

THE VICTORIAN RAILWAYS MAGAZINE



VOL. 3.
No 10.

OCTOBER 1926

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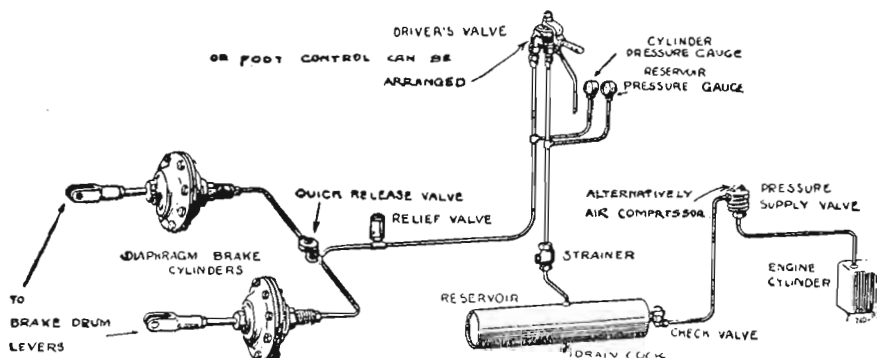


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The Victorian Railways Magazine

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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 specifically stated.

FOR 7s. per annum in advance the "Magazine" will be forwarded to any address. It is delivered free to all members of the Victorian Railways Institute.

Articles and reports on matters of interest to employees, short stories and verse, photographs and pen-and-ink sketches, suitable for reproduction, are invited from employees and others willing to help. They should be sent to reach the Editor, "Victorian Railways Magazine," Room 6, Railway Institute, Station Buildings, Flinders-street, Melbourne, not later than the 15th of each month. Correspondence relating thereto is carried free over the Victorian Railways.

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

All enquiries, except on advertising matters, should be addressed to the Editor.

Telephone enquiries to Central 5480; or Railways 174.

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Telephone enquiries to Central 6414, or Railways 139.

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TOPICS OF THE MONTH



MAKING FRIENDS.

READING through the personal pages of the "Victorian Railways Magazine," one cannot fail to be impressed by the number of expressions of good will by railway users towards station staffs and railwaymen generally.

Not a month passes by but we have to record gatherings of district residents who have met to pay tribute to a departing stationmaster or other railwayman. These expressions of good will are often accompanied by presentations to show in a tangible form the appreciation of our customers for courtesy and good services rendered.

There are two ways of rendering good service. One is to render it according to regulation and the other is to give it a personal touch which means so much in our daily contact with the people.

The finest feature of railway work is the opportunity it affords for making friends—and friends constitute one of the greatest assets a person can have. In making friends for the Department we make friends for ourselves.

Let us make every customer, whether he comes to travel on our lines or to despatch goods or receive them, feel that he is individually welcome. Let us be efficient and let us also be courteous.

Books on etiquette will not teach us to be courteous. It is the spirit of the thing—not so much what we say as how we say it, not so much what we do as how we do it.

It's the "personal touch" that does it!

LEARNING FIRST AID.

IT is regretted that the facilities provided by the Railways Commissioners for enabling the staff to qualify in first aid are not better availed of.

Classes of instruction are held at the Victorian Railways Institute, Melbourne, and at various country centres, but the attendances generally are disappointing, although a large number of employees qualify each year for certificates of competency.

Every railwayman, no matter in what branch of railway work he is engaged, should take the opportunity to become acquainted with a knowledge of first aid. Once that knowledge is acquired—and it is not so difficult that it cannot be learnt in a comparatively short time—it is "no weight to carry," and may result in the saving of human life.

Probably no other vocation calls so much for a knowledge of first aid as that of the railwayman. He it is who deals with people in large numbers. In the event of accident a knowledge of first aid is invaluable.

First aid is not only required by the railwaymen on the operating side, but it is very useful for the man in the workshop. Much needless pain and suffering may be prevented if one knows even the elementary principles of first aid.

Railwaymen are urged to attend the classes. It will cost them nothing. It may save the lives of others at an unexpected time.

Pasteurised Milk for Railway Patrons

The Victorian Railways Commissioners have decided that only milk that is pasteurised will be used or sold in their refreshment services, and that a special service shall be provided in sealed bottles for customers. A "safe" milk service is now obtainable at metropolitan railway refreshment rooms and on the dining cars. As soon as supplies can be obtained locally the practice will be extended to cover all railway refreshment rooms throughout the State.

IN the first fortnight after the introduction of the scheme nearly 3000 bottles of milk were sold. The milk is put up in 8-oz. bottles hermetically sealed with a special capsule which is stamped with the day it is received from the dairy.

Special instructions were printed for the guidance of the Refreshment Room staff as to the method of serving the milk. Immediately upon receipt from the dairy the bottles are placed in the ice chest at the refreshment room. They are taken from the ice chest direct to the consumer's table, and there opened in his presence and the contents poured into his glass.

The arrangements are working in a very satisfactory way, and there is indication that the sales of pasteurised milk will gradually increase as the public get to understand the value of this new special service which is now made available to them through the Refreshment Services Branch.

Not only is bottled pasteurised milk on sale, but the same quality milk is being used for all other purposes at the rooms. Wherever pasteurised milk can be obtained it will be used.

An interesting feature of the service is that customers are invited to inspect the dairy whence the milk is obtained.

Pure Milk—A Perfect Food

Pure milk is a perfect food, but impure milk is a positive danger. On this point all doctors agree.

The health of the nation would be wonderfully improved by the more liberal use of pure milk. It builds resistance to disease, keeps the body strong, and is the cheapest food you can buy. Growing children should be given at least a pint a day, and more if possible. No other food can take the place of milk in supplying the nutriment required to produce good health and sturdy growth, for it contains all the important things that make up a proper diet.

The same qualities that make milk the best food make it also easily contaminated, and no community or family can afford to be careless about the purity of its milk supply.

The dangers in milk cannot always be seen

with the naked eye. Germs are very small. Millions of them may get into a quart of milk before it leaves the shed. Some are harmless, others very harmful. Luckily, the disease ones cannot stand heat, and science has come to the aid of the milk distributor in affording safety to his customers by providing the scientific process of pasteurisation. By this system the milk is heated to a certain temperature, and, after being held at such temperature for a period, it is cooled and sealed tight in sterilised bottles and kept at a regulated cool temperature till served.

Nature and science have thus collaborated to provide a perfect food for young and old.

One quart of pure milk is equal in food value to—8 eggs; $\frac{1}{2}$ lb. rump steak; $1\frac{1}{2}$ lb. fish.

AMALGAMATION OF WORKSHOPS

SATISFACTORY progress has been made with the construction of the Way and Works Workshops at Spotswood. A blacksmiths' shop, equipped with new labour-aiding machinery, suitable iron racks, bins, skids and concrete running-ways to assist in the rapid and economical handling of material, was erected during the last financial year and is now in use. An electric sub-station was also completed.

The stores building was also constructed and is being fitted. The building for the machine shop is well advanced, and work is proceeding on the erection of buildings for the sheet metal and structural steel shops.

It is expected that the iron works section of the shops will be in full operation next year.

RECKLESS MOTORISTS BEWARE!

IT was mentioned at a recent conference of the officers of the Transportation Branch that it was the policy of the Victorian Railways Department to prosecute motorists who recklessly drive over railway crossings in front of approaching trains.

Officers were asked to co-operate by arranging for particulars of any evidence available in such cases being promptly sent forward.

Our cover design this month shows the poster issued by the Railways Commissioners to direct attention to the fact that pasteurised milk is now sold in all metropolitan railway refreshment rooms. The same colours were used as on the cover. One of the staff at the Flinders-street Station rooms posed for the photograph.

Railroadisation in Australia

Under the auspices of the Royal Society of Victoria, a lecture, entitled "Railroadisation in Australia," illustrated by lantern slides, was delivered by Mr. Jas. Alex. Smith, the well-known engineer, on August 12.

THE early history of the locomotive was traced by Mr. Smith, and, incidentally, the introduction of railways in Australia, viz., The Hobson's Bay Co., which operated between Flinders Street and Sandridge, now known as Port Melbourne, in 1854.

Slides depicting Flinders Street Station in 1854 were shown, and in comparison with Flinders Street Station and the abutting portion of the city of Melbourne as it is to-day, reflecting the wonderful expansion which has taken place between 1854 and 1926.

Another feature of interest, said Mr. Smith, was the fact that the first locomotive to operate on Australian railroads was constructed in Melbourne, so that, so far as locomotive construction was concerned, the industry was established prior to the running of the first railroad in 1854. This was due to the fact that the locomotive ordered from England could not be supplied in time for the opening of the line.

The railroad as a means of transport had developed to a considerable extent throughout the world, Mr. Smith said, and there was so far nothing in sight which could replace the present mass transport organisation.

Views of the earliest of locomotives were shown, together with those of the more modern types, and compared with the latest additions to the Australian and American railroads. They proved to what extent transport has assisted in the development of Australia.

The "C" class engine, which was designed by

the present Victorian Chief Mechanical Engineer (Mr. A. E. Smith), was shown on the screen and was the subject of enthusiastic applause.

A map depicting the gauges of the railroads in the various States indicated the necessity for standardisation or unification of gauges.

In dealing with State boundaries, Mr. Smith pointed out that these were fixed throughout Australia by imaginary lines in the early history of the continent, but when it came to the question of transport, such matters as State boundaries should not be a bar to convenience.

Wool, wheat and other products should be carried to the nearest port, having at all times to remember that the price of wheat and wool is fixed in London, and that price cannot be raised or lowered in Australia. Consequently, if such products are transported unnecessarily long mileage, it must result in economic loss.

In reviewing the location of Australia, isolated as it is, Mr. Smith was of the opinion that in the distant future it would be necessary, to construct railroads throughout Australia, running in a north-westerly direction.

Tribute was paid to the immense development of railroads in Australia, in comparison with the population, and as an example a map was screened showing that we have sufficient mileage in this country as would permit of a railroad being constructed in Great Britain and Ireland from side to side and at intervals of every 2½ miles.

Interesting Items from the Railway World

Cattle Improvement Train.—A cattle improvement train has been fully equipped and is being operated free of charge by the Canadian Pacific Railway. The project is being conducted by the Provincial Department of Agriculture, the Saskatchewan Cattle Breeders' Association, the College of Agriculture, the agricultural societies in the districts to be visited, and the Moose Jaw Stock Exchange. The train comprises four carloads of pure bred bulls, and one car of steers and dairy cattle. The bulls will be sold on this trip and the steers and dairy cattle will be used for demonstration purposes. The bulls, all young animals, and boasting proud pedigrees, are calculated to improve the average herd of cattle in this province.

Chinese Ambassador.—J. McKenna, known as "The Chinese Ambassador," has travelled

more than 3,000,000 miles over the Canadian Pacific Railway. He is a travelling passenger agent, and of late years has been conducting parties of Chinese across the continent. His first trip to Calgary was made in 1883, when he arrived on one of the pioneer mixed trains from Maple Creek.

Billion Dollar Special.—Several hundred bankers, business administration experts and financial authorities left New York recently in a chartered train of fourteen cars for Quebec City, where, at the Chateau Frontenac, the 33rd annual convention of the New York State Bankers' Association was held from June 21-23. The train, known as the "Billion Dollar Special," because of the vast fortunes which its passengers represented, was equipped with every ultra-luxurious appointment of modern railway travel.

Spencer Street Old Tower Clock Removed

A very old and very reliable employe of the Victorian Railways Commissioners, who has been on the job since 1883, has just received notice of transfer. "He" is the Spencer Street railway tower clock, and his transfer has been rendered necessary by the proposed alterations and extensions to the existing station premises.

WITH Sphinx-like aloofness, the venerable clock has brooded over the west end of the city for 16 years.

One face has stared fixedly up Collins Street; another has grimly repulsed the north winds that swept across the Melbourne Yard and over the long, station platforms; a third has watched the never-ending traffic swirl around the Goods Sheds, and the fourth has peered inquisitively through the end windows of the Head Office Buildings.

Day in and day out, month after month the whole year through, eager, interested and anxious glances have been directed at one or other of those four faces.

Tardy "five-minutes-past-nine" city workers have gazed gloomily at the accusing hands and speculated on the possibility of the boss accepting the late train excuse again. Hurrying travellers have quickened their step coming down Collins Street, and decided optimistically that, although only 45 seconds remain for them to buy a ticket and to get through the barrier, down the subway and on to the platform before the train leaves, they'll "be just about able to do it."

A Clock Which is Missed

Weary (and possibly thirsty) laborers, homeward bound along Spencer Street from the wharfs, have furtively scanned the impassive dial, muttered in alarm, "Three minutes to six," and scurried across the road.

Indeed, so well known has the clock become and to such an extent has it identified itself with the everyday life of the public, that even now, six weeks after the tower was lowered carefully from its four stiltlike supports, it is a common sight to see an alert pedestrian consult his watch, halt instinctively to compare it with the departed clock, stare blankly at the vacant space for a few seconds until it dawns upon him that he has made the same mistake for the sixth or seventh time, and then proceeds hastily on his way with a somewhat self-conscious expression.

Made by Messrs. T. Gaunt & Co., the clock was first erected at the Elizabeth Street entrance to the old Flinders Street Station in 1883. It then served as the control clock for the suburban railway system.

Its dials are five feet in diameter, and the whole of the clock mechanism is installed at the foot of the squat tower which carries the

The photograph on the right shows the clock tower being moved from its last position. It will be re-erected nearby.



dials. Two rigid poles extend upwards from the mechanism and control the hands.

In 1901 extensive dismantling operations heralded the arrival of the station building, and the old timepiece was heartlessly moved on to make room for its more handsome successor. Perhaps some feeling of remorse stirred in the breasts of the authorities, for another location was found for the clock at Princes Bridge.

Here it remained until 1910, when further improvements resulted in a second journey--this time as far as Spencer Street.

And now the contemplated alterations at Spencer Street have necessitated yet another removal. The clock will be re-erected at a spot some 30 yards or so back from its present location, and should be in active service once more before Christmas.

Meanwhile, while enjoying its well-earned rest, it can derive a certain melancholy satisfaction from the fact that, even though it has had a chequered career, its temporary absence has made everyone realise how much they have come to rely on it.



HOW OIL WAS DISCOVERED IN EGYPT

THE fact that the Standard Oil Company has discovered oil and is operating wells in Egypt, is generally known, but its reason for going to that ancient land to look for oil is probably not so well known.

It is asserted that the attention of someone connected with the company was attracted by the statement in Exodus 2: 3, that the ark of bulrushes which the mother of Moses made for her child was "daubed with slime and with pitch."

Reasoning that where there was pitch there was oil, and if there ever was oil in Egypt it was probably still there, the company sent out a geologist and oil expert to make investigations, with the result that oil was discovered. Three wells are now in operation, and others are to be opened—"The Lamp."

Catering for Victorian Railway Passengers

An American corporation which controls a chain of huge hotels adopted as its motto, "Service in order to obtain satisfied guests." It was stated that the business of selling hospitality is a matter of loyalty, of honesty, of character, of consideration, of a willingness to serve, and that its chief asset is the spirit of "We must give to get."

(By W. D. Bracher, Superintendent of Refreshment Services, Victorian Railways.)

THIS is the ideal of the Victorian Railways Refreshment Services Branch, which asks to be judged by the quality of the service it gives. It is recognised that any business that sells service to the public can prosper only to the extent that it meet the desires of the public.

It is encouraging to be told by experienced travellers that the Victorian Refreshment Services has a reputation that extends beyond the borders of the State, and that the cleanest and most orderly kitchens ever seen are in our Refreshment Rooms. The natural satisfaction one feels at such remarks is, however, tempered by the fact that nothing is perfect and that improvement is always possible and desirable. The hope of the branch is that tomorrow's performance will be better than today's.

There are scattered throughout the State 61 Refreshment Rooms, of which 41 are staffed by managers under the direction of the branch. The leased rooms are mostly tea stalls doing small and intermittent business, and are conducted by local residents. Leased, as well as staffed, rooms are regularly and frequently inspected to see that the prescribed standard of service is maintained.

The staff of the branch consists of 770 persons, of whom 460 are women, who have come into the Service from all parts of the State.

Most of the managers in charge and their wives are of proved capacity, with long experience in catering work. Their staffs also comprise numbers who have had several years' training in the Service, and who are therefore well qualified for their duties, and who take a pride in their work.

Selling Service in Small Quantities

The catering section sells service in small quantities. Not less than 3½ million meals or separate serves of tea, coffee, or food of some kind are supplied during the year. This does not take account of the liquid refreshments dispensed at the bars, of the meals supplied on the dining cars, at the Newport Workshops Dining Rooms, or of the sales at the fruit, tobacco and confectionery stalls.

Good service in the individual rooms is only obtainable if they are provided with goods of the best quality purchased at the lowest market rates. This task falls upon the providore and his staff, to whom the requisitions are sent by the managers, and by whom the multifarious requirements of the different rooms are purchased and supplied.

With the exception of the meat and sundry local purchases made by country managers,

such as milk, vegetables, fruit and bread, practically the whole of the requirements are obtained by the providore, the value of whose purchases totals approximately £200,000 per annum.

The feeding of the great army of Railway Refreshment Room patrons requires the supply of huge quantities of comestibles of various kinds. Every month about 33 tons of meat, 1½ tons of ham and one ton of bacon are needed, to say nothing of the numerous turkeys, ducks and chickens that also figure in the domestic economy of the Refreshment Rooms.

The meat bill is a formidable one. It amounted last year to nearly £30,000. Most of the meat is purchased in bulk by the master butcher and cut up in the Railway Butchery at West Melbourne, whence it is despatched to the different rooms. Only meat of the best procurable quality is purchased.

Forty thousand dozen eggs a year are likewise required, the greater proportion of which comes from the Departmental Poultry Farm at Noble Park.

If the bread consumed in the Refreshment Rooms in a month were made into one loaf, it would require a great effort to handle it, seeing that it would weigh about 21½ tons. Four tons of butter are used every month, and a mathematically minded reader might exercise his ingenuity in calculating the area over which this would extend if spread at some particular thickness.

Twenty-nine Tons of Potatoes a Month

It would be tiresome to enumerate the quantities and the many different kinds of vegetables used, but it may be interesting to mention that 29 tons of potatoes have to be peeled every month to meet the needs of our patrons.

Tea is a favourite beverage in the Refreshment Rooms, and about 14 tons is brewed every year, as well as eight tons of coffee. Special care is taken to select high-grade tea and coffee, and samples are regularly tested by experts to ensure that the supplies are satisfactory.

As would be expected, the demand for sugar is large, not less than seven tons being consumed a month. Add to this the 7000 gallons of milk also used each month and one gets some idea of the enormous amount of work involved in supplying, preparing, cooking and serving meals in the Refreshment Rooms.

By meeting in a satisfactory way the needs of train passengers, the Refreshment Services Branch contributes to their comfort and thereby promotes their sense of satisfaction with the service provided by the Department.

First Railway Loop in Australia

To obviate the grades on the second half of the New South Wales section of the new line from Kyogle to South Brisbane, it has been found necessary to resort to the expedient of introducing a loop to gain the altitude. This loop will be the first of its kind in Australia.

—(Reprinted from "The Staff"—the Official Organ of the N.S.W. Railways).

TWO recent announcements in the daily Press were to the effect that arrangements are being made for the erection of a bridge over the Clarence River at Grafton (where the "Swallow" and the "Induna" are working as train ferries), and that the first sod of the new line into South Brisbane has been turned at Kyogle.

The statements were rather brief, and gave little or no general information, but both of these works have many points of interest to the railwayman.

Primarily, the two enterprises form part of a scheme in which, as is generally known, the New South Wales 4ft. 8½in. gauge line at Kyogle will be continued into the Queensland capital, meaning that passengers will be able to travel between Sydney and Brisbane without changing carriages.

The building of the Grafton bridge will mean a second very large bridge on the Sydney-Brisbane connection.

At present, the North Coast line runs as far as South Grafton, on the Clarence, and from Grafton on the other bank to Murwillumbah, with a branch to Kyogle. The crossing of the river is catered for now by two train ferries—the "Swallow" and "Induna."

A Costly Procedure

This, however, is a costly procedure, and it is only a matter of time when the volume of traffic will necessitate the building of a bridge. That time has been hastened by the agreement to build the Kyogle to South Brisbane line of standard gauge, and in order to provide for a continuous railway trip it is necessary to have a bridge at Grafton.

The designs provide for a railway and highway traffic crossing, and the bridge has a lift span for river vessels.

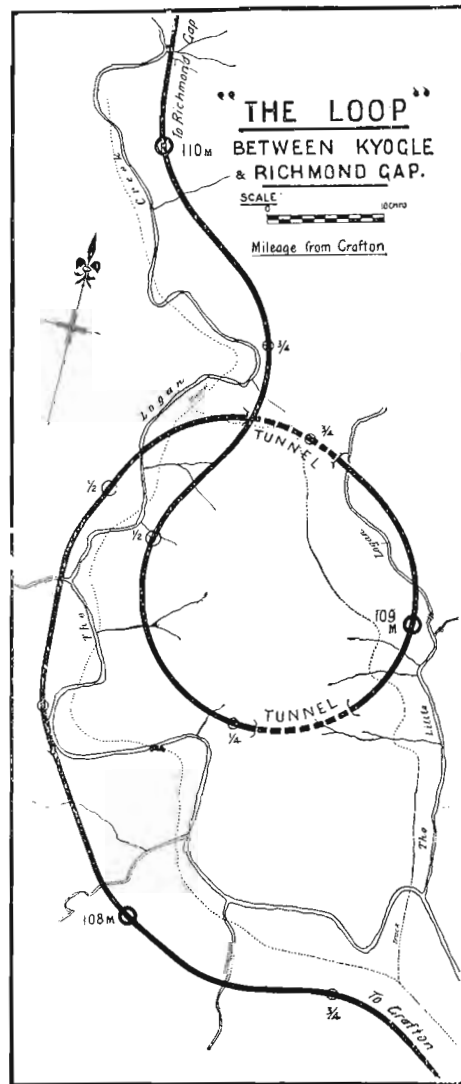
The length of the line on the Queensland side is about 67 miles, making the through journey 94 miles from Kyogle.

The estimated cost of the work—reconditioning the Grafton line and building the new road to South Brisbane—is about £4,000,000, which excludes the cost of the Clarence River bridge and approaches.

The first half of the 26½ miles in New South Wales is plain going, the second half contains the grades.

The country is rugged, and in one place it has been necessary to resort to the expedient of introducing a loop in order to gain the altitude. This interesting piece of location—the first in Australia—is situated at 100 miles from Grafton and about 2½ miles on this side of the State boundary.

The line comes up Logan Creek, cuts through the watershed into the Little Logan



by a tunnel, and again crosses back into the Logan Creek valley by another tunnel, but on the opposite side of the Logan Creek to its initial entrance.

Following along on this side, it passes over itself 65 feet higher up, and continues on to The Gap.

The location is interesting, as, for a full 270 degrees, or three-quarters of a helix, the radius is constant at 12 chains.

Things We Are Talking About

Better Timekeeping—Record Truck Mileage—Carriage Construction—Coaling of Locomotives

RECORD TRUCK MILEAGE

MR. G. A. CURRIE, S.M. at Somerville, sends us the following details of smart handling of a truck which recently came under his notice.

On September 6 truck No. 938U was loaded at Somerville with 8 tons 10 cwt. of fruit for despatch to Brisbane, Queensland, and was sent forward on that day at 5 p.m.

After having been hauled to Albury and back, a distance of 448 miles, this truck was received again at Somerville on September 10 at 10 a.m. loaded with general goods from Melbourne.

CARRIAGE CONSTRUCTION

DURING the last financial year 30 motor coaches and 11 trailer coaches were built at the Newport Workshops for the Melbourne suburban electric services. An additional 22 coaches are in course of construction.

Five country cars were completed and 20 were in various stages of construction when the Commissioners presented their report to Parliament last month. These country cars are of an improved type, combining the main features of country cars, but with considerably less tare weight.

Work on the two all-steel dining cars is well advanced, and the Commissioners expect that the cars will be available at the end of this year. Two new sleeping cars will also be completed early in 1927.

GOOD TICKET COLLECTION RECORD

A FURTHER decrease was achieved during the last financial year in the percentage of non-collected printed country tickets, the figures for 1925-26 being 1.97 as against 2.44 for the previous 12 months. Gratification at this result is expressed by the Commissioners in their last annual report.

NEW LOCOMOTIVE CONSTRUCTION

NINE locomotives of the "N" class "Mikado" type were completed during the last financial year and have been placed in service. Authority has been given for the construction of a further 10 of the same type.

The Commissioners state in their annual report that the manufacture of the pattern "Pacific" three-cylinder locomotive for the Melbourne-Sydney express trains is well in hand, and it should be available during the latter part of 1927.

The construction of an additional five consolidation locomotives of the "C" class was put in hand during the year, and a further 11 have been authorised, the latter, however, embodying certain alterations which experience shows to be desirable in the development of this type of engine. These alterations will

have the effect of making the engines readily convertible to the 4ft. 8½in. gauge when necessity arises.

IMPROVED TIMEKEEPING OF TRAINS

IN their annual report the Commissioners record a further improvement in the general timekeeping of trains. In 1920-21 the percentage of country passenger trains and mixed trains on time was 70.88 and 71.82 respectively. These figures have gradually been improved upon, and this year 88.71 per cent. of country passenger trains were on time, while the corresponding percentage in respect of mixed trains was 86.87.

The timekeeping of suburban electric trains also showed a marked improvement over the preceding year, the respective figures being 91.14 per cent. in 1924-25 and 93.90 per cent. in 1925-26.

COALING OF LOCOMOTIVES

HAVING decided to install modern facilities for coaling locomotives, the Commissioners have selected an overhead bin type discharging into empty engine tenders from gravity chutes as being the best.

The Commissioners recommended to the Parliamentary Standing Committee on Railways that these modern appliances be included in the re-arrangement of the Ararat and Hamilton stations. The proposals have been approved by the Committee so far as Ararat is concerned, and the Hamilton re-arrangement was under consideration when the Commissioners presented their annual report last month.



Mr. Albert Davies, a young Victorian railwayman, standing beside one of the huge freight engines used on the American railroads. Mr. Davies is at present in America for experience. An article by him is on page 11.



Sixty-eight box cars on the Sunset Manifest negotiating the Horseshoe Bend at San Luis Obispo.

Four Engines Haul Train of Sixty-Eight Cars

In a further letter to the "V.R. Magazine," Mr. Albert Davies, a young Victorian railwayman seeking experience in America, tells of methods for handling a huge freight train on the Southern Pacific system.

THE Sunset Manifest train leaves Santa Barbara at 6 p.m. each night. On arrival the train is inspected by four train examiners, whose duties are to see if there are any hot boxes, flat wheels or defective brake rigging.

After the inspection two engines, a Mogul and Consolidated, are put on the head end of the train. In the centre of the train a Mogul-Mallet engine is cut in, and ten cars from the rear end another Mogul-Mallet engine is cut in to help the train over the San Luis mountain.

The Mogul-Mallet engines are a 2-6-6-4 type. The weight on drivers is 320,000 lbs.; wheels, 65in.; high pressure cylinder, 25in.; low pressure cylinder, 38in.; piston stroke, 28 in.

After the train has crossed the San Luis mountain to Santa Margarita the two Mallet engines and the Consolidated engine are taken off. The Mogul engine takes the 68 loaded cars to Watsonville, 153 miles, arriving there in 8 hours and 50 minutes.

Watsonville being a terminal, the engine is taken off and the train inspected again. The train is filled out from 68 cars to 75 cars. A Consolidated engine is put on and the train leaves for San Francisco, 100 miles away.

Arriving at the Bayshore freight yards, the train is broken up by switch engines and the cars are taken and spotted at the different warehouses.

The grade, which extends for 16 miles over the San Luis mountain, is $2\frac{3}{4}$ per cent. Six tunnels are passed through crossing the mountain, the longest one being 6784 feet.

The train crew consists of a conductor, head-end brakeman, rear-end brakeman, and swing man.

An extra brakeman is required on all freight

trains crossing the mountain, because, when the train is nearing the summit, the retaining valves on all cars are put up, so that the engineer can handle the train going down the mountain.

All engines are equipped with an $8\frac{1}{2}$ -in. cross compound air compressor, which has a normal displacement of 150 cubic feet when operating on 200 lbs. steam pressure.

The length of stroke is 12 inches, and the number of strokes a minute at normal speed is 131. The $8\frac{1}{2}$ -inch cross compound pump was instituted to obtain maximum brake efficiency, owing to the development of locomotives of great weight and tractive power, and longer trains of heavy, large-capacity cars.

These Manifest trains are run in sections, as many as six at close intervals. The first section is numbered No. 1 Manifest, all following sections being called Overflow Manifest.

The engines are equipped with classification lights and section lights. The first engine, as shown in the accompanying view, would carry the number 1-330 and two green flags. The other sections would run as 2-330, and so on. The last section would read No. 6-330, but would carry no green flags, as it is the last section.



MEET MOTORS CAREFULLY, is equally good for the man in the street.



Walking in the streets is almost at all times disagreeable. There is rarely any alternative between dust and mud. You are either in danger of being suffocated with the former, or being covered with the latter.—"Travels in Town," 1839.

How Economies have been Effected

For some years the Department has been faced with rising costs of both labour and materials. Increased efficiency and economies in working enabled the Commissioners to carry on for 5½ years without increasing fares and freight charges. Some of the means by which economies have been effected, and their influence in keeping down the expenditure, are mentioned in the following article.

IT was shown in the article in last month's issue that Victoria had invested in its railway transportation system a vast sum of money on which there is payable annually more than £3,000,000 in interest charges. It was also shown that the cost of operating the Service and maintaining the property amounts to a further annual sum of about £10,000,000.

In recent years the operating and maintenance costs and the interest charges on the capital invested have increased at a rate which is relatively much greater than the increase in the revenue received from the new and additional traffic.

Increased production has followed upon the opening up and development of new areas of the country, and upon the better methods and the wider knowledge obtained from the scientific study of the various problems of production. In turn, this has brought new traffic and additional revenue to the railways, and it has been one factor in postponing the increase in the rates and fares which has recently become unavoidable.

Change in Standards of Value

But because of the change in the standards of value, which has become very marked during the last 10 or 12 years, and the increase in the productive capacity of the community, the costs of labour, of material and of money (i.e., interest on borrowed capital) have very largely advanced during recent years.

To some extent the increased costs have been met by the profits from the new traffic, but a considerable proportion of them were met by economies in working which were mainly the result of increased efficiency.

The extent to which the Commissioners have been successful in reducing the cost of operation by the introduction of improved methods of working will be indicated in the following comparisons:—

The year 1921-22 has been chosen as that with which to make a comparison with 1924-25, for the reasons, firstly, that the changes in the standards of values and the conditions arising from the war were then becoming settled, and, secondly, that it was the first full operating year after the increase in fares and rates which was made in January, 1921.

In the same way 1924-25 has been chosen instead of 1925-26, because there was in that year, or during the quadrennial period which it closed, no increase in the charges for the services rendered by the Department as com-

pared with the earlier year, and the result of working did not in one year differ very materially from that in the other. In the former year there was a deficit of £19,000, and in the latter a surplus of £26,000—the expenditure thus being just within the income.

The average mileage of lines open in 1921-22 was 4284 miles, and the cost of operation was £8,026,665. In 1924-25 the average mileage open was 4448 miles—an increase of 164 miles, and the cost of operation was £9,426,203—an increase of £1,399,538. But in 1924-25 the rates of wages and certain other expenses were higher than in 1921-22, and to compare the two years on the basis of "like with like" it is necessary to deduct from the increase just mentioned the following sums:—

The amount paid in 1924-25 owing to the rates of wages being higher than in 1921-22	£208,000
The amount applied towards writing off the capital cost of obsolete and abolished assets	205,000
Increased cost of pensions to ex-employees	20,000
Special non-recurring expenditure	37,000
The increased amount paid in 1924-25 for operating the non-traffic activities of the Department, viz., the Refreshment and Advertising Services, Bookstalls, etc.	291,000
	<hr/>
	£761,000
On the basis of 1921-22 prices, the increased cost of operating and maintaining the additional mileage of line open, and of handling the increased business was therefore	£638,538
The increase in the traffic train mileage in 1924-25 was	Miles. 1,625,000
The increase in the revenue, after eliminating the non-traffic services (Refreshment Services, Advertising, Power, etc.) was	£1,628,000

These figures alone indicate that a substantial economy was effected in the handling of the traffic, and the following will show the position in this regard even more clearly.

In the interval between 1921-22 and 1924-25 the business of the railways increased in respect of the passenger and the goods traffic by 16 per cent. and 24 per cent. respectively—the number of passengers carried one mile in 1924-25 being greater than the corresponding number in 1921-22 by 194½ millions, and the number of tons of goods and live stock carried by 162½ millions.

The increased cost of handling this increased business was, as has been mentioned previously, £638,500, which is equal to only 8 per cent. of the 1921-22 expenditure.

The train mileage gives a very striking view of the position (Continued on page 61)

Getting Victoria's Live Stock to Market

In pelting rain or swirling dust, fair weather or foul, day and night, activity and hustle reign supreme at the Newmarket Railway Cattle Yards. Sheep, horses and cattle from all parts of Victoria are discharged there for the weekly stock sales, and the railway revenue handled at the unpretentious office runs into the neighbourhood of £500,000 annually.

IT is a bleak, cheerless morning—low-hanging clouds and a cold wind. The drizzling rain, which has ceased temporarily, threatens to resume at any minute.

The Newmarket station clock obligingly informs us that it is two minutes past six, and the porter on the barrier tells us that we "just walk along the line and bear to the left" to reach the cattle siding.

We stumble up an embankment and along the railway track past the huge sprawling shadows of Dalgety's building. From somewhere ahead of us there breaks in a confused murmur of noise—a murmur which now rises in menacing fashion like approaching thunder, and now sinks to a distant rumbling.

Another two hundred yards or so further on, and we round Dalgety's building to see the towering shape of the Newmarket substation looming in front.

We can place that confused noise now. It is the bellowing and lowing of innumerable cattle. It grows steadily in volume when we quicken our steps, and swells into an effective if not very harmonious chorus as we reach the high post-and-rail fence which marks the termination of the cattle race.

A Long Series of Cobbled Yards

Before us stretches a long series of cobbled yards, separated by open fences and gates and extending right back into the gloom. Drawn up on the right is a steaming engine and a rake of empty cattle trucks, from which the stock have evidently just been cleared.

On the left, housed safely in big pens, are the cattle whose sustained uproar has already earned our notice. Cows, bulls and calves—scores and scores of them—some sober ones reclining and chewing meditatively, others exchanging noisy confidences between the separating fences, a few more of the truculent jostling their way bad-temperedly past groups of sociable brethren.

And from every pen, on every side, from the sullen beasts and the apparently contented ones, rises that inarticulate clamour, that prolonged bovine protest against the intolerable conditions which have indefinitely imprisoned them in unfamiliar surroundings.

With a warning whistle, the engine on our right has removed the clanking rake of trucks and given way to another long row of crowded vehicles. These cattle are from North-Eastern Victoria. They plunge restlessly, bellow as the fancy seizes them, chew reflectively, and gaze with stupid curiosity through the sides of their trucks.

Three or four men surround the nearest truck. One of them hammers away at the

door and lets it drop on to the cobbles. He stands clear and cries: "Hey, hey! Ho, ho!" in varying tones of expostulation, entreaty, exhortation and command. His fellow workers assist him lustily, and a fine white-headed bull ventures warily half-way out of the truck. Realising at length that he is not being led into a trap, he lumbers on to the cobbles, followed closely by a smaller and more impulsive black animal.

Seated in state on the top rail of the dividing fence, with a list in his hand, a checker counts the cattle as they are discharged and jots down the number, with a note of the yard in which they are to be placed.

The last bull to emerge blares balefully at the nearest member of the discharging gang and hesitates for a moment with lowered horns. The man waves his arm threateningly and the whole gang unite in an outburst of warning. The refractory one tosses his head, changes his mind and joins his companions.

In another minute the whole mob is on the run, the bigger cattle bumping the smaller ones aside with scant ceremony. A couple of the unloading gang shepherd them into an adjacent empty pen, the gate is closed and the bulls are left to stretch their cramped muscles until the drovers arrive to escort them to the sale yards.

Workmanlike Operations

The gang moves on to the next truck and, in similar workmanlike fashion, releases about a dozen small calves. These young members of the family are playful and timid, and are secured in another pen without difficulty.

Further down towards the end of the train a second gang is unloading an odd truck of sheep. A sloping gangway is balanced against the top door to discharge the sheep from the upper pens, and a patient gangster crawls into the truck to induce the frightened animals to make the descent.

Once one of them makes a move the others soon follow suit, and in a remarkably short space of time the stock are in an enclosed yard, baaing their congratulations to one another on their safe arrival.

Mr. R. McLean, late of Moe, is the officer-in-charge of the Newmarket cattle siding.

"There are two live stock races here," he tells us, "and both of them are about a quarter of a mile long. The old one extends from the substation as far as Ascot Road." He waves his hand down towards the level crossing indistinctly apparent in the growing morning light. "The new race continues on the other side of the road, and is used solely for the discharge of sheep. (Continued on page 70)"

A Pleasant Holiday in Queensland

That Queensland is a land of extremes and contrasts was confirmed by a recent holiday tour by two young Victorian railwaymen, Messrs. C. H. Cheong, of the Advertising Division, and W. Ahern, of the Rolling Stock Branch. Mr. Cheong here outlines some of his impressions.

THOSE who have spent holidays in the north will readily agree that for scenery it has very few rivals. A sojourn in Northern Queensland is brought into the reach of tourists by the linking of the line from Townsville to Cairns, and these places are possibly the most interesting.

It is from Wallangarra that we commence our tour. Before stepping into the train, we (as the majority of railmen do) stroll along to the engine, and on this particular occasion, through the generosity of the driver and fireman, were shown the construction of the locomotive. As mechanical knowledge is very limited, we could do little else than express admiration of the exceedingly neat and tidy appearance of this well-groomed engine.

A bell rings, the rather stout and pompous guard waves a flag, blows his shrill whistle, and we are off through a range of mountains which tower down, with fierce frowning boulders of granite threatening to roll down and crush the speedy little express as it winds in and out—the engine now disappearing from view, now appearing round the further bend, and later straightening out into a more plain-like elevation.

A little further along and we are in the great Darling Downs, where the rich chocolate soils seem to vie with one another in their production. Further evidence of their fertility is seen in huge, well-developed cattle, beside broad streams glistening silver in the bright sunlight.

Varying Changes of Country

We are rushed on through varying changes of country, and are at last brought into Brisbane towards evening. Accommodation is secured for the night, and the following morning is spent around the city, for it is not until midday that we begin the longest stage of the journey to Cairns (1043 miles).

As we draw out from the city we have splendid opportunities for seeing the suburbs.

From the train (Townsville Mail) we catch sight of the coal mines at Gympie. The night is spent in the train, and in the early morning we arrive at Rockhampton and dine at the railway station.

Mackay is the next stop of importance, and here we have the first opportunity of sampling the much-discussed sugar cane, an obliging cane train steaming slowly past as we stand in the yard.

From here on, the tall palms are very much in evidence, and many a pretty little scene comes into view as we pass a small creek,

banks lined with palms, and the surface of the stream covered with variegated water lilies.

The lantanas—cultivated in the south—outlive the smaller vegetation and grow wildly over the banks and neighbouring country, their pink and white flowers contrasting with the green of the leaves.

At 5.40 a.m. we arrive at Townsville. This town is much more tropical than any other we have yet visited. The town is built around a magnificent hill (Castle Hill), from where many beautiful panoramic views can be obtained.

One cannot continue further without a word in appreciation of the beautiful esplanade, where tropical shrubs and begonias bloom to perfection. A well-designed and sculptured soldiers' memorial commands the entrance to the beautiful sandy beach, and many are the hours one could while away in these delightful surroundings.

A Typical Sunset

Magnetic Island, five miles distant, is reached in the pleasure boat, and an interesting trip to Mandalay, Nellie Bay, and Arcadia occupies three hours. Unexpected picturesque little bays appear at each place, and it is here that many Townsville people spend the sunny week-end. The pleasant return trip makes it possible to see the town bathed in a typical sunset, the numerous fine structures standing out in bold relief.

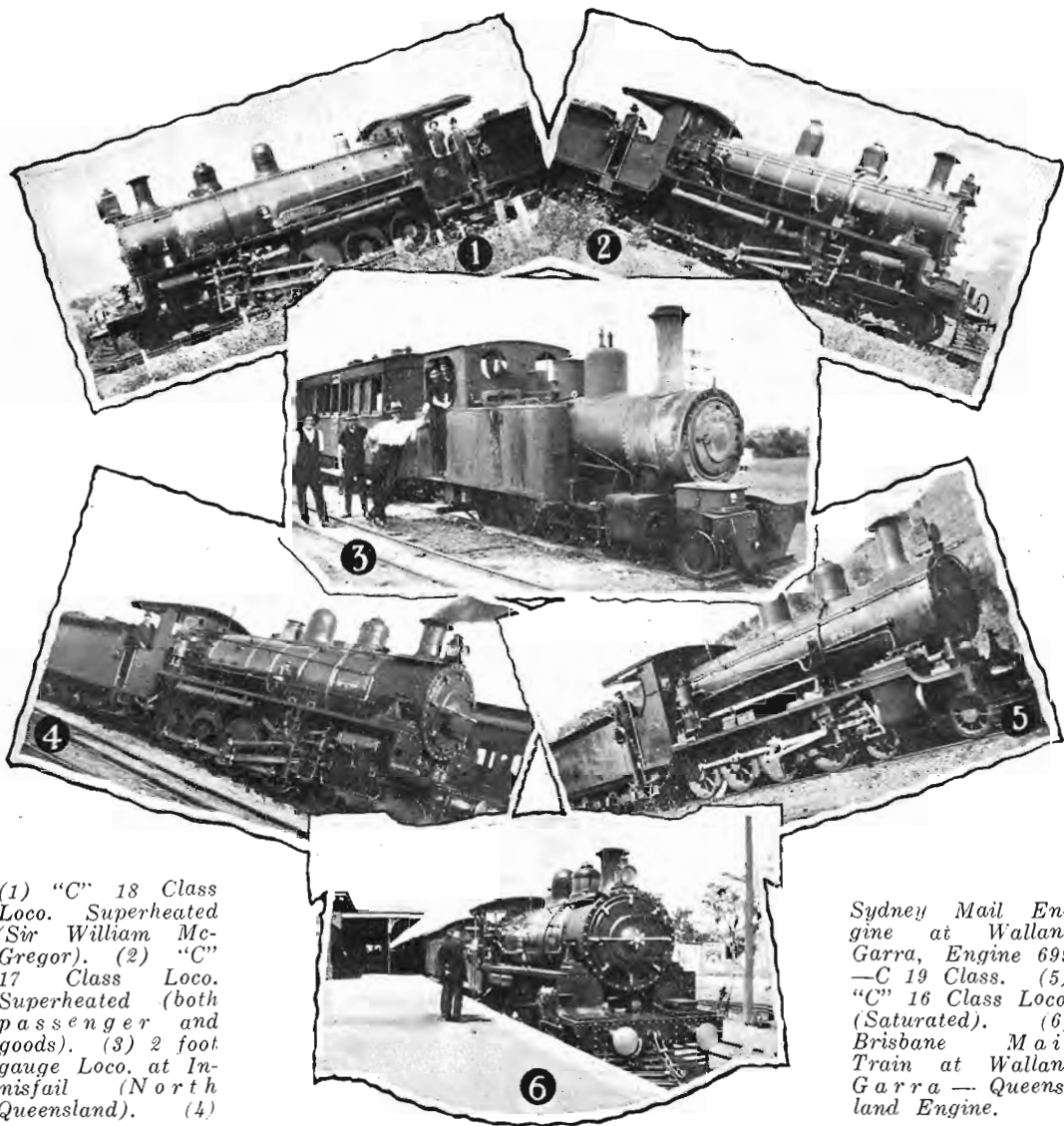
We are about early for the final stage of the journey to Cairns, and being well-informed as to the nature of the scenery, look forward to seeing something above the ordinary. In this respect our expectations are fully exceeded.

Along the valley the high peaks of Mount Bellenden Kerr tower among the clouds on the left, and to the right on distant ranges cultivated fields of banana trees, sugar farms, and orchards fade away to the sea.

We seem to fly, yet the train takes longer on this portion than any other—the train hurtles through a wild, dense jungle of palms, wild bananas, and creepers draped about maple and oak. Then suddenly we emerge into a cultivated patch of that ever-increasing product of the north—sugar cane.

Interest cannot wane through this interesting place, and when a stop is made opposite a large sugar mill we are able to catch glimpses of the preparation of sugar.

Again into the jungle, where we bridge small muddy streams, wherein we are informed the dreaded crocodile exists, lazing in the mud



(1) "C" 18 Class Loco. Superheated (Sir William McGregor). (2) "C" 17 Class Loco. Superheated (both passenger and goods). (3) 2 foot gauge Loco. at Innisfail (North Queensland). (4)

Sydney Mail Engine at Wallan-Garra, Engine 699 —C 19 Class. (5) "C" 16 Class Loco. (Saturated). (6) Brisbane Mail Train at Wallan-Garra — Queens-land Engine.

during the winter months.

On observing a small lizard I could not restrain from discussing the prospect of its being a young croc., but from the glances of amusement soon changed my opinion.

Wider rivers are now crossed, and we are shown Pyramid Hill, and encounter another brilliant sunset as we enter Cairns. In these parts, dusk is almost entirely eliminated, and from day to night is indeed a quick process.

We stay the night in Cairns, and a 2½ hours journey up the gorge brings us to our objective —Kuranda. This ascent is probably the most inspiring of the whole tour, as we cross wooden bridges whose structure does not at all impress us as being stout; but we are assured that it is. From here, glimpses of Redlynch far down below are caught, and with the sea

as a background, it forms a wonderful scene.

We pause at Stony Creek, photograph the falls, and have the exultant experience of tasting the purest water in the world. Slowly and almost reluctantly we are hauled higher and higher, till at last, with a mighty roar, the great Barron Falls come into view. Their magnificence has never been fully expressed in words, and I cannot tarry here to even try to attempt it. Although a drought prevailed, the volume of water was wonderfully impressive in that brief glimpse from the train. A mile and a half further and we are at Kuranda; the station is the prettiest on the trip, and I fancy it could not be outclassed in Australia.

From Kuranda we visit in successive days the Barron Falls, Fairyland, and the "Maze"—the latter two are wild tracts of jungle con-



A photograph at the Australasian Railways Commissioners' Conference recently held in Melbourne. Seated round the table (from left to right) are Messrs. W. A. Webb (chairman), J. Fraser, N.S.W.; H. W. Clapp, Vic.; W. M. Shannon, Vic.; T. B. Molomby, Vic.; J. McGuire, S.A.; J. W. Davidson, Q.; F. J. Jones, N.Z.; and N. Bell, Commonwealth. Mr. C. Miscamble, Tas., was absent when the picture was taken.

taining every conceivable sample of tropical vegetation, and both adjoining the lordly Barron River.

Mention must be made of the wonderful moth collection of Mr. Dodd, whose work has been accomplished by life study of those insects, and it is a feature which should not be missed.

The loyer cane, from which whip handles, furniture, etc., is manufactured, grows in abundance, and we are informed by good authority that it is equal to the best malacca cane; but because of the lack of advertisement, few are aware of the commercial value of this valuable product. A few days here are all that can be spared, and we arrive again in Cairns.

Cairns is a very cosmopolitan town, and very few countries have not their more or less worthy representatives. Two theatres draw huge crowds every night, and the dancing palais built over the water has many patrons.

A day's trip on the Sunday to Green Island and the Great Barrier Reef is most enjoyable, and time passes quickly in exploring the wonders of the reef and surroundings. Coconut palms form the vegetation, and a quaint "New Guinea" hut completes the idea of a tropical island.

The Much-Talked-of Reef

As the tide is out, we wade cautiously across to the reef a mile and a half distant, avoiding huge clams, octopi, snakes and other dreaded sea life, most of which we encountered, and a few of which we imagined. We are rewarded by seeing the much-talked-of reef—in one sense a protection to the coast, but in another a treacherous line of hidden rock.

The 18-mile trip back to Cairns takes some considerable time, but we are enabled to see Cairns by moonlight, with the tall palms waving over the sheen on the water, the blending of light and shadow producing a unique effect.

Monday morning brings a reluctant departure, and the journey back to Townsville and eventually Brisbane is accompanied by that feeling of the nearly-completed holiday. The

journey from Brisbane, down the Tweed River from where Queensland gradually disappears in the distance, would take much more than the available space. Linking up with the main line at Maitland late in the evening, we reach Sydney in the early morning en route for Katoomba, later to Sydney.

If the tourist has our experiences, he will find the Queenslander hospitable and generous, the railway official obliging and courteous, and anxious to make his stay as enjoyable as possible.

People there have adapted themselves wonderfully well to the climate; their places of amusement, apparel, and mode of life are the essence of comfort, and it is to be hoped that in the near future the undeveloped resources will be commercialised, and the places of beauty and interest popularised to such an extent as to bring the southern States into closer touch with the north.



YOUNG V.R. MEN IN ENGLAND

WRITING to friends, Messrs. W. E. Elliott and L. C. Fox, who were selected by the Commissioners for experience with Clayton Wagons Limited, England, state that they arrived in England about the middle of May, and could not have chosen a worse time. The general strike was in full swing, and it took them some time to get their belongings together and reach their new appointments.

Mr. Elliott says that he has been so unsettled that he has been unable to write fully concerning his experiences, but "Magazine" readers may look forward to hearing something of conditions in England at a later date.

All the colleagues they have met at Clayton Wagons Limited are interested in the Victorian Railway Magazine, and by the time Messrs. Elliott and Fox receive their copies back they have been through a number of hands.

At the time of writing, Mr. Elliott says that conditions were bad in England. The strike had done a lot of harm, and Clayton Wagons Limited closed for a fortnight because firms would not order, as they did not know what was going to happen.

"We hardly expected to find ourselves out of employment a few weeks after arriving, but we are making the best of it," Mr. Elliott says, with characteristic optimism.

A First Trip on a Train in 1834

Below is a quaint and vivid description of an observant passenger's first trip on a railroad train from Boston to Needham, a distance of 12½ miles, in September, 1834. The trip was begun in trepidation but ended in delight. The letter is reprinted from "Parley's Magazine," printed in 1834.

WELL, I have ventured at last upon the railroad. You know I have often told you that there must be more or less risk in travelling in so rapid a manner, and that people ought not to travel in railroad carriages for mere pleasure but only in the case of very urgent business. But as no serious accident has yet occurred in this region we have in a great measure dismissed our fears about the danger, and now everyone goes in them when he pleases, whether for business or pleasure.

I started in the cars that run from Boston to Needham, 12½ miles toward Worcester, at 3.30 p.m.

There were five cars in the train and perhaps sixty passengers. Five minutes before the hour arrived a bell gave us warning, and at the expiration of the five minutes another bell rang, upon which the train began to move. There was no waiting. Passengers one-fourth of a minute too late were not received. One who was a minute too late very coolly exclaimed, "Well, time, tide and the railroad cars wait for nobody."

Proceeding at a Great Rate

For twenty or thirty rods at first our motion was rather slow, but by the time we had gone fifty rods we were proceeding at a great rate. The motion was considerably much more than I had expected, though pleasant. When we were pretty well under way one of the men climbed along from door to door on the sides of the cars to receive the usual compensation. His situation seemed to me a little unpleasant, for a fall would inevitably have thrown him under the wheels and killed him.

Travellers have said that a passenger cannot count the posts of the fence when passing them on these roads at great speed, but I did not find it so. Still, our motion was rapid, about equal to the running of a very swift horse. We had one opportunity of comparison. The turnpike ran parallel with the railroad for a considerable distance in one part of our route, and coming opposite a couple of gentlemen in a wagon they attempted a race with us. But we went the fastest and soon left

them behind, though I rather think the horse was not one of the fleetest.

The wind seemed to be constantly in our faces, both in going and returning. This was owing to the speed. Fire and cinders also kept driving back on us and occasionally burnt our hands and clothes slightly. This is one of the evils of railroad travelling, though not a very serious one.

It was pleasing to see the groups of children collected by the side of the path to see us pass, though one could hardly help smiling to see some of the boys, who were rather slow of motion, take up so much time in adjusting their feet and preparing to make their best bows that they made them to empty air, the cars having got by.

We stopped at two or three places in Brighton and Newton, but not long. I was agreeably surprised to find how quickly a halt could be made when desired. A man on a galloping horse could not with safety stop sooner. At one place where we stopped little boys brought wreaths of flowers to sell us, but there was not much time for the traffic. In one instance the train starting sooner than was expected and the passengers having taken their flowers, the boys were contented to gather their 12½-cent pieces from the sand by the roadside where they were thrown.

Four Miles in Ten Minutes

The railroad often passes under bridges, and in a few instances over them. In one place it passes through a solid ledge of rocks which was excavated to the depth of nearly twenty feet. We passed directly by but one village. This was Newton. The fact is, that in order to secure the most level parts of the country and avoid high hills and deep valleys, the road often passes around villages and even through the most unfrequented places.

We returned safely at the usual time. We were an hour and a half travelling the whole distance both ways, viz., 25 miles, but this included our various haltings. Some parts of the route were traversed with far greater speed than others. The last four miles were passed in ten minutes.

In our search for the essentials of success, then, we find three mental characteristics. To achieve in a large way a man must cultivate his imagination. He must learn to see beyond any set of facts and to visualise a new situation to be developed from them. Then he must be able to visualise his goal and keep it before him. Finally, he must possess the courage and enthusiasm necessary to make his dream come true.

Really "big" men are intensely human, and are lovers of their kind. They are sociable and affable. They do not wrap themselves in a veil of mystery and make themselves inaccessible. They are too busily engaged in living and enjoying life to hold up traffic while they admiringly relate their own exploits. One can easily distinguish the biggest men, because they are the least boastful, and the wisest men, because they are the least wordy.

The Importance of Beautification

(By R. G. Elliott, Author of "The Australasian Rose Book").

The undoubted value of beautiful flowers, shady trees and restful green lawns in close proximity to offices, workshops and business premises is being gradually recognised and universally appreciated. Mr. R. G. Elliott, of the Car and Wagon Shops, deals with this matter in relation to railways.

BY the most farseeing captains of industry throughout the world, the refreshing, invigorating influence of flowers upon the tired mind and weary body is ungrudgingly acknowledged, as witness the beautiful, well-kept gardens now to be found adjacent to leading industrial establishments here and in other lands, where, not a great many years ago, the idea of using valuable building space to establish gardens for the benefit of employees would have been ridiculed.

Men of keen perception have now grasped the fact that money spent in this direction is exceptionally well invested. They realise that, after the brain—whether of the worker at the desk, bench or machine—has been concentrated upon one class of work for hours in succession, there can be nothing so diverting and invigorating as a short stroll at lunch-time among beautiful flowers, inhaling the dainty perfume and feasting the eye upon their brilliant diversity of colour, blended perfectly by the gardener who revels in his work.

Preference for Certain Flowers

The preference of individuals for certain kinds of flowers, the divergence of opinion as to the merits of different varieties of a kind, etc., leads to healthy discussion. Those who have attained knowledge impart it to their companions, and the general conversation ensuing on what is undoubtedly the purest pleasure indulged in by the human mind, disseminates the highest type of education; and it must be remembered that the merest novice in gardening—if he be of an observant nature—will frequently contribute something untouched by his better-informed companions.

When the bell rings, all troop back to work with bodies invigorated by the pure oxygen—manufactured and distributed by the trees and plants—which has filled their lungs, and with minds rested and refreshed by the pure, healthy thoughts inspired by that ten minutes' converse with the beauties of Nature.

We must all pay the highest tribute to the good work of our Chairman, Mr. Clapp, in taking the initiative in cleaning up railway premises generally, obliterating unsightly rubbish heaps, making offices and workshops healthier and more congenial, and endeavouring to instil into the minds of railwaymen the benefits to be derived and bestowed by all in practising cleanliness and tidiness.

Many of our more fortunate co-workers in railway offices and workshops can also testify to the beneficial influence of flower gardens and lawns to which they have access. Unfortunately, there are still some of our large workshops where no such privilege exists; workshops where the drab, murky atmosphere of smoke and furnace fumes holds sway unrelieved from 7.30 a.m. to 5 p.m.; where no

space has been reserved for indulgence in recreation; where, long ere knock-off time, the mind becomes clogged and the body weary and inert.

We hope, and indeed feel sure, that the good work will early be extended to these premises. Admittedly the surroundings may not lend themselves to beautification; but is not that the greater reason for its accomplishment? There may be difficulties, but surely difficulties were created only to be grappled with and overcome.

The uplifting influence of flower-beds and lawns at such workshops would not only mean a brighter outlook for employees—although sufficient in itself, but the improvement morally and physically resultant would undoubtedly be reflected in their general efficiency in the office and workshop.

The example set, interest created, delight and restfulness experienced, aspirations aroused and knowledge gained in the workshop's garden would instil a desire for greater beauty in the home.

Making and attending to the garden would keep the men at home, and thus wives and children would share more of their good company. As the garden developed and flourished, so would the love for it grow and its influence for good on their lives become more marked.

Makes for Contentment

This would be reflected in the greater contentment and improved health of wives, while the environment created would go far towards moulding the character of the children and better equipping them to become the railwaymen of the future. They would themselves become better men, better parents, better employees, yes, and eventually better managers.

Quite recently I was lecturing on rose culture in one of the suburbs, and before leaving the hall had a short conversation with the mayor, who presided. He confided to me that at gardening he was a "regular dud."

"But," said he, "I never allow anything to prevent me attending these horticultural meetings. One always meets the very best class of people here, and I never leave a meeting without carrying with me the feeling that I am a better man for having spent an evening in such company." Everyone must be a gainer by communion with beautiful flowers and those who understand their language.

At the request of the Editor, I have accepted the task of awakening interest, and, with his kind permission, will continue our chat in future issues. I trust that nothing in this, or succeeding articles, will be accepted as criticism—except of a friendly, helpful character calculated to open up avenues of thought for the betterment of all.

Track Locking Explained for the Uninitiated

The term "Track Locking" is not at all self-explanatory to the uninitiated, but it has crept into common use when describing the control of mechanically operated signals and points by the ubiquitous track circuit as distinct from power or automatic signaling. As the method of such control is not familiar to some readers, the following short description is given.

THE track circuit was described in general terms in the "Victorian Railways Magazine" for September, 1924, when it was shown how the running rails are used for the path of a low-voltage circuit, and how each circuit is insulated from adjoining circuits.

Under normal conditions and with the section of track circuit unoccupied by a train, current is flowing continuously and the track relay is energised. Immediately a train passes on to the section, the current is short circuited through the wheels and axles and the relay is de-energised.

In consequence, any circuit requiring current to pass through the relay contacts when the relay is energised is open circuited, and the apparatus requiring this current ceases to function.

The track locking of signals comprises the installation of track circuits and apparatus for permitting the signal arms to operate when conditions are correct and safe. Such apparatus has several names—slot, replacer, reverser, controller are a few which come to mind—but they all mean the same thing, viz., that unless the track circuit is closed, thereby energising the reverser (by which we will term the apparatus), the signal arm cannot be placed in the "proceed" position, and that when the track circuit is opened the signal arm will immediately go to the "stop" position, independent of the position of the lever in the signal box.

Several Makes of Reversers

There are several makes of reversers, but the Victorian Railways for some years past has used the one designed by Mr. W. Reid when a Signal Inspector, and who recently re-

tired from the position of Special Officer, Signal and Telegraph Branch.

The accompanying photographs will help in following the sequence of operations about to be described.

Incidentally, it may be mentioned that either direct or alternating current can be used for operating this reverser. In the suburban area the latter is used when available, but in country districts, where battery power only is available, the former is used.



Fig. 3.

Fig. 1 shows the reverser with the signal lever in the normal position and the arm at Stop. Fig. 2 shows the signal lever in the reverse position (pulled over) and the signal arm at Proceed. Here it will be noticed that the armature of the electro-magnet, at the top of the case, holds in position an L lever connected at its other end to another lever fitted with an alligator jaw. This jaw forms the fulcrum for the sway beam, connected to the upright rod operating the signal arm, to move the latter to the Proceed position. Fig. 3 shows the result of opening the track circuit by the passing of a train or other cause. The electro-magnet is de-energised, and the pins are released from the enlarged ends of the slots, causing both levers to move. This results in the fulcrum being lost for the sway beam, and the arm goes to the Stop position by gravity.

The same action takes place should the signal lever be pulled when the track circuit is open. The signal lever can be pulled to the reverse position, and it will operate the weighted balance lever, shown somewhat briefly at the bottom of the illustration, but as the magnet is not energised the alligator jaw releases the sway beam, and the signal arm remains at "stop."

When the signalman replaces the signal lever to its normal position, the weighted lever falls, and a short re-setting rod, at the bottom of the case, rises and pushes the levers to the position shown in Fig. 1.

The length of section to be track circuited varies according to requirements. In some

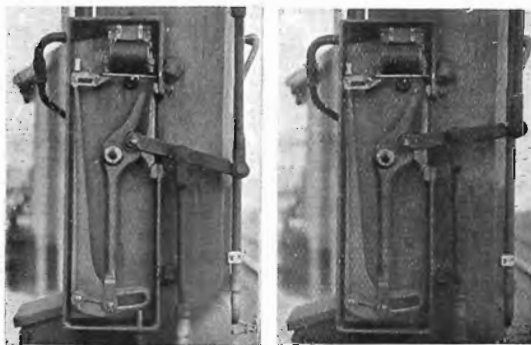


Fig. 1.

Fig. 2.

£449,157,000—Australia's Production

Australia's Wealth is analysed by the Commonwealth Statistician in his Quarterly Summary

THE value of production in Australia for the 1924-25 financial year is set down at £449,157,000 in the quarterly summary of Australian statistics for June, issued by the Commonwealth statistician (Mr. C. H. Wickens).

The population of Australia at March 31, 1926, was 6,017,289 persons, the increase during the quarter being 25,205 persons, made up of an excess of births over deaths 20,408, and a net immigration of 4797.

Births in Australia during the March quarter of 1926 numbered 33,479, and deaths numbered 13,071, including 1978 of children aged less than one year. There were 11,166 marriages.

Arrivals during the quarter numbered 24,198, including 20,281 British, 668 Italian, 294 Jugo-Slavs, 118 Russians, and 89 Greeks.

"Nominated" immigrants during 1925 numbered 14,696, and "selected" immigrants 10,131, the corresponding figures for 1924 being 12,425 and 12,611 respectively.

The net tonnage of overseas vessels that entered Australia during the first nine months of 1925-26 was 4,027,283, and of that cleared 3,999,944 tons.

The overseas trade for the year ended June 30, 1926, amounted to £299,915,850, of which £151,445,493 represented imports, and £148,470,357 exports, the excess of imports over exports being £2,975,136. The principal exports of Australian produce during

the year were:—Butter, 987,997 centals, value £7,006,830; flour, 10,020,633 centals, value £6,839,361; wheat, 32,687,567 centals, value £17,263,901; wool, 8,249,454 centals, value £63,199,787; mutton and lamb, 822,190 centals, value £2,318,945; and beef, 2,150,898 centals, value £3,264,911.

An estimate is given of the value of production in Australia for 1924-25. This amounted to £449,157,000, comprising manufacturing, £137,977,000; pastoral, £121,891,000; agricultural, £107,096,000; dairy, poultry, and bee farming, £45,190,000; mining, £24,646,000; and forestry and fisheries, £12,357,000.

In the manufacturing industry, 439,949 hands were employed in 20,795 factories, and £81,360,021 was paid in wages.

Plant, machinery, land, and buildings were valued at £200,484,807.

The number of Savings Bank accounts open at March 31 was 4,131,698, and the amount on deposit £186,668,393, representing £45/3/7 for each account, and £31/0/5 a head of population.

The revenue of the Government railways for the nine months ended March 31 was £34,295,000, and the expenditure £26,308,000. Passenger journeys numbered 278,983,000, and train miles run to 51,656,000.

Flights by aeroplanes in the nine months ended March 31, 1926, totalled 4443 hours, the approximate distance covered being 358,612 miles.

cases it may extend up to the next signal, and in others it may be short and sufficient to put the signal arm to Stop when a train has passed the signal.

The above applies to the control of signals, but track locking is also used for the prevention of points being moved when a train is over them. In such cases the track circuit comprises the rails in the immediate vicinity of the points, so that the wheels are clear of the points before the track relay is energised.

The movement of points under a train is a most serious offence, and every precaution is taken to prevent this movement. At all interlocked facing points a length of angle iron is connected to the inner edge of the rail, and before the points are moved this must be raised flush with the rail to prove that nothing is standing over the points.

This length of angle iron is usually called a lock bar, although other terms used for this and similar functioning apparatus are locking bar, clearance bar, fouling bar, lifting bar; but the term "log bar," used by a Melbourne daily paper, was a new one to the writer.

Where it is inconvenient to place a lock bar or where track circuits are to be installed, it is usual to dispense with the bar but to retain the bolt, which mechanically locks the point blades, and to fix an electric lock on the lever operating the bolt. This lock is energised when the bolt lever is operated and the track circuit is closed. Should the track circuit be opened and the track relay de-energised, the lever is locked and cannot be moved.

At the present time, portion of the staff of the Chief Engineer of Signals and Telegraphs (Mr. F. M. Calcutt) is engaged in installing track locking from Heyington to Darling, 3½ miles, and from Alphington to Ivanhoe, 2½ miles, where very complete arrangements are being provided for replacing the present electric staff arrangements of the single line working. Plans are also being prepared for the track locking of the following stations on the North-Western Line:—Nhill, Bungaree, Parwan, Melton, Kiata, Great Western, Beaufort, Buangor, Glenorchy, Bacchus Marsh and Ballan.

Recent Increases in Freights & Fares

As from September 15 the increased fares and freights decided upon by the Government were brought into operation. The increase which, the Railways Commissioners claimed, was imperative to place the finances of the Railways on a satisfactory basis was not, however, granted, and the higher rates will represent only an average increase of approximately 5 per cent.

THE Commissioners have already told their story to the public as to why the increase in fares and freight rates was necessary, and a special pamphlet entitled "The Reason Why" was circulated throughout the State. In this pamphlet, the citizens of Victoria were asked to make themselves familiar with the circumstances.

It was explained that drastic increases had taken place in the cost of living during and since the war years; that since 1914 the cost of food and groceries in Victoria has risen by 57 per cent., and that it would be difficult to call to mind many articles used in business or in the home which had not risen similarly in price. Yet fares and freights rates had risen only 44 per cent. on the average.

A Huge Manufacturing Concern

The Victorian Railways Department is just a huge manufacturing concern, which sells "service," and incidentally it aims to sell it to patrons at cost price. In common with all other businesses, the Department has had to pay much higher costs for material and labor, as well as increased interest charges on capital owing to the higher interest rates paid on new loans and loan renewals.

Increasing costs of the nature referred to can, to some extent, be met by economies in working. The Commissioners claim that such economies have been effected.

They further claim that these economies have been an important factor in enabling them to carry on for the past 5½ years without any increase in fares and freight rates (other than the recent adjustment of suburban fares in the competitive area), while, at the same time, they have endeavored to keep the service abreast of the times as far as it has been practicable to do so with the funds at their disposal.

Economies Cannot Keep Pace

Economies, though they are constantly being made, cannot, however, keep pace with the rapid increase of expenditures which, by their nature, are beyond the control of the Department. This does not apply to the railways alone. The same position has had to be faced by practically every business, as evidenced by the increased price of nearly every commodity.

The principal reasons for the increase are, briefly, that the Railways Commissioners are being called upon to bear increased costs over which they have practically no control and which, since the financial year 1924-25, have amounted to £1,049,000. This increased expen-

diture is made up as follows:—

Increased wages under awards	£531,000
Increased interest charges on capital due to the conversion of loans at higher rates of interest	112,000
Increased cost of coal due to higher price	106,000
Cost of operating Superannuation Act	100,000
Provision towards the cost of installing automatic couplers	200,000
Total	£1,049,000

The Government has gone very exhaustively into the Commissioners' request, and, although impressed with the necessity for increasing the existing rates, it is not, at the present juncture, prepared to authorise an increase greater than that indicated. The increase in the freight rates and fares now authorised will amount to approximately £500,000 per annum only, or £420,000 for the present financial year.

It is pointed out that the rates applicable to raw materials for and the products of certain country industries which are now on a specially low basis will not be increased; neither will the suburban fares in the competitive area which were recently raised; whilst the rates for goods classified in Classes 1 and 2 will only be increased by 2½ per cent.

The rates for goods in all other classes—with the exception of stone and other road-making materials for shire councils, which is to be increased by 30 per cent.—will be increased by 5 per cent. It is mentioned that, notwithstanding the increase in the rate for stone and metal, they will still be carried at an unpayable rate. On the basis of the lower rate, the Commissioners have been losing approximately £100,000 per annum on this traffic.

No Provision for Depreciation

The Commissioners had hoped to obtain a greater increase in freight rates and fares to permit of their making an adequate provision—estimated at £450,000 per annum—for depreciation, but this will not now be possible. Adequate provision is not now, and never has been, made for the depreciation of the railway property. The cost of replacing assets as they become worn out or obsolete is borne by the year in which the replacement is made, instead of by the years during which the depreciation actually takes place. The result is that it is left to the present and to the future to bear heavy costs of replacement which should have been borne by past years.

The establishment of a depreciation fund on sound lines is essential to the stabilisation of the finances of the Railways, and until contributions are made to such a fund on a scientific basis the true results of working will not be shown.

A Visit to Australia's New Capital

Apart from their interest as citizens of Australia, Victorian railwaymen should be interested, as transportation salesmen, in Australia's capital city, Canberra, now in the making. Our first link with Canberra on a big transportation job was made last month, when the Victorian Railways Department, in co-operation with the New South Wales Railways, conducted a special tour to Canberra on behalf of the Victorian Branch of the English Speaking Union. This will probably be the first of many similar tours apart from the regular traffic which will be directed towards Australia's political centre.

THE tour was a success from every point of view, the 66 members of the party spending a highly instructive and enjoyable three days in the Federal Territory. They were loud in their praise of the arrangements made by the Victorian Railways Department for their comfort and convenience and for the hearty welcome extended by the Federal Capital Commissioners and members of the Commission Staff.

Canberra is 204 miles by rail distant from Sydney, 429 from Melbourne, 912 from Adelaide and 929 from Brisbane, from which it may be seen that the capital site is reasonably equidistant from the chief centres of population of the Commonwealth.

Three years ago Canberra was an area of meadows and grassy slopes, with a power station, a solitary co-operative store and a handful of newly-built houses to intimate its pre-war infancy and its post-war adolescence. Today there are 3000 workmen employed, and the population of the "city" is more than 5000 persons. The four square miles of the city area show still, for the most part, a landscape of emerald green, but that landscape is divided by concrete and asphalt roads laid out in squares and circles in the design for the new city. The countryside is rapidly being transformed into garden areas or surrounded by the outlines of the suburbs of the future.

Admirable Site for a City

Whatever prejudices one may have had against the scheme of establishing a Federal Capital, one must admit, when visiting the area for the first time, that Nature has been lavish in its gifts to the Federal territory and that wisdom was shown in the selection of the site. The city area lies between two ridges of tree-topped hills, each ridge culminating at its distant extremity in a towering elevation. In the distance are snow-capped peaks. The country is undulating, which makes for change of vista.

One cannot visit the Federal Capital without being impressed, and it does not require a large amount of vision to realise the Canberra of the future.

"We are not building for the present generation," the Federal Capital Commissioners say, "but for the generation 50 and 100 years hence."

Here, then, are men laying the foundations for the capital of a Commonwealth—a city which in years to come will take its place among the leading cities of the world.

The city will be laid out on the most approved plan, eliminating all the mistakes of other cities, which, like Topsy, just "grewed." Gone will be the slums. Gone will be the smoking industrial districts scattered haphazardly throughout the city area. Everything is being built to plan, and a tour of the area gives one a wonderful conception of what that plan is.

"I would like to come back to Canberra every five years and note the developments." This remark was frequently made by members of the English Speaking Union during their tour of the Federal area. This expressed the feelings of everyone in the party.

Particular interest attaches to an inscription on a tombstone in the churchyard at Canberra. This stone was placed in position in 1848, and below the name appears the following:—"For here we have no continuing city, but seek one to come." What prophecy is in those words. The person who selected them had no idea that a city was to come at this very spot. The import of the inscription is particularly striking when one views from the eminence of the churchyard the city growing up around.

Federal Territory is "Dry"

Life in the Federal Territory is unique in many ways. Citizens have no vote, either State or Federal. They pay no State income tax. There is no municipal council. There are no Federal laws, and until ordinances are passed the people are governed by the laws of the State of New South Wales. In addition to all this, the Federal Territory is "dry."

Affairs in the Territory are controlled by the Federal Capital Commission, which consists of three members, Mr. J. H. Butters (chairman), Sir John Harrison and Mr. C. H. Gorman, each an expert in his particular line, whether it be administration, engineering or town-planning.

The Commission has full authority to carry out Mr. W. B. Griffin's scheme for the building of the Federal Capital and to supervise life in the Territory. New South Wales courts are still being used, and the State details police and school teachers for duty in the Territory. The Commission defrays the cost.

Another interesting feature is that the freehold of land may not be purchased. Land is leased for terms not exceeding 99 years, and the rental is at the rate of 5 per cent. per annum on the unimproved capital value, which is determined by bids at auction or assessed by the Government. The (Continued on Page 54)

How the Railways Handle Victoria's Export Fruit

The Railway Department has just completed handling the largest quantity of fruit ever exported from the State in any one season. It will, therefore, be of interest to know something of the methods adopted to ensure the expeditious and safe carriage of export consignments from the district of production to the ship's side.

(By W. R. Bunker, Room 10, Head Office.)

AN association, composed of about 25 export fruit agents in Melbourne and the country, known as the Fruit Handling Committee, receives practically the whole of the export fruit trade. These agents, usually in November and December prior to final arrangements being made for the commencement of the actual exporting of fruit, have interviewed the growers, inspected the orchards, and ascertained the quantity of fruit that will be forwarded by each grower. After a further inquiry by the agents, the members of the committee equitably allot the amount to be sent by each steamer, and as far as possible suit the arrangements of the various growers.

A few weeks before the beginning of the export season, which is usually about the middle of February, the Fruit Handling Committee supplies the Railway officer-in-charge of the fruit traffic and a representative of the Agricultural Department with a list of the names of the steamers allotted by the shipping companies for the transport of the fruit. This list also indicates the approximate date of sailing of each boat and the number of cases which will be loaded for the various ports, whether London, Liverpool, Hull, Southampton, Glasgow or Hamburg.

Growers May Consign Their Own Fruit

It must be understood, however, that it is not compulsory for a grower to forward his fruit through the Fruit Handling Committee or an agent. He may consign his own crop provided he is cognisant of the modus operandi so far as business with the shipping companies is concerned.

Fruit inspectors are usually located at centres where large quantities of fruit are loaded—Pakenham, Harcourt, or Stawell. Inspection at the loading station is more desirable, not only for the Railways Department, but for the shipping companies too, as time is saved at the port of shipment by having the fruit dealt with more promptly at the steamer's side. Expense in loading is thus minimised and trucks are released more promptly.

The Office of the Superintendent of Goods Train Service is in continual touch with the shipping companies, and is always posted with the time and date of arrival of the steamers which are scheduled for the loading of fruit. Officers in this branch can, therefore, allot the dates so that the fruit will be conveyed to the seaport with the least possible delay, thus obtaining a maximum use of louvre trucks

and the avoidance of demurrage charges.

The shipping companies advise the office of the Superintendent of Goods Train Service about 10 days beforehand the time and date of the steamer's arrival, place of berthing, number of cases of fruit for which space has been booked by each export agent, and the time at which the steamer will commence to load, as well as the number of cases required on each day for each port.

Getting the Fruit to the Ship

It is then that the machinery for getting the fruit to the port of shipment commences. A steamer taking, say, 50,000 cases of fruit could not load the whole consignment in one day. The company, therefore, usually intimates that 10,000 will be loaded on the afternoon of the first day and 20,000 cases on each of the other two days.

The railway officer-in-charge then gets in touch with those agents who have not supplied lists of the loading stations and the number of cases to be loaded. When all of these figures are available, he compiles a statement showing the names of the stations, names of agents for which the fruit will be loaded, and the number of cases for each, and then allots the dates upon which the fruit will be loaded.

When this list is complete, the agents are telephoned the dates upon which the fruit must be loaded and despatched from each station. The agent then informs the grower, and the stationmasters at each station are notified by circular, a copy of which is forwarded to the Goods Superintendent to arrange to supply the louvre trucks.

A Close Watch Kept

In addition, a close watch is maintained by Room 10 to see that the trucks are duly forwarded in ample time for the loading of the fruit. Another copy of the circular goes to the Agricultural Department to permit of suitable arrangements being made for the inspection of the fruit.

The allotting of the loading dates is at times a rather intricate matter, as on certain lines goods or mixed trains run only on certain days in the week. Then the shipping company requires a fixed quantity on certain days, and occasionally there are two steamers loading at Port Melbourne at one and the same time, and, in addition, perhaps one at Williamstown or Victoria Dock.

To overcome complications, therefore, it is necessary for the fruit for one steamer to be



The accompanying illustration depicts an octopus which found its way from the bay into one of our intake channels, and was caught on one of the screens which are used for the purpose of preventing sea-weed, mussels, and other marine matter from entering the condensing plant at the Newport Power House.

It is rather a large specimen, measuring about 7ft. 6in. when stretched out from end of one tentacle to end of another.

loaded in one truck and not in a truck intended also for another steamer. The officer compiling the loading dates must, of course, be very familiar with the train service throughout the State to ensure correct transport and avoid the possibility of consignments missing shipment. On the other hand, he must see that the trucks do not arrive too early, otherwise the consignee is charged demurrage and the Department loses the use of the trucks.

The export fruit is loaded into what are called louvre trucks, so named after M. Louvre, a Frenchman who invented them. The sides and ends are constructed of a series of panels or louvres, which overlap one another and permit of a free passage of air through the vehicle. Four-wheeled louvres hold 400 cases of fruit and six-wheelers more than 600 cases.

"Lubra" Trucks

Some consignors are unaware of the correct designation of these trucks, with rather amusing results. At times requisitions have been received for "lubra" trucks.

When the fruit is despatched, the station-masters at the loading stations telegraph the port of shipment, depôt stations, and the office of the Superintendent of Goods Train Service, giving truck numbers and the number of cases in each truck for each particular consignee. These details are recorded by the officer dealing with the fruit, so that a close watch may be exercised to ensure that the fruit is not delayed until it reaches its final destination, and so that the officer receiving the telegraphic advice shall be in a position to promptly answer any inquiry from the agents.

On arrival at the port and before being loaded into the steamer, the fruit is inspected by officers of the Agricultural Department in the event of a certificate not accompanying the waybills to show that the fruit has already been inspected by a fruit inspector at the loading station.

Fruit unaccompanied by a certificate from

an officer of the Agricultural Department is, of course, inspected on the pier. It is checked into the steamer by an employee of the Railways Commissioners and by tally clerks employed by the shipping company, the latter giving a receipt to the former after each truck has been dealt with. Any discrepancies which occur between the tally into the steamer and the railway waybills are almost invariably adjusted before the departure of the steamer. As a result of careful stowing in the process of loading into the trucks and of careful handling in transit, complaints of damage to the export traffic are seldom heard of.

It was expected, during the export fruit season just passed, that approximately 633,000 cases of fruit would be despatched overseas. Instead, however, owing to the unfortunate dry spell, there were carried by rail for export 510,307 cases, which, nevertheless, constituted a record for the State of Victoria.

The quantities of export fruit despatched from the principal stations were as follows:—Harcourt, 79,701 cases; Pakenham, 57,007 cases; Tyabb, 37,676; Somerville, 24,827; Narre Warren, 17,665; Beaconsfield, 17,246; Stawell, 16,121; Elphinstone, 14,104; Hastings, 10,173.

Fruit from the Goulburn Valley

Having dealt with the export portion of the fruit traffic, it would perhaps be interesting to give some idea of the huge quantity of fruit handled in the Goulburn Valley district during the fruit season. As many as 85 trucks were loaded in the Goulburn Valley on one day (March 29).

Notwithstanding the operations of the various canning and fruit preserving companies operating in the Goulburn Valley district, the quantity of fresh fruit handled this season constituted a record: 30,522 tons, composed of 1,224,710 cases, were loaded into 3685 trucks, being 3032 tons or 132,928 cases in excess of the previous season.

As the William pear crop coincided with the peach crop, one cannery despatched 21,000 cases of pears to Melbourne for cool storage. These were returned at a convenient time in good condition to be dealt with at the cannery.

A total of 934 trucks of fruit was despatched to New South Wales, and in not one instance was a complaint received of any shortage in the process of transferring the fruit at Albury. The sealing of truck loads of fruit has practically resulted in the elimination of loss owing to pillage, and complaints of shortage have been reduced to a minimum.

As an indication of the quantity of sugar handled, it is illuminating to learn that in one cannery alone 565 tons were used during the last season.

Cans Made in the District

The whole of the tins used for canning the fruit are made in the district. During the 1925 fruit canning season, 8,613,550 2-lb. tins were dealt with, while in the 1926 season the total was 14,357,590. These figures give some idea of the growth of the industry, which has received an impetus as a result of Government assistance in the establishment of overseas markets. The total weight of fruit processed from Shepparton, Kyabram, Mooroopna amounted to 12,601 tons or 504,040 cases.

Payment of Claims Is a Drain on Our Revenue

By co-operative effort we have reduced the amount paid in claims each year, but there remains much to be done. Mr. P. A. Fankhauser, Assistant Claims Agent, in the following article, tells of what the Claims Prevention Committee is out to accomplish.

FIRST of all, let me tell you something of the losses sustained from various causes. When I tell you that in the financial year 1920-21 our claims bill was £59,000, you will understand how necessary it was for some organisation to be brought into existence to improve the carriage of goods.

During the year 1921 serious work in the direction of claims prevention was undertaken, and has been continued up to the present. Its results will be demonstrated to you when I say that, for the financial year just ended, the claims bill was reduced to £16,500. We realise that there is yet a great deal to be done, and with that end in view the Commissioners recently appointed a committee, representative of the various Railway divisions, to co-ordinate claim prevention work of all sections and to gain the active interest and support of our customers.

In speaking of the help that railway customers may give, let me quote a case of a large Melbourne association whose members dealt with hardware. We were having a great deal of trouble in giving correct delivery of sheet iron, piping, round and flat iron, because the several firms dealing in it, when sending to the railway, merely placed a daub of paint—blue or red, as the case may be—on the iron, without any address label, and expected us to deliver it safely to the owners.

It often happened that iron from two or more firms had to be loaded into the same truck and that it bore the same colour brand. Of course, we could not always deliver the iron to the people for whom it was intended, so we got into conference with the members of the association and told them our troubles.

Appreciate Our Difficulties

They appreciated our difficulties, and together we worked out the way the goods should be bundled and what was a suitable method of addressing.

Over a long period we conducted experiments in the packing of eggs, and finally we found that it was better to discard the old method of solid packing in chaff and to adopt what is called the hollow method—that is, packing in good strong leatherboard fillers and padding the tops and bottoms of the cases with woodwool or straw. We have practically no trouble with the carriage of eggs packed in this manner.

We have investigated the proper methods of packing furniture, household effects, implements and machinery of all descriptions with success, and the services of our experts are available to anyone needing advice on methods

of packing and loading goods for safe transit by rail.

Address labels are issued which senders of goods and parcels may obtain free of charge at all stations, and on these labels we have set out spaces in which you may fill all the information necessary to ensure that your goods will be carried quickly and delivered correctly at their destinations.

These are a few of the things we have done to render good service, but we are not by any means satisfied that we have done all there is to be done. The claim payments for this year show conclusively that both those operating the railways and those using them have more to do in the way of claims prevention before we can reach that high standard of efficiency which is necessary.

A Committee of Experts

Our Claims Prevention Committee is composed of men operating various branches of the Railway Service, by whom the problems of handling goods safely are being investigated. Each of them handles a different phase of the work. One, for instance, is interested in the movement of goods trucks through shunting yards and along the lines. Another is interested in the handling of goods through goods sheds and into the trucks. A third is interested in the movements of parcels by passenger trains and parcels coach.

Others are interested in freight matters and the examination of suggestions from customers and officials to improve the service, and it falls to the Claims Agent to hear what customers, who unfortunately suffer loss and want compensation, have to say.

Each of us in the course of duties gets in touch with some members of the operating staff, and each one is busy impressing on them that, whilst the first care of a railwayman is the safety of the public, his next care is the safety of their goods.

We find, as a rule, that the staff only wants telling the right way to grip what is required, and then do it. We try to tell each man where he has failed, and in this way we greatly improve the service given. We show the men how goods should be branded, addressed and stowed. We tell them how to handle trucks and vans so that goods will carry safely, and at the other end of the journey we instruct the employees how to safeguard all interests in handling and giving delivery. We have one object, and that is to reduce bad and careless handling so as to keep the business which our customers are giving us, and by rendering you good service, get more business.

We ask the public to (Continued on Page 57)

A Matter for the Supervising Officer

(By Mr. E. Jackson, District Rolling Stock Superintendent, Ballarat.)

*Boasting of our wealth and virtues rare,
What are we but bits of earthenware?
Fashion'd by one great Maker's hand,
All mark'd with the same great Maker's brand.*

*Some of us are fashion'd tall and fair,
Vases for the mansions, Dresden ware;
Some of us as ornaments are prized;
Some of us are useful, and despised.*

*Some of us are big pots lined with gold;
Some of us are "mugs," and bought and sold;
Some of us are "broke," ah! that's a fact;
Some of us are not broke, only cracked.*

*Some of us are fashioned fine and true,
Ev'ry ray of sunshine gleaming through;
Some of us are coarse and chipped and stained,
But fragrant with the balm of love contained.*

*Earthenware, just earthenware,
Vessels of clay, just earthenware.
All of us made by the one great Potter,
Some as white as porcelain, some as brown as
Terracotta.*

*Earthenware, just earthenware, that the
Master will repair,
When we go to the clay that we came from
some day,
BROKEN EARTHENWARE.*

PSYCHOLOGICALLY, mankind is analogous to "earthenware." No two men are alike. Each sees, thinks and acts differently. Yet each is efficient. That is, they are each capable of doing, and do, their jobs, but the degree of efficiency that they will give will be determined largely by the methods adopted by their supervising officer to produce that efficiency.

There was a time when results were obtained by instilling a fear of punishment into the minds of the men. Others mixed it a little by holding out the hope of reward. Even at the present time both these methods are employed more or less; but, fundamentally, they are unsound, and the results obtained are neither satisfactory nor permanent.

It is conceded that some men only give their best under fear of punishment, and that some men regard a kindly act or a word of advice as a sign of weakness on the part of their supervising officer.

The Average Man

But not so the average man—and we are dealing with the average man—who is reasonable and amenable to reason, and desires to do that which is right and proper.

The ideal method, and, might I say, the only satisfactory method, of supervision, is that which will instil into men a love for their work. Scholastic attainments or masterly professional or trade abilities, whilst desirable qualifications for a leader and supervisor of men, may not be, and frequently are not, successful for no other reason than that the supervising officer had not equipped himself with the knowledge that would enable him to discriminate between the "mugs," "porcelain," "terracotta," etc. He did not know his men, and, consequently, could not instil into them a love for their job.

My advice to the supervising officer, and to those who have aspirations in that direction, is to study human nature, character and tem-

perament. Be a student of psychology. Regard it as a necessary part of your training for the responsible position you occupy or aspire to. Some men are naturally endowed with those essentials, which make the study comparatively easy. Others will find it more difficult, and some will never be able to determine which is the "Dresden ware" and which is the "flower pot."

At the outset remember that you are one of the earthenware family. Select yourself as your first subject for study. You will find out quite a lot about yourself that you did not know previously. You will probably get a shock at your own shortcomings. You will determine if you are "cracked" or "chipped," or if you are a "mug."

Altogether you will find that you have been studying quite an interesting personality; and, what is most important, you will know yourself and your limitations, and that is necessary before you can know your men and their limitations.

Your knowledge of yourself will also prevent your falling into the common error of placing yourself on the pedestal of infallibility, from which many have been swept with disastrous results.

One hundred per cent. efficiency is your objective, and I know of no better way of obtaining it than by the assistance of psychological study. It is fair to you, fair to the organisation that employs you, and fair to your men.

Think it over!

Everyone who does anything is bound to make mistakes; they occur in every department of every business. The making of mistakes cannot be eliminated, but repetition of the same mistake can be avoided if you will take the trouble to get at the cause and correct it.

How Energy Is Wasted

"Waste of energy means waste of money, and unnecessary effort or movement, involving the expenditure of time which could be devoted to reproductive work, just as surely represents loss of money as waste of heat or mechanical energy."—Mr. A. E. Smith, Chief Mechanical Engineer of the Victorian Railways, speaking in the Jolimont Lecture Hall on September 7.



PPOINTING out that industrial concerns the world over were confronted with the necessity for reducing operating expenses to offset increasing costs of service, Mr. Smith said that attention was being focussed everywhere on the elimination of waste in power and supplies.

This was particularly noticeable in modern railroad operation, as the ever upward tendency in the price of material and labour, coupled with the serious competition of the road vehicle, had set railway administrators some very difficult problems.

"To those engaged in the utilisation of power and the supplies associated with power production," Mr. Smith said, "the most attractive source of economy is curtailment of these commodities consistent with efficient operation. It must be obvious to all of us that there is a broad field where, with proper organisation, great economies can be obtained."

All railwaymen were vitally concerned in this matter, as every branch was, in one way or another, a user of energy, whether in the direct use of steam production, heating, lighting, traction operation or other phases of working.

The Department's Coal Conservation Movement had been of great value, and substantial economies had been realised, unnecessary train movements eliminated and more efficient methods introduced. The more one saw and heard of the activities of the Coal Conservation Committee, the more impressed one was with the importance of its work.

"Bottled Sunlight"

Coal, "bottled sunlight" as it had been termed by one scientist, was a perfect example of conservation, containing, apart from its value as a heat and power producing agent, the most wonderful combination of substances and chemical products.

It had been estimated that at least 10,000 years would have elapsed during the formation of one foot of coal, and as there were seams 100 to 300 feet thick in existence, some idea could be gained of the ages required for the formation of fields.

And yet what enormous waste of this wonderful substance was continually going on. Dr. Brabbee, a well-known German professor, had said that, with the observance of economy, 8,000,000 tons of coal could be saved annually in domestic fuel conservation alone, and that 12,000,000 tons were lost annually by the non-utilisation of heat that went to waste from other sources.

In Great Britain, moreover, the report of the coal conservation committee was to the effect that if large power plants, with units

of high power were installed in place of the many small electric generating stations, the enormous saving of 55,000,000 tons of coal would be attained yearly, and that the coal consumed would produce at least three times the present power, if used economically.

"Steam has made great strides during the last few years in modern electrical generating stations," declared Mr. Smith. "Pressures as high as 800 or 1200 lbs. per sq. inch are now applied to turbo-generators, and there are now in use more than 100 boilers of varying design, carrying pressures of between 450 and 800 lbs. per sq. inch.

"One of the most prominent is that of the Societe de Electrilite, at Flanders Langerbrugge power station, which has a working pressure of 56 atmospheres or 800 lbs. per sq. inch. Remarkable results have already been obtained, and the efficiency realised is in the region of from 28 to 30 per cent.

"This practically rivals the Diesel engine, which has been making a hard fight to displace the steam engine."

Efficiency of 10 Per Cent.

The highest development of the steam locomotive at the present day realised an efficiency of 10 per cent., under ideal working conditions and operated by first-class enginemen. The locomotive, however, was from day to day moving from place to place. Frequently changing crews handled it with more or less skill under various conditions, which depended on the class of coal available, the suitability of the water in the district, and many other factors, so that it could be readily seen what would happen to the 10 per cent. efficiency unless means were taken to minimise some of the losses that resulted from those factors.

Although the motorman of an electric train was no longer a user of coal in the direct sense, yet he was just as vitally concerned in saving as if he "held the regulator in one hand and controlled the reversing lever with the other." He could use the power either wastefully or economically. Careful attention to specified coasting distances and proper judgment in braking created good timekeeping and conserved power.

Equally important were the officers and employees of the Transportation Branch, as the prompt despatch of trains, together with systematised economic movements and good methods in marshalling yards, saved the time of steaming hours and effected substantial economies in fuel and maintenance.

The opportunities of the enginedriver were so manifold that it would take too much time to refer to them all. His first duty was the education of the fireman, aided by the tactful



Three "snaps" taken in Balranald railway yard, showing the modes of transport utilised there.

Balranald is the terminus of the new Riverina line, and at present there is great activity there with wool. Up to the end of August more than 2000 bales had been despatched by rail, and the estimated total for the season is 15,000 bales. Previously this wool has gone to Melbourne per river steamer, and at present the river boats have not received one bale.

The motor lorries shown in one "snap" are from Mr. Chaffey's station. Manfred, a distance of more than 120 miles. The three-horse teams are from Till Till Station. The second waggon, with a load of 14 tons of wool, is the heaviest load ever taken over the river bridge. The bullock team is from Yanga Station.

and sympathetic help of the engineman instructor.

"A fireman begins his career on the foot-plate," Mr. Smith pointed out, "with practically no idea, excepting the theoretical instruction he may have received, of how to so place the coal in the firebox to secure proper combustion. Without instruction, he may take quite the wrong course and form habits which conduce to waste of fuel and which may prevent him becoming either a good fireman or driver.

"As an illustration of this point, I will tell you of an incident that came under my notice some time ago on one of the express trains. The fireman, an intelligent and willing young man, closed the door after each fire was put on, with the consequence that large volumes of black smoke followed the firings.

"I asked him why he closed the door, and he replied that he thought it was the best way, as it prevented the cold air striking the tubes. There was some thought in that, but I asked him if he had ever been in a gas-

works, and if so, what became of the gases that were released from the coal when it broke up. He replied that they were, of course, carried away into the gasometer, and quite understood that no combustion of the gases had taken place.

"I asked him why combustion had not taken place, and he then agreed that it was due to the absence of air above the fire. There was no trouble about opening the door slightly to admit air over the top of his fire after that. He realised that most of the inflammable gases must escape through the tubes to the atmosphere unless air is provided to ignite them.

"I have been trying to make a rough estimate of the coal that is wasted before our young firemen become proficient, and I am satisfied that it must amount to at least 10 per cent. of the coal used for locomotive purposes, practically £47,000 a year."

Professor Burshall, of the Birmingham University, in a lecture on the transformation of energy, dealt with the question of power in the future, and pointed out that there was probably only a sufficient supply of oil in the earth's crust to maintain the present requirements of petrol for about 30 years, and that, although benzol had proved a useful substitute, the power supply depended on the not unlimited amount of coal available.

Fruitful Possibilities for Economy

Leaving the question of how long the stores of coal and oil would last to solve itself with the passing of the years, it was our business to help on the work and find the means of surmounting the problem of conserving our fuel. No one questioned for a moment that the future presented fruitful possibilities for economy quite as great as existed in the past; but the problems would only be solved by devotion to study and education applied to technical and commercial training, conferences between leaders of industry, and co-operation between all ranks and branches of the Railway Service.

"It is most encouraging," concluded Mr. Smith, "to consider that through the medium of our universities, technical and business colleges, and the facilities for broadening their experience by travel in other countries, our railways are bringing forward young men equipped with the knowledge which is not only enabling them to take important positions in railway work, but to acquire also prominence in the industrial and commercial world. This vast continent has yet to be developed, and it affords golden opportunities for those who are ready to immerse themselves in the joy of work."

WHAT'S IN A NAME?

Kid gloves are made of lambskin.
Turkish baths are unknown in Turkey.
Irish stew does not exist in Ireland.
Catgut is really sheepgut.
There is no lead in lead pencils.
Camel hair brushes are made of squirrel hair.
Java coffee comes from South Africa.
Egyptian cigars contain Turkish tobacco.
Brussels carpets never come from Brussels.
There is no wax in sealingwax.

Science and Everyday Life

The following article, taken from an American magazine, was read by the Bendigo District Superintendent (Mr. W. Tredinnick), and a simile drawn from it, at a recent meeting of the Fuel Conservation Committee.

"WHAT great changes you have witnessed!" wrote Mark Twain to Walt Whitman, on the occasion of the latter's 70th birthday. "The steel steamship, the railroad, the perfected cotton gin, the telephone, the phonograph, the electric light, the sewing machine, and the amazing products of coal tar, those latest and strangest miracles of an astounding age. You have seen anaesthesia applied and the dominion of pain overthrown forever. You have seen the slave set free, monarchy banished from France and reduced in England. In the years you have lived, more has been done to widen the interval between man and the other animals than was accomplished in the five centuries preceding."

What a letter the great humorist could write on this subject to-day! Monarchy has been banished almost entirely from the earth. We are a nation on wheels, and the space about us has been transformed into a carrier of music and speech. We navigate the air, take pictures of the insides of our bodies, broadcast photographs and photograph music. We refrigerate with heat, rear oysters from artificially fertilised eggs, and measure the length of thought waves sent out by the human brain. We make furniture out of steel, sugar from corn and motor fuel from molasses.

New Industries Created Overnight

New industries are being created literally overnight, often displacing old lines of business that failed to recognise the coming of revolution. A few years ago thousands of people in India were engaged in growing indigo. Then came the by-product coke oven, giving us coal tar, and soon a way was found to manufacture a synthetic indigo from tar, doing away with the means of livelihood of the indigo growers of the Far East.

The future is hopeless for the individual or the corporation that gives thought only to the present hour. A short time ago the wood-alcohol industry appeared to have nothing to worry about. Suddenly news came of a method that gets methanol, a product similar to wood alcohol, from coal and water. In this process water gas is mixed with hydrogen, subjected to heat and pressure in the presence of a catalyst, and then the carbon monoxide and the hydrogen combine to form methanol. It is similar to the famous Haber process that the Germans first used to produce ammonia. Manufactured in this way, the cost of the methanol is so low that the wood-alcohol industry, with an investment of 100,000,000 dollars is at a loss to know which way to turn.

No one can forecast with certainty just how any new discovery is going to affect life and industry. The crowded subway has helped make sickness a community affair. The tele-

phone has revolutionised business. The automobile and the radio have made farming attractive. Railroad electrification is transforming slums into fashionable districts. The radiophone promises to revolutionise police and fire fighting methods, while wireless phones on trains are transforming railway coaches into busy offices.

Each day brings its new development. Einstein works a lifetime to give us his famous theory, the future value of which cannot be estimated by any living person. Most of the solutions of problems that he set forth have been investigated and proved correct.

Conservatism Being Broken Down

Even in the great fields of rail transportation the wall of conservatism that restricted progress for so long is being broken through by the heavy guns of science. No matter whether it is plants, animals or machinery, progress seems to come in spurts.

Technical folks refer to these times of change as mutation periods. Rail haulage is now entering such an era. The deadly monotony of identical types is coming to an end. A new French locomotive uses steam first in a high-pressure turbine and then passes it on to low-pressure turbines. These operate a dynamo which supplies current to eight motors, one on each axle. This engine is said to be four times as efficient as the units in use to-day.

Diesel electric locomotives, now being introduced both in Europe and America, lay claim to high efficiencies and fuel savings running as high as 60 per cent.

Economies in Steam Locomotives Limited

It is generally acknowledged that the possibilities for further economies in steam locomotives are very limited. The modern engines now in service utilise for useful work only about 5 per cent. of the energy stored in the coal or oil burned under their boilers. Even the friends of the steam locomotive do not anticipate an efficiency of more than 8 per cent. for this type of machine in the future. Compare this with the newly perfected oil-electric locomotive that can supply at least 20 per cent. of its energy to useful work under conditions not especially favourable. In actual practice the new oil-electrics are moving freight at one-quarter the cost of that moved with steam. Bearing in mind that the total fuel bill of the American railroads averages 500,000,000 dollars annually, the possible saving from this new machine reaches an enormous total.

The prediction is made that, if adopted generally, the new type of locomotive will reduce railroad expenses an average of at least 20 per cent. a year. Stand-by losses will be de-

Victoria's Booster-Equipped Engine

During the Australasian Railways Commissioners' Annual Conference in Melbourne they visited the Newport Workshops and inspected the first "Booster" equipped engine in Australasia.

THE term "Booster" conveys very aptly an idea of the machine's function, which is, briefly, to impart an increment of tractive effort during times of exceptional power demand, as when starting with heavy loads or negotiating severe gradients at reduced speed.

The Booster is just a simple two-cylinder steam engine attached to the frame of the trailer truck, which is under the firebox of the engine. A cast steel bed-plate forms the axle bearings, and a third point support on the truck.

On the main shaft of the Booster engine

is a pinion, and on the trailer truck axle is a larger gear. Intermediate between them is a gear so arranged that it can be thrown into mesh between the pinion and the large gear by means of a bell crank, operated by a piston and actuated by air pressure. Admission of steam to the Booster is controlled by an auxiliary throttle.

Control is semi-automatic. When extra power is required all the engineman does is to throw in the Booster latch. Thereafter the Booster mechanism is so arranged that each part functions without further attention. There is no additional responsibility placed upon the engineman; nothing for him to look after. All the mechanism is enclosed, and is immersed in a bath of oil. It is thus dust-proof and waterproof.

creased, and the maintenance of power per ton-mile of freight moved will be cut in half. There will be a gradual abolition of turntables, coaling plants, ash pits, water stations, and a reduction in the size and number of shops and roundhouses. Perhaps the greatest advantage of this new traction unit is the fact that it can be introduced gradually and worked with steam locomotives without the necessity of the companies spending a lot of money on a broad programme of reconstruction. It is this necessity for large outlay and radical change that has prevented the rapid electrification of our transportation systems.

The oil-electric locomotive may not be the final answer to our problem, because our petroleum reserves have a very limited life. But it is a comforting thought that we may be relieved, even temporarily, of the smoke, dirt and noise of the steam engine. Smokeless traction also means a material appreciation in land values, and once it becomes a realised fact, it will take a lot to force us to go back to smoke and waste on our railroads.

New Safety Devices

New devices are reducing to a minimum the probabilities of railroad accidents. The telephone has usurped the place of the telegraph on many of the roads. Loud speakers are being installed to increase the efficiency, and new machines now enable the track gang to do as much work in an hour as it once did in a day. The steam derrick on work trains takes the place of dozens of men in distributing rails, spikes, bolts, bars and plates. The electric rail-laying machine, handling 39-foot rails, does the work of ten men in uncoupling the old rail and of five men in bolting the new rail. Those machines with rail drilling units and many other devices provide us with the answer to the question as to why our railroads are now showing ability to take care of the peak loads in traffic with a facility never before exhibited.

Young Railway Engineer for America



ON August 27 Mr. A. F. McLaren, a young assistant engineer in the Signals and Telegraph Branch, left Sydney by the "Niagara" on a visit to America to gain experience.

He will be away for 12 months, and will enter the works of the Kellogg Switchboard and Supply Co. in Chicago. He pays his own expenses, and

has been granted special leave of absence by the Commissioners.

Starting as an apprentice in the old Spencer Street Telegraph Workshops on July 20, 1915, Mr. McLaren was taken over by the Signals and Telegraph Branch on the formation of that branch, and, after two years' duty as draftsman, was appointed assistant engineer. He won the first "Harold W. Clapp" prize offered at the Institute.

Mr. McLaren has been keenly interested in the question of installing wireless in trains, and is looking forward to an insight into American practice in this direction.

He takes with him the best wishes of his many friends in the department, and was the recipient of several presentations before his departure. The Chief Engineer of Signals and Telegraphs (Mr. F. M. Calcutt), on behalf of the branch, presented him with a travelling rug, an attache case and a wallet of notes; and Melbourne representatives of the Kellogg firm tendered him a farewell dinner at Menzies' Hotel.

Rotary Club Visit Spotswood Storehouse

THE Spotswood Depot is now one of the "show" places of the Victorian Railways Department, and it was with obvious pride that Mr. W. M. Shannon, one of the Commissioners, and the Chief Storekeeper (Mr. C. W. J. Coleman) led members of the Melbourne Rotary Club through it on August 18. Instead of the usual club lunch at Anzac House, lunch was taken at the depot. Mr. H. McRoberts, vice-president, was in the chair.

Welcoming the Rotarians, Mr. Shannon said that four years previously the value of the stocks in the railway stores had been £2,100,000. By careful overhaul and the application of new methods it had been possible to reduce the stock considerably, until to-day it stood at £1,400,000. The difference of £700,000 in the amount of capital represented in stock was equivalent to a direct annual saving in interest of £38,000.

Mr. Coleman said that the turnover of the stores represented £5,000,000 a year. Goods were supplied on requisitions from the various branches of the Department, and last year 2,500,000 requisitions had been handled.

In reorganising the stores the purpose of the Commissioners had been to promote efficiency with economy, and to ensure that materials for works in hand were ready when needed, thus avoiding delay and increased expense. These aims had been achieved.

The reduction in the value of the stock had been possible by instituting an improved system of housekeeping. Instead of having, as formerly, to consult many books, the storekeeper could now tell at a glance by actual inspection what supply of any particular goods was in the store. The employees became so accustomed to good housekeeping in the stores and to order, method, and cleanliness, that they were led to insist on similar conditions in their homes.

Members of the club were much impressed by the reclamation depot, where used rails, sleepers, bolts, and other railway materials are given new leases of useful service. Even the metal borings are collected, sifted, and separated.

It Takes So Little

It takes so little to make us sad;
Just a slighting word or a doubting sneer,
Just a scornful smile on some lips held dear,
And our footsteps lag, though the goal
seemed near,
And we lose the courage and the hope we had—
So little it takes to make us sad.

It takes so little to make us glad;
Just a cheering clasp of a friendly hand,
Just a word from someone who can understand,
And we finish the task we long had planned,
And we lose the doubt and the fear we had—
So little it takes to make us glad.



ROYAL AGRICULTURAL SHOW
(MELBOURNE)
SEPTEMBER 16TH-25TH

HOLIDAY EXCURSION FARES
Tickets available on forward journey
from 10th to 25th September (both dates inclusive)

FAST ELECTRIC TRAINS TO SHOW GROUNDS
Frequent Service — 10 Minutes Journey

As one of the adjuncts to the campaign for increasing traffic to the Melbourne Royal Show, the Railways Commissioners issued this fine poster in striking colours. It was displayed on all stations throughout the State.

Councillors Appreciate Better Farming Train

AT a recent meeting of the Ouyen Council Cr. A. R. Thorne said he would like to see a letter forwarded to the Railways Department, expressing appreciation of the visit of the Better Farming Train. Cr. Glen supported. It had been a great thing for the shire. The only drawback was that time was all too short to enable one to receive the full benefit of the exhibition.

Cr. Rowe added a word of appreciation, and Cr. Kruse said that residents from South Australia had crossed the border to view the train. He suggested that the Department be asked to arrange another visit to the Mallee in the future. Murrayville had never seen such a crowd as gathered from all quarters.

Cr. Voight also desired to congratulate the officers on the courteous manner in which they treated the people. Personally, he learnt a lot, conversing with the experts before proceedings officially opened.

Cr. Edwards said it was a better education than any Royal Show.

Powers Freight Accountancy

How the staff can assist the Powers Freight Accounting System is outlined in the following impressions of a Relieving Stationmaster who did duty at Head Office.

ON the morning of our annual cricket match I was informed by our genial Mr. Spencer, of Room 68 (who one day instructs us to proceed to "Woop Woop" and then compassionately tells us a week or two later to proceed to "Suburbanville") that, together with two other R.S.M.'s, I was being sent to the Powers Division.

On reporting to the O. in C. of Powers Freight Accounting, we were informed that we were to check the "original" goods waybills and see that they were in order as regards commodity codes, analysis and other details. To hearten us up, he indicated bundle upon bundle which were required to be gone through.

For months that pile of waybills seemed to never decrease in size; but steady plodding at them told, and there came a day when we were able to deal with the waybills as they arrived each day.

"Coding in My Sleep"

During this period my good wife informed me that several times she has heard me coding in my sleep. Sometimes I think this was a libel, but when I recall that pile of bills I wonder to myself, and think that perhaps it was no exaggeration.

At first codes were strange, as were the stations, too, to the system, and we found the work trying and tedious; but after a month or so, as the stations got into the swing of the system and we got familiar with the codes, the work seemed more easier and very interesting.

Those days had their humorous side, too: metal coded as cream, sleepers as furniture, and similar typical errors.

Comparing the commodity coding when we commenced checking with that we checked the last week we were with the Powers, I am pleased to say that the coding has improved out of all recognition.

What Happens to Your Waybills

Now for a brief outline of what happens to your original waybills, once they have left you. On arrival at the Powers, each station's abstracts (with the originals attached) are sorted into station order, commodity codes checked, illegible figures made clear, waybill numbers, mileage and analysis inserted (if you have forgotten to put them in) and are then handed over to the punching operator, who punches a card from the information shown on the waybill.

The cards are then sent to the tabulating machine, which prints from the information shown on the cards, a sheet called a tabulation. The totals for each station shown on the tabulation should agree with the totals of the station's inwards abstracts. If not, errors and omissions have to be traced and rectified.

You can imagine what the inclusion of a wrong original means.

The totals of abstracts and tabulations are then verified by means of cards termed master cards. The cards first punched are then sent to the machine room and run through a machine, which is almost human, called a sorter. This machine then sorts the cards into station and waybill number order, as they would appear on station's outwards abstracts, and are then placed through the tabulator again and a tabulation again made, the totals of which should agree with the totals shown on the outwards abstracts. Errors and omissions have again to be located and rectified.

The totals of tabulations and outwards abstracts are again verified by means of master cards. From the information gained the debits and credits are located for inclusion in advice notes.

Machine operators are members of the "fair sex." To see the speed at which card punching is performed is a revelation to the newcomer, but it must be borne in mind that their rate of speed depends upon the legibility of the figures on the original waybills. It is up to all of us who perform waybilling, to do all that we can to assist them in this respect.

Staff is Out to Assist

An impression which struck me is that the staff are out to do all that they can to assist stations as much as lies in their power to do so. From personal experience I would like to ask all those whose duties bring them into contact with the Powers System to bear the following points in mind:—Clear figures, use of your station stamp at all times, correct commodity codes, analysing of waybills, and a general observance of the instructions relating to the Powers System. Errors and omissions cause more loss of time and annoyance to the Powers staff than you can imagine.

If in Melbourne, and you have a spare hour or so, go up to Room 182, Spencer Street, and see over the Powers System. You will find it extremely interesting, and I can assure you that you will receive a cordial welcome.

It is with feelings of regret that I severed my association with the "Powers," and in conclusion would like to thank the supervising officers and their staff for their courtesy and assistance to "a stranger in a strange land."

—W.J.P.



The popularity of fresh fruits is increasing in Great Britain, and that advertising has "turned the trick" is attested by a recent statement of the Fruit Trade's Federation. They credit their "Eat More Fruit" campaign of the past two years for the increased consumption of fruits throughout their country.



Panoramic view from Castle Hill, Townsville. The railway station is the large building in the middle distance.



The pleasure boat at Arcadia, Magnetic Island, on which holiday-makers travel from Townsville.

(See Article on a Trip to Queensland on page 15).

Editorials by Employees.

Avoid Over Indulgence in the Interests of Safety First

We are always glad to hear from our readers on any subject of general interest. This month, one of our electric train operatives, writing under the title of "Desmond," speaks on the dangers of over-indulgence.

DO we realise that one of the most essential parts of the "safety first" aspect of our life is the preservation of our health. Carelessness of health means carelessness of mind, which, apart from the health point of view, may eventually cause us to step into accidental disaster.

The best method of instilling into the youthful mind the harmful effect of over indulgence in anything remains yet to be unravelled. Human nature has at least two bad faults, namely, selfishness and carelessness. We must remember the old saying that you cannot put old heads on young shoulders, and if we look back on our youthful days and remember some of the good advice imparted to us by our parents and other elders who have gone through the automatic education of time, we will remember that, though we listened apparently attentively to such advice, it has just gone in one ear and out of the other.

Good advice is being repeatedly given by leading medical men, and also by the Railways Department, on the necessity for eating more fruit to provide the body with the valuable vitamins necessary to preserve the constitution.

I have in past years spent a good proportion of my spare time in athletics, more especially boxing. Therefore I am a believer in healthy exercise and moderate dieting, which both go to help to develop a healthy mind—the governing factor in the development of will power.

On the other hand, over indulgence brings

about laziness and idleness, which have a dulling effect on the brain.

During my walks around various big cities I have noticed helpless derelicts who have previously held good positions. Others come of good parentage and have gone through fortunes. Any attempt at redemption at this stage, with the majority of them, would be impossible. So on they go to the end of a wasted life.



Being naturally of an artistic nature, though not standing on a pedestal of merit, I have on several occasions sketched some of these characters. The accompanying sketch I have just recently executed from one of our public parks. His past history he half reluctantly gave me, and sighed at intervals at his misfortune.

If we will avoid over-indulgence and revert to moderate and healthy dieting we will have taken the first step towards ensuring success for the "Safety First" campaign.

Interesting Railway People



Mr. C. Spencer, of the Metropolitan Superintendents's Staff, has been a Railwayman for Fifty Years

EXPERIENCE on three different railway systems has fallen to the lot of Mr. C. Spencer, who has just retired from the position of chief clerk in the office of the Metropolitan Superintendent. Before coming to Victoria he drew railway pay in England and Queensland, and his railroading service extends over a period of more than half a century.

Eight shillings a week was paid him by a munificent company when he started on the Midland Railway in England as a weighing machine lad in January, 1876, and after seven years' service he came out to Australia to try his luck under southern skies. He landed at Rockhampton, in Queensland, early in 1884, and entered the railway service in that State.

At Claremont, soon after his arrival, the young newcomer saw a blackfellow's corroboree for the first time, and witnessed the handing out of blankets to the aborigines on the Queen's birthday.

Mr. Spencer's association with the Victorian Railways goes back to December, 1884, when he joined up as a porter at Shepparton, and he wielded a pen in the District Superintendent's Office at Spencer Street, Maryborough and Ballarat, before coming to the Metropolitan Superintendent's headquarters in 1904.

When working with the English company he averted what might quite easily have been a serious accident. A team of bolting horses plunged out of a station goods yard on to the line right in the path of an oncoming express, and Mr. Spencer managed to drag the leader clear in the nick of time and with considerable risk to himself.

His plucky action was brought to the notice of the authorities, and he was rewarded with a whole five shillings.

Long Hours of Duty have often fallen to the lot of Mr. G. A. Tregear

AN old railwayman passed out a few weeks ago when Mr. G. A. Tregear, assistant shed foreman at the North Melbourne Loco. Dépôt, was compelled through ill-health to retire from the Service. He started in the old Spencer Street Loco. Sheds in 1888, under Foreman T. Hulse, and worked as a fitter's mate with the late P. Alexander, then a Westinghouse brake fitter and afterwards manager of the Newport Workshops.

Mr. Tregear was one of the first crew allotted to the Bacchus Marsh banking engine, which assisted trains over the Ingliston bank. At first the pushing engine was not coupled to the rear of the train, and very often the train would draw away from the engine that was supposed to be assisting it.

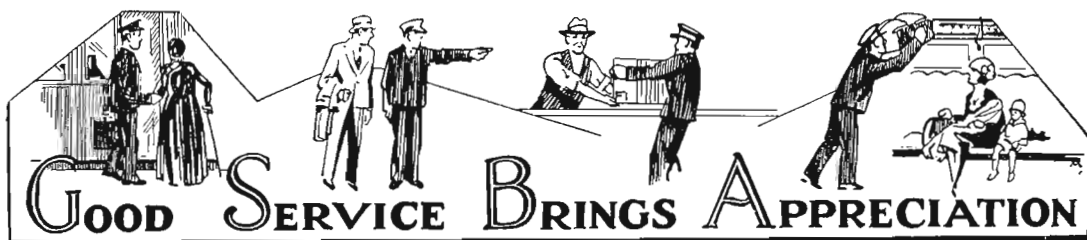
Frying-pans, gridirons, kettles and teapots formed portion of the equipment of engine crews in those days, as long hour trips were the rule rather than the exception. Mr. Tregear remembers firing on a North-Eastern engine after 7½ hours prior duty, finally finishing up with 24 hours showing on his time sheet.

On yet another occasion, when stationed at Maryborough, he was called at 2 a.m. to run the 4.30 a.m. Castlemaine goods. On his return at 12.15 p.m., Mr. Ross (irreverently known as "Jumbo") asked him to travel to Donald by the 1 p.m. mixed to run the 6.30 p.m. to Mildura. Although the luckless driver had never been past Donald in his life before, he duly performed the run, returning from Mildura at 7.30 a.m. on a hot dusty day, 29 hours after he first signed on. He resumed again at 5 p.m. the same day!

The North-Eastern District was the region for heat in the old days, according to Mr. Tregear. He fired on a cattle special to Strathmerton one sweltering day when the temperature was 116 degrees. The heat was so intense that a cloth had to be used to protect the bare hands from the handrails when oiling.

After the Sunshine accident, Mr. Tregear was selected to instruct men in the working of the first 30-ton and 15-ton wrecking cranes. He has also handed out advice to younger men on the subject of testing and other special work, and, on passing the loco. foreman's examination, was appointed in his present position at North Melbourne. He acted as shed foreman on several occasions before his retirement.





DURING the early part of this week, the writer had to send a 7-valve Utopia Wireless Receiver to Casterton. The staff worked all night on it, and it was taken to Spencer-street two minutes before the train left the platform. We are taking this opportunity of expressing our gratification for the manner in which your Cloak Room Staff handled this delivery. We might state that co-operation of this description brings about greater satisfaction.—**Meyer Bros. (Signed) J. J. Meyers, 320 Elizabeth-street, Melbourne.**

"USUALLY when things go wrong your Department gets plenty of abuse, and I am not above dealing it out myself, therefore, I think it is only justice when things are done well to give your Department credit for it. My truck of bees, consigned from Rowsley on September 1, arrived at the above address in perfect condition. Please accept my best thanks to you and your officers who had the handling of the truck. Your Stationmaster at Seymour I found it a pleasure to transact business with."—**Mr. D. M. Morgan, of Baddaginnie, writing to the Secretary for Railways**

AFTER retiring from business after 17½ years in Sale. I wish to convey to you and your staff, during your term of office at Sale, and also your predecessors, by sincere thanks for the courtesy and attention they have at all times given to me.—**F. E. Benussi, Proprietor, Star Hotel, Sale, writing to the Stationmaster, Sale.**

IFEEL that I should convey to you my appreciation of Mr. Jenner's (Drysedale Stationmaster) courtesy and consideration, by the help he has given in moving my stock and plant by rail from Drysdale to Gippsland. It is a pleasure to work with officers of Mr. Jenner's type.—**W. J. Stiley, Krowera, via Loch, writing to the Commissioners.**

FOR some time I have been very much impressed by the courtesy displayed by one of your officials at Middle Brighton Station, and I have taken the trouble to discover his name in order that I may place on record my appreciation. He is Mr. P. J. Zenner. Quite recently I had the misfortune to leave in the train a case containing valuable documents, and in my dilemma I appealed to Mr. Zenner. Prompt action was important, and although it was at a very busy time in the evening, my appeal was responded to with a spontaneous courtesy which was refreshing. After an infinite amount of trouble the missing case was traced and returned.—**F. B. Lucas, 22 Wellington-street, Brighton, writing to the Commissioners.**

"Courtesy, Efficient Service Always"

Writing in the "Illinois Central Railways Magazine," Mr. W. M. Madigan, a young Victorian railwayman seeking experience in America, says that this company has a fine body of employes, who have developed courtesy without servility into a fine art.

THE slogan of the Illinois Central System, "Courtesy, Efficient Service Always," appealed to Mr. Madigan as indeed fitting, because it covered everything essential to serving the public, and every employe endeavoured to carry it out to the letter.

"I would be content to spend the remainder of my period in America in the service of this company," Mr. Madigan says.

IAM directed by the Brunswick City Council to inform you that the West Brunswick Progress Association has forwarded to this Council a communication asking the Council to convey to the Railway Commissioners the Association's appreciation of the scrupulously clean manner in which the lavatory conveniences on the Coburg-Fawcner Line are kept, and I have much pleasure in conveying to you for the information of the Commissioners these complimentary remarks.—**Town Clerk of the City of Brunswick, writing to the Secretary for Railways.**

AS I lately have had to shift from Morwell to Castlemaine. I had our furniture sent here by train, and it arrived in such perfect condition, neither broken or scratched, and I am so satisfied about it that I feel it is my duty to write and notify you of the obliging and capable manner in which Mr. Abraham, Stationmaster at Morwell, attended to it, not only seeing that it was done, but packed the lot in the truck himself.

It was also the fact that I had heard the week previous to trucking this furniture that he had packed and trucked the bank manager's furniture with such care that I decided to send by rail.—**A. J. Halliwell, Farnsworth-street, Castlemaine.**

"THE courtesy of all Victorian railwaymen with whom we came in contact was very much appreciated. We were so pleased with the trip that we will certainly come again some day."—**Mr. Donovan, manager of the Broken Hill West Football Team which recently visited Victoria, speaking at a banquet tendered the Club at Bacchus Marsh.**

THE following comment was recently inscribed on a card left in the dining car of the Sydney Limited: "The breakfast menu is as good as the dinner one; pork sausages, raisin bread and fruit being unique in quality and much enjoyed."—**Mr. and Mrs. M. H. D. Brierley.**



Mr. Roderick McLean, Stationmaster, Newmarket Goods, with his staff, who handle the Cattle Supplies for the Metro. Meat Supply. (See Article on page 13)

AT the close of our season, I sincerely wish to thank the Transportation Staff of the Seymour Railway Station for their courtesy and attention. This, I am pleased to say, is not unusual, as during my long official term with the Association, it has been my invariable custom to receive both civility and courtesy from the whole of the Staff. I wish to extend my thanks to the Staff.—**M. M. Minogue, Secretary, Waranga North-East Football Association, writing to the District Superintendent, Seymour.**

I AM writing to you to express my gratitude for having such an efficient staff at the Ringwood Railway Station. About nine months ago I came to Ringwood for my health. I had to get my medicine from Mitcham two or three times a week; I did not always know what train it was coming on. It was rather awkward for me, as I had only my little son, aged 6, to get it. The Stationmaster did not know me, and perhaps not yet, but I can thank him for being alive to-day. It did not matter what time of day or night I came he always managed to get it, and he treated my little boy as he did myself. One night I was desperately ill (heart attack), my heart medicine had not arrived, and we got word to the Stationmaster, and not long after the parcel was delivered to my door. To-day I am on my feet again, and I wanted to let you know what a conscientious and thorough gentleman he is, and likewise his staff. We have recently had a carnival up here, and there has been a lot of stuff sent up by rail, which has all been carefully handled.—**J. S. Jones, Wantirna-rd., Ringwood, writing to the Commissioners.**

WE do an extensive business throughout the North-Eastern and Goulburn Valley District, and, as an innovation, have recently extended our operations into the Riverina. As you are aware, carved marble and granite, in which we specialise, although cumbersome and heavy to handle, is of a fragile nature, and previous to the taking over of the transhipping work at Tocumwal by your Department, our efforts to gain a portion of this valuable New South Wales trade were not eminently satisfactory, owing to breakages and protracted delays at the transhipping point.

We have pleasure in bringing under your notice a recent instance of safe and expeditious transport. On July 16 we despatched two 16-ton truck loads of monumental work from Toorak, consigned to Berrigan, N.S.W. Much of the work was fragile, and the whole of very considerable value. In view of previous experiences, we were somewhat chary about setting out to carry out the erection of the jobs, as we had sometimes been compelled to wait about for days. However, on arrival at Tocumwal on Saturday, July 17, we were highly gratified to find that the trucks were on hand. We conferred with your Stationmaster (Mr. Beagley), who arranged for the prompt transhipment, the trucks being dealt with on Monday, July 19, and reached their destination next day in perfect order.

We desire to express our sincere appreciation for this outstanding example of quick transport, and shall be glad if you will also convey to your Stationmaster at Tocumwal our keen appreciation and thanks for his ready interest, and the prompt, efficient and careful manner in which transhipment was carried out.—**Barklamb Brothers, 73 Allison-road, Elsternwick, writing to the Secretary for Railways.**

IT IS with feelings of gratitude that I write to express my thanks for your many acts of kindness to us. The attention and courtesy we have received from you while travelling cannot be surpassed. The Railway Department possesses in you and a few others whom I would like to mention, viz., Messrs. Handsford and Byrne, men of sterling worth.—**Sister M. Berchmans, Convent of Mercy, Campdown, writing to Mr. H. T. Brown, Conductor, Warrnambool.**

I REGRET I did not see you when I was leaving to personally thank you and Mrs. Baker for the splendid holiday at Buffalo. I can assure you that during my six consecutive years at the Chalet, I have never found everything so congenial and well managed as it is at present, and I wish you and Mrs. Baker every success in your new undertaking.—**Mr. I. D. McDonald, Shire Hall, Marong, writing to Mr. Baker, Manager, The Chalet, Mt. Buffalo.**

I WISH to draw your attention to the very fine arrangements made by the District Superintendent (Mr. Maddern) for the comfort of girls and boys from this school when travelling to and from Hamilton on August 9 and 10. I would be glad if you could convey to Mr. Maddern, the Stationmasters at Ballarat, Ararat, and Hamilton, and the Conductor on the train, our appreciation.—**James F. Hill, Principal, High School, Ballarat, writing to the Commissioners.**

"MY wife and I have just recently returned from a holiday at the Chalet, Mount Buffalo National Park. I am pleased to say that we both thoroughly enjoyed the trip, and the staff at the Chalet—everything ran like clockwork. This was not my first trip, and I am in a position to speak of the many improvements which have been carried out at the Chalet, particularly as to the way the place is managed. In Mr. Baker and his capable wife you have the ideal couple for the management of such a place. Both were very attentive to the wants and wishes of the guests, and many expressed their appreciation to me, but I think it better to express such to you. There is a tone about the place now that is distinctly pleasant, and any complaints that may be made re strict supervision would, I think, be made only by the class of people that the Chalet would be well rid of.—**G. H. Watkins, 2 Royal-crescent, Armadale, writing to Mr. W. D. Bracher, Superintendent of Refreshment Services.**

AS I suspect that most reports concerning doings of your employees consist of more kicks than halpence, it gives me great pleasure to testify to the kindness of the Stationmaster (name unknown) at Noble Park. After four nights of working back, I was unfortunate enough to go to sleep in the train, waking up at Noble Park.

The Stationmaster, although I understand it was the last train, was kind enough to ring up Oakleigh for a car, wait with me for over an hour until it turned up, built up his fire, which was just about to go out, and made me two cups of cocoa.

His kindness was overwhelming, and I could not let it pass without commending him to your attention as a model of courtesy.

Your motto is too well known to bear repetition, but if this testimony helps him as much as his kindness helped me I shall rest content.—**H. J. MacLennan, 499 Little Collins-street, Melbourne.**



A corner of the cosy rest room provided by the Railways Commissioners for typistes on the staff at Head Office.

That Great Word—Duty

(By Miss H. Davis, West Richmond.)

DUTY! It has struck you with a fine, robust sound—just two syllables, with the anvil emphasis on what is due from man to man, from a man to his post, and to himself. Du-ty.

That super-phrase of the master man, Admiral Lord Nelson—England expects every man to do his duty—raises a world concord. By its inspiration, every man with a soul that is not dead becomes a hero, if not by the power of deed by the power of thought.

Duty is not an emotion. It is not a sentiment. It is a law.

With the lower orders of creation instinct actuates, as if they had reason, each to do its part for the common weal.

In man it rises from reason to his highest being. "He did his duty." That is the greatest thing writ.

The man that forges the links of the chain, that tempers the mettle of the engine, that fits the sections to be flawless, nowhere excusing himself as humanly imperfect, but aiming at being as humanly perfect as will power, concentration and developed intelligence can make him, is the man that does his duty.

Standing on one of the rises commanding Melbourne, looking down on the great rail system running in and out of our city, the mind is full of admiration of the men who control that organisation, from the super-brain directing and co-ordinating its branches to the men that engineer the forces of Nature and by their constructive genius turn them to the use and convenience of modern life.

That all comes of men who have done, who

New Rest Room for Typistes

THE typistes in the Secretary's, Way and Works, Rolling Stock, Signal and Telegraph, Transportation, and General Passenger and Freight Agent's Branches might well be proud of the new luncheon and rest room accommodation which has been provided for their use in the basement of the Railway Offices at Spencer Street.

The luncheon room has been nicely arranged and tables and seats provided to accommodate about 50 girls, while in addition a cupboard has been installed for stowing crockery and other utensils. Lockers have also been provided for each typiste.

The rest room has been attractively furnished, and easy chairs, couches and rugs add considerably to the comfort of the girls and enable them to enjoy a quiet rest during their luncheon interval.

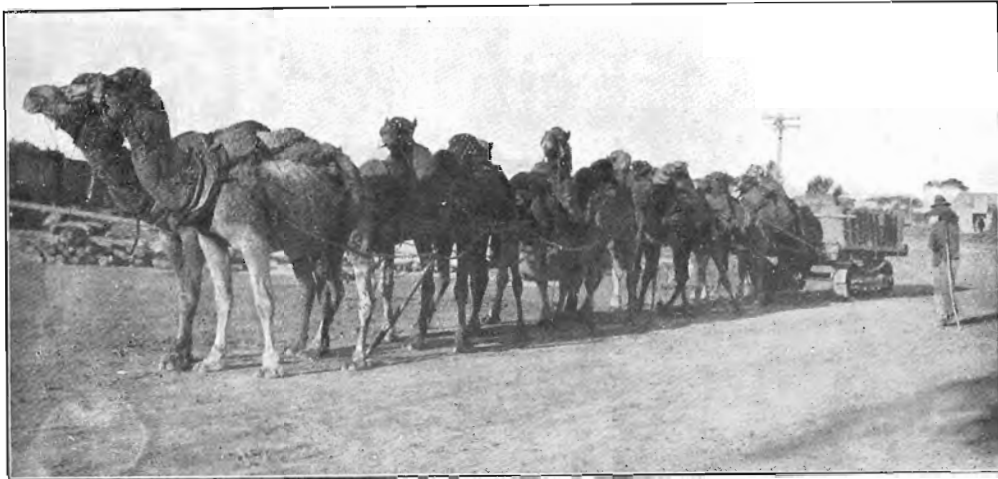
The rooms are under the care of Mrs. Syers, and there is a real touch of home about the new surroundings.

do their duty.

If they failed, the whole fabric, not only of this, but of our present-day, existence would crash.

Have you thought of how the solar system is run? Just by the same law that moves men to their duty; each part active in the scale of balance and harmony of the whole.

Get it into your mind, beaten deep, ineradicably on that sense centre that controls the will. Get it, not to forget. It is oil for the engine; meat for the man; bread for the children. It is a world to live in. And the truer the duty performed, the better that world.



This is the camel train which works in the Underbool district, in north-western Victoria, carrying salt from the Pink Lakes to the railway. A considerable quantity of salt is obtained from these Lakes every year, and is consigned on the Victorian Railways to tanneries and other industries throughout the State



Until recent years the Mallee was considered a desert, but scientific methods of farming have proved that it is one of the most productive areas of the State. So large is the quantity of wheat grown there every year that the Mallee has now come to be regarded as the granary of Victoria. This photograph, taken in the Murrayville district, shows a splendid crop, the like of which farmers are hoping to obtain during the coming season.



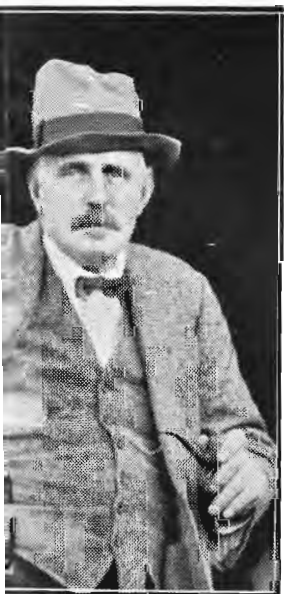
On the left is the new Parliament House at Canberra, the new Federal Capital, where the Duke and Duchess of York will open the Federal Parliament in May next year. On the right is the Cotter Weir. By damming the Cotter River sufficient water has been impounded to supply the needs of the new Federal City for sixty or seventy years. Provision has been made to increase the area impounded as the population increases.

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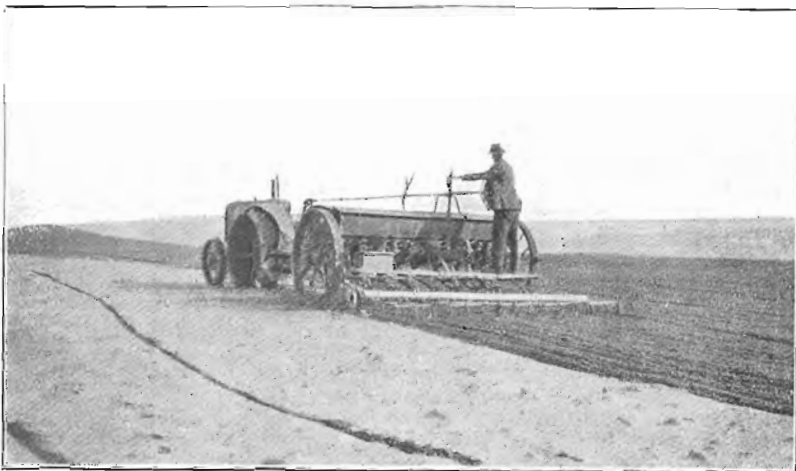
Williams, hay and produce merchant of Maryborough, recognised as the biggest customer of the department rough. An interview with him appeared in the August number, in which he summed up the present railway situation at Maryborough as "One hundred per cent. efficiency."



Midlaw, Mayor of Maryborough, in his representative references to service by the railway at Maryborough was published in the issue, was the chairman and one of the members of the twelfth committee during their stay at that progressive town.



Tractors are being extensively used in the Mallee in place of horses for general farm work. This picture was taken near Murrayville, one of Victoria's distant outposts of settlement. It shows a tractor being used to haul a seed drill on a large wheat farm



Another view of a tractor at work on one of the Mallee wheat farms. No modern farm considers its equipment complete without one or more tractors. These tractors enable a considerable amount more work to be done than with horses



Mr. A. Lyons, Head Porter at Benalla, took a keen interest in Dried Fruits' Week and made a special display in the refreshment rooms at his station. Unique effects were produced by making birds from fruit, as seen in this photograph

Looking Back on Early Institute Doings

Mr. Henry Janes, who formerly was a special officer in the Rolling Stock Branch of the Victorian Railways, now retired, and living in Tasmania, recently spent a holiday in Victoria. The following from his pen is interesting as early history of the small beginnings of the Institute, now grown to the large proportions which we find in the Victorian Railways Institute system of to-day.

IN Ballarat recently I paid a visit to the new Railway Institute Building at the corner of Lydiard and Nolan Streets, and was shown over it by the courteous caretaker, Mr. Williams.

It is a splendid building, well built, well equipped, and an ornament to the city. It should be a wonderful asset to the Railway Department. The Commissioners are acting wisely in providing good facilities for the education of their employees. The best service will certainly be obtained from those who are well trained in their particular class of work in Victoria's great railway system, and take an intelligent interest therein. The cost of such buildings and equipment to obtain this end is money well invested.

Retrospect is the privilege of those who have matured in years, and in no walk of life is retrospect more interesting than that of railway men. When visiting the above institute my thoughts wandered back 26 years to the time when the first Institute was formed in Ballarat, and, I think I can say, the first formed in Victoria. I know there were some in Melbourne, Bendigo, Ballarat, Geelong and other places who took a personal interest in the younger men, and had classes for their instruction, but these were more of a semi-private nature.

The Ballarat Loco Class

In 1900 a movement was made at the Loco Shed, Ballarat East, and what was termed "The Ballarat Loco Class" was formed. The officers were:—Chairman, Vice-Chairman, Treasurer-Secretary, Two Collectors and Four Instructors. The entrance fee was 5/-, and the contribution 6d. per month. This money was all used for class requirements. Mr. Woodroffe, who was then Chief Mechanical Engineer, assisted and granted us the use of a room in the south-west corner of the loco shed. He supplied a table, seats, linoleum for the floor, a bookcase and cupboards (removed from Maryborough), duplicate parts of W.H. Brake, etc., etc. The W.H. Brake agency in Sydney supplied several large diagrams, which he had varnished and mounted on rollers.

The Baldwin Company of Philadelphia, U.S.A., supplied books, diagrams and other information concerning the Vauclain compound engines, which were just then coming into use. The best obtainable railway books were purchased. Four monthly railway magazines (viz., two English and two American) were taken. Every 8 months these were bound. This enabled the class to keep quite up-to-date in railway matters. Rules were adopted. These were written out, signed by the Chairman and Secretary, framed and hung on the wall.

Old Framed Rules Missing

I saw quite a number of the bound volumes, and other books at the new Institute, and had a look for the old framed rules, but could not find them. If they could be unearthed they would be an interesting relic of the old class.

Meetings were held regularly. General railway working rules and regulations, and all sorts of emergencies and accidents were discussed.

The knowledge thus gained was not only advantageous to the younger men, but older men benefited by it. For example—A W.H. Brake failure occurred on the Up Adelaide express at Great Western, caused 10 minutes delay, and another 20 minutes at Ararat. The engine driver was not a member of the Loco Class.

On another occasion the same sort of failure happened to the Up Adelaide express, between Wallace and Millbrook. The driver in this case was a class member. The defect was remedied in 4 minutes, and the time was recovered before arrival at Bacchus Marsh.

About the middle of 1903 Mr. Thomas Tait (now Sir Thomas Tait) paid his first visit to Ballarat, and was very much interested in the class room and appointments. The day of his visit was very bleak and cold. He remarked on there being no

fireplace in the room, and, within a week, a fine kerosene heater was sent from Melbourne for the use of the class. This proved a great comfort to members during the cold Ballarat winters.

Sir Thomas at that time intimated his desire to form a Central Institute in Melbourne. The formation of the new Institute at Flinders Street was the ultimate fulfilment of the desire then expressed.

The old class continued to be of great value for many years until a branch of the Central Institute was formed in Ballarat, when it merged into that.

The younger men have great advantages now compared with those of earlier days, and it is to be hoped the results of the splendid Railway Institute in Ballarat will be seen in good, up-to-date railway men being developed therefrom.

The following excerpt from the "Ballarat Star," of April 24, 1904, may be of interest:—

With the object of giving young men in the railway service an opportunity to improve themselves at their work, and also to qualify for engine-drivers, a class was started at the loco sheds, Ballarat East, in September, 1900, and instructors in different branches of railway work secured.

Of Great Benefit to Members

The class has proved of great benefit to the members, and they also possess a library confined solely to books on railway matters, and these have been taken advantage of by older men amongst the engine-drivers. To show their appreciation of the work done by the instructors and officers of the class, the students made several presentations yesterday, the ceremony taking place in the loco sheds.

Amongst those present were Messrs. F. Upton (loco. inspector), C. Heinz (loco. foreman), and R. Fallow. The presentations were made on behalf of the class by Mr. D. Stewart (president), who referred in complimentary terms to the recipients—Mr. H. Janes (secretary), who received a Gladstone travelling bag suitably inscribed; Mr. J. O'Loughlin, a pair of gold sleeve-links; and Messrs. Hiddle and D'Angri, silver-mounted pipes. Each of the recipients made a suitable response.

The promoters of the class anticipated to a certain extent the plans which the Chief Commissioner (Mr. Tait) has formed for the instruction of railway men, and they intend to continue on the same lines.

ABOUT six months ago my daughter, aged 13 years, had a trip to Melbourne with a lady friend. When her holiday was at an end we found that she would have to return to Mildura by herself. Naturally, we were a little bit anxious about her, but when she arrived here she was full of praise for the way she was looked after on her long trip. I do not know the exact date of her return, nor the names of the various officials, but I found out the name of the Conductor on the train on the last stage of the journey, namely, Mr. McNally. This gentleman could not have treated her better, or looked after her more carefully than I would have done myself. I wish to express my appreciation of the services rendered.—William A. Ross, "Carlovio," Seventh Street, Mildura, writing to Secretary for Railways.

ON my retirement as representative of the "Carrum Borough Gazette," I wish to place on record my appreciation of the unvarying courtesy of the Stationmaster and staff at Chelsea railway station. My duties have continually brought me into contact with your staff, and I am more than satisfied that in Mr. Alex. McCullough the Department has an officer who is most painstaking and conscientious in the discharge of his duties, and one that will eventually make his mark felt in the railway service of this State.—George Tongel, Late Representative, "Carrum Borough Gazette."

The Development and Use of Asbestos

Believing that many railwaymen, especially those in the engineering branches, will be interested in asbestos, we print herewith some notes concerning the industry.

WHEN asbestos was originally introduced to the engineering world in 1871 or 1872 and for some years afterwards there was some apprehension that for purposes where resistance to heat and steam was essential asbestos would take the place of indiarubber.

No doubt that has been the case, but not to anything like the extent anticipated, for it was soon found that while asbestos withstood the highest temperatures with practically no deterioration, its hygroscopic nature rendered it unsuitable where high resistance to moisture was required.

Here indiarubber came in, but rubber as generally manufactured was much more liable to perish than asbestos when constantly exposed to heat.

Consequently it was found that intelligent combination between the two articles was desirable in order to obtain the best results.

Asbestos has therefore for many years formed an important and increasing part of the products of indiarubber factories, and indiarubber has also been and continues to be extensively used in asbestos factories. Their combined uses have indeed expanded almost beyond belief, and it would be difficult to say to-day how, for many purposes, the manufacture of articles from the one could be efficiently carried on without the other.

Varied Uses for Asbestos

A great deal has been written from time to time on the subject of asbestos, but it is astonishing that descriptive articles, even in scientific and technical journals and magazines, so often say little beyond reproducing quotations from obsolete encyclopædias relating to the use of asbestos cloth by ancient Greeks and Romans, who, it is said, thousands of years ago wrapped the bodies of their dead in this material, and made dinner napkins of asbestos, cleansing them, after use, by fire!

Whatever may have been done to protect the bodies of the dead, it is difficult to believe that asbestos, so treated and "cleansed," could ever have been suffered to come into contact with the lips of Grecian and Roman ladies!

It is true that a small specimen of cloth, hand-woven from Italian asbestos fibre by the ancients, may still be seen at the Vatican in Rome, but even the existence of this interesting relic would not convince us that similar material had ever been used as dinner napkins, except possibly as a means of unmerited punishment!

It was not until about the year 1800 that the idea was revived in Northern Italy that asbestos might be turned to useful account, and some experiments were then carried out in Lombardy which were to a certain extent successful, and earned for two enterprising

citizens concerned some distinction from Napoleon I. Intense political disquietude, however, prevented further developments, and for a number of years asbestos, although of some interest to mineralogists and geologists, was not regarded as of much practical or commercial value.

In the year 1866 three Italians, namely, Signor Albonico, of Sondrio; Canon del Corona (a Florentine cleric), and the Marquis di Baviera, succeeded in making some small specimens of asbestos cloth and paper, and endeavoured to interest the Italian Government in these articles. They failed, and whatever prospects they may have had of better success in other directions were defeated by the outbreak of the Franco-German War in 1870.

Concessional Rights Obtained

Meanwhile they obtained concessional rights from various communal authorities in the Valtellina, Val d'Aosta and Val Susa districts of Northern Italy to explore for and to excavate the raw material. They obtained a considerable quantity, most of which consisted of fibre of fine quality and great tensile strength. Messrs. Furse Bros., bankers, of Rome, and others became interested in these excavations, and a company was subsequently formed in Glasgow in 1871.

At an earlier date, viz., in 1857, a Mr. Richard Lloyd, who had evidently heard something about asbestos fibre, took out a patent for an engine packing in which the use of asbestos was claimed, but there is no evidence of its having been put to practical use. A year or two later asbestos fibre of a white, flossy description was used for mixing with fire clay for gas fires, and the mineral first became generally known by the public in this connection.

Asbestos Paint Was Used

About the same time asbestos paint was made and sold by Messrs. H. W. Johns, of New York, but to what extent ground asbestos was used as a pigment in this paint is not known, and most likely the quantity was very small. It remained for a Scottish company first actually to manufacture a steam gland packing consisting of loose carded Italian asbestos fibre which was enclosed in an outer covering of braided cotton yarn. They also made asbestos millboard for joints from the shorter fibre, and a non-conducting composition from waste fibre droppings and certain binding ingredients for covering steam boilers and pipes, and these three articles came into rapid demand.

Unfortunately this primitive system of making packing proved unsatisfactory, for small particles of gritty substances were often left in the fibre, and having worked to the surface



SOME OF THE STAFF AT DANDENONG:—Back row (left to right): J. Blood, Signaller; J. Brown, Shunter; C. Murfitt, Enginedriver; — Kelly, Porter. Middle Row: W. H. Danks, Motorman; W. T. Carey, Lad Porter; R. Martin, Fireman; — Smith, Signaller; R. E. Hayden, Leading Shunter; H. Lardner, Clerk; F. A. Stubbs, Signaller; P. McGrath, Leading Shunter; — Ellis, Porter; — Gale, Porter; G. Smith, Guard. Sitting: C. Hinch, Parcels Clerk; W. Tacey, Guard; J. Callaghan, A.S.M.; J. Sullivan, Guard; H. Dawson, Porter.

caused some damage by scoring piston rods and valve spindles.

About five years later a second company was formed under the name of Italo-English Pure Asbestos Co. Ltd., with a factory in Turin. This company succeeded in spinning, principally by hand, a yarn from Italian asbestos fibre, which was completely freed from gritty particles or other impurities, and twisted into a rope packing without any covering of cotton such as that originally used by the Glasgow company. This marked a considerable advance, and as the "Italo-English" Co. also succeeded in producing an exceptionally fine quality of millboard, made at Tivoli, near Rome, for cylinder cover and other joints, considerable orders were obtained from leading railways as well as from steamship owners.

Keen Competition

Keen competition then set in between the original group of mining concession hunters in Italy, the Glasgow Co. and the Italo-English Co. for the control of supplies of the raw material, for it was believed in those days that the Italian variety of asbestos was the only kind which was of real value, and prices were being forced up to abnormal figures. This led to an amalgamation in 1879, when the United Asbestos Co. Ltd. (consisting of the Glasgow and Italo-English companies and the asbestos interests of Messrs. Furse Bros.) was formed.

It is not surprising, however, that many unforeseen difficulties were encountered in preparing and manufacturing a material about which comparatively little was known at that time, and which, chiefly owing to the exceptional qualities and construction of the fibre in its native state, proved to be very difficult and costly to manipulate on an extended scale.

The use of ordinary textile machinery was out of the question. Considerable outlays were incurred in devising special plant to deal with the material, and many costly machines had to be successively scrapped. Consequently heavy losses were sustained in the early years of the United Asbestos Co.'s history, and these losses proved to be an onerous burden in the years to come and greatly retarded the company's progress. But much valuable pioneer work was accom-

plished, and under more successful management losses were gradually wiped out and profitable results subsequently ensured.

Meanwhile, in the early days of the United Co., other deposits of asbestos were discovered in the province of Quebec, which turned out to be the richest and probably the most famous asbestos mining property in Canada, if not in the world. While the chemical properties of this material were similar to those of the Italian fibre, there was a marked difference in their physical characteristics. The Canadian variety proved to be much easier to manipulate by machinery, differing only slightly in the more important details from that which was then in ordinary use in textile factories in Lancashire.

In connection with manufacturing, equally remarkable progress is shown, for in 1872 the operations of the pioneer asbestos company comprised three articles only, namely, cotton-covered asbestos packing, asbestos millboard for cylinder, steam chest, boiler door and other steam joints, and asbestos non-conducting composition for covering steam boilers and pipes.

To-day over 200 different articles are now made from asbestos. These and other special forms of manufacture are now used in practically every branch of trade.

At a meeting of the residents of Emerald and district, held at the Mechanics' Institute, Emerald, on August 5, on the motion of Cr. Treganowan, seconded by Cr. Butcher, it was unanimously decided that a letter be forwarded to the Commissioners of Railways, expressing our appreciation of the services rendered by Mr. W. C. Pascoe in the execution of his duty as Stationmaster at Emerald for the past nine years. He was always courteous, obliging and attentive to his duties, and also entered into the civic and social life of the district. We regret his departure from among us. —Emerald Council, writing to the Secretary for Railways.

I WISH to express my thanks and appreciation of a member of your staff. On a recent journey from Deniliquin to Mildura I had to make enquiries from a porter at Castlemaine. The information which I required was given to me by Porter No. 379 at Castlemaine, in such a manner that I felt I must write to you to express my appreciation. This man was exceedingly courteous and seemed to know just the exact answer to every question I asked him. —William A. Ross, Seventh Street, Mildura, writing to Secretary for Railways.

Institute Musical and Elocutionary Competitions

THESE competitions have for several years been a popular annual event at the Institute. The President, Mr. J. S. Rees, made some very interesting remarks about them, which were broadcast by 3LO on the opening night, September 4th. He said:—

Ladies and Gentlemen,—The musical and elocutionary competitions commencing to-night will be continued each evening until Saturday evening, the 25th of this month. That is to say, there will be 19 performances before the finals are reached. There are two divisions, musical and elocutionary. As you will observe from your programmes, the items to be contested under the Elocutionary Division comprise Recitals, Recitations, Musical Monologues, Dialogues, Orations and Open Scenes.

In this division there are contests for those under 13 years of age, under 16 years of age, and for those of any age.

The Musical division is divided into two parts—Instrumental and Vocal. The instruments to be played are Piano, both for solos and duets; violin, solos and duets; Trombone; Cornet; and trios for any instruments. The vocal sub-division comprises solos and duets for all voices, and the ages in both sub-divisions are under 13, 16 and 18 years of age, and for competitors of any age.

These competitions have been arranged, and are being conducted, by the Council of the Victorian Railways Institute.

The Victorian Railways Institute, I may say, is an organisation originated by Railway employees some 16 years ago, with the liberal help of the Commissioners, who not only assist us financially, but personally. It has a membership of nearly 12,000.

Institute work stands for the betterment of railwaymen. In the Institute field the juniors of our service are provided with every facility to succeed as railwaymen—that is to succeed in their life's

work—and if they take advantage of these opportunities, and most of them do, they become good railwaymen, and a good railwayman is a good citizen, doing his best in his job and for his State. The older men of the service are also looked after, both educationally and socially, and the aim of us all is to provide railway service worthy of the State, the Department, and ourselves as employees.

We started these competitions in 1913 as one of our Institute activities. They lapsed during the war, but were re-started in 1923, and have been continued each year up to the present.

In 1923 we had 300 entries, 1924 400 entries, 1925 450 entries, and this year 546 entries, so you will see that we have improved in this respect each year.

The competitions are not confined to railway employees, several open events, in which other than railway employees are eligible to compete, being provided on the programme. We welcome most heartily our friends from outside the service to compete with us. That's a part of the community spirit which we foster in the Department and the Institute.

We feel confident of providing 19 evenings of interesting entertainment, and venture to hope that the public will support us. I might be pardoned for saying that our Department—which numbers about twenty-eight thousand employees—has produced many artists who have become famous in the musical world, and we are hopeful that these competitions will bring out others. Our adjudicators are Mr. Louis Lavater, Vocal and Instrumental Division; and Mr. A. J. Hawkins, Elocutionary Division. Both these gentlemen are well and favourably known in their respective professions.

With very great pleasure, and every confidence that they will be a great success, I now declare these competitions open.

Musical and Sporting Carnival to Picturesque Daylesford

SATURDAY, 27th NOVEMBER, 1926

THE Council of the Victorian Railways Institute has decided to organise a Musical and Sporting Carnival on Saturday, November 27th, commencing at 1 p.m. The Commissioners have granted specially low fares, based on holiday and cheap excursion rates, as follow:—From Bendigo, return, 11/6; Castlemaine, 8/-; Ballarat, 6/6; Melbourne, 7/8.

Passengers will be carried by ordinary train to Carlsruhe, thence to Daylesford by special train. From Melbourne to Daylesford special trains will be run.

The Sports Meeting will be held in Victoria Park. An attractive programme of athletic events will be contested by leading athletes in boxing, wrestling, cycling, foot-running, disc, javelin, stone and hammer throwing, fire reel and ladder racing, national and fancy dancing, exhibitions of fancy skipping, etc., etc., and a musical concert by the Victorian Railways Institute Concert Band.

In the evening a grand instrumental and vocal concert will be given in the Town Hall by the Institute Concert Band, assisted by its vocal quartette party. On Sunday afternoon an open-air vocal and instrumental concert will be given at the Hepburn Springs arena, and in the evening a sacred concert will be held in the Town Hall, Daylesford.

Geelong District

A COMPARISON of the wheat traffic dealt with at the Port of Geelong for the years 1925 and 1926 is as follows:—

	Season to 9/9/25.	Season to 9/9/26.
No. of bags shipped	4,028,546	1,413,302
No. of bags in stacks	104,541	17,508

During August this year five boats discharged a total of 23,191 tons of coal, as compared with four boats, totalling 17,011 tons in 1925.

Up to the present the wool traffic is practically the same as last year—1280 bales received from country districts up to the 4th of this month, as compared with 1297 bales for the same period last year.

A new siding has been provided at Gherang for a recently formed company, viz., Gravels Limited. The company anticipates good business supplying gravel to local shires.

Ballasting operations have been commenced with ballast obtained from the Manor pits. The Heywood pits will shortly be opened, from which to obtain supplies of ballast.

Transfers have taken place in this district as follows:—Mr. J. McCarthy, S.M., Beech Forest to Yarram; Mr. W. Roffey, Gembrook to R.S.M. attached to this office; Mr. E. Fitzgibbon, S.M. Casterton to T.S.M. Forest Line; Mr. L. Norwood, S.M. Jung to Casterton; Mr. W. Killeen, Train Running Officer for this district to S.M. Port Melbourne.

His many friends will regret to learn of the death of Mr. Sloane, late S.M. at Gheringhap, which occurred on August 26.



I once took my dog "Ponto" for a ride in the train, writes Bendigo, to Uncle Ben. The Guard would not let him ride in the carriage with me but led him away and put him in a little dark compartment in the van. Ponto resented this treatment, and declares that in future he will patronise the road. In the picture, you see him leaving his bush home in his single-seater motor car.

THE MUSICAL SOCIETY, consisting of sixty male and female voices, under the baton of Mr. Gregor Wood, will give a concert in the Institute Hall on Saturday, October 9, at 8 pm.

An excellent programme has been prepared, which will include vocal and instrumental items by well-known artists. Seats may be reserved at the General Secretary's office.

The Victorian Railways Institute Orchestra will give a concert in the Institute Hall on Saturday, October 30th. Mr. Arthur Belcher will be the conductor, and no pains are being spared to present an attractive programme, consisting of orchestral, vocal and elocutionary items.

Reserve your seats at the Institute office.

On Saturday, November 6th, the prize-winners at the Musical and Elocutionary Competitions recently held at the Institute, will give a concert in the Institute Hall, when a varied programme of vocal, instrumental and elocutionary numbers will be rendered.

The Committee of the Railways Institute, Ararat.

Gentlemen,—May I, on behalf of my firm, present to you such paving blocks as you may require for the footpath of your new Institute?

We shall be glad to do this as a "concrete" appreciation of the unfailing courtesy one receives from the members of your Institute. Yours faithfully, W. Allen, Manager, Scott, Allen & Co., Concrete Specialists, Ararat, July 9th.

CORRESPONDENCE CLASSES GREATLY APPRECIATED

The Institute Correspondence Classes are greatly appreciated by country employees, and many letters of thanks from them are received by the Instructor, Mr. J. C. Clarke. The two letters here following are typical:—

DEAR SIR,
I wish to sincerely thank you for the splendid manner in which you handled my papers and enabled me to obtain my certificate for Guard in what I consider a record time.

From the time I joined up with the V.R.I.'s safe working class (15/5/26) until I was examined by the Block and Signal Inspector was just three months (13/8/26).

The Block and Signal Inspector congratulated me on the able manner in which I answered all his questions.

With my kindest regards and sincere thanks. Yours faithfully, D. Stone, Shed Porter, Donald, 20/8/26.

DEAR MR. CLARKE,

I must thank you for your kind assistance extended to me at all times in helping me to secure certificates: your papers for officers in charge of stations were a great help in my examination for A.S.M. I owe this to Mr. Hally.

I have made application to be examined in the 3 position signalling and overhead. Thanking you very much, yours, etc., P. L. Forster, A.S.M., Bungee, 12/7/26.

HELPERS

The following are the names of donors who so generously helped to augment the Prize-Fund, organised for the purpose of giving substantial prizes to the successful competitors in the various sections of the Institute Musical and Elocutionary Competitions recently held:—Edgar A. Parr, Messrs. Patterson, Shugg Pty. Ltd., Marrickville Margarine Ltd., E. Rowlands Pty. Ltd., Rosella Preserving & Manufacturing Co. Ltd., N. H. Seward, A. Victor Leggo & Co., John Dickinson & Co., Craig, Williamson Pty. Ltd., A. J. Hanley, George Batchelor, Messrs. J. King Pty. Ltd., Max Wurcker Ltd., Alcock & Co. Pty. Ltd., Myer Emporium Ltd., Harmsworth & Robinson, Beauchamp Bros., Willis & Sons Pty. Ltd., G. A. Carter & Son, Taubmans Pty. Ltd., Coates & Co. Pty. Ltd., Edison, Swan Electric Co. Ltd., British Insulated Cables Ltd., Siemens (Australia) Pty. Ltd.

CONFERENCE OF INSTITUTE REPRESENTATIVES

A CONFERENCE of Hon. Secretaries, Delegates from Institute Country Centre Areas, was held at the Central Institute on September 3rd. They were:—Messrs. Lowerson, Stewart, Revitt, Poliness, Best, Withell, Whyte, Byron, Leonard; representing Ararat, Ballarat, Benalla, Bendigo, Geelong, Maryborough, Seymour, Stawell and Traralgon respectively, and the General Secretary, Mr. Galbraith.

Many useful questions were submitted for discussion and adoption, such as:—System of Book-keeping and control of expenditure at Country Centres, system of controlling and conducting educational work, library requirements, system of controlling and conducting social functions, establishment of a wireless club, formation of retired railwaymen's social club, together with very many other cognate questions.



A Group of the Men at Ararat who keep the wheels going round.

Looking Back Thirty-four Years

*Extracts from The Victorian Railways Gazette,
February 3, 1892.*

NO time has been lost in making arrangements for the permanent survey of lines sanctioned during last session. Five survey parties went out a fortnight ago, and last week seven more left under the charge of Messrs. P. G. Duffy, C. P. Simmons, J. Darbyshire, J. Field, C. Babington, A. Simmons and H. J. Lawson.

The second extension of the Warragul to Neerim railway is now practically complete, and it is expected that it will be opened in the course of a week or so.

A St. John's Ambulance examination was recently held at the Seymour station, with very satisfactory results. Of 19 railwaymen who went for examination, four passed "with much credit," five "with credit," and eight "passed."

Mr. Lavater, who has retired from the position of accountant after 30 years' service, was presented with a handsome gold watch by Commissioner Speight, on behalf of his fellow officers. Mr. Commissioner Ford and Mr. Darbyshire supported Mr. Speight's good wishes for Mr. Lavater's future.

The Phoenix Foundry, Ballarat, has a contract in hand for the construction of a number of "E" class engines. The first of these was delivered last month, and ran its trial trip, Ballarat to Lal Lal and back, satisfactorily.

Queer things are left behind in railway carriages. The other day a full set of teeth was found in a carriage at Geelong, and up to the present no inquiry has been made for them.

To the Editor—Dear Sir,—You will be surprised to get this sketch along with this letter from a W.A., railwayman. I suppose, but the S.M., Perth, gave me one of your Magazine to look at last week, and I think it real fine. I came from Eaglehawk to the West 26 years ago.



Seeing Mr. Coakley, one of your District Engineers from Bendigo, over here on one of the trains I was checking, I later drew the sketch enclosed (I only draw from memory), which I hope is good enough to publish.

Many years ago a friend of mine, Bill Pearce, was in the Parcels' Office at Spencer-street, and if you know him give him my best regards.—WILLIAM DOWNES, West Subiaco, W.A.

On the Colac-Crowes Line

Mr. L. H. McCabe, operating porter, Wyelangta, sends the following interesting account of his district, together with a photograph taken from the guard's van while travelling between Beech Forest and Wimja.

THE main industry on the line is sawmilling, the principal timbers being mountain ash and messmate.

Splitting is also carried on very extensively, such as palings, brewer's staves for cask making, mining lathes and fodder boards, commonly called "dumplings," which are used for binding compressed hay.

The average rainfall is 96 inches (8ft.) per year. It rains at times for a fortnight without stopping. (I've been here four years, so I ought to know).

Farming is carried on fairly extensively, but they are nearly all small holdings, except near the coast;



the main industry being dairying and potatoes. Otway potatoes always realise 10/- over top market prices, and swede turnips, which are of a very fine quality, are a very profitable investment.

There is plenty of blackfishing to be had about four miles from here, and some very nice fish have been taken. The biggest I have seen was 3½ lb., but very often 2 lb. and 1 lb. have been caught here.

The roads here are for six months of the year impassable for vehicles. The only means of getting about are train, horseback or walk, but we are gradually getting the main roads metalled, and in a few years hope to have a metal road from Colac to the coast.

Watch for the Rebound

RAILS and sleepers have a nasty habit of rebounding after being thrown.

Each month brings accounts of employees being injured in this way.

Don't Trust the Rope

SEVERAL mishaps to employees have taken place when fixing tarpaulins on trucks through the tie rope breaking.

Take care to see that the rope will bear the strain of your pull when placing truck covers in position.

The Editor, "Victorian Railways Magazine,"—Dear Sir—I desire to acknowledge, with thanks, the regular receipt of your splendid railways magazine. It is a publication that is a credit to yourself and your Department, and is always read with much interest. The contents are most comprehensive, and the illustrations remarkably clear and a distinct feature. Please accept my congratulations and appreciation.—M. WILKINSON, Welfare Office, Commonwealth Railways, Port Augusta.

You Can Improve Your Mind With Draughts

(By BRISTOL)

Checkers is referred to as the intellectual game, because it brings into play, and exercises, man's mental faculties

DURING the process of evolution of the human mind, man's thinking and reasoning powers have become developed to a degree not possessed or known to savage man.

Many savage races could not comprehend numbers greater than five or six, and were unable to solve the simplest mathematical problems. A savage could not do mental arithmetic. "He lacked the mind equipment." Abstract ideas such as those of numbers were foreign to his simple intelligence; it would perplex him to count beyond five, because no spare hand remained to count the fingers that he required for units.

When bartering, each exchange had to be made separately, if sheep were to be traded for oxen, it would have sorely puzzled our savage brother to take six sheep and give in return two oxen.

He may have known perfectly a road from A to B, and again from B to C, but he would have no idea of a straight cut from A to C.

Compare his simple mind with the powerful human mind of to-day. It has required centuries of progress, enlightenment and education to make possible man's reasoning powers.

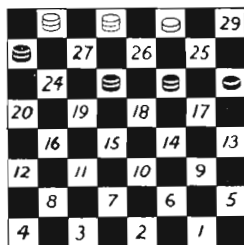
Combining amusement and education, Checkers should be a play habit of every youth, as well as of grown-ups. Greater vision and a more alert mentality contribute to the success of undertakings in all fields of endeavour.

The professional man, artist, inventor, business man—he whose mind functions easily and correctly in rendering service, profits by becoming a devotee of the great game. Scholars hold checkers and chess as their intellectual diversions, so with these thoughts in mind we hope to be a thorough combination railway team for attainment of further success, such as has been our lot on the first occasion of playing in the Draught Association matches as a team of railwaymen.

Next article I will deal with some rules which will be necessary to observe, so as to acquire habits which will prove invaluable in the journey through life. (A. B.)

Problem "A."

Known as the Fourth Position.
(By Payne).



White—Kings, 32, 31;
Single, 30.

Black—Kings, 28, 23,
22; Single, 21.

Black to move and
win, or White to move
and draw.

Solution to Problem 3.

Known as the Third Position.
(By Avery).

13-9	15-10	25-22	22-26
22-18	22-26	7-11	12-8
9-6	14-18	22-25	26-22
18-22 (a)	5-9	11-15	8-3
6-1 (b)	10-6	25-22	14-9
22-18 (c)	9-13	23-27	15-10
21-25	6-10	22-26	Black wins.
18-15	26-31	27-24	
1-6	10-14	26-22	
14-17 (d)	31-27	24-20	
6-2	18-22	22-26	
17-14	27-23 (e)	20-16	
25-22	22-25	26-22	
	2-7	16-12 (f)	

(a) If 18-15 play 21-25; if 6-1 White draws thus, 15-10, 21-25, 14-17, forcing a perpetual by 17-14, and 14-17.

(b) If 6-2, White draws thus: 14-10, 5-9, 10-6, 9-13, 6-10, 21-17, 22-18, 17-21, 18-22.

(c) If 14-10, then 5-9, 10-15, 21-17, Black wins if 22-18, instead of 10-15, then 1-5, 10-14, 21-17, 14-21, 9-14, wins.

(d) If 14-10, then 6-2, 10-14, 25-22, forcing the position back into the trunk line.

(e) If 2-7, then 14-18, which allows Payne's draw thus: 7-11, 22-25, 11-16, 18-22, 16-19, 25-30, and White draws by a perpetual, owing to the piece being on square 13.

(f) If 16-11, then 14-17 again secures Payne's draw.

Black—Mr. T. Grose.

White—Mr. W. Cambell.

9-13	5-14	15-24	7-23	12-16
24-20	27-23	28-19	14-9	29-25
11-15	4-8 (c)	8-11	22-26	16-20
21-17 (a)	23-18 (d)	22-18	31-22	25-21
8-11	14-23	13-22	23-27	20-24
25-21	26-19	18-14	22-17	22-17
6-9	15-24	10-17	27-31	23-18
23-18 (b)	28-19	21-14	17-13	17-14
9-14	11-15	11-16	31-27	18-15
18-9	32-28	20-11	30-25	21-17
			27-32	White
			25-22	wins.

(a) Now a weak line of switches, 22-17 is correct.

(b) 28-24 is best here.

(c) 15-19 is very strong here.

(d) Losing more, 28-24 seems O.K.

Annotated by Mr. J. Boyles, present State Champion.

THE MAN WHO FAILS.

The man who fails is the sort of chap
Who is always looking around for a snap;
Who never misses a chance to knock,
Who neglects his work to watch the clock.

He is grouchy and slow when work begins;
When its time to quit he jokes and grins,
He is always as busy as busy can be,
When he thinks the boss is around to see.

He believes that a pull is the only way
By which he can ever draw bigger pay,
And he sulks and growls when he sees his plan
Upset by the "push" of the other man.

He's on the job when he draws his pay;
That done, he soldiers his time away,
While the men who tackle their jobs with vim
Keep pushing and climbing ahead of him.

For the man who fails has himself to blame
If he wastes his chances and misses his aim.
He'd win if he'd use his hands and wits;
The man who fails is the man who quits.

To prevent your spring mattresses from rusting and thus staining the ticking, paint with aluminium paint. Even if a mattress has been allowed to become rusty, the same treatment will be found satisfactory.

A few drops of turpentine on a woollen cloth is a good cleanser of tan shoes.

"Thomas, you are discharged," said the head of the firm.

"But I've done nothing, sir," protested the clerk. "absolutely nothing."

"Exactly, that's why you're discharged."



MEN AT DANDENONG WHO KEEP THE WHEELS GOING ROUND—Standing—Back Row: (left to right): B. Pedder, Parcels Porter; H. Alexander, Linesman; T. Edwards, Vanman; R. J. Whitfield, Signaller; H. Larnder, Clerk; B. McDonough, Shunter; T. Bonfiglio, Shunter; T. White, Porter. Bottom Row (left to right): H. Mummery, Motorman; J. Shimmer, Guard; J. Sullivan, Guard; J. White, S.M.

Automatic Couplers

The installation of automatic couplers is essential if substantial economies in railway operating are to be achieved, say the Commissioners in their annual report.

THE present type of drawgear is at the limit of its strength with modern locomotives, and further increases in loads are practically impossible. With the growth of traffic considerable savings can be effected by the use of larger and more powerful engines, but these cannot be introduced at present owing to limitations of the existing drawgear.

After very careful investigation, the Commissioners declare, we are satisfied that automatic couplers of the M.C.B. type represent the solution of the problem, and are the most satisfactory means of providing stronger drawgear than that at present in use.

Apart altogether from the savings which would be possible as a result of the utilisation of higher powered locomotives, the saving in the cost of shunting services and the cost of drawgear maintenance is estimated at £35,000 per year.

Automatic couplers of a similar type are already fitted on the rolling stock of the Commonwealth Railways and have been adopted as standard in New South Wales and South Australia, and as uniformity of gauge would be useless without uniformity of drawgear, the installation of automatic couplers on the rolling stock of the Victorian Railways system will, from this aspect alone, be a step in the right direction.

Moreover, the running of South Australian stock on the Victorian lines and vice versa is essential to the economical operation of the traffic, and in view of the fact that automatic couplers have been fitted to the South Australian stock, this interchange will become impracticable unless a similar course is adopted in this State.

The transition will, of course, occupy a considerable time—probably five to ten years; and as little financial benefit will accrue until the conversion is completed, it is essential that once the work is commenced it be pursued in earnest so that it may be completed at the

New Electric Railway

A NEW electric line from Newport to Altona was opened for traffic on October 2. This line is about two miles long.

When the line was examined before electric trains were introduced, it was found that much of the track could not carry electric trains travelling at high speed. Sections of the line had, therefore, to be re-ballasted.

The introduction of electric services on this line has resulted in a greater number of trains being run daily, and also a reduction in the journey from Melbourne by five minutes. Considerable development is expected in the Altona district as a result of this increased means of transportation.

Dookie College Farmers' Class

ALL available accommodation was again applied for in the farmers' class at Dookie this year, and eventually 80 farmers attended from 67 centres, representing all the principal farming districts of Victoria and Southern Riverina.

The class ran for 10 days, from August 17 to 27. Set lectures were delivered in the mornings and evenings, and practical demonstrations in the afternoons. In the case of the latter, the class was divided into seven small groups.

In addition to the college staff, a number of visiting lecturers assisted. These included private stockbreeders, as well as officers of the Agricultural and other Government Departments.

The joy of living is to be interested in one's job, and to attempt to do it well. The man who has no interest in the work he does, no matter how much his income or how high his title, is but a galley slave.

earliest possible moment.

Supplies of couplers are now being obtained for the equipment of new trucks, and, to a limited extent, for the conversion of broad-gauge stock.

Why My Job Is Important

The Signaller's Duties Are Important

Train signalling in its various phases, as established in the Victorian Railways, is probably one of the most up-to-date systems extant. Modern instrumental equipment of the latest pattern is installed in the signal-cabins as well as on the tracks, and operated by a specially-selected staff of Signalmen, whose duties are laid down in a very definite code of printed Departmental Rules and Regulations. Mr. Harold Jones, Special Class Signaller, "C" Box, Flinders-street, has something interesting to say about this job.

OUT of all the jobs in the Department, that of signaller probably is one of the most important. From the time he first receives his appointment to the position of signaller, and onwards to the day when, by qualifying examination, he is deemed fit to be appointed to the Special Class, he realises that upon himself at all times there rests great responsibility.

A visit to any signal box in the Melbourne Yard would convince the most sceptical that the men in these boxes have a most important duty to perform.

When the visitor looks at the long row of levers, and in addition tries to decipher something intelligible out of all the clanging and ringing of bells, doubtless he realises that a signaller's duties can only be undertaken by men of the highest physical and mental calibre.

Of course it must be understood that the special class man only reaches this position after a lengthy period of hard work and training in the lower grades of signal boxes.

Work Is Strenuous

It is true, though, that at times in the first and second class cabins the work is as strenuous as it is in the Yard boxes. In many of the cabins at the peak period the number of trains dealt with is surprisingly large.

Take, for example, "C" Box, Flinders Street, in which there are 160 levers and a large battery of instruments—it is regarded as one of the busiest signal cabins in the Southern Hemisphere.

The number of trains dealt with daily reaches a total of 1500, and at the peak period there are 87 train movements. If an average of 10 lever movements is allowed for each train, a record of 15,000 is reached in the 24 hours.

Many are under the impression that with the introduction of electric trains and automatic signalling, the duties of the signaller, particularly in the inner suburban area, are less arduous. Such is not the case, however, for, where the electric train system is in operation the work has been speeded up, and in numerous cases greater responsibilities rest



upon the man in the box.

At Flinders Street one signal applies to no less than six different roads. Under the old conditions of two-position signalling there would be a signal for each of these roads, and the driver would know exactly to which track he would be diverted, whereas in a large degree, under the existing conditions, the responsibility for the safe transit of the train rests upon the signaller, as the driver merely moves his train in accordance with the signal that is displayed.

A signaller's duties and qualifications are defined in accordance with his correct performance of them, for upon him largely depends the safety of the travelling public, as well as the rolling stock.

In addition, he must be efficient in the particular phase of safe working in which he is engaged, and must also be thoroughly conversant with the operation of overhead electrical equipment.

Definite Code of Bell Rings

The abolition of the block system of signalling trains has by no means lessened the importance of a signaller's job, for he has to signal the departure of trains to the signaller in advance by a definite code of bell-rings, and, in some cases, by means of an indicator.

In many of the boxes in the Melbourne Yard there is what is known as a "time release." This is an apparatus which governs the control over the road for which it is set.

If a route is set for a train, and it does not afterwards traverse that route, the electric approach locking is freed by means of the time release.

The release is usually set to take as long to run down as it would take for a train to clear the section controlled; thus, should a signaller by mistake set the switches for a wrong road, the traffic is held up.

It is frequently said that the expertly alert and reliable signaller is fashioned as a result of his experience, concentration and observation, combined with the ability to decide quickly, and act promptly.

Apart from this aspect of the question, however, I find the duties exceedingly interesting.

My experiences on the job are normal to a degree, and in this connection I may remark that railway accidents caused by faulty signalling are comparatively few; indeed, I think it can be said for the Victorian Railways signalling system, and its administration, that it is as complete as human ingenuity can make it.



Personal.



Wedding Bells

On 28/7/26 a pretty wedding took place at Wesley Church, Melbourne, when two prominent Bendigonians were united by marriage. The happy couple were Mr. F. Spooner, Accountant in the Bendigo Goods Office, and Miss F. Ridding, daughter of Ganger Riding.

Mr. Spooner is highly esteemed by his fellow officers and the general public. His popularity was evidenced in the presentation to him of a handsome canteen of cutlery. A further presentation of a clock was made to him by his Y.M.C.A. friends.

He is actively associated with the Y.M. in Bendigo, and was one of the team who distinguished themselves by winning the Austral Championship in Gymnastics at South Street last year. He is also Secretary of the Y.M. Football Club, and a keen football and basket ball player. An enjoyable honeymoon was spent in Sydney and Katoomba.



Mr. J. Rist, Electrical Running Inspector for Melbourne's suburban service, as sketched by one of his men.

A VERY enjoyable evening was spent in Wae Wae public hall on 27th August, the occasion being a farewell and presentation to **Mr. Clifford, A.S.M.**, who had been stationed there for the past three years. The Chairman, Mr. H. Mulligan, after making very appreciative remarks regarding Mr Clifford's activities in the district and obliging manner at all times, presented him on behalf of local residents with a handsome travelling rug.



Mr. Searl, the popular Motormen's Examiner at Jolimont. Mr. Searl is also the secretary for the Jolimont Lecture Session.

The following transfers have taken place in the Maryborough District:—Operating Porter A. Eldridge, Avoca to Wyelangta; Operating Porter E. R. Paulig, Birregurra to Avoca; Operating Porter E. J. McDonnell, Moolort to Birregurra; Operating Porter L. H. McCabe, Wyelangta to Moolort; Yard Porter M. T. Wighton, Kyneton to Casterton; Mr. A. H. Potter, Clerk, Woodend to Windsor; Mr. C. E. Sunderland, Merbein to Woodend; Guard W. Hoskins, Lancelfield to Woodend; Mr. F. G. Wilson, Clerk, Northcote to Donald; Mr. A. H. Cochrane, Acting D.P. Clerk, Donald to Merbein; Vanman P. Killeen, Woomelang to Flinders Street; Vanman J. Phillips, Warracknabeal to Woomelang; Operating Porter W. P. Gwynn, Birchip to relieving staff, c/o D.S. Maryborough; Mr. H. R. McLeod, A.S.M., to R.S.M., c/o D.S. Bendigo; Mr. K. J. Henshilwood, Junior Clerk, Maryborough to Redcliffs; Mr. G. Skane, Acting Junior Clerk, Redcliffs to Maryborough; Porter D. R. Brent, Redcliffs to Birchip, as Operating Porter; Mr. F. Sheed, S.M., Nhill to St. Arnaud; Shunter A. A. Conroy, Ballarat to Castlemaine; Mr. J. A. Fox, Clerk, Hamilton to St. Arnaud; Mr. C. V. O'Connor, S.M., Dunolly to Cressy; Relieving Operating Porter O. Sowden, c/o D.S., Maryborough to Warragul.

We have heard with sincere regret, says the Dunolly Express, that Mr. C. V. O'Connor, Station-master at Dunolly for a number of years, has received notice of his transfer to Cressy. Mr. O'Connor has proved himself one of the very best departmental officers ever stationed in Dunolly, and has won the high regard, respect and confidence of all coming into close contact with him in his official capacity. He has been an active and exemplary citizen of Dunolly, taking the keenest and most helpful interest in local affairs, and, as a member of the Dunolly Progress Association, he has done excellent service for the locality, and will be greatly missed. Mr., Mrs. and the Misses O'Connor will all be greatly missed in social and religious work.

After having being travelling Stationmaster on the branch line from Birregurra to Forest for some years, Mr. John Hosking is retiring. Residents along the line took the opportunity of saying farewell to him. From Dean's Marsh and the intervening stations residents journeyed to Forrest, where, on the platform during the time the train was at the terminus, a farewell function took place. Representative speakers, in addressing a large gathering of residents, said that Mr. Hosking, by his unflinching courtesy and attention to the Departmental affairs of the residents, had earned their highest regard, and they all regretted that he was leaving. On behalf of the residents, Mr. Hosking was presented with a well-filled wallet of notes. Mr. Hosking, in replying, thanked the residents for their unexpected gift, which he said was all the more appreciated because of the fact that it was only in carrying out his work properly that he had earned their kindly thoughts.

Mr. W. Lancaster, Leading-hand Fitter, Colac, who recently retired from the railways, after having completed 46 years' service, was the recipient of a travelling rug and case of pipes from the loco. staff, at a gathering they held to bid him an adieu.

Various speeches were made, expressive of the high esteem in which Mr. Lancaster was held, special references being made to his long and honorable career in the service.

One of the oldest members of the staff at Spencer Street, Mr. M. P. Joyce, recently retired from the service, after having been at that station in a clerical capacity for upwards of 40 years.

At an informal gathering of the Inwards Parcels Office Staff on August 27th, a presentation of a handsome case of pipes was made to Mr. Joyce, the gift being handed over at the request of the staff, by Mr. F. H. Smith, the former officer in charge, who himself retired from the service early in the present year.

Briefly, Mr. Smith spoke of that high esteem in which Mr. Joyce was held, and his remarks were endorsed by Messrs. Pope and Cunningham.



Miss Ada Payne, for nearly six years on the staff of the Railways Institute as Clerk and Typiste, has resigned to be married.

Miss Payne's genial disposition and estimable qualities were such that they endeared her to the whole of the Institute Staff.

On the eve of her departure from amongst them, the staff met and presented her with several useful gifts, which were handed to her by the General Secretary, Mr. Galbraith, who, with others, had many nice things to say about the recipient, as well as to express their good wishes for her future welfare and happiness.

A pleasant function took place at the Jolimont Workshops during the lunch hour on September 3rd, when the staff assembled to say good-bye to their old friend, **Mr. W. H. Saunders**, Car Builder, who was retiring from the Railways after 36 years' service. L.H. Car Builder Mr. J. Scanlon, who presided, said he had known Mr. Saunders for a good many years, and had always found him to be a man.

Foreman Mr. Grant, on behalf of the subscribers, presented Mr. Saunders with a handsome cabinet gramophone suitably inscribed, and in doing so referred to the harmonious relations which had always existed between himself and his comrades at the Jolimont Workshops and elsewhere in the Victorian Railways. Others spoke of the recipient's many fine qualities, as a workman and comrade.

Under the able conductorship of Mr. Bob Bowden, the Jolimont Workshops Band rendered "For He's a Jolly Good Fellow," in which all those present heartily joined. The action of the band in so kindly assisting at the presentation was greatly appreciated by all.

A very pleasing incident was witnessed at the departure of the S.S. Katoomba for Western Australia recently.

As the vessel moved from the wharf, and the streamers linking the passengers to their friends on shore gradually severed, **Bandsman H. Trenberth**, of the Newport Workshops Band, who had been engaged in a band rehearsal at the Signal & Telegraph Workshops earlier in the day, and who was bidding farewell to his brother, beautifully rendered a cornet solo entitled "The End of a Perfect Day," and also "Auld Lang Syne."

This kindly and impromptu act was much appreciated by the many onlookers. Three ladies who were evidently much affected, personally thanked Mr. Trenberth, and said how much they appreciated his thoughtfulness.

Seymour District

THE Wangaratta and Albury Shows took place during the month, and although record crowds were in attendance, the rail passenger traffic showed a slight falling off, which is attributed to the increasing prosperity of the country, resulting in a large increase of motor car owners. The entries were a record in both instances, and the exhibits generally of a very high class.

During the past month the wool traffic from the border stations has been heavy.



At Rochester railway station recently, **Mr. Clive Robbins**, Lad Porter, was presented with a leather travelling bag, a rug, a shaving outfit, and an alarm clock, as a mark of the esteem in which he was held by Rochester traders, employees, carriers, and the railway staff.

Mr. Campbell, Relieving Stationmaster, made the presentation, and he was supported by Messrs. E. Mertens, D. E. Kennedy, F. Muller, B. Markey, Paul, Jackson and Grogan. Mr. Robbins returned thanks for the gifts, which he stated would always remind him of his two and a half years spent in Rochester.

A pleasant gathering of old friends and comrades was held in the Institute class room at Korumburra on August 22, to welcome their old comrade, **Ex-Driver Peter Todd**, of Port Albert, who retired from the service two years ago.

Mr. Harry Ashford, Driver, on behalf of the subscribers, presented Mr. Todd with a nicely framed certificate, also a neat shaving outfit, as a small token of their good-will.

Mr. Ashford spoke highly of the esteem in which Mr. Todd was held by his fellow comrades. He was supported by Messrs. Treloar, McCracken and Boarder, Drivers; and Messrs. Lehman and Byles, Firemen.

On the eve of his retirement from the service, **Mr. C. Gerber**, Blacksmith Striker, of Bendigo North Workshops, was the recipient of a gold watch and chain from his fellow workmates.

Mr. Gerber joined the service in 1901, at the Newport Workshops, and in 1913 transferred to Bendigo.

Mr. O'Neill, Workshops Manager, and Mr. E. Cobbin, Acting Foreman, and several other workmates spoke of the high esteem in which Mr. Gerber was held, and all wished that he would long be spared to spend the remaining years of his life in the golden sunshine of Bendigo.



Mr. W. Leslie, Sub Foreman Blacksmith at Newport Workshops, who recently retired, entered the Railway Department as a Blacksmith in 1909, and when the Bendigo Workshops were opened in September, 1917, he was transferred thither, and placed in control of the Blacksmiths' Shop. In the following year he was transferred back to Newport to replace Sub Foreman J. Hillman on his retirement.

During the last seven years he has acted as relief for the Foreman Blacksmith, Mr. Jaques, and proved himself to be a capable and conscientious officer.

Mr. Leslie was the recipient from the employees and staff of the Workshops of a gold watch (inscribed) and travelling case for himself, and a wristlet watch for Mrs. Leslie.

Oakleigh District Activities

PERHAPS the most important work in the Oakleigh District is the conversion of Glen Iris into a crossing place for trains. The track-work in connection with this is already completed, and the erection of a new brick signal box, and provision of subway with ramps are now in the final stages. The work at this station will be wholly completed in the near future, and customers who use the Darling line will be pleased with the better train service made possible by this vast improvement.

Good progress has been made with the erection of the new station at Rushall Crescent, between Clifton Hill and North Fitzroy. Work is now in progress on the subway and ramps, while the actual buildings are practically finished.

A new subway has been provided at Mont Albert, and is now available for use. At Ringwood, a new signal box has been erected, and is in use.

Another new station is gradually taking shape between Canterbury and Surrey Hills, and is now more than half completed; every effort is being made to have it ready for use at an early date.

At Caulfield, a new brick signal box is in course of erection, and when completed, will undoubtedly permit of improved working at this very important junction.

Mr. E. Sarkies, Manager of the Wodonga Railway Refreshment Rooms, is now displaying a number of samples of dried fruits, says the Wodonga "Sentinel." Mr. Sarkies has had previous experience in dealing with dried fruit, and the experience he has gained has helped him considerably in making such a fine display.

PLAY PAYS.

Health is Wealth.

BE ACTIVE.

GET THE HEALTH HABIT.

TED THYE'S ADVICE:

"Australia will not be a great country in the sense of physical and moral development until your boys, girls, business men and business girls, get the athletic habit."

This statement was made by Ted Thye, the Champion Wrestler, in the course of an address to Rotarians at Anzac House.

In addition to our evening classes in Boxing and Wrestling and Gymnastics, we are introducing our

BUSINESS MAN'S PHYSICAL — CULTURE COURSE —

specially adapted for Institute Members of any age engaged in sedentary occupations.

ONLY ONE HALF HOUR'S EXERCISE BEFORE DINNER.

Our Schedule is—

Tuesday and Thursday: 4.45 p.m. to 5.15 p.m. Two lessons per week, or 24 lessons per term of 12 weeks, only 15/-.

One lesson per week, or 12 lessons per term of 12 weeks, 10/-.

JOIN UP FOR YOUR HEALTH'S SAKE.

Victorian Railways Institute.

Billy Meeske - - - Instructor.



Veteran Foreman Retires

Mr. J. J. Jaques, Foreman Blacksmith at Newport, retired from the service on 10th ult. He entered the department on 21/7/1884, was appointed a Leading Hand in July, 1897, a Sub Foreman on 1/7/1910, and replaced the late Mr. G. Wood as Foreman Blacksmith on 9/6/1914.

Mr. Jaques proved himself to be a highly capable and conscientious officer, and whilst he was a strict disciplinarian, he gained the

respect and esteem of his staff.

Outside of his Departmental duties, Mr. Jaques found time to actively associate himself with matters appertaining to the welfare of employees. In 1888 he was elected to the Committee of the Victorian Railways Mutual Benefit Society, and is still connected with that body as a Trustee and a Vice-President. He was also selected as one of the Provisional Committee on the establishment of the Victorian Railways Institute, and was a member of the Council for several years.

Mr. Jaques is also well known in Friendly Society circles, having held the position of Secretary of the Newport Branch of the I.O.O.F. Society for 25 years.

On his retirement the staff and employees of the Workshops presented him with a gold watch and a pair of sleeve links for himself, and a wristlet watch for Mrs. Jaques.

Agricultural Prospects

It is only natural that in a district which is so essentially agricultural as the North-East, that at this period of the year speculation should be rife as to the harvest prospects. Up to the present the season has been everything that could be desired, but the critical time is now approaching. However, indications point to the harvest being a record one. The mild spring weather and warm rains have been responsible for abnormal growth of crops and pastures, and there has been a heavy increase in milk, cream and dairy produce traffic.

Work—and learn to wait.

When things go wrong usually it is because we have done wrong.

Drive yourself—or be driven.

The fellow who puts on "side" runs the risk of being bye and bye put aside.

J. H. C. Palmer, a Vancouver Island fur farmer, who recently spent twelve months in England making a study of the Chinchilla Rabbit and the utilisation of its fur, has returned to America with 24 animals, valued at 1000 dollars, which he has established for breeding purposes on his farm.

A 60,000 egg incubator plant is being established in Calgary, Canada. The idea is that the farmers send their eggs to this plant to be hatched and get back chicks. A few years ago Alberta was importing a large proportion of its eggs. To-day it is exporting hundreds of thousands of dozens. The poultry industry has grown tremendously in the last decade.



ANGUS



M.C.

BOOKS AND NEW BOOKS

Esperanto—Complete Grammar of a Useful Text Book.—By I. Kellerman, M.A.

"A Wanderer's Log"—By C. E. Bechhoffer. This is a fascinating book of travel and description, dealing with India, Russia and the Far-East.

"What Really Happened" is the title of a gripping story by Mrs. Belloc Lowndes. It contains a gripping story.

"The Desert Thoroughbred"—By Jackson Gregory—is a book that will repay a close reading.

"The Blue Window"—By Temple Bailey, is a realistic story, which ends very happily.

"The Black Hunter"—By James Oliver Curwood, is full of thrilling incidents, charmingly narrated.

GENERAL

ESPERANTO.—Those who might desire to acquire a knowledge of and practice in the use of "Esperanto"—now widely recognised as an international language, will find a useful text-book on the subject in that well-known work—compacted in one small volume, entitled "A Complete Grammar of Esperanto," by I. Kellerman, M.A., Ph.D., published by D. C. Heath & Co., London.

A general characteristic of obvious advantage in the book is that almost without exception new forms and constructions are illustrated by means of words or roots already familiar. Likewise, the new words or roots of each lesson recur at least once in the next lesson, and usually in some lesson thereafter as well. Each reading exercise gives not only a thorough application of the grammatical principles of the lesson, but a review of those in the preceding lesson, and no use is made of words or constructions not yet explained.

An element of the twofold need which this volume meets is the necessity for a presentation of Esperanto, not as a thing apart, but in that form which will make it most serviceable as an introduction to national tongues.

A WANDERER'S Log," by C. E. Bechhoffer (Mills & Boon) is a record of some memories of travel in India, the Far-East, Russia, the Mediterranean and elsewhere.

Got up in handy library edition size, and well illustrated, the work is a useful addition to that section of literature which is classified as "Travel and Description."

The author possesses the gift of lucidity in his narration of numerous aspects of the varying conditions prevailing among the peoples of the countries he visited. Especially interesting and informative are his observations upon his experiences in India and the Far-East. "A Wanderer's Log" will well repay a careful reading.

FICTION

MRS. Belloc Lowndes, in her latest book, entitled "What Really Happened," fully sustains her character as a pastmaster in the art of unfolding a dramatic series of events—of unsolving a tangled skein in which human motives and passions, and not incidents, are the main thread. She writes, in fact, from character to plot, and not, as is usually the case, from plot to character.

"What Really Happened" is probably the best story Mrs. Belloc Lowndes has written. Its theme is the simple psychological truth, too often ignored that a motive which will impel one individual to the most desperate actions would exert no influence whatever on another. With this as the background, she unfolds a terrifying narrative of love, hate, jealousy and greed.

IN "The Desert Thoroughbred," Jackson Gregory (who is one of those authors whom fiction readers follow with great avidity) maintains his good reputation as a storyteller. He cleverly pieces together a fascinating story of two lonely souls on their respective oases—widely separated by miles of burning sand—find one another after much adventure and tribulation.

Bereft of her sordid protectors, innocent Camilla Darrel is driven into Mexico, where she is befriended by soft-spoken "Papa-Pom." But this proves to be the fire from the frying-pan. In her hour of need, Lasalle—outcast from his fellowmen for a supposed murder—rescues her from the "Hell Triplets"—Morlin, Somavia, and the sinister lawyer, Snell, likewise his own enemies.

Camilla flees into the desert—a little lovely wandering moon, and, overtaking her, Lasalle mounts her before him upon his horse. Followed to his ranch by the "Hell Triplets," the tale becomes most enthralling.

THE Blue Window," by Temple Bailey (author of Peacock Feathers, etc. etc.) is an interesting story, equalling the best this author has yet done. The tale is woven around the life of a young woman named Hildegarte, who had been brought up in ignorance of the high social position of her father, from whom her mother is separated, spends her girlhood amid the hardships of a country farm. At her mother's death she goes to live with her tyrannical, selfish father, where she fights to retain her ideals.

Romance and tragedy both play their part in her life, but with uncommon skill the author brings her highly realistic story to a satisfactory conclusion.

JAMES Oliver Curwood, popular American author of numerous books, which portray ranch and outdoor life, with that skilful, deeply human touch, yet withal so interestingly spontaneous, ably sustains his wide popularity in his latest book, "The Black Hunter," recently published by Hodder & Stoughton.

It presents a tense drama, enacted in the days of the French and English struggle for Quebec, centring round the chieftain, Black Hunter, a mysterious character of sinister and almost supernatural repute.

His howl became the portent of death to all Indians, the sign of protection to all whites. Famous and notorious personalities cross his path: the treacherous intendant bigot, the Governor Vaudreuil, his tool, who doomed New France, and changed the history of the Western World. Inwoven in the plot is a tragic love story, which, in its features, completes a balanced ensemble to this fascinating book.

Victorian Railways Honor Roll

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

Name.	First Date.	Length of Service.
M. P. Moloney, Signaller, Melbourne Yard	1883	43 years
J. A. Walsh, Signaller, Melbourne Yard	1884	42 years
C. Spencer, Chief Clerk, Metropolitan Superintendent's Office	1884	42 years
E. Giroud, Goods Guard, Melbourne Yard	1886	40 years
J. Graham, Clerk, Melbourne Goods	1887	39 years
A. J. Stanley, Goods Guard, Bendigo	1887	39 years
R. Bowman, Ganger, Hamilton	1887	39 years
G. A. Tregear, Asst. Shed Foreman, North Melbourne .. .	1888	38 years
W. J. McCormack, Signal Adjuster, Geelong	1888	38 years
J. Grieve, Line Foreman, Spencer-street	1888	38 years
A. G. Tasker, Asst. Stationmaster, Frankston	1888	38 years
W. Wicking, Ganger, Colac	1888	38 years
J. P. Butler, Labourer, Bendigo	1888	38 years
J. Egan, Ganger, Amphitheatre	1888	38 years
F. J. Lea, Labourer, Spencer-street	1889	37 years
W. McCubbery, Signaller, Williamstown	1889	37 years
F. Durran, Goods Guard, Geelong	1889	37 years
J. H. West, Asst. Stationmaster, Glen Forbes	1889	37 years
J. Hosken, Stationmaster, Forrest Line	1889	37 years
H. Jolly, Block Recorder, Melbourne Yard	1889	37 years
W. E. Bailey, Senior Porter, Flinders-street	1890	36 years
S. C. Atherton, Repairer, Dunolly	1890	36 years
J. Moncrieff, Goods Checker, Melbourne Goods	1912	14 years
T. O'Keeffe, Labourer, Geelong	1912	14 years
J. K. Steel, Batterymen, Spencer-street	1912	14 years

BECAUSE of the brief notice given of the departure of Mr. F. Sly from Ouyen to Echuca, where he has been appointed Stationmaster, there was not time for a presentation to be made on behalf of the townspeople. Messrs. G. Rowe and J. Blackburn headed a movement to forward to Mr. Sly some token that would indicate the esteem in which he was held by the citizens and the manner in which the public responded showed the cordiality of their feelings. A set of stainless knives, spoons and forks in a handsome case was forwarded to Mr. Sly, together with the following letter:—

"The citizens of Ouyen wish to congratulate you on your promotion in the Railway Service, which, they very much regret, has involved your removal from the district.

"During the period that you have been Stationmaster here they have appreciated the courtesy and attention that you have always shown in your dealings with the public; the business section of the community in particular had special cause to feel grateful to you for the attention that you have given to their requirements, and for the information that you have always so willingly given to them.

"Your transfer was effected so quickly that it was not possible for citizens to show their appreciation and express their good wishes at the time. They, therefore, wish to assure you in this letter that they hold you in the highest esteem, and they ask you to accept the accompanying gift as a small reminder of your association with the district and of the goodwill of the citizens.

"Trusting that, with Mrs. Sly, you will be spared to enjoy a long life and much happiness.

"We are, on behalf of the Citizens,

"J. BLACKBURN.
"GEORGE ROWE."

The case bears the following inscription:—"Presented to Mr. and Mrs. Sly by the citizens of Ouyen as a token of esteem on their departure from Ouyen, July, 1926."

THE office of the Metropolitan Superintendent was uncomfortably crowded at 4.45 p.m. on Wednesday afternoon, September 8, when a presentation of a well-filled wallet of notes was made to Mr. C. Spencer, the popular chief clerk, who was retiring after 42 years' service.

Not only were representatives of the Flinders Street station staff and the whole of the Metropolitan and Train Running staffs present, but many of Mr. Spencer's friends came from Spencer Street and distant suburban stations to say good-bye.

Mr. T. W. J. Cox the Metropolitan Superintendent, made the presentation, and voiced the regret of the gathering at Mr. Spencer's departure. He had always been an efficient and capable officer, and they all knew they were losing an old friend. (Hear, hear.)

Mr. R. McClelland, Transportation Staff Officer, spoke on behalf of the Spencer Street staff, and the other speakers included Mr. T. Sullivan, Assistant to the Metropolitan Superintendent; Mr. E. Colson, block and signal inspector; Mr. Macdonald, Station Master at Flinders Street; Mr. Buckley, Traffic Inspector; Mr. George Bleazby, of the office staff; Mr. Coles, of the parcels office; and Mr. Kelly, of the Station Master's office, Spencer Street.

On the following Saturday night, September 11, a snake social was tendered Mr. Spencer at Clota's "Cafe Royal," Empire Arcade, and a further presentation of a framed group of the staff made to him. More than a hundred railwaymen attended the gathering, including two former Metropolitan Superintendents, under whom Mr. Spencer had previously worked—Mr. Hayes and Mr. J. Conlan (now Acting Assistant General Superintendent of Transportation).

"Time is money," said Uncle Eben, "but jes' de same, de man dat finds himself wif a lot o' time on his hands has made a poor investment."

A Visit to Australia's New Capital (Continued from Page 22)

Rental is subject to reappraisal after 20 years, and thereafter every 10 years. Lessees are required to commence the erection of a building within two years and to complete it within three years.

Strict regulations have been introduced, which govern not only the planning but the design of buildings.

The Commission is doing a fine work, special attention being given to the services essential to the conduct of a great city, such as power, electric light, water supply, sewerage, transportation and all necessities which contribute to the amenities of life.

After inspecting the capital and the work the Commission is doing, members of the English Speaking Union were convinced that life at the Federal Capital would not be as bad as it had been painted, and with its equable climate and facilities for healthy enjoyment, it would be a very desirable city in which to live.

Believing that Canberra will later become the Mecca for people from all over the Commonwealth, whether for business or pleasure, the Federal Capital Commission is providing up-to-date hotels to cater for them. The Hotel Canberra, a well-conducted and comfortable structure, is already in commission. The Hotel Ainslie, which is used largely by officials, has accommodation for 80. The Hotel Kurrajong will be used by Members of Parliament, while the Hotel Acton will soon be in commission for the general public. The tariff

varies at each of these hotels.

Judging by the work in progress, Canberra will earn a wide reputation as a garden city. The planting of trees and shrubs is a very important section of the development, and a large amount of afforestation work is being done on the outskirts of the city. Parks, reserves and trees for shelter have been planted. All the trees required for the extensive planting are raised in the nursery controlled by the Commission. Sixty thousand tulips were this month planted round the Hotel Canberra. This area will be a blaze of bloom next month.

An interesting feature of Canberra is the water supply arrangements. Water of the highest quality for domestic use is obtained from the Cotter River, a tributary of the Murrumbidgee. The catchment is an area of about 170 square miles on which there is no settlement, the country being steep and difficult of access. The average daily flow of the Cotter River is 70,000,000 gallons—sufficient to supply each of 700,000 persons with 100 gallons a day. A storage reservoir has been formed on the Cotter River near its junction with the Murrumbidgee.

These are but a few features of the Federal Capital. One can spend a week there visiting places of interest on every hand. The temporary Parliament House will claim the attention for a day if one wishes to see the Assembly Chambers, the kitchens, the library, and the other appurtenances for carrying on the legislative work of this country.

This Name— **BELL'S ASBESTOS**

And These Trade Marks . . .

Distinguish the Products of the Pioneers
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VICTOR



TRADE MARK



Draughts

Clubs First Birthday Success Gained.

THE annual meeting was held in the Club room on Thursday, 30th August.

Mr. Lambert was in the chair. The Secretary presented the balance sheet, which was adopted, showing the Club to be in a strong financial position.

A vote of thanks was passed to the retiring officers. It was with regret that the Secretary's resignation was received.

The following were elected for the ensuing twelve months:—President, Mr. Morcombe; Captain and Instructor, Mr. Boyles; Committee, Messrs. Barry, Campbell, Riordan, Ogilvie, Tydeman, Curtain; Hon. Secretary, W. G. Lambert.

The Club's progress was reviewed, and it augurs well for the future. After several depot contests were conducted it was decided to enter a team for the Victorian Championship. The teams entered are as follows:—Melbourne, Moonee Ponds, Hawthorn, Footscray, Brunswick, Coburg and Railways. The first round just concluded shows that the Club has fared very well in open company, by having won 2, drawn 2 and lost 1 match. It is all the more gratifying because of the fact that 80 per cent. of the players are competing for the first time in match play, and were pitted against players who have had long experience in contests.

The Club has been very fortunate in securing the services of Mr. J. Boyes (Champion of Victoria) as Instructor. He is probably one of the finest exponents of the game that Australia has seen. Therefore, we would urge that all those interested should attend at the Club rooms (Reference Library) every Thursday evening, so as to receive the benefit of his tuition.

It is intended to start a beginners class at an early date; therefore, it does not matter what class of player you may be, you are welcome to join. If you are already a member of the Institute, the fee is only 2/6 per annum.

We specially appeal to the young men of the railway service to interest themselves in this intellectual Art, which has the fine distinction of teaching you to pause and watch the pitfalls before you leap, and become a victim to the strategy of your opponent.

The Secretary would like to get into touch with at least one enthusiast in all grades and sections of the service, so that wherever men are grouped they may form a section, with a view to meeting in section, group, branch, department, and it could be said, State and Interstate competitions.

Quite a number of letters have been received from country depots, and the Secretary will be pleased to receive more.

He may then be able to arrange that intending players, who may be only a few miles distant from one another, could be brought together, and so form a group or section.

I should like to dispel from the minds of intending beginners the idea that there is something uncanny or weird about the art of draughts.

I would suggest that where there is a group of, say, five or six, or more, that you pay a visit in a body, and with the assistance of the Secretary, regular or daily play may be arranged for you; thus, in a short time, you may become a competent player.

The Secretary's departmental address is c/o. Workshops Manager, Jolimont. Private—103 Westgarth Street, South Northcote.

W. G. LAMBERT, Hon. Secretary.



H. T. Worthington, Car Builder's Assistant at Jolimont, and a member of the Malvern Cycling Club, won the recent Barnet Glass road race from Balarat to Melbourne. He completed the 96 miles in four hours, three minutes, one second. Nineteen years of age and six feet tall, he was formerly a member of the Prahran and South Yarra Amateur Cycling Club, and, before joining up with Malvern, won the Longwarry Wheel Race at Easter, and secured two firsts and a second at the Bendigo Easter Fair. As keen a railwayman as he is a cyclist, he has hopes of being appointed train examiner in the near future.

V.R.I. Rifle Club Notes

A REMARKABLE feature is the consistently good form displayed by the veteran, Jack Sarsfield, who some years ago was one of the Club's best marksmen.

The Club championship, which is decided on the year's shooting, is now more open than it has been for many years. Several are in the running, with only a few points between them.

In the test held recently in connection with the selection of the team to represent this State in the Commonwealth match, the Institute Club was well represented, and in a big field, with many high scores, were successful in gaining only one place, which was won by Spencer Ellis (Bendigo).

M. Lenthal commenced with 49 and 48 out of a possible 50 points at 300 and 600 yards, but did not maintain his form at 700 and 900 yards. W. Hilton was highest scorer for the Club with 183 points.

Captain George Waugh has been indisposed for some weeks owing to an injury to his leg. While still taking a live interest in Club doings, he has not been able to take an active part in the proceedings. It is probable that his injury may necessitate his retirement from further Departmental service, but he is expected to continue at his post as Captain of the V.R.I. Rifle Club.

Broadcasting for October

Institute Items now appear Regularly on 3LO Programmes:—

Newport Workshops Brass Band	Tuesday, October 5th
Newport Workshops Brass Band	Monday, October 25th
V.R.I. Military Band	Monday, October 11th
Orchestral Society's Concert	Saturday, October 30th
Musical Society's Concert	Saturday, October 9th
Prizewinners (M. and E. Competitions)	Saturday, November 6th



The many friends of Mr. W. Robert, who is well known throughout the service both as a transportation officer and as a member of the Betterment Board, will be pleased to hear of his appointment as Superintendent of Road Motor Services for the Department. Mr. Robert has now been engaged on his new duties for several months, and controls the Departmental 'buses on the Geelong-Melbourne route, and also the services from Fern Tree Gully to Belgrave. Other 'buses are to be placed in running on roads where the patronage offering is sufficient to justify the Railways Department entering the field.

Turpentine mixed with stove polish prevents rust and gives a brighter gloss than the use of water. Tough meat will be made tender if placed in vinegar water for a few moments.

Painting the lower cellar steps white will facilitate your descent without accelerating it.

Rusty flat irons should be rubbed over with beeswax and lard, or beeswax and salt.

Milk will keep sweet longer in a shallow pan than in a pitcher.

Soap should never be rubbed directly on woollen articles. Make a soapsud solution, allow it to become lukewarm then wash the woollens in it. Rinse in lukewarm water.

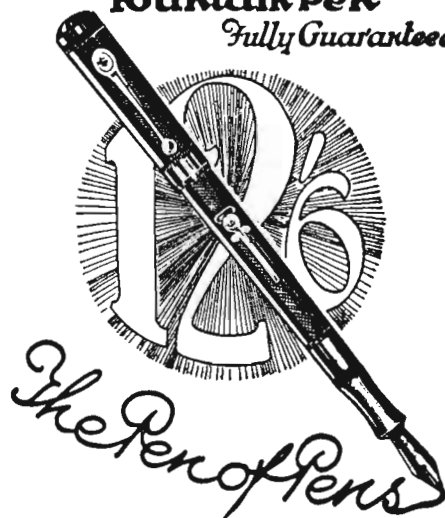
Tomatoes placed on the prongs of a fork and held above the gas burner for a few seconds in order to sear the skin may be peeled in less time than it usually takes.

MARYBOROUGH KNITTING MILLS

OWING to the steady business progress of these mills, the directors found that, in order to cope with the increasing orders being received, an extension was essential. The work was put in hand early in the year, and on the completion of the extension, additional machinery was installed. A new boiler and engine, which were manufactured at Thompson's foundry at Castlemaine, have been installed, with the result that the output has been increased to 600 dozen per day. The following comparative figures are interesting:—

	Prior to Extension.	At Present.
Value of plant and buildings	£45,500	£67,577
Employees	253	377
Weekly wages	£619	£954

The New Model - 206
Conway Stewart
LEVER FILLER
Fountain Pen
Fully Guaranteed



Payment of Claims Is a Drain on Our Revenue (Continued from Page 25)

give the railwayman every help. We want them, for instance, not to hand us a parcel containing glass or anything fragile without very plainly so marking it. When you are moving furniture, wrap it carefully in several thicknesses of paper and remove the castors. If it is costly furniture, bale it in straw and hessian or crate it so that, although we have to load it with merchandise of all shapes and sizes, we will have a reasonable chance of giving it to you at the other end of the journey, in good order and condition.

When you buy a new stove, which you will remember is mostly composed of cast iron, tell the maker to put it in a fairly strong crate before he hands it over to us. We will do our part and pack it round with bags of straw when it is placed in the truck, and there won't be any breakage.

Protect Your Own Goods

Before you send your sewing machine, think what a top-heavy article it is and how easy it is to break the underframe, which is only a casting, and remember that the expenditure of a few shillings will crate it in such a way that it cannot very well help arriving at your new address safely.

You would not care to see your piano scratched, let alone any part of it broken. You can avoid that by putting it in a case. If you have not got one, you can hire one for a few shillings. It is good insurance.

I do not say we cannot carry these things without packing. We can and do. I see it myself, every day of the week, valuable suites of furniture, which cost £50 to £100 and more, handed to us for despatch without any packing. I know that most of them arrive at their destinations safely, because we rarely hear from the owners that they want compensation for damage. But these owners do not consider that it costs us a lot more for labour in stowing and for packing to put round their goods in the trucks before we let them go forward, and that to hand us goods unprotected like that is not in keeping with the Commissioners' slogan, "Help us to help you."

We Want Your Co-operation

What we would like is, that when manufacturers make a new type of machine which is likely to be despatched in any number, they should ask us to send along one of our experts to inspect it so that we can arrange to carry it without damage.

Some of our customers used to lose bottles of wine, brandy or whisky from their cases. Sometimes it was lost before we got the cases, sometimes whilst we had them, and sometimes after we handed the cases to carters. We do not have that trouble now, because we induced most of the firms to put two round wire ties around their cases. We recently induced the brewery companies to do the same thing with their crates of beer.

Before that the loss of bottles of beer was a nightmare. Two metal wires, costing about 2d., settled that. In addition, wire tying considerably adds to the strength of a package, thus guarding against damage during hand-

ling and resulting in a saving in the thickness of timber necessary to place in the crate or cases.

Complaints of broken roofing tiles were once frequent. We studied their transit and found the danger was not so much due to bad handling as to bad stowing. The tile loaders would start loading from each end of the truck and load their tiles lengthways in the truck, but when they got to the doors, they would load them across the truck, starting at the further door and completing the rows of tiles across to the nearer door.

The result was that the longitudinal motion of the truck and contents, when the engine was taking up or letting out the slack of the train couplings en route, caused the tiles which were loaded lengthways in the ends of the trucks to jamb those loaded crosswise in the centre. Naturally a good many of those in the centre were damaged. We now avoid that damage by having all the tiles loaded lengthways.

In the soft fruits and grape season, of late years, there has been a fair amount of waste during handling. A few years ago there was very little. We have investigated with a view to finding the cause, and we think we have found it. A few years ago you could buy strong cases for 9d., but now you have to pay 1/3 to 1/4 for an inferior case; the stronger case we used to get now costs 1/8.

Now, it is a fair thing for the senders of fruit who use cases made of thin timber to wire them, so as to give us a chance to handle them quickly and safely.

Damage to Wireless Sets

Some time ago complaints were being regularly received that panels of four, five and six-valve wireless sets were received broken, although sets were well packed and valves received undamaged. A member of the staff was detailed to enquire into the trouble, and found that it was caused by internal stresses in low-grades of ebonite and similar materials.

Tensile tests made by our engineers on a few samples of these products showed that ebonite took 1.81 tons per sq. inch to break, trolite took 1.67 tons per sq. inch to break, bakelite took 2.37 tons per sq. inch to break. The various radio firms were advised regarding these results, and are now using better class material for these panels, with entirely satisfactory results.

Weakness in cabinet construction was also found, and is now being remedied by the makers.

In conclusion, let me remind our customers that we have some 800 railway stations in Victoria, and that it is a difficult matter to train all the men employed. At each one of these stations our men are sure, at some time or other, to handle the particular commodity you manufacture. You, no doubt, have been handling it in your factory or warehouse for years and know exactly how it should be handled. You can help your own business by giving us the benefit of your experience, by letter or personal call, for circulation to all our employees.

*Why Plant
Executives
should interest
themselves in
Lubrication*



Net Operating Profits

PROFITS are directly affected by the lubricating methods adopted in your plant.

Correct Lubrication which means the use of high-grade oils scientifically selected for use in your particular machinery ensures———

*Write to our nearest
branch office for copy
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Production Costs"*

Smoother running	—	Less wear
Continuous operation	—	Fewer repairs
Lower lubricating costs	—	Greater production

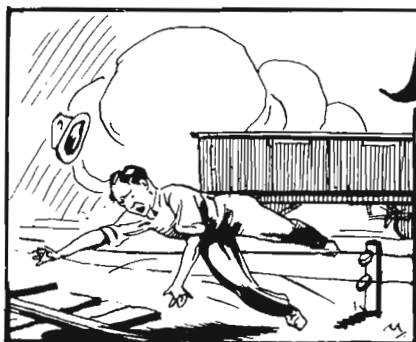
GARGOYLE

Lubricating Oils
A grade for each type of service

It's sound business economy to consult a Vacuum Oil Company representative who will assist you to put your lubrication methods on a scientific and economical basis.

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VACUUM OIL COMPANY, PTY LTD



SAFETY FIRST

NOTES FOR OCTOBER

MIND THOSE SIGNAL WIRES!

Tripping over objects is a frequent cause of accident.

September was "No Accident" Month at Newport Workshops

REMARKABLE results have been achieved in other countries by the policy of conducting "No Accident" months in various industries.

Realising that what can be done in other lands can be accomplished here, the Safety Council decided at its last meeting that a "No Accident" month should be conducted during September at the Newport Workshops.

To show the progress each day of the campaign month, a large clock was erected in a conspicuous position outside the Workshops. Inside each shop was displayed a poster with a chart, on which was recorded each day free from accident and each day on which mishaps occurred.

Everyone at the Shops, from the Manager downward, took a keen interest in the campaign.

It is the intention of the Safety Council to later conduct similar campaigns at other workshops and depots.

Faulty Methods are Always Dangerous

FAULTY method is often the cause of accident. This certainly contributed to a serious mishap which befell one of our skilled labourers while engaged unloading heavy timber from a trolley.

In this case, the piece of timber marked "B" in the first sketch was moved before the piece marked "A." The result, shown in the second picture, was that the former, when being unloaded, dragged "A" off the edge of the trolley, causing it to fall and break one of the workman's legs.

Had the piece marked "A" been first removed, this accident would not have happened.

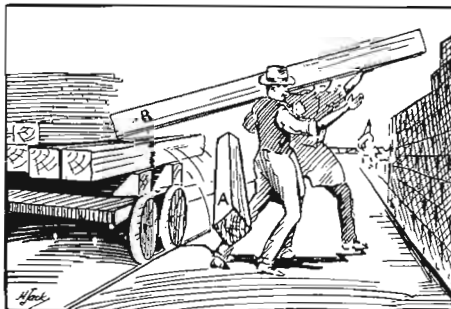
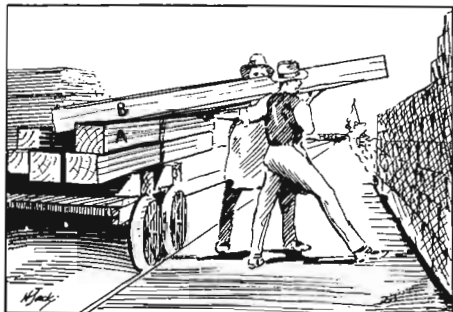
As a result of the incident, instructions

have been issued that in future, when unloading timber, employees are to remove the top timbers on the outside first and work inwards.

If these instructions are observed, this accident cannot recur.

Load Tools Properly

A REPAIRER, employed in a country district, failed to observe the above safety rule. A spanner, which he was carrying on a tricycle, slipped off and fouled the back wheel of the machine, causing a derailment, with the result that he was injured.



THE "RAILWAY" LEVER



A necessity for Railmen—Correct Time and the "RAILWAY LEVER" will supply it—always. Fitted with a high grade 15-Jewelled lever movement, strong screw-back and front-nickelled case with a heavy crystal glass. Three years written guarantee. Our price 30/-. Post free

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WE import direct in large quantities and only goods of the highest standard of quality find a place in our carefully selected stocks.

In addition, we conduct business from 2nd floor showrooms, thus heavy shop rents, display costs and middlemen's profits are eliminated.

These savings combined enable us to sell at least 20% below any prices quoted elsewhere for the same article.

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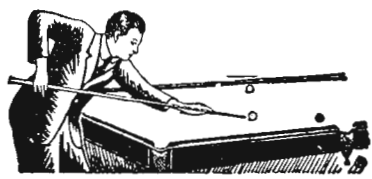
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Over the "Blue Bird" Cafe

It's only Fair that the Readers of this Magazine should, when their needs lie in the direction indicated, deal with the Advertisers mentioned herein . . The high quality of this Publication is achieved by the support of the Advertiser. He asks, not unreasonably, for a fair measure of the Reader's support.



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IDEAL FOR HOME BILLIARDS

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Bijou Billiard Tables—Cash Price from £31, or easy terms from £3 deposit. Balance 3/6 weekly. Sizes to suit all rooms.

Bijou Junior—A portable table to go on ordinary Dining Table. Adjustable toes for levelling £20 cash or Easy terms 17/6 deposit, 3/- weekly.

Tables, complete with all accessories, delivered FREE within a radius of 5 miles of Melbourne.

ALCOCK & CO., Pty. Ltd., 338-340 Flinders Lane, Melbourne.

How Economies Have Been Effected

(Continued from page 12)

from another aspect. A train-mile as a unit for comparative purposes is not fully satisfactory because it is subject to many variations. Taking one year with another, however, these variations tend to arrange themselves, and the train-mile is therefore very frequently used when a unit basis of comparison is required.

In 1921-22 the goods train mileage (including the proportion of the mixed mileage ascribable to the goods), was 5,395,000 miles. In 1924-25 it was 5,875,000 miles, an increase in the latter year of 480,000 miles. But, if the mileage had increased in the same ratio as the tonnage the increase would have been 1,295,000 miles, and there was a saving in mileage, due to better and more efficient methods, of more than 800,000 train miles.

Conservatively estimated at 5/3 a train-mile, there was thus in the latter year a cash saving which exceeded £200,000.

Co-operation With Our Customers

The satisfactory result which was produced by the saving in mileage is directly associated with the better use made of the trucks. By co-operation with the customers of the Department, and by attention to loading and despatch on the part of the staff, the loaded tonnage and the average mileage obtained from each vehicle were each substantially increased.

The percentage of loaded to the total truck mileage increased by 1.42 per cent., which represents a saving in the 1924-25 mileage of 2,221,000 truck miles.

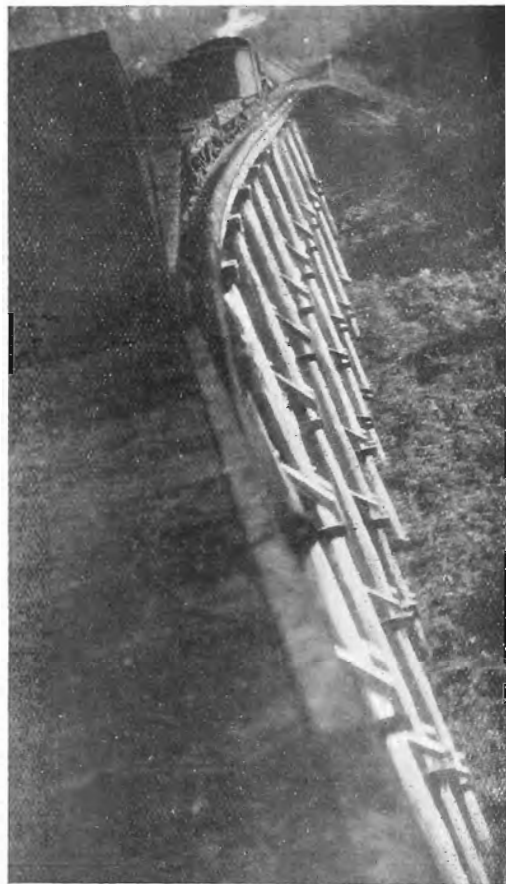
In 1921-22 the total carrying capacity of trucks in service was 254,035 tons, and in 1924-25 262,952 tons. This represents an increase of 3.5 per cent. It has been shown that the increase in 1924-25 of the goods business of the Department was 24 per cent. If, therefore, there had been no improvement in handling and loading it would have been necessary to increase the truck stock by 54,600 tons or 4016 trucks, which at present day prices would cost approximately £400 each to construct. The effect on the finances has been that a capital expenditure of about £1,600,000 has been saved, which would represent a saving in interest charges of not less than £80,000 per annum.

Better Time Keeping

There has practically been no increase in the country passenger traffic, but improvements have been effected in the scheduling and timekeeping of country trains. The cost of the improvements is included in the figures previously quoted.

The suburban passenger traffic shows an increase of more than 24 million passengers carried, but the development of the electric service has enabled this large increase to be catered for and an improved and more frequent service provided without an appreciable increase in the cost of working.

We have now reached the point where the cost of providing the service is increasing so



A unique photograph of one of the highest trestle bridges on the Noojee line. The photograph was taken by Mr. R. J. Comer, porter, at Noojee.

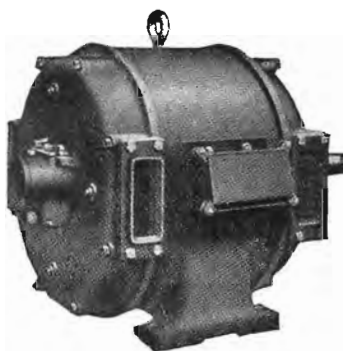
rapidly that economical and efficient working cannot keep pace with it, and an increase in the charges to be made for the service has recently been sanctioned by the Government. Higher wages in this or any country can only be paid from the production of the country, and higher wages demand increased production. That is an axiom which is recognised and admitted by all thinking men.

Transportation is a factor—and an important one—in production. We are all vitally interested in increasing the production of the country, and therefore every individual engaged in this great transportation industry owes it to himself, and to those who are dependent on him, to give of his best to make it even more successful in the future than it has been in the past.

Wholehearted co-operation with every other member of the staff and with one and all of the Department's customers should, therefore, be the watchword of every railwayman.

HIGH TORQUE
HIGH EFFICIENCYSQUIRREL CAGE
INDUCTION MOTORS

Summary of the Distinctive Features of Type C.K.B. High Torque, High Efficiency Squirrel Cage Induction Motors :



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THE CHILDRENS PAGE

WHO WILL SEND IN THE LARGER NUMBER OF WORDS?

DEAR Nephews and Nieces,—Uncle Ben extends to each one of you his best wishes; he desires to say that the pleasure of receiving your letters each succeeding month is one that he would not willingly give up.

Niece Mirie Russell, of Ballarat, sends in a rather clever suggestion for a competition, which we will adopt this month. Mirie recommends that Nephews and Nieces be asked to try how many words from memory they can write down and send in, beginning with the letter "C." Here is a good chance to show the number of words you know. It doesn't matter whether the word bears a capital "C" or a single "c," it will be counted. The largest number of words sent in by any one Nephew or Niece, of course, will win. Every one should try.

Uncle Ben is pleased with the essays sent him on the subject—"My Favourite Book." They are all good, but he has decided that the following essay by Nephew Frank Godfrey is just a little better than the others:—

"MY FAVOURITE BOOK."

I do not read many books, but the one I like best is Frank Bullen's book—"The Cruise of the Cachalot." The reason why is because he describes many adventures in the catching of whales in their haunts in the ice regions. It is adventurous, too, when a man is dragged by a whale for a long distance.

FRANK GODFREY, Main Street, Lilydale.

Mirie Russell, Ballarat East: Many thanks for your useful suggestion. You will read on this page that Uncle Ben has adopted it. Try how many you can do, won't you?

I trust you may pass your examination, and that you will experience a happy evening at the concert. Your essay is very good. Am sure you will yet do much better. I like your letters. Please don't forget me.

Marjory Chalmers, Violet Town: Sorry you were sick, Marjory, but am now pleased to learn that you are well again. The pup must be mischievous, like all of its kind, but no doubt you were sorry for the chickens? I hope you may have no difficulty in passing your examination: it is a good thing to be confident—as you seem to be. Your drawing is neat and accurate, and you show good promise in your style of treatment of the essay you sent in. Try how many words you can write down from memory!

Frank Godfrey, Main Street, Lilydale: I am pleased to learn that four brothers of yours are employed

in the Railways, and that you yourself, when older, intend to enter the service, as you say the trains and railwork generally is very interesting. You will see what has been done with your essay. Your drawing is very good, but keep on practising.

Fred Godfrey, Main Street, Lilydale: It is quite interesting to hear from you news all about your brothers, who are getting along so well in the railway service. I trust you, too, Fred, may be enabled to realise your wishes when you are ready to go to work. Your essay pleases me, and your drawing and coloring of the bracket semaphore signals and lights is neat and well done. It is smart of you, Fred. Always try to do your best.

Thelma Gardner, Kilmany: Am pleased, Thelma, to again hear from you, and to learn you liked the little pictures.

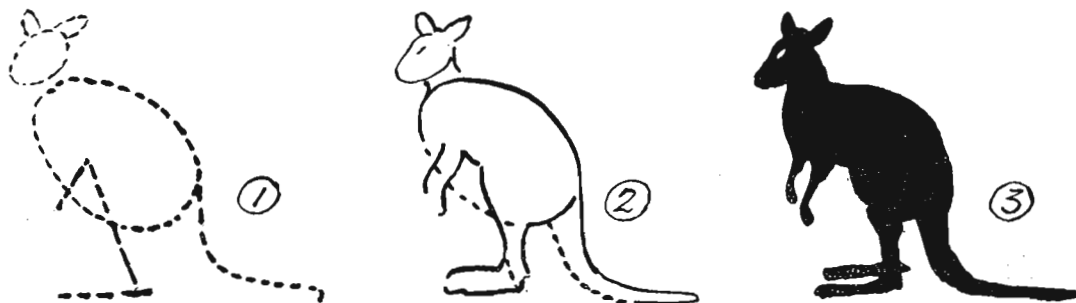
Thank you for your good wishes about my mail-bag. Your remarks about the authors of the books you have read indicate that you are cultivating a good taste in reading. I, too, like the books you mention. Yes, it was a pity about the cricket team losing as they did.

Thelma Stevens, Baddinginnie: Glad to hear from you again, Thelma, and that you are now settled in a good district which I hope you will all like. Little Malcolm must be good company for you; it would be nice to see that little calf. Am pleased to learn that yourself and sister enjoy the spring weather as you walk together to school.

Your remarks about Snow White and Rose Red complete a nicely thought-out little essay, Thelma. At your age (8 years), it is very good.



Miss Chenoweth, young daughter of Mr. G. H. Chenoweth, Repairer, No. 1 Gang, Llanelly, is a great enthusiast in feeding the fowls.



To draw these, follow instructions given in previous issues.

The Best Investment—Your Home

How often do we hear elderly couples bemoaning the fact that, although they have paid so many hundreds of pounds in rent, yet they do not own a foot of the land or a brick of the home they live in?

IT behoves every young man on the eve of settling down to discard the idea of renting, and to make immediate arrangements for the purchase or building of his home.

Ownership of the home gives a person a stake in his country, and helps to make him a better and more useful citizen.

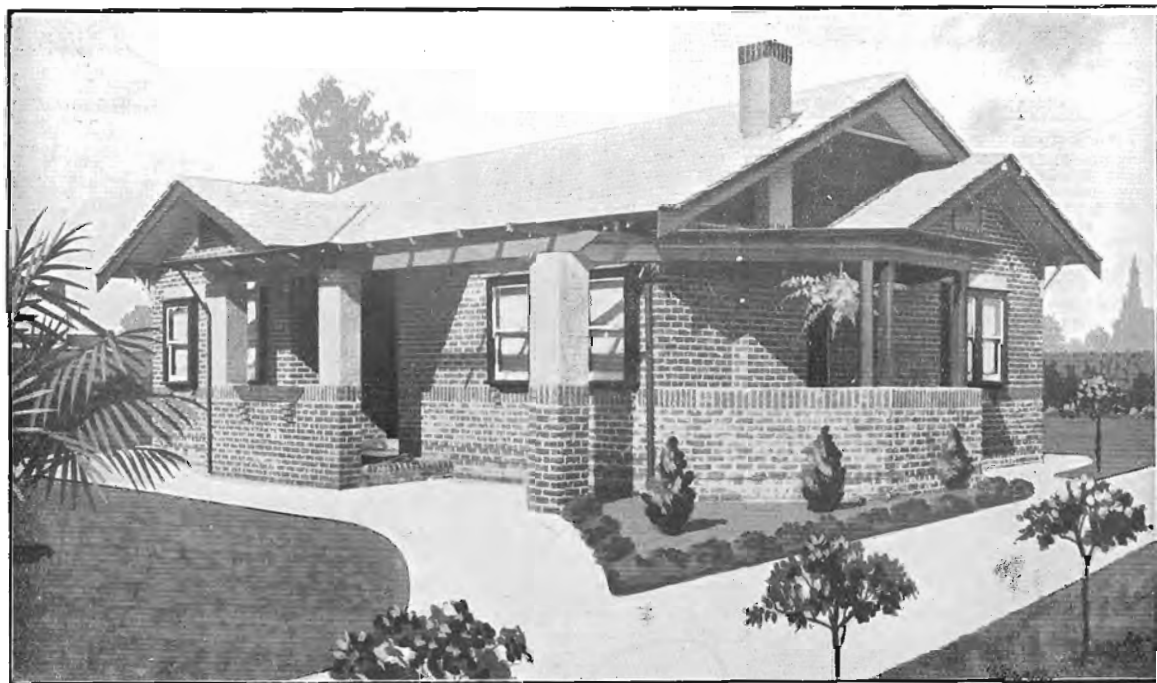
There is nothing like the feeling of entering the gates of one's own home, and surveying with pride all the little improvements being made in the shape of blossoming garden, the trim paths and the trellis at the sides.

This feeling of proprietorship develops as time goes on, and when the purchase is completed there is the satisfaction of absolute

for his third and permanent home. All this may be accomplished within the space of between three and five years by careful selection, purchase and re-sales.

The effort required in the initial stages is not a very great one, and by a little self-sacrifice the necessary deposit to buy or partly buy the land, and build or buy the home already built, is soon realised. After that it is, of course, essential to make the regular payments of principal and interest required, and these payments in most cases do not exceed, and are sometimes less, than the rental value.

The present Commonwealth Government is so impressed with the value of the idea of



ownership, and certainty of tenure.

The investment of buying your home often leads to a profitable sale of the property, with the result that the lucky owner has in hand possibly sufficient capital to pay half the cost of a new home. Probably upon effecting the sale of his second home, he is able, by perhaps saving a little in the meantime, to pay cash

home-ownership that it has allotted the sum of £20,000,000 for a scheme of lending the money for the people to acquire their own homes.

The opportunities to acquire a home are many and varied, and there is no time like the present to settle this question, having once decided on the necessity of home-ownership.

NEW HOMES FOR SALE

National Built and Sound Architecture

Deposits £25, £50, £75 and £100

Balance Payable on very Easy Rent Terms

These homes are built of the best possible material,
some are completed, others are in course of erection
YOU ARE CORDIALLY INVITED TO INSPECT



Situated in the Suburbs
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Don't Take Needless Risks

IN submitting a suggestion recently, a suggestor mentioned that he was obliged to carry water under two trains in a busy railway yard.

The Commissioners do not expect any member of the staff to take such risks.

What he should do is either to go through the trains or walk around the ends of them.

Passing under trains is always fraught with danger, which should be avoided whenever practicable.

Springvale

Winton North,
Victoria

Offers Refined Accommodation throughout year.

Farm

Close to Mokoan Ranges, 2000 ft. above the sea, and facing the Winton Lake, a sheet of water 7 miles by 3 miles.

First Class Meals, Poultry, Spring Water
Own Dairy Herd, Piano, Tennis Court
Hacks, Excellent Shooting, Drives

IDEAL WINTER CLIMATE

Beautiful Wildflowers are now in great abundance.

Sydney Exp. & Mt. Buffalo Trains stop at Winton, Yic.

A Hearty Welcome awaits you at this

— HOME AWAY FROM HOME —

Tariff: 40/- to 45/- Weekly; 8 - to 9/- Daily

Write for full particulars to the Proprietor

GET AWAY

From the worry and
bustle of everyday life

The chance to spend
the Best Holiday you
ever had awaits you at

WYCH CROSS

MARYSVILLE

The best equipped house
of the finest Mountain
Resort in Victoria

Phone Marysville 4
or write to

FELIX St. H. JELICOE



Railwaymen!

Spend your next ...

HOLIDAY

at ...

Marlo Hotel—

MARLO

Beautiful Snowy and Brodribb Rivers, Ocean Beach, Lakes Coringle and Curlip.

SPLENDID FISHING - SHOOTING - SURFING

TENNIS - MOTOR LAUNCH TRIPS.

Special Concessions to Railwaymen on leave (Christmas and Easter Holiday periods excepted). Full particulars on application.

A. A. BURROW, } Proprietors.
A. E. SOUTHAM, }

Where to Spend a Holiday

Marlo For Delightful Holidays

Marlo is fast coming into its own as a tourist and sportsman's resort. It is beautifully situated on a cliff overlooking the Snowy River, Southern Ocean and Lake Coringle, and about half a mile from where the Snowy River has broken through the low sand hummocks and enters the sea.

THE motor run of ten miles from the Orbost railway station is particularly charming, the road skirting the famous Snowy River the whole of the distance.

Marlo enjoys a perfect climate, is warm and genial without being uncomfortably hot, bracing without being cold, and, unlike most seaside resorts, the reverse of enervating in the summer.

The Brodribb River junctions with the Snowy about one and a half miles from Marlo, and enjoyable motor launch trips are made up this river to Lake Curlip, passing the Cabbage Tree Creek, a favourite spot for perch and bream. Cape Conran, ten miles distant along the coast, a bold rocky headland, is reached by a good road along the cliff, and among many other interesting trips is one to the cabbage tree palms eight miles away on Cabbage Tree Creek.

Being a considerable distance from the metropolis, there is a sense of peacefulness and rest about this resort not to be obtained at the watering places nearer to Melbourne.

Marlo has sprung into prominence chiefly as a fishing and shooting resort. The waters of the rivers and lakes being closed to netting, make it a veritable angler's paradise. Bream fishing is a great attraction, and there are also perch, ludrick, salmon, silvers, skipjack and flathead to be caught.

For the gun the islands in the lakes and lagoons abound with wildfowl, and quail, snipe, and rabbits are very plentiful.

The fishing, like that in any other river, is subject to unaccountable variations; but owing to the wide areas covered by its rivers, lakes and backwaters, Marlo offers opportunities for sport rarely equalled, and certainly not excelled, by other fishing resorts in Victoria.

Marlo Hotel is built on a high cliff, and a beautiful panoramic view of rivers, lakes and ocean is obtainable from the verandahs. The accommodation at the hotel is first class, and the proprietors offer special concessions to railwaymen and their families whilst on leave. Attention is directed to the advertisement appearing in this issue of the "Magazine."

MR. George Tyler, late Supervisor of Narrow Gauge Lines, passed away on July 31, and the news of his sudden death was received with widespread regret by his former colleagues.

Mr. Tyler joined the Department in a clerical capacity in March, 1883. He served for some years as Stationmaster, and in 1908 was appointed a Special Officer on the staff of the General Passenger and Freight Agent. The varied nature of this work took him far afield, and gave him the experience which fitted him for the duties of Supervisor of Narrow Gauge Lines, which he took over in September, 1920.

By his pleasing personality, unfailing sense of humour, and intimate knowledge of the operating conditions of

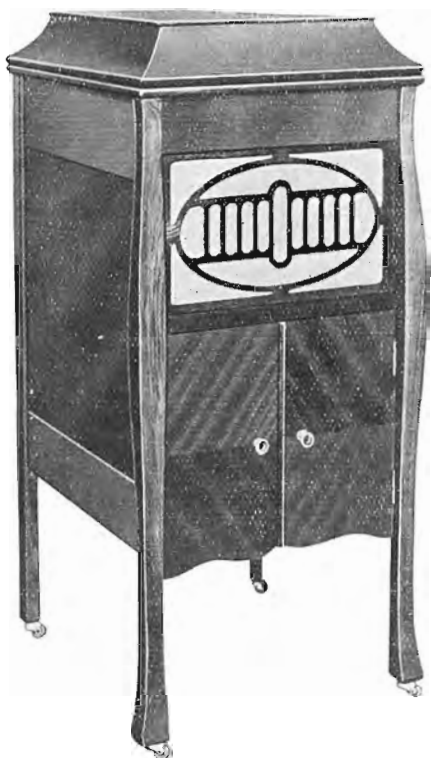
the lines under his supervision, he was well known to the whole of the staff in the Beech Forest, Walhalla, Gembrook and Whitfield territory, and his indefatigable endeavours to give good service, coupled with his sympathetic and tactful co-operation with local residents, made him a very popular figure with our customers on those lines.

Unfortunately, ill-health forced him to seek retirement in October last, but recently he seemed to be regaining all his former vigour and cheerfulness, and this found his numerous friends quite unprepared for the tragically sudden blow which robbed them of so staunch a comrade.



Misses Florrie and Nellie Burge, daughters of Mr. A. A. Burge, Redbank, president of the Kara Kara Shire. Their thoughtful and kindly action of making and presenting each member of the 12th "Reso" party, when at St. Arnaud, with a button hole resulted in a motion of appreciation being carried at the social function held the same evening in connection with the visit of the "Reso" train.

“SAFETY FIRST!”



Is the Railwayman's
Slogan, & it is ours too

OWING to the phenomenal demand for our
CABINETS from this Advertisement, we feel
it would be meeting the wishes of the Patrons
of this Magazine to extend our offer of this
CABINET as a Special Line for the MONTH
OF OCTOBER.

It is in Blackwood, in Natural Colour
and Rosewood Finish. Has beautiful
quartered Fiddle Back Panels. It has
a genuine Swiss Motor of approved
design, 12-inch Plush Covered Turn-
table, and plays all Records. Has latest
Tone Arm and Speaker and Speed
Controller.

COMPLETE WITH 6 DOUBLE-SIDED
RECORDS AND NEEDLES

Cash £11 10s., or on terms at
£1-17-6 deposit and the extremely
low repayment of 3s. 6d. weekly.

FOR THIS MONTH ONLY

YOU CAN HAVE MUSIC WHEREVER
YOU GO WITH

THE FAMOUS PICNIC PORTABLE

It is a machine with wonderful Tone Power,
simple and compact in design, and easy to
manipulate. Constructed in Solid Oak,
with Silent Motor and Nickel-plated Tone
Arm Fittings. Six double-sided records
can be carried in the Special Record
Compartment.

Cash £4-10-0 or on terms at
10s. deposit and 2s. 6d. weekly.

Just send us a card and we will gladly give you any
information you desire, and will send our Catalogue
of our stock of "His Master's Voice," "Columbia,"
and numerous other machines.



The "Victoria" Furnishing Co. Pty. Ltd.
121 Victoria Street, Footscray, Melbourne



(By Penelope)

Does Presentday Freedom Develop Character

WHAT a vast contrast there is between the lives led by our girls of to-day compared with those of our grandmothers. One cannot help asking whether the girls of to-day have too much liberty. They earn their own money and spend it as they wish, plenty of good clothing, no restriction on the number of dances, theatres and other pleasures they may attend, expensive holidays, and now trips abroad are quite the order of the day.

We wonder if this freedom to come and go, to earn and to spend lavishly improves the character of the modern girl. Sometimes I am inclined to think she is more thoughtless and more selfish than the girl of a century ago.

She has so much, her parents make so many sacrifices in order that she may have as much as other girls, that there is a tendency for her to become more and more selfish and less inclined to make any sacrifice for others. She

becomes too apt to forget the period of sacrifice through which her parents have passed and that some consideration and indulgence is now due to them.

On the other hand, what an opportunity the modern girl has to develop her personality and become self-reliant. When we hear of how the girls of several centuries ago remained carefully sheltered in the home and were never allowed to go even into the street to shop, much less to sit in a room in the presence of a young man, without a chaperone, we wonder whether they had any initiative, any resourcefulness or any self-reliance at all.

With a right upbringing and good training, the advantages which the present-day girl enjoys should help to develop a character and a personality, and give her every opportunity of being a powerful influence for good in our community.

Read Here How to Rejuvenate Your Felt Hat

THIS month I would like to help you to renovate your old felt hat. At the beginning of the winter you were quite smart in your turned-up felt hat, but now you are beginning to feel a little dowdy about the head, the reason being that fashion, in the usual variable manner, has proclaimed the turned-down hat to be the mode of the moment.

The best way to set about this is to first take the ribbon off the old hat. Thoroughly brush and steam the felt. Then, if the brim and crown are all in one piece, cut the brim off where the ribbon was originally around the crown. The hat, more than likely, had a join

down the centre back to suit your shingled head.

Now that the hat is in two pieces, move the brim round so that the join will come at the side. The brim and the crown may be joined together by inserting between them a strip of buckram about $1\frac{1}{2}$ inches wide. Turn the hat up at the back and down at the front. The join is now at the side; over this place a plain, smart bow. Felt, when steamed (this may be done over the spout of the kettle) may be pulled into almost any shape, and by this means you can stretch the crown sufficiently to allow for two small tucks.



Some of the typistes on the staff at Head Office photographed in the rest and luncheon room which has been provided for their convenience by the Commissioners.

Getting Victoria's Live Stock to Market *(Continued from page 13)*

There are 44 yards in the old race, and some of the larger ones can accommodate from 10 to 12 trucks of cattle. The others are of varying capacity and can take from two to five truck loads.

"The sheep race has 40 yards, and a rake of 40 trucks can be docked alongside it."

An hour, it seems, is sufficient time for the gangs to discharge 36 trucks of sheep, which is the average length of a rake, while 39 trucks of cattle take only 40 or 45 minutes.

"Our trouble is to get the yards cleared," Mr. McLean explains. "If the drovers don't remove the cattle after they are placed in the yards, we are held up until we can get accommodation for the stock waiting to be discharged. I can safely say that if our yards were cleared promptly it would be an easy matter to discharge from 700 to 800 trucks here in the 12 hours."

Generally the stock begins to arrive at 7 p.m. on the evening before the sale day. It comes in steadily throughout the night, and the staff are usually able to call it a day at 9 a.m. or thereabouts. In the afternoon re-loading of the stock that has been sold and is being forwarded to its new owner takes place.

700 Trucks of Sheep

During the lambing season, when sales are held on two or three days in the week, as many as 700 trucks of sheep might be discharged at Newmarket for one market, and between the hours of 3 p.m. and 3 a.m. after the sale anything up to 200 trucks loaded.

"I've got our figures for August here, I think," Mr. McLean rummages in his pocket. "Yes, here they are. During that month we discharged 231,748 sheep, 34,569 horses, 22,868 cattle and 1237 calves—a total of 290,422 head of stock. Nothing light about that, is there?"

"Dangerous work unloading bulls? Well, I don't know. I suppose it is at times. Some of the cattle are rather wild, and the gangs have to keep their wits about them and get ready to dodge if a bull charges."

"I remember one bull who charged a casual hand down here. He rushed the man up against the fence and gored at his chest. Fortunately his horns were just a little bit too far apart, and they both sank into the fence on each side of the laborer's body. He was only slightly winded, although certainly somewhat alarmed as well."

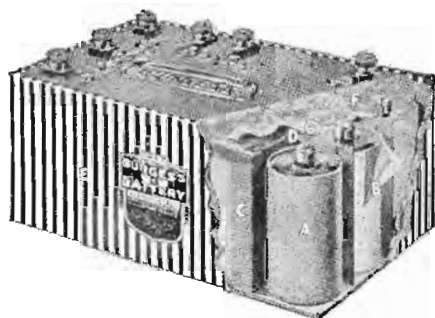
"Taking things all round, though, we don't have many accidents. I think the men can claim to have had the better of most of the brushes with the cattle when they were in a dangerous mood."

Railway Station to be Re-named

It has been decided by the Railways Commissioners to alter the name of the railway station Gowan, on the Korongvale-Robinvale line. The new name of the station will be Gowanford.

BURGESS

"The Dry Battery Supreme"



- A—One piece "Jointless" zinc can—no leaks—purest zinc.
- B—Double moisture proof wrapper—important factor contributing to the "Noiseless" characteristic of Burgess "B" Batteries.
- C—Wax between cells—insulates and combines them into a solid unit.
- D—Moisture-proof insulating and re-inforcing partitions.
- E—Heavy moisture-proof container.
- F—Triple top seal—united with wax between cells completes solid block construction.
- G—Reinforcing webbing in top seal.

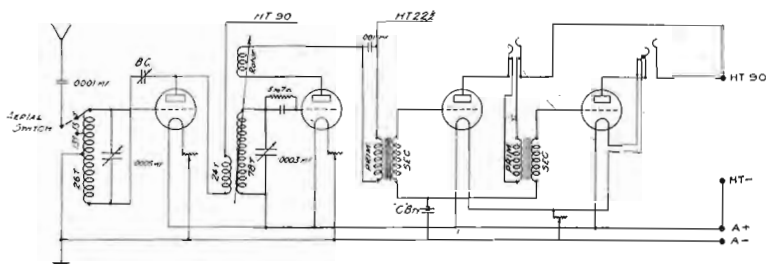
"ASK ANY RADIO ENGINEER"

Burgess "A," "B" and "C" Batteries
Obtainable All Good Dealers.

SOLE AGENTS:

New System Telephones
25 QUEENS BRIDGE STREET, MELB.

The "Browning-Drake" Receiver

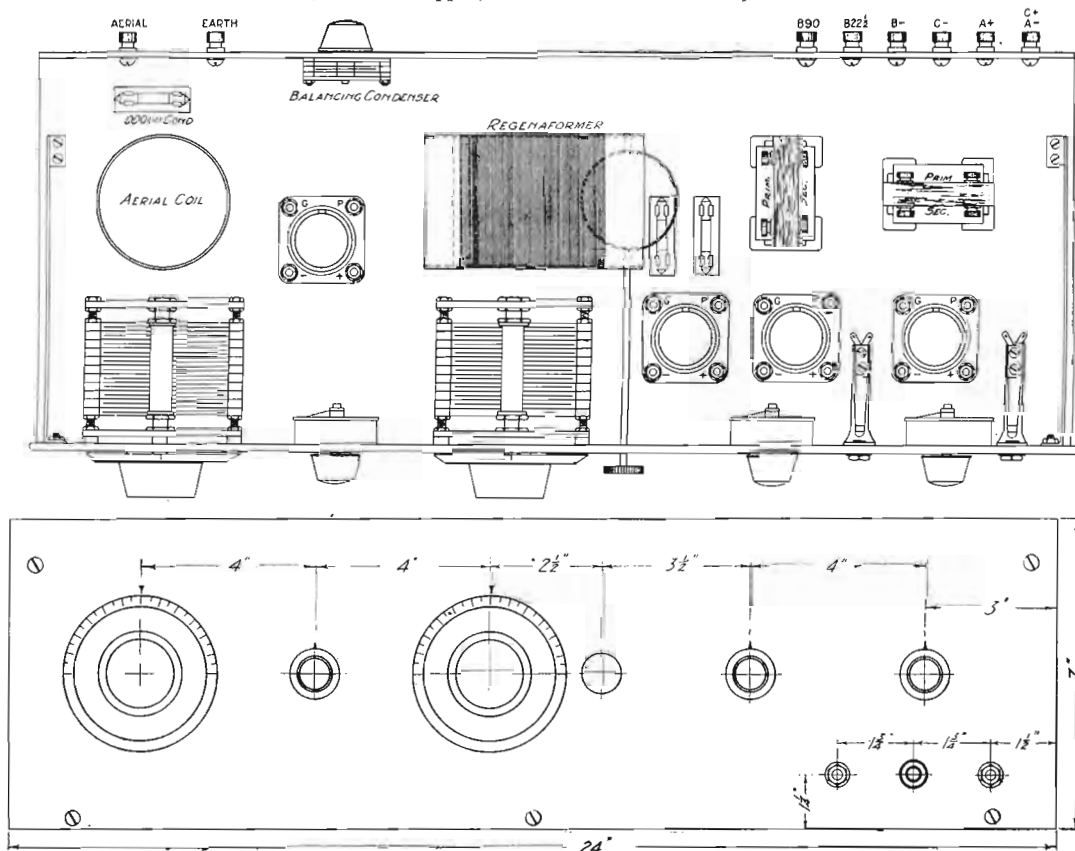


A few alterations may be necessary to accommodate the components. This applies particularly to S.L.F. condensers and "Ranland Lyric" audio transformers, and where these are used it may be necessary to extend the panel to 28 inches and to

With regard to the "Browning-Drake" kit, a word of warning is necessary. It is recommended to either make up the kit to the specifications previously given in this magazine, or else to buy the proper kit as manufactured by the Browning-Drake Corporation, U.S.A. The names of firms supplying these will be given to anyone interested. In wiring up the set, the instructions given in previous numbers of this magazine should be strictly adhered to. The "Browning-Drake" Receiver, when properly wired, is capable of giving wonderful results; but any departure from accepted methods of wiring or arrangement of parts will mean a serious loss of efficiency.

1 Bakelite Panel, 7in. x 24in. x 3-16in.
1 Wood Sub-Panel, 8 $\frac{1}{2}$ in. x 23 $\frac{1}{2}$ in., x 3-8in
1 "Browning-Drake" Kit.
1 Balancing Condenser (2 Vane type).
1 .0003 MF. Vernier S.L.F. Condenser (Low Loss
type).
1 .005 MF. Vernier S.L.F. Condenser (Low Loss
type).
1 .001 MF. Fixed Condenser (Mica and Copper).
1 .0001 MF. Fixed Condenser (Mica and Copper).

- 1 .00025 MF. Fixed Condenser (Mica and Copper).
- 4 Valves, Type UV201A.
- 4 American Sockets.
- 3 Rheostats, 30 Ohms.
- 1 Push-Pull Battery Switch.
- 1 Audio Frequency Transformer (ratio, $4\frac{1}{2}$ to 1).
- 1 Audio Frequency Transformer (ratio, 3 to 1).
- 1 Double Circuit 'Phone Jack.
- 1 Single Circuit Filament Control 'Phone Jack.
- 12 Bus-bar Wire Lengths.
- 8 Engraved Terminals.
- 2 Brass Brackets.
- 1 Grid Leak, 5 to 7 Megohms.
- 1 Terminal Strip.





FRANKSTON RAILWAY STATION STAFF—Top row (left to right): E. Pugh, Car Cleaner; A. Nicholson, Ganger; L. Georgeson, Press; R. H. Roper, Signaller; A. A. Millerd, Acting Signaller. Middle Row: Miss M. McGrath, Refreshment Room Assistant; B. J. Ward, Lad Porter; R. McGirr, Motorman; H. Creswick, Motorman; H. W. Freeman, Guard; A. J. Davis, Guard; W. Try, Motorman; Miss G. Counsell, Refreshment Room Proprietress. Front Row: T. Lewis, Motorman; J. Riley, Motorman; A. G. Tasker, Retired Assistant Stationmaster; F. H. George, Stationmaster; A. G. Johnston, Assistant Stationmaster; P. R. Gow, Lad Porter; D. H. H. Jones, Junior Clerk.

Talking—And Doing

It takes more than talk to haul a ton of coal. Mr. A. J. Paul, Secretary of the Bendigo District Fuel Conservation Committee, took this as his text for a paper read before his committee.

LATE one afternoon a tram car, hurrying with its load of hungry, tired passengers, stopped. Directly on the track, holding the right of way, was a heavily-loaded coal wagon; the horses strained and tugged, but the load didn't stir. The passengers began to talk. One said, "It is a shame to overload horses like that! The Society for the Prevention of Cruelty to Animals ought to take up the case. Horses have rights as well as men. The driver ought to be punished." But the load did not stir. It takes a deal of talk to draw a load of coal.

Another man said, "The firm is to blame; they are too greedy. There should be more horses and lighter loads, even if the profits are smaller. If the State owned and distributed coal, the horses would have a better chance; the cure for individual greed is State ownership." But this declaration of principles did not stir the coal.

Another man spoke of his pity for the overloaded, overworked horses; but pity in the car isn't power on the pole.

One man, with a practical turn of mind, left the car, spoke to the horses, patted their necks, won their confidence, pushed sturdily at the wheel, encouraged the horses at the same time. A few pounds' push, a hundredweight of good cheer, and the load started!

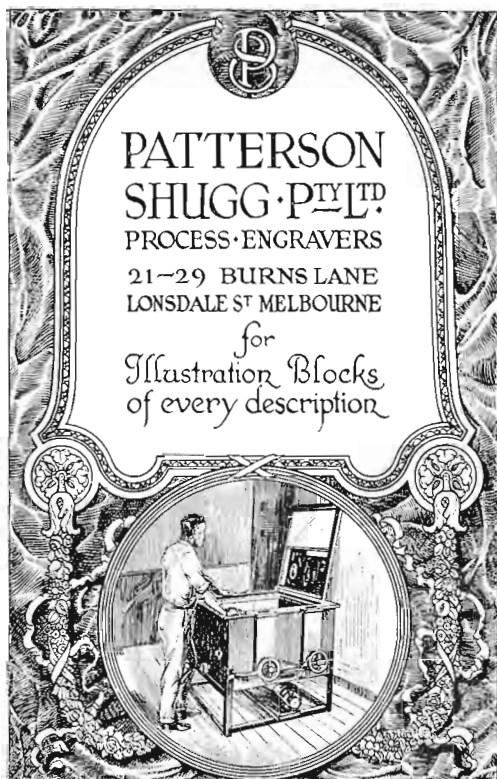
If the load sticks, if discouragements are

in the way, if the road is blocked, don't blame conditions and circumstances, don't pity the overworked; get out, whisper a word of encouragement, put your shoulder to the wheel, do your share to make things move, to clear the track. The voices of many in the car brought nothing to pass; the voice of one in the right place, coupled with a little effort, opened the way.

Anyone can criticise, find fault, blame, but it takes sense to help. Sympathy in the car will never help the horses; get out, talk a little but push a good deal. Cease to be a load, but become a force. Put your strength against the obstacles, your words where they will do work. Be a radiator, not a refrigerator; raise the temperature, not lower it. Quit grumbling, begin pushing. Back up your words by your deeds.

Time was when everybody had a thrust at the Railway Service. The railway employe also was not beyond the influence of the outside critics. But, happily, to use a colloquialism, the Railways Department is coming into its own.

The Fuel Conservation Movement has, I make bold to say, by its influence assisted to restore the confidence of people (if ever it was needed) in those who are pulling the heavily-loaded wagons.



**PATTERSON
SHUGG & PTY LTD**
PROCESS ENGRAVERS
21-29 BURNS LANE
LONSDALE ST MELBOURNE
for
Illustration Blocks
of every description



Jack Fisher, pupil of the Institute Dancing Class, under the tuition of Miss Dorothy Gladstone, executing a figure in eccentric dancing. Son of a railwayman, Jack has made wonderful progress assimilating with fine results various complex forms of the dancing art.

It's only a small thing to stop before crossing a railroad track. But little things sometimes make big differences. See what prefixing an "s" to "laughter" will do.

If you do not make more of a job than the average man, any "average men" can hold your job, and this is a position that can be filled by almost any man and is not worth much.

Life is like a game of cards. You must play the game with the hand that is dealt you. The greatest glory, after all, is winning with a poor hand, and the greatest disgrace is losing with a good one.

IS YOUR SHIP COMING HOME?

Most of us are deriving anticipatory pleasure from dreams of what we are going to do "when our ship comes home," which is only another way of saying that we would do great things if Fortune came to us unexpectedly.

Unfortunately it is a hard fact that fortunes rarely come that way, and our future well-being mostly depends upon our own efforts, and wise plannings.

What are you doing for yours?

A Savings Account is your best insurance against the future. One Shilling starts an account and regular deposits and accumulating interest will do the rest.

Open an account now with the ..

**Commonwealth Bank
of Australia.**

(Guaranteed by the Commonwealth Government)



"Snap" taken by Repairer D.C. Pierce, of Sand Cutting on No. 15 Length, Nyarrin. "Yet they say sand will not drift in the winter," says Mr. Pierce. Note part of rail showing.

15
Jewels

35/-



NEWMAN'S "Railway Lever" For Railway Time

Within a few days of buying it you'll value your Railway Watch as highly as hundreds of other Railway Men value theirs! For, though so low in price the "Railway Lever" is a thoroughly dependable timekeeper, keeping "Railway Time" week in, week out, and will stand up to any amount of rough usage!

It has a compensating balance adjusted for temperatures, has 15 Jewels, and a strong Nickel Screw Case with Crystal flint glass, is also dust and waterproof.

Send 35/- for yours to-day and we will forward it post free by return mail.

S. 1000

Newman's

(Regd.) Our only Address W.-McF.

84-86 Elizabeth Street, Melbourne

STATE BOXING AND WRESTLING CHAMPIONSHIPS.

Great success was achieved at the V.A.A.A. State Boxing and Wrestling Championship by members of the V.R.I. Gymnasium, five of the thirteen championships being won, and three runners up coming from the Institute Gymnasium.

In addition, another railwayman took the Heavy Weight Boxing Title. Successful competitors were as follows:—

Boxing (Winners).—Bantam Weight, J. W. Haines; Light Weight, G. Sullivan; Middle Weight, D. H. Ryan; Heavy Weight, P. Ratcliffe.

Boxing (Runners Up).—Light Weight, A. Mahoney.

Wrestling (Winners).—Welter Weight, T. P. Bolger; Heavy Weight, J. F. McKenna.

Wrestling (Runners Up).—Bantam Weight, B. F. Nugent; Heavy Weight, S. Todd.

INTERSTATE RAILWAY INSTITUTE'S BOXING AND WRESTLING CHAMPIONSHIPS.

Teams from New South Wales, Queensland, and South Australia will meet the Victorians this year in this State, at the Central Institute Hall, on the evenings of October 20, 21, 22. Try-outs will be held on October 6, 7 and 8, to determine who shall compose the team of Victorian athletes to try conclusions with the Interstate men. Eighty entries have been received.



Chapped or Calloused Hands

TAKE 1lb. of mutton fat (no other kind will do), render it down, strain, and, while hot, add two tablespoons of glycerine and the juice of one lemon. Stir until it becomes like thick cream, and put away in jars. This is a fine thing for those whose hands become chapped during the frosty weather, and should be kept in all households where men do hard manual labor.



What a Little "Comma" Can Do

This is a concrete instance of what confusion misplaced commas can produce.

"Lord Palmerston then entered upon his head, a white hat upon his feet, large but well-polished boots upon his brow, a dark cloud in his hand, his faithful walking stick in his eye, a dark, menacing glare saying nothing."



Do not believe all you see. The tallest monument in the cemetery doesn't always reach the nearest to heaven.

The reason why so many fail is because they will not make the sacrifices of time, of pleasure, of comfort, demanded by success.

Another word for "failure" is "selfishness"—the fear that if you work overtime or do more than you must, some one else besides yourself will benefit.—U.S. Senator Couzens.

Miss Gladstone, Instructress of the Calisthenics Class at the Institute, is a well-known authority upon dancing, and the fact that she is one of the four judges appointed to award the £1000 dancing prize which is at present being competed for at the Wattle Path competitions, is no mean recognition of her expert knowledge of dancing.

During a recent week-end 14,201 sheep were loaded at the Wodonga trucking yards into 151 trucks; twenty trucks of cattle, comprising 205 head, were also despatched for Newmarket. The total loading came from N.S.W., and six special trains were engaged to transport the stock. The whole of the work was carried out without a hitch.



FILE THIS AWAY.

Chief Clerk, to young lady file clerk just back from Vacation: Miss Files, we've hunted ever since you left for that file on the killing of Farmer Head's two steers. Can you locate it?

Miss Files: Certainly—and produces it in two seconds.

Chief Clerk: That's it all right. But where did you have it filed?

Miss Files: Why, there's only one possible place—right here under "Dead Freight."

A MISPLACED LETTER.

Diner: "Waiter, there's a button in my soup."

Waiter (ex-printer): "Typographical error, sir; it should be 'mutton.'"

TRUE BUT FOOLISH.

"You expect mighty big wages for a man who has had so little experience in this kind of work," said the foreman to an applicant.

"Well," replied the prospective laborer, "it's harder for me when I don't know how."

DOUBTFUL.

"Well, John," the doctor said one morning on his arrival, "what is your master's temperature this morning?"

"Indeed, sir," replied the servant, "I should not like to say, sir. He died during the night."

HEAVENLY.

He called his wife an angel so often that she became suspicious and asked why he used that particular term of endearment.

"Well," said he, "you seem never to have any clothes, you are always up in the air, and you keep on harping!"

She (apprehensively): Am I really the first girl you ever kissed?

He: Yes; and yours are the sweetest of all.

Rastus was sporting proudly a new shirt when a friend asked:

"Boy, how many yards does it take for a shirt like that?"

Rastus replied: "Say, man, Ah got three shirts like this outa one yard last night."

A visitor said to a little girl: "And what will you do, my dear, when you are as big as your mother?"

"Diet," replied the modern child.

It's a hard world. If you don't lift your hat you expose your bad manners; if you do you expose your bald spot.

A Challenge.—Railway revenue amounting to £3953 2/- was collected by the lad porters doing duty in the down side office, Glenhuntly, for the year ended June 30th last.

Writing on their behalf, Mr. Fred. A. Uhlman, D. P. Clerk, sends us an interesting statement showing the monthly contribution which had been collected towards the foregoing total.

They challenge any suburban station, down side, manned by lad porters to equal this sum.

A STATION STORY.

LILYDALE is dead. The St. Kilda. They would not let Canterbury her, but knowing Camberwell they sent to him, and he said Collingwood be pleased to do it. That matter was settled. The minister officiating at the graveside was the Rev. Montague Macaulay, commonly known as Jolimont. The chief mourners were Albert Park and his girl, Mordialloc, who wore a lovely Ascot Vale around her Auburn hair. Albert Park wore his Northcote, but his hat was too small for him, although it Fitzroy. After the last sad rites they all journeyed to see Albert Park Box Hill. All went well until someone threw a Black Rock, which knocked Albert Park out. Mordialloc made Bendigo for the doctor. He arrived at the Launching Place, and while standing on Hurstbridge, saw a Blackburn his house down. He then got a lift in Abbotsford, and, thinking that a few Spotswood do him good, called and had a couple of glasses of Newport.



Series No 2

"The making of sound steel"

"Pouring" from 6-ton
HEROULT ELECTRIC FURNACE

Watch this space for progress in
our Manufacture of Railway Products

Vickers Commonwealth Steel Products
WARATAH Limited N.S.W.



ANGUS

HORTICULTURAL NOTES

MAC

SOWING AND PLANTING FOR OCTOBER.

Artichoke, Globe (seed); French Bean, Lima Bean, Butter or Waxpod Bean; Beet (Red), Beet (Silver); Broccoli; Brussels; Cabbage (Main Crop and late sorts); Cape of Commerce; Cape Gooseberry; Capsicum; Carrot; Celery; Corn, Sweet or Table; Cress; Cucumber; Egg Plant; Lettuce (Iceberg, New York, Hanson); Melon, Preserving, Rock and Water; Mushroom Spawn; Mustard; Okra or Gombo; Parsley; Parsnip; Peas (Yorkshire Hero, Stratagem); Pumpkin; Radish; Salsify; Spinach (Round or New Zealand); Squash; Swede (Laing's Garden); Tomato; Turnip (Orange Jelly and White Stone); Vegetable Marrow.

THIS is such a busy month in the garden that we can only give reminders under various headings.

Lawns and verges of English grass will need cutting twice weekly, or you may so divide the time to make three cuttings for the fortnight. Regularity will lighten the labour. Don't use fertilisers until you see signs of impoverishment, as, unless necessary, they will only add to the quick spring growth. Cut out the weeds before they become strongly rooted, and run the roller over occasionally. This is the best time for planting buffalo lawns.

FLOWER GARDEN.

Roses will need watching lest mildew prevails. Frequent cloudings or dustings of sulphur applied in the morning will overcome this. Green Aphis (fly) may be effectively removed by a sharp hosing, followed up a time or two; but if persistent use soft soap syringed or sprayed.

Carnations may still be planted, especially the more vigorous American varieties. Obtain them in pots; they are safest.

Chrysanthemums.—This is the correct month for planting these, whether for garden decoration or show blooms. If you have them growing don't fail to lift them and divide; don't allow the old stools to remain. For large or show blooms, young plants, single shoot divisions or rooted cuttings are essential.

Cannas are showy grouped in either large beds, as a background, or interspersed in the shrubbery. Plant now; if you have them over from last season, divide at once and replant.

Dahlias.—Note the time for these; if you want a show at Christmas they should be growing now. They probably will be if left in ground during winter, but don't plant till end of next month or middle of December if you want the best results. They are a glory in autumn. Prepare the ground for them by frequent turning of soil and manure.

Delphiniums.—These lovely blues ought to be coming on now, but if you haven't yet planted them it is not too late. Beds to themselves are best, choosing deep rich soil, they are very striking as they tower up in the mixed borders. Special vigilance against slugs and snails is necessary for these.

Summer Annuals.—Of these Phlox Drummondii and Asters should have pride of place, especially as the Australian-raised seed is quite equal and in vigor superior to the imported; nothing can be finer for lawn beds and borders. The Asters must have well-worked rich soil, and in no case allowed to become checked as seedlings. Marigolds, French, make a

beautiful border-row, and last long, while the new Giant Marigold is splendid late in Autumn, and mixed with tall Cosmos are most effective. There are many other varieties such as Zinnias, Baisams, Amaranthus, Cockscorns, Sunflowers, Larkspurs, Calliopsis (annual). Pansies and Violas may still be planted in cool districts. Verbenas are too seldom grown; if seedlings are obtainable they will make a fine summer show, and especially attractive trailing over rock edging.

SHRUBBERY.

The shrubbery is full of interest this month. Make a note of the varieties blooming. Some can still be planted out if obtainable in pots, and several ought to be planted now instead of in the cold weather. Jacarandas, Erythras, Hibiscus, Lasian-dras, Japanese Magnolias, Bouvardias and climbers such as Bougainvilleas, Taisonnias, Passion-fruit, Solanums, Cobeas and Snail Creepers are often planted too early, only to court failure.

All bulbs must be allowed to mature growth as they pass. Just tie or twist the foliage neatly; don't remove it too soon.

VEGETABLE GARDEN.

October should be the busiest month in this department, it being important to have a succession of your own freshly grown vegetables and saladings during the summer season.

Lettuce is the most popular and most universally used of all saladings, and should be included in every Home Garden. Being quite hardy and frost-resistant, a succession may be preserved the whole year round by regular sowings every three or four weeks. For crispness and other desirable qualities, Lettuce must be freshly cut, and for this reason alone should be included in the first selection of vegetables to be grown in the Home Garden.

The chief requirements for success are light soil, abundance of moisture, and plant food, thorough cultivation, and room to develop. It is better to sow the seed in rows 18 in. apart. Be careful in making the drills for sowing the seed, not to draw them too deep. Sow the seed thinly and evenly, and cover lightly with fine soil, then firm the ground gently with the back of the spade. Should growth appear to be slow, an application of liquid cow or stable manure, or some Nitrate of Soda scattered dry around the plants, and watered in, will stimulate growth.

ONION.

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.

PARSNIP.

Parsnips will grow on any deep, fairly rich, rather heavy, well trenched soil, and will also do well on sandy ground, providing sufficient water is available. In common with all root crops, the best results are obtained on rather strong soils, which have been heavily manured for a previous crop. If necessary, to enrich the ground for a crop of Parsnips, manure must be placed at the bottom of the trench when digging same out, for if mixed with the upper layer of soil, the roots fork, and thus become disfigured and useless. Well-decayed, natural manure or bone dust and superphosphate mixed are the best fertilisers, but fresh manure must on no account be used.

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“The elimination of 11-ton trucks will not mean that consignments will be held at stations when the larger trucks are introduced in order to form full truck loads. The service to be given will, to all intents and purposes, be as good if not better than at present, and the staff will co-operate with railway users in every possible way to ensure that consignments are received and despatched with promptitude.”

CONSTRUCTIVE CRITICISM AND SUGGESTIONS ARE INVITED
