File Nº E/383 4

July 26th 8.

C-1.

P. J. Pringle Esq., Engineer and General Manager, The Electric Supply Co. of Vic. Ltd., Box 110, BALLARAT, Vic.

Dear Mr. Pringle,

Thanks for your letter of the 23rd inst. I note that you will call in to see me at a suitable opportunity. I think it as well to let you know that Tuesday is the least suitable day as I am generally engaged at a meeting both morning and afternoon.

. Yours faithfully,

9. 9. Hickland

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June 1st

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8.

P. J. Pringle Esq., The Electric Supply Co. of Vic. Ltd., BALLARAT. Vic.

Dear Mr. Pringle,

Thanks for yours of the 31st ult. I am leaving for Sydney on Monday night and do not expect to be back for a week. I should, however, be glad if you would call in some time when you are in town as I should like to discuss with you the questions raised in your letter. Yours faithfully,

J. D. Hickland

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Yours faithfully

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try to call in and have a chat with you. SIJJII DUIT I I expect to be in town on ruesday next, and I will

I Will see that you are advised.

Livotosfaitss guitsrago si ti nadw . Maew txan ti dtiw mur s for the purpose of connecting it up, but we hope to have ress and to the troperation, as we have had to make some gear received on my return yesterday. We have not yet got the I am in receipt of yours of the 28th, which I

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Dear Mr. Strickland,

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METBORKNE. Melbourne & Metropolitan rramways Board, Chief Engineer T. P. Strickland, Esq.,

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Jlat May. 1928

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UFFICES

CHIEF ENCINEER & GENERAL MANAGER. P.J. PRINCLE, MILE, MIME.

> THE COMPANY. TO BE ADDRESSED TO ALL COMMUNICATIONS

File Nº E

## May 28th

8.

P. J. Pringle Esq., Electric Supply Co. of Vic., Wendourse Parade, BALLARAT, Vic.

Dear Mr. Pringle.

Many thanks for yours of the 23rd inst., and for the information forwarded therewith. The questions raised are, of course, exercising our minds very much at the present time and I would much rather discuss the matter with you verbally than attempt to cover the ground in a letter.

I note that you have recently imported a machine and as you never appear to have time to see me when you are in Melbourne I shall probably run up and see you and the machine and discuss the whole question at an early date if this will suit you.

Yours faithfully.

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T. P. Muckland



Ballarat

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tents made in

23rd May,

T. P. Strickland, Esq., Chief Engineer, Melbourne & Metropolitan Tramways Board, 673 Bourke Street, MEIBOURNE.

Dear Mr. Strickland,

Did you notice a description of the Berlin Drum Brakes in the March issue of the "Electric Railway & Tramway Journal"? These particulars were obtained at my suggestion, and you might be interested to see a further letter I have put through to the Editor relative to this article.

I see from the Press that you are beginning to be troubled with corrugations on the lines recently electrified. This is very early for it to start. It would be interesting if you could possibly run on one section or route cars with wheels turned up with a flat tread and no fillet, and see whether corrugation formation is affected. I believe that all your re-laid rails are of the British standard, with coned tread, which of course would not make the test so valuable, as if the rails were originally flat treads. The same rate of radial wear on each wheel of an axle is one of great importance. Do you test your tyres for hardness, and pair them up accordingly? We are having the tyres stamped with their hardness by the makers.

We have just imported what appears to be a very useful grinding machine for dealing with corrugations, etc., called the "Pontelac Tramway Hail Grinder", manufactured by Buckley, Saunders & Co. Ltd., Birmingham. We expect to have some tests made in a few days, and if it is effective you may care to have particulars of it. It can be used in traffic and operated by one man, who can remove it from the track in a few seconds.

yours faithfully,

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ENGINEER AND GEDERAL MANAGER

## PJP/WH

P.O. Box 110

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their bates start you they a fair areance procleds, and that the

## 23rd May,

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W. E. Freir, Esq., "Electric Railway & Tramway Journal", 37 The Strand, LONDON. W.C.2. England.

Dear Mr. Freir,

I was very interested to see in your March issue the information you obtained from the Berlin Tramway Company, and their copies of wheel profiles. The resulting flange profile, after 62,000 miles in the case of the motor driven cars, and 71,300 miles in the case of the trailer cars, is remarkably good, when it is considered that the wheel treads have radially worn about one inch.

I note that it is not their experience to return their tyres during their life, which represents a vast saving in maintenance and in lost life due to this turning up. If these favourable conditions are definitely due to the use of the drum brake, then it opens up a question of the greatest importance to all British Tramways.

It would have been interesting if the Berlin Tramways had sent you the profiles of a pair of wheels on the same axle driven by one of the motors, to see whether one wheel flange wears thinner than the other. Possibly the sections they have sent you show a fair average profile, and that the above trouble is not experienced by them. If so, this is a matter of further importance.

The fillet at the bottom of the wheel flange on the worn wheels is very similar to the original fillet. I have always held the opinion that this fillet, and the gradual growth of it, which is common to most tranways, and the necessary coning of the wheels and rails as they wear, is directly responsible for the formation of corrugations. I suggest it would be interesting to find out if Berlin Tranways suffer from this trouble, and to what depth are corrugations found.

The excessive coming on their driving wheels is, of course, a very bad feature, resulting in excessive current consumption and wear of wheels and rails, and in all probability is accentuating the formation of corrugations.

They say that the profile of their wheels and rails is standard in Germany. I believe their earlier standards did not have a flat tread to the rail, but that this has only been adopted the last few years. It would be interesting to be assured on this point.

They say they are trying to get rid of the bad coned state of their rails. Is this being effected by renewing the rails by degrees, and replacing them by rails with a flat tread section? if this is being done, they must have some badly coned wheels operating on badly coned old rails, in conjunction with new rails

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having a flat tread, and it would be interesting to know whether any difficulty in regard to effective braking has been experienced.

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I believe that one of the reasons that the mail Standardisation Committee did not adopt a flat tread was the assumed difficulty that would result when renewing portions of a system with this rail, when worn rails which originally had a coned section had to be used in conjunction therewith.

It is again somewhat remarkable that the trailer car wheel profile does not show approximately the same coning as the driving wheel. Instead of this, the coning of the worn wheel is approximately the same as that when it is new.

For very many years I have been expressing the view that treads of wheels and rails should have a flat surface, and that preferably the tyre should be turned up with no fillet at the bottom of the flange. Several countries have adopted this design. It is also common on many railways, and I again urge that the standardisation committee should give consideration to amending the standards on these lines. Some of the larger undertakings with ample funds and staff to carry out experiments, could renew a route with rails and wheels operating as above, when I believe very valuable information would be obtained to justify the contention I have always put forward, that the initial coned tread to the wheel and rail, with its rapid coning growth as wear proceeds, is one of the main factors to corrugation formation.

It might be interesting, if you desire, to publish the above letter, as it might result in some useful discussion.

' Yours faithfully,