

## APPENDIX.

## RAILWAY-CROSSINGS.

REPORT TO THE NEW ZEALAND AUTOMOBILE UNION AND TO THE WELLINGTON AUTOMOBILE CLUB  
BY THE PRESIDENT, MR. C. M. BANKS.

From time to time the danger of level crossings has been brought up at meetings of the union and of the Wellington Automobile Club, and quite recently the matter was again discussed in consequence of the increasing number of accidents, many of which have been fatal. I have therefore given special attention to the subject, to ascertain, if possible, whether anything could be done to overcome this real danger not only to road-vehicles, but to passengers in our trains. This last point is not, perhaps, fully realized, but before long, as a result of the increasing heavy motor traffic, it may be brought home to us by an awful disaster. To illustrate this danger I would refer to the recent accident at the Porirua crossing, where the Auckland express train was struck by a motor-lorry, and although it contained only a light load it damaged the engine to such an extent that it could not proceed; and I ask you to imagine what might have happened had the lorry been heavily laden with timber. It seems probable that it would not only have wrecked the engine, but also have derailed some of the carriages. While drawing attention to this aspect of the matter, which seems to have been overlooked, I am confining my report to the danger to motorists.

You probably noticed in the Press recently a report of an address read before the Wellington Philosophical Society on the same subject by Mr. Wyles, Assistant Signal and Electrical Engineer of the Railway Department, and this, if read in conjunction with my report, will give a fairly good indication of the difficulties to be faced.

In the first place, all blame and responsibility seem by common consent to be thrown on the Railway Department, but I think this is unreasonable and unjustified. On the one hand the public is agitating for reduced fares and freights, is dissatisfied with the small profits earned, and on the other hand considers that the Railway Department should bear very heavy additional capital outlay and maintenance charges to provide safeguards, and it is doubtful whether any one who realizes the cost would seriously consider many of the recommendations which are from time to time made.

I have come to the conclusion that the only satisfactory remedy is the construction of bridges or subways, but unfortunately the cost is prohibitive. I understand that there are over three thousand railway-crossings in the Dominion, and assuming that the average cost in New Zealand for the erection of bridges would not be higher than in one of the States of America, the total cost would exceed £3,000,000, or one-tenth of the total capital cost of the railways.

The only other method of attempting to prevent accidents is the adoption of some form of audible or visible signal, or the use of gates. There is, first, the ordinary notice-board or cross, which we are all familiar with; secondly, a bell, which costs about £220 to install (total, £660,000) and about £50 a year for maintenance (total, £150,000) exclusive of depreciation; thirdly, the wig-wag, which costs a little more than the bell both to install and maintain; fourthly, crossing-keepers or flagmen, who, for eight hours, would cost about £220 per annum (total, £660,000), or, for a double shift, which would be necessary at most crossings, £1,320,000 per annum; fifthly, gates with attendants, which would cost about £470 each per annum (total, £1,410,000).

Of course, all crossings might not require to be dealt with, but the majority would, and in view of these figures it seems hardly likely that any one would consider the expenditure justified, especially if the fact is borne in mind that none of these warning-devices entirely prevent accidents, as many occur at crossings protected by flagmen, bells, and gates, and cars have actually been driven into the sides of trains. Only a few months ago a motor-lorry was driven into the side of a goods-train which was standing at a Te Awamutu crossing and derailed some of the trucks. More recently a motor ran into the side of the Wellington-Auckland express train, damaged platforms, and tore footboards off carriages.

Furthermore, it is my personal opinion that the installation of bells at the principal crossings only might increase the danger to motorists, who might meet with an accident should the bell fail to operate, and through not taking other precautions. After due consideration I am forced to the conclusion that we should concentrate our efforts to get all obstructions, such as hills, trees, hedges, fences, and even buildings, which prevent a clear view of the line removed where possible; and in support of my opinion I would mention that it is now recognized in France, Belgium, and some other countries that no warning-device is worth the heavy expense. Crossing-keepers are being dispensed with, and the onus of avoiding accidents is thrown on the users of the highways. This is the legal position and custom here, and I fear must continue for years, although the erection of bridges at some busy crossings may be desirable and justified.

In the interests of public safety, it seems to me that a heavy penalty will have to be imposed upon persons who fail to take due precautions before crossing a railway, and instead of agitating for devices involving a heavy expenditure both in capital and maintenance charges, I would recommend that the Railway Department be advised to prosecute all persons who do not take reasonable care; and in my opinion, a few substantial fines, or the license to drive suspended or cancelled, would confine accidents at railway-crossings almost entirely to those who had decided to adopt this means to commit suicide.

C. M. BANKS,

President, New Zealand Automobile Union.

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