the purpose need not be disclosed.

Full particulars from any Branch of the

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INSTITUTE JOTTINGS

EXAM. RESULTS THIS MONTH

A large number of students sat for the Annual Institute Examinations during November at Melbourne, Ballarat, Bendigo, Seymour, Geelong, Stawell, Benalla, Ararat and Traralgon, as well as at thirty other class centres throughout the State. It is anticipated that the results will be posted at the Institute, Flinders-street, about the end of December.

Students who have complied with the "Harold W. Clapp" prize regulations, and have obtained 70 per cent. or more in engine working, Westinghouse brake, safe working, mechanical drawing, electricity and magnetism, station accounts and management, will be examined in the subsidiary subjects during January, 1929.

Classes for 1929 will commence about the last Monday in January.

TRANSPORT INSTITUTE BRANCH PROPOSED

It is proposed to form a student's society for the purpose of extending the knowledge of the younger Victorian railwayman in the principles and practice of railroading with a view, ultimately, of establishing, in Victoria, a branch of the Institute of Transport, and of holding local examinations under the aegis of the Institute. The parent body is situated in London, but branches have already been established in South Africa and in the Argentine, and it is believed that the Victorian railwayman is no whit behind those of other countries in keenness.

Any who are sufficiently interested are asked to communicate with Transport, c/o Magazine Editor, when arrangements will be made for an inaugural meeting to discuss details. As the effective membership of the society will entail the sacrifice of a certain amount of time, only those who are prepared to maintain their interest should communicate.

RETIRED MEN ARRANGE TRIP

Retired railwaymen gathered in force at the November meeting of their Club. The main item of business was the arranging of the annual bay picnic for February 7. Judging by the numerous inquiries already made for tickets, the *Weeroona* will carry a full complement.

———++———

Little Betty Jane (in the country for the first time): "Oh, Mamma, look at the cute little green snake."

Fond Mamma (ditto): "Put it down at once. It might be as dangerous as a ripe one."

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PLUME and Mobiloil REGD.

SOUTHWARD HO! The famous Australian explorer, who has already conquered the North Pole, is now on his way to make an aerial survey of the Antarctic.

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The Company is proud to have its products and service once again associated with an undertaking of world-wide interest and importance.

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THE LAW'S IRON HAND

A TRAFFIC policeman, who never leaves his post of duty day or night, guards the entrance to the Markham car repair yard, Chicago. This policeman is unique, being made of sheet iron and painted on both sides so that he regulates traffic both ways.

"He is so realistic," writes a contributor to the Illinois Central Magazine, "that while driving into Markham yard recently I actually stopped at the approach to the north lead track when I caught sight of this traffic officer whose white glove on the extended hand stood out more prominently than anything else, and I thought for a moment that it was a regular policeman, which indicates that it is a novel



as well as an effective idea to warn strangers who might drive into that yard where the roadway crosses several tracks, a number of which are 'live' tracks."

Emphasizing the originality of the idea is the fact that no one around the car shop was prepared to draw a good sketch for the making of the policeman; therefore, the foreman put an overcoat on a car repairer, and laid him down on a piece of sheet iron and traced his outline, from which the policeman was cut out.

Xmas Dinner on the Sydney Limited *Continued from page 12*

any other name would taste as sweet. And here, in all its pristine English, is the Christmas dinner for Sydney Limited passengers this year—from soup to fruit, five shillings:

No. 1 SALOON DINNER

Tomato
Consomme Asparagus
Boiled Schnapper — Oyster Sauce
Lamb Cutlets Mantenons
Roast Sirloin of Beef — Horseradish Sauce
Roast Loin of Pork — Apple Sauce
Roast Stuffed Turkey and Ham
Green Peas — Baked Potatoes
Baked and Boiled Potatoes
Plum Pudding — Brandy Sauce
Fruit Jelly
Vanilla Ice Cream
Black Coffee
Cheese *Salad*
Fruit in Season

UP COUNTRY *Ctd. from page 34*

Mildura Night Express

Patronage, so far, of the new fast night passenger train from Mildura to Melbourne has been satisfactory. It is now possible for a business man to leave Mildura at 8.30 p.m. on, say Monday, attend to his affairs in Melbourne, and return to Mildura at 7.30 a.m. on Wednesday morning. Sleeping cars are attached to the train on both down and up runs.

First Wheat of the Season

The first delivery of this season's wheat has been made at Carwarp Station. Forty bags of fairly good sample "Rajah" were brought in. Harvesting is now general throughout the district.

Have You Ever Associated

GLASSES and XMAS GIFTS

A GIFT

That is useful and of a personal nature, something different, is the aim of every gift buyer, year by year. A pair of good glasses presented to a brother or sister, son or daughter would give untold joy to the one suffering from eyestrain or headaches.

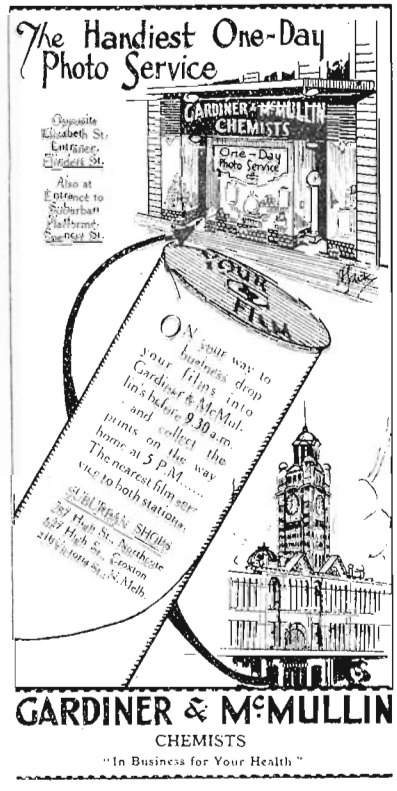
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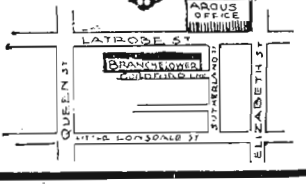
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Books *and* New Books

Thumbnail Reviews by J. D. MICHIE

The Golem.—By Herr Gustav Meyrink. A remarkably well written novel. The translation is by Madge Pemberton, who, in a foreword, says that the work has achieved wide popularity in the original German, and compares it with Poe. It is not an altogether unfair comparison. The Golem is first-rate sensational fiction, handled with imagination and style and pleasing touch of learning.

Cloudy in the West.—By William Paterson White. The scene is laid in New Mexico, where Mrs. Brooks of the Lazy S ranch, in love with O'Riley, the winsome, dare-devil cowboy, refuses to marry him because her neighbours, Lannigan and Collins, always shoot her suitors. O'Riley, however, shoots Collins, Lannigan is lynched, and this very vigorous and racy frontier story ends bloodily but happily.

Jipping Street.—By Kathleen Woodward. Jipping Street is an account of the Author's own childhood and upbringing in a London slum. Both Dickens and Engels left behind them terrible scenes of slum life; but though they saw and heard for themselves they were no more than onlookers. As direct evidence, the pages of Jipping Street possess particular interest. Sincere, impartial, they never once sink to the hysterics of suffering or the mere record of harrowing occasions.

Milly Comes to Town.—By Countess Barcynska. The Big City has ever been a loadstone to adventurous spirits eager to seek their fortunes. Here you may read of one such; Milly Bennett by name, a girl of the people, young and pretty, no paragon of virtue, and yet no great sinner, who takes flights from the parent nest to try her wings in London Town.

The Foolish Virgin.—By Kathleen Norris. The affairs of Pamela Raliegh's heart did not run smooth, and the unlucky circumstance which involved her in an apparent indiscretion had far-reaching effects. But where there's a will there's a way, and Pamela, though downcast at times, refused to give in, and after a long struggle and manifold heart-burnings, won in a manner entirely surprising to the reader.

Quiet Cities.—By Joseph Hergesheimer.—In his preliminary chapter to Quiet Cities, Mr. Hergesheimer tells the reader with no little elaboration exactly how he came to write, and what he felt when he wrote, these stories or sketches of life in a bygone America. It is quite a pretty piece of writing in a spirit of sheer romanticism, the spirit in which one who is no great admirer of the present selects the beauty and picturesqueness of the past to pore over. This is a really clever story.

The Judas Tree.—By Almey St. John Adcock.—The test of a good book lies in its power to demonstrate a universal truth despite individual circumstances or scene. Miss St. John Adcock's new novel passes this test successfully. Once again she uses the calm spacious Buckinghamshire meadows as a setting for her plot and characters, and she has constructed for us part of the English countryside which is gradually passing into history.

Wholly set up and printed in Australia at the Victorian Railways Printing Office, Spencer-street, Melbourne, for the Publishers — The Victorian Railways Commissioners.

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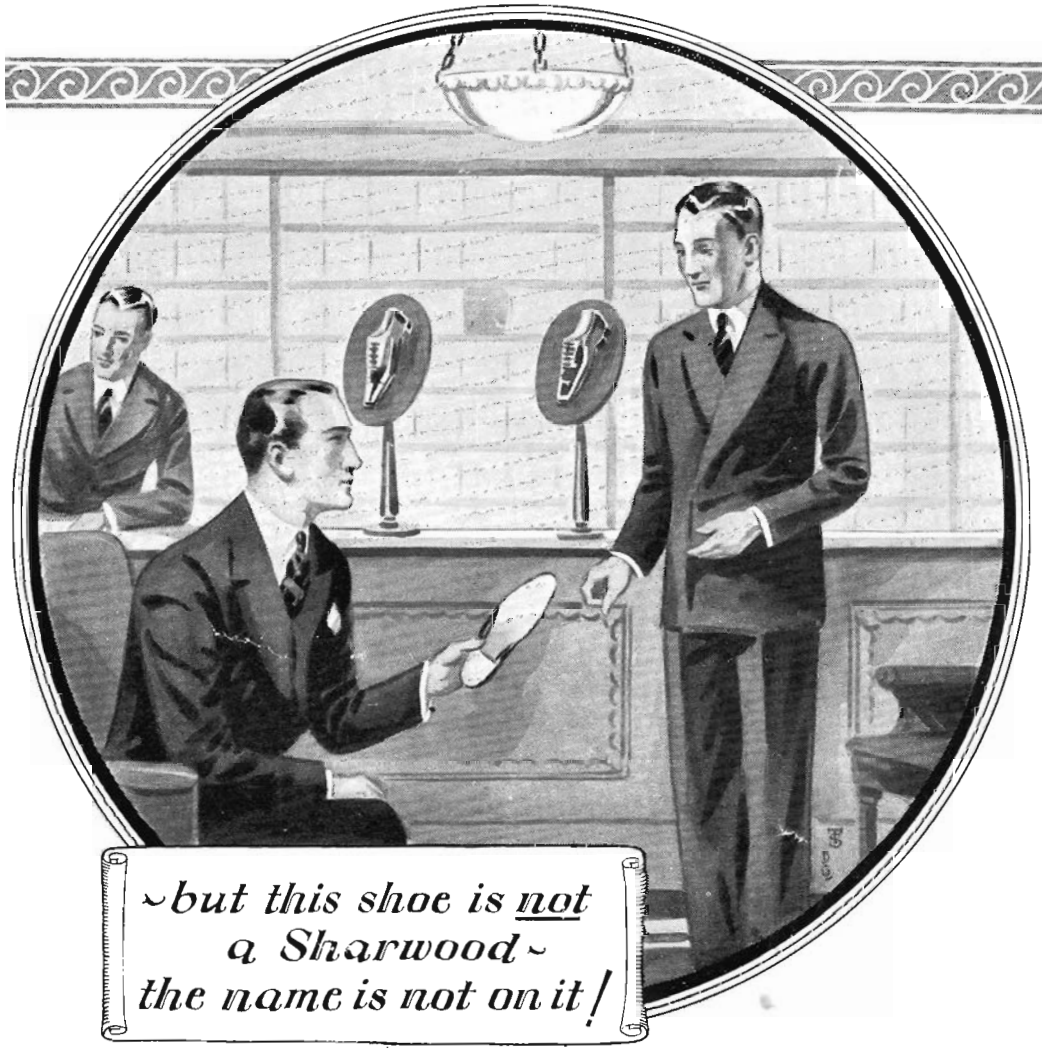
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