

our cleverest practical mechanics so often possess. By selecting only the best engineers, retaining a far smaller number and requiring them to give their attention to any Government work in their locality, either of construction or maintenance, the responsibility of each work would be more easily fixed and traced than it can be now, many of the present costly mistakes could not occur, and a considerable saving in salaries alone would be effected. Even such a staff would be capable of further reduction as the expenditure of borrowed money draws to a close.

The strict formal separation of the two engineering departments is as inconvenient as it is costly. The isolation is so complete that each regards the other as an alien rather than an ally, and there is no evidence, and apparently no possibility, of friendly co-operation for the general good. Two classes of engineers mischievous.

Engines and rolling-stock have been largely imported by this department for use on the working railways without previous consultation and agreement as to the most suitable descriptions: the result is, that they are condemned by the railway officials, and the answer to all questions on this subject is, that "the responsibility rests with the other department." Large quantities of expensive articles are now thrown aside by the railway management as useless, and further expense incurred in importing or constructing what they believe to be better adapted for their special purposes. Wasteful importations.

At the same time the palpable engineering mistakes that are made, the evident inattention to common well-known requirements, and the want of adaptation of stereotyped plans to varying circumstances, have given us a strong impression that this costly staff is made to effect very little profitable result. Too often we have noticed in the engineers employed, a feeling of indifference as to the result of their work, and almost a sullen obedience to orders believed by them to be absurd. Bad result of too many engineers.

A railway line that has been passed by a Public Works' engineer must be accepted by the officers taking charge of it as fit for traffic, although they may be able to demonstrate that there is no ballast under the sleepers, no way provided for storm-water, or that the curves and gradients are of a character that must be immediately altered. Absurd homage to their opinions.

With such an immense force of engineering skill in the service of the colony, it might be supposed that at least an intelligent selection would be made of our native timber for bridges, sleepers, and other purposes. Upon this we find that the most contradictory opinions are held, leading to the use in one district of a timber strongly condemned for the same purpose in another, and unfortunately these opinions seems always to vary in the direction least conducive to economy. Even in the few instances in which locally-grown timber is used, its price is often made much higher than it need be by insisting on its delivery in the winter, when it is almost impossible to get it out of the bush. Kauri, which is plentiful in Auckland, has been found to be quite useless for piles in salt water, and totara, which is comparatively scarce, is now used; while in Napier, where no kauri grows, and totara is cheap and plentiful, a large bridge across the harbour, costing more than £12,000, is being built with piles of imported kauri, though it is well known that the latter timber is soon destroyed by the *teredo* in salt water. On the Auckland lines puriri, which is admitted to be the best wood in New Zealand for sleepers, and is readily obtainable, is neglected, while kauri, which cannot be compared with it for durability, is used. Their choice of timber.

In these, perhaps more than in any other branches of the Government service, the mischief of dividing departments and multiplying heads is apparent, as, besides the waste of energy and money that is caused by it, the bad effect of clashing opinions and instructions may everywhere be seen. It is clearly one of those cases in which "one bad general would be better than two good ones," and in which it would be far easier for one head to control the whole than for each separate head to be called on at every important step to meet the opposing opinions of what is really a rival department. One general better than two.