

surprise our readers to know that more than two thirds of our passengers travel on fares ranging from 1d. to 3d. Here are the details for the year ending the 30th June last:

	Trams	Buses	Total
1d. ....	11,060,862	2,867,433	13,928,295
1½d. ....	10,956,050	2,676,410	13,632,460
2d. ....	85,876,402	21,171,973	107,048,375
2½d. ....	1,276,113	1,650	1,277,763
3d. ....	75,874,039	20,749,262	96,623,301
4d. ....	32,548,778	5,392,901	37,941,679
5d. ....	18,458,006	2,863,869	21,321,875
6d. ....	14,485,084	436,502	14,921,586

From these figures, it will be seen that the adoption of a flat fare of 4d., as suggested some months ago by a letter-to-the-editor gentleman, probably because the fare he pays is 5d., would affect adversely 232,500,000 passengers, would leave the fares of 37,900,000 as they are, and would benefit only 36,000,000 passengers.

### 40-HOUR WEEK.

#### Re-Framing the Rosters is a Big Task.

Well, it has come, the 40-hour week, or rather it will come into operation in January next.

Without distinction of party or class we can all hope that it will not be a Pyrrhic victory, and that the results to the nation and the individual will be more satisfactory than last year's increase of 7/- in the basic wage.

So far as our own industry is concerned, conditions have changed materially since evidence was given for the Board getting on for two years ago. At that time it seemed possible for the Board to face the financial cost involved. Since then, however, there have been so many increases in all directions that the costs then quoted bear no resemblance to those which are in existence to-day. Even since July 1, 1946, the rise has been well over £350,000, almost one half of which is accounted for in the concession of time and a half for Saturdays and double time for Sundays, while the 7/- basic wage came to another substantial sum.

It is as well that the Court fixed January as the date for the new hours, for there is a tremendous job of re-rostering to be done between now and then, and the task can be started only after it is known how other industries are going to work the week. Another result of the judgment was that the A. T. & M. O. Employees' Association withdrew their representatives who had since the 31st July been working in the Roster Department, in the effort to prove that the tables could be improved at a cost far below that estimated by the Board. The Glenhantly alterations were completed on August 22. The Hanna Street table was commenced on August 25 and abandoned, uncompleted, on the instructions

of the Executive, on September 9. The time spent by the representatives of the Association in the Roster Department has not been wasted, for they have now a thorough understanding of the perplexities and difficulties surrounding the compilation of a roster which will not only comply with the award but will be fair alike to the Board and the staff.

### RETIRING AND DEATH GRATUITIES.

Since our last issue, the Board has approved of the undernoted retiring gratuities:—

Drvr. V. E. Warde (55), 26 years' service, medically unfit, £325; Ticket Examiner H. Redfern, resigned, £105; Con. G. I. Jeffery, resigned, £81; Traffic Checker W. P. Joyce, (57), 23 years, medically unfit, £287; Drvr. A. F. Kennedy (58), 39 years, £491; Boilermaker W. G. Trelor, resigned, £102; Elec. Mech. R. A. H. T. Smith, resigned, £68; Con. W. J. F. Martin, resigned, £81; Bus Driver H. W. J. Hunt, resigned, £75; Clerk H. A. McGill, resigned, £81; Leading Hand S. A. Browne (48), medically unfit, £404; Clerk D. R. Williams, resigned, £109; Con. A. Mackinnon (62), returned soldier, medically unfit, £516; Builder's Lab. M. P. Smith, resigned, £49; Con. C. H. Bell (49), medically unfit, £226; Traffic Clerk E. V. Siepen (50), resigned, £109; Motor Driver E. T. Nesbit, resigned, £81; Crane Driver R. T. Turville, resigned, £63; Shed Wheel Grinder T. Goodall (58), med. unfit, £509; Depot Starter W. M. Thomas (65), 46 years, £847; Con. J. H. Smith (56), med. unfit, £378; Drvr. J. W. Robison, resigned, £75; Con. A. Guild (57), med. unfit, £239; Track Repairer J. A. Hopwood (65), £295; Con. N. T. W. Doreian, resigned, £56; and Carpenter J. F. Moore, medically unfit, £116.

A gratuity of £588 has been paid in respect of the late Foreman F. Nowland (57), 29 years' service.

### THE LONG SERVICE RECORD.

A paragraph had been written giving three H. O. Ticket Examiners pride of place in the search for the long service record, when news was received of the sudden and unexpected and deeply regretted death of Mr. E. O'Connor. Quiet, unassuming, conscientious, Mr. O'Connor had reached the age of 63 years and had passed 46 of these in the tramway service. With Ticket Examiners J. T. McInnes, 47 years' service, and A. T. Boothroyd, 38 years, they had an aggregate service of 132 years, four more years than that of three employees in the Electric Shed, Brunswick.

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# Tramway Topics

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### OUR S.W. 6 TRAM.

#### An Examination of Critical Statements.

It appears that for five months we have been living in happy ignorance of a challenge said to have been made by Mr. J. I. Harle, Essendon, on our S.W. 6 trams. Our only excuse—and doubtless it will add to our offence—is that we failed to realise that any challenge had been made. Not even by inference could a challenge be read into the "Tramway Record" article, which bore the heading, "Does S.W. 6 Spell Safety and Comfort?" Having put the question, Mr. Harle answered it himself in the negative, probably to his own complete satisfaction, and ended up by expressing the hope that his article "would be the means of promoting healthy discussion through the columns of our journal on the virtues or otherwise" of the tram. So far as we have seen, there has been no discussion, healthy or otherwise, among his fellow operators over his diatribe, and that probably is the real, if unconfessed, reason for Mr. Harle feeling so peeved.

Re-reading the article, one is struck anew by the immoderate tone. No good case requires to be bolstered by such an absurdity as that passengers and conductors are forced to "swelter, sweat and faint"—a poor plagiarism of Mr. Churchill's "blood and toil and tears and sweat!" Neither has the audibility of the buzzer, nor the extraordinary and silly Melbourne habit of standing in the doorways, nor the canopy light, any connection at all with the design of the tram.

But let us come to the so-called criticisms. For the most part, the strictures are not criticisms at all but merely expressions of personal preferences—a very different thing. In the final analysis a tram, even good trams like the S.W. 6 or the P.C.C. tram of the United States, is a compromise between the

various views held by those who ordered it to be designed. If it were not so, there would to-day be one standard tram for the world, just as there would be a standard motor car, printing press, refrigerator, and so on. The travel habits of the people, the varying climatic conditions, the different views as to what is necessary held by the traffic manager and the rolling stock engineers, the conflicting preferences of the tram crews themselves, and lastly, the personal fads of those who have the final say, all combine to make of the tram as it goes on the road a compromise between opposing opinions; a compromise, indeed, between those things which we would like to do and those which we would prefer to do but cannot. In the latter connection, take the larger wheel as an illustration. We would all like a larger wheel, because it would give a much smoother ride; but an increase in the size of the wheel involves an inevitable increase in the height of the step, and so we are compelled to the compromise of a wheel smaller than we like in return for a step which just misses being too high.

The adoption of sliding doors in lieu of the much-criticised weather blinds made unquestionably for the comfort of passengers and conductors alike, but it necessitated three thicknesses of glass. Here is a case where you cannot have it both ways. Which is preferable—weather blinds and their manifold discomforts, or sliding doors with a small disability?

A design for barriers in addition to sliding doors was evolved by the Rolling Stock Department so recently as March last. After thoughtful consideration, the Traffic Department pronounced against it, one of the objections, obvious, being that, with both doors and barriers in use, there would always be the risk of accident to passengers standing at the door by finding suddenly when the motorman

had opened the doors that the barriers had not been dropped by the conductor. So there it goes—the R.S.D. producing a solution for an objection on the one hand, and the T.D. rejecting it for what seems a good reason on the other.

So far as springing is concerned, the comment made could apply with equal force to all the W5 cars, the trucks of which were fitted with springs identical to those now in use on the S.W. 6 in order to ease the hard-riding qualities of the W2 trucks. Possibly in their anxiety to improve matters the designers went just a little too much the other way, giving springs a shade light; but here again the matter is one of individual opinion and preference, and it may be recorded that the drivers who are regularly on routes using St. Kilda Road, where the effect of springing is most noticeable, have never, so far as we have been able to ascertain, made any complaints on the subject.

There persists a delusion that suggestions for improvements are never given consideration. Quite the reverse is the case. The suggestion made to the former Manager that a 4-inch strip should be painted on the left-hand side of the bulkhead window was passed to the R.S.D. and investigated at once. Experiments proved that such a strip would not be sufficient to eliminate glare on the rear-view mirror, and that any further obstruction of the outer bulkhead window closed in the front of the car too much and restricted further the view forward from the saloon. So there again you have it—a small improvement quite possible in one direction, but at the expense of lessened visibility in another.

**TRANSPORT IN THE U.S.**

**Trams Predominant in the Large Cities.**

Examining the mass of statistics produced by the American Transit Association for 1946, the extraordinary fact emerges that, despite the phenomenal increase in the prices of rolling stock and materials in the last two years, the proportion of operating costs to revenue, 80.85 per cent., differs only fractionally from 1932, when it was 80.81 per cent. It is strange, too, to observe that in these 15 years the lowest percentage was 72.10 in 1942, with the highest 82.72 in 1938. The figures quoted are those for electric railways, trams, subway and elevated lines and motor and trolley buses combined. They are a long way above the Melbourne figure of 64.375 per cent.

For the year, the gross revenue at 1,397,100,000 dollars achieved a new high peak; but for the fourth successive year the net income available to

meet fixed charges and to pay a return on the investment—the great bulk of the concerns are company-owned—declined and was but 9.92 per cent. Many of the undertakings are being operated by receivers on behalf of the bond-holders. Slightly more than 56 per cent. of the passengers were carried in electrically-propelled vehicles; the remainder used the petrol and Diesel buses. It can be seen, also, and as usual, that it took more than two buses to do as much as one tram. Here is an interesting table:—

	Trams	Petrol & Diesel	Trolleybuses
Passengers	9,027,000,000	10,199,000,000	1,311,000,000
Miles	894,500,000	1,807,000,000	143,700,000
Revenue (dollars)	488,800,000	610,900,000	71,700,000
No. of vehicles	24,730	52,450	3,896

Distributed in population groups, the table given below shows that in cities with populations of 500,000 upwards the tram has lost none of its popularity; indeed, in the first four groups, cities with populations ranging from 100,000 to over 1,000,000, the trams carried more passengers than motor and trolleybuses combined:—

Cities of	No. of Passengers		
	Trams	Buses	Trolleybuses
1,000,000 and over	3,941,000,000	1,922,000,000	109,000,000
" " between 500,000 and 1,000,000	2,402,000,000	936,000,000	196,000,000
" " between 250,000 and 500,000	1,245,000,000	1,911,000,000	528,000,000
" " between 100,000 and 250,000	553,000,000	1,959,000,000	250,000,000
" " between 50,000 and 100,000	408,000,000	1,599,000,000	131,000,000
" " less than 50,000	194,000,000	733,000,000	95,000,000

Cities in the 100,000-250,000 class had the most bus passengers, a fact which emphasises the belief of transport managers that places which cannot produce 3,000 passengers per hour are not tramway propositions. This is confirmed in another way by the fact that the entire output of new trams went to cities of from 250,000 of a population upwards.

**CONDUCTRESSES AGAIN.**

Following the example of London, and for the same reason, inability to recruit the necessary staff of men, the Transport Departments of Glasgow and Middlesborough are again engaging women to act as conductresses.

Here in Melbourne the staff problem has become more difficult by the Arbitration Court decreeing a working week of 40 hours. It has been estimated that 40 hours spread over six days will require 471 additional staff. If, however, the 40 hours are worked in five days, there will have to be approximately an increase of 844 in the traffic staff.

Meantime, as the number of men offering has in recent months failed to keep pace with the wastage caused by deaths, retirements, resignations through ill-health, and departures to take up other work, we

also have re-employed conductresses, those concerned being those who finished up in April last. They received a great welcome when they resumed at the Central Bus Garage and the Malvern and Hanna Street depots.

**HOW BUS COSTS HAVE RISEN**

Speaking at the annual general meeting of the Birmingham and Midland Motor Omnibus Company, the Chairman (Mr. J. S. Wills) gave figures illustrative of the costs which nowadays have to be met by bus operators. A double-deck bus to-day, he said, was costing £4,000, as compared with £1,850 before the war—an increase of 117%—tyres cost 400% more, while wages were up by 49 per cent.

These figures explain the rush by so many municipalities and companies during the last year to get fare increases sanctioned.

**FOOTSCRAY EXTENSIONS.**

There is gratification in Footscray over the fact that the Board has decided to extend the Somerville Road line to Bishop Street, and to carry the Gordon Street line along River Road to the Maribyrnong River line to Melbourne.

It should be realised, however, that much water will run down the Yarra to the sea before these extensions are accomplished facts. First of all, special schemes have to be prepared, and these are then the subject of investigation by the Public Works Committee of Parliament. If the Committee approves the schemes, then special Bills authorising the works have to be passed by Parliament.

**OF COURSE YOU ARE GOOD.**

**But Here is How You Can Be a Better Driver.**

You can be a tram or a bus driver, a motor car or a steam engine driver, a commercial lorry or a sulky driver, but whichever you are you hate to think that anybody considers you a bad driver. We would like to think that all our tram drivers are similar to the Scotch whiskies—all good; just some a bit better than others! Here are a few hints, compiled from British electric and tramway authorities by Ticket Examiner H. Rogers, which, if followed, will help those who are just starting out as tram drivers to become first-class operators:—

**Waste of Power.**—Power is wasted because the motormen at the outset do not realise fully the principles which underlie the electrical operations the movement of the power handle puts into operation. Get to know the reasons and the results of

every movement of the power handle; you will then find it easy to operate your tram in the right way.

**Power from the Trolley Wire.**—It is only natural for beginners to presume that the controller is much the same as the accelerator pedal of a motor car—the more you move it the more power do you get. Actually, the fact is that with the handle an any series notch position the amount of power being used is practically the same; indeed, there probably is less power in use in the full series position than on one of the series notches, where the greater part of the energy is used in treating the resistance notches. The same applies to the resistance notches of the parallel positions, except that there is still greater waste on the resistance notches.

**Saving Power in Starting and Acceleration.**—With due regard for the comfort of passengers, pass over the resistance notches as quickly and smoothly as possible; and (2) wait for a short time on the full series running position before passing to the parallel notches. This practice enables you to pass more quickly over the parallel resistance notches to the full parallel running position, and saves power.

**Effect of Correct and Quick Notching.**—If the full series and parallel positions are reached quickly and smoothly, energy will be saved because power can be cut off earlier and coasting commenced in preparation for the next stop. With slow notching, on the other hand, power is kept on longer to acquire maximum speed, the time available for coasting being thus shortened, while more energy is wasted in the resistances. The economical effect of correct controller operation can

Increase the life of armature bearings by	40%
" " " " motor pinions by	15%
" " " " axle bearings by	55%
and Decrease expenditure on brake shoes by	40%
" " " " average power used per car mile	15%

(To be continued).

**HOW FARES GO.**

**One-Third of our Passengers Pay 2d.**

Recently we furnished a correspondent in the United States with statistics relating to the various classes of tickets sold on our trams and buses. In his letter of thanks, he expresses amazement over the proportions of our short-haul traffic, and wondered if the abandonment of the high flat fares in the States—these now range from 8 to 14 cents with, in some cases, a 25% reduction when purchased by tokens in advance—in favour of a sectional fare system such as ours would not be the answer to the industry's financial troubles. Perhaps it will