2. REPORTS OF THE SUPERINTENDENT OF TECHNICAL EDUCATION, AND OF THE INSPECTOR OF MANUAL AND TECHNICAL INSTRUCTION.

SIR,— Education Department, Wellington, 1st July, 1925.

I have the honour to report as follows in regard to certain aspects of technical education in the Dominion during the year 1924.

I have again to report a substantial increase in the enrolment of full-time pupils in technical high schools, and also of full-time pupils in the day classes of technical schools, for which, however, separate returns are not available. The enrolment at technical high schools was 5,369, being an increase of 315 on the numbers for the previous year.

The enrolment of full-time pupils in technical-school day classes, apart from technical high schools, was approximately 900, there being an increase of about 200 on the numbers for the previous year; so that the total increase of full-time pupils for the year was about 500.

There was also an increase of about 1,000 in the number of students attending part-time day or evening classes. The total increase in the work was approximately 10 per cent., involving an increase in expenditure on salaries and working-expenses of about the same percentage.

Training of Apprentices.—Reference was made in my report last year to the provisions of the Apprentice Act, 1923, and the hope was expressed that full advantage would be taken of the powers given under the Act.

So far as the utilization of the technical schools in connection with the training of apprentices is concerned, progress has not been rapid, although in trades which have for years sent their apprentices to the schools there has been a steady increase in the numbers attending.

Arrangements have been made in one or two of the large centres for the establishment of trade classes with special trade equipment, as, for example, in typography and in motor mechanics at the Auckland Technical School.

Again, in the plumbing trade, in connection with which for many years highly successful evening classes have been held, Saturday morning classes were established in Auckland some two years ago, through the generous co-operation of the employers, and are doing excellent work with the apprentices.

It is hoped that this example will be widely followed when the Act is in full working-order, and that apprentices will not be expected to devote their evenings to the acquisition of skill and knowledge which in former times they obtained in their employer's workshop during working-hours, but will be sent for such training, when necessary, to special day classes established under the provisions of the Act by the trade concerned, leaving them free to devote at least their evening hours to those higher studies in technology which will doubtless in the future, as hitherto, enable many to raise themselves out of the ruck and become leaders in industry.

Steps are being taken in some centres to provide such vocational training outside that which the apprentice gets in the ordinary course of his employer's business as the trade itself may think necessary.

On the whole, however, it cannot be said that there has been so far any widespread development of trade classes under the Apprentice Act, although it is to be noted that technical classes in the various branches of the building and engineering industries have steadily expanded in the larger centres during recent years.

The establishment of technical classes, in which the principles underlying the practice of a trade or occupation form the essence of the course, is a comparatively simple matter, since only class-rooms, laboratories, and workshops containing simple tools and general-purpose machines are needed, and the amount of material used is not comparable with that put through in a trade workshop.

The provision for such classes, which are mainly educational and not directed merely to turning the student out as a competent operative, may be regarded as a proper function of the Education Department.

When, however, as has been from time to time proposed, the object is to train an operative to handle materials at the rate and on the scale of the factory, involving the use of a complete unit manufacturing plant consisting of a series of highly specialized machines (as, for instance, in boot-manufacturing, where a complete unit includes a series of specialized machines for performing some sixty to seventy distinct operations in the manufacture of a boot), it would appear that such training does not lie within the legitimate scope of the activities of the Education Department.

In such cases the trade concerned should be expected to arrange its own training, as provided for in the Apprentice Act, 1923.

In most trades, however, the required training is intermediate in character between the pure study of the application of scientific principles and the acquisition of specialized manual dexterity in a single operation or group of operations.

In such trades the training of apprentices could probably be arranged most satisfactorily by co-operation between the trade and the technical schools, the trade providing at least the equipment and material necessary for practical training in operations lying outside the normal scope of technical-school work, while the technical school would provide training in the application of scientific principles to the problems of the particular trade, as well as taking care of the more general education of the apprentice.

In the case of the printing trade in Auckland, for example, the local employers have presented three linotype machines besides contributing half the cost of the other machines and material required for the class. In this way the employers have associated themselves definitely with the technical school in providing for the training of apprentices, and will, without doubt, take a keener interest in the work than they would have done if the plant had been provided entirely by the Government.