$D_{\bullet}$  2<sub>A</sub>. 2

every description, and the work done in these shops is of a first-class character The Hillside workshops are very commodious, but are wanting in some very essential tools, principally in the boiler-making department. A new planing-machine in this shop would recoup its full value in a couple of years. The workshops at Petone, Newmarket, and Eastown are each of them capable of doing all the repairs of their respective districts, while the two former are also large enough to do an addi-

tional quantity of new work.

It is when we come to the character and cost of some of the work that is being done in these shops that we find room for adverse criticism. Let me refer to a number of locomotive conversions that have been going on. Eight locomotives of what is known as the F class, with  $10\frac{1}{2}$  in diameter cylinders, have been converted into a new class,  $F^a$ , with 12in. cylinders, and boilers carrying a higher pressure. Two of these conversions, which have been effected at the Addington shops, have cost £2,174 each. Six others, effected in various parts of the colony, have cost an average of over £1,900 each. In the first case the boilers were made at Addington, in the latter the boilers were imported. There are two others of these F to  $F^a$  conversions still to be completed, which will cost, so far as can at present be seen, more than any of the previous ones. Two L class engines have been similarly converted to a new class,  $L^a$ , at a cost of £1,980 each. These are also conversions of  $10\frac{1}{2}$  in. cylinders to 12 in. cylinders, with boilers at higher pressure. There can be no doubt that these twelve conversions represent to the colony a loss of as many thousands of pounds.

It is very doubtful if engines of the new types were needed, the design being faulty in various respects. Assuming, however, that engines of the same power were needed, new ones of better proportions and design could have been built easily for the money these alterations have cost. This would have left the twelve engines of the F and L types intact. As the boilers of these engines became worn out they could have been refitted with boilers at the higher pressure at about one-third the cost of the conversions. These new boilers, with no other alteration than a little added weight and any necessary strengthening of parts to suit the increased pressure, would have increased the tractive power of the engines very materially. New spare cylinders to suit these engines are in stock by the dozen, waiting to replace the old ones as they become worn out. Only a day or two ago I counted ten of these spare cylinders lying in a row at the Eastown Workshop, where they have been for some time. It will be seen that even had the engines that have been altered needed new boilers and cylinders and other general or even extraordinary repairs, after allowing the excessively large sum of £1,000 each to effect these repairs and alterations (the amount would now almost build new engines), there would still be £1,000 to £1,200 left out of the cost of each of these conversions towards building new engines of increased power and improved type.

But the cost of effecting these alterations is out of all proportion to the value of the work that

But the cost of effecting these alterations is out of all proportion to the value of the work that has been done, and reflects very seriously on the management of the department. Here, and not in the workshops, the fault lies. The causes are obvious to a business expert, and involve a remodel-

ing of the methods of the department.

This mania for conversion has also extended to the alteration of two engines, one each of the N and O classes, which are to be converted to compounds. Now, while I have every confidence in the use of higher boiler pressures, and the adaptability of the compound principle to locomotive practice, and while I believe that the New Zealand Railway Department should build, at any rate, some of its new locomotives embodying these principles, I have no doubt that the conversion of the two engines above mentioned is a mistake, and that it will cost the colony quite as much as two new engines, leaving again two engines to debit.

Another instance of mistaken zeal in this direction is the alterations that have been made from time to time to an engine of the M class, No. 90, on which, up to the present, some £392 has been spent in experimenting without any good result. Here, again, let me say that I find no fault with the department for carrying out experiments. New Zealand ought to do its share in experimenting for the good of itself and others, but these experiments should at least be carried on intelligently, with a well-defined end in view, and should not consist of blindly and deviously following in the

wake of previous experiments altogether doubtful of the consequence of the variations.

Four new engines of a larger type than any hitherto running on the Government Railways, having cylinders 16in. diameter, 20in. stroke, and with driving-wheels 54in. in diameter, are now being built in the Addington Workshops. Up to the present one only of these has been completed. The cost of the work on these four engines up to date has been £12,000, enough to have completed them. It will be interesting to know, on the completion of these engines, what the cost of con-

struction has been. Out of all proportion, doubtless, to their value.

I have only indicated one or two directions in which the management is capable of improvement. A competent man will readily place his finger on numerous others. I have no hesitation in saying that if the Locomotive Department were allowed to take over the workshops of the Maintenance Department, and the whole placed under better management, many thousands of pounds per annum could be saved to the colony over and above any amounts that may be visible in tabulated statements of salaries or running-expenses.

In conclusion, I wish to add that nothing I have said as to the cost of work is intended to

reflect in any way upon the men in the various workshops.

So far as I have been able to judge, and I have watched very closely so that I might be able to form a correct opinion, the various railway workshops are manned by artizans who will compare favourably with those of any engineering establishment in the world. Wherever I went I found the men going about their work with skill and industry I have invariably found them reasonable in their demands, orderly in their conduct, and intelligent, and I am glad of this opportunity of bearing testimony to the superior character of the men throughout the railway service, both as regards their ability and conduct.

I have, &c.,

John L. Scott, Railway Commissioner