

Some modification of the system may ultimately become necessary to counteract this tendency, yet at the same time secure a reasonable average of salaries and the proper proportion of more highly classified assistants in each school.

COURSES IN TECHNICAL SCHOOLS.

While the courses in the smaller technical high schools and those in technical high schools situated in country districts show no considerable changes from those which have been in force for a number of years, except in regard to the numbers in the various courses, which have fluctuated largely in sympathy with economic conditions, the same conclusion does not apply with equal force to the technical high schools in the four centres and in one or two the largest towns outside the centres.

In certain of these schools the day courses have tended to align themselves rather more in the direction of trade courses than of purely pre-vocational courses, which were at one time the only objective of the technical schools. The tendency is necessarily even more marked in the courses followed in evening classes, which have always offered some classes of a purely trade character, and rightly so.

The question is bound up with the decay of the apprenticeship system, which decay, while in evidence before the depression, has now proceeded to such an extent that it would be safe to assert that for all practical purposes the apprenticeship system is dead.

Another factor vitally affecting this issue is the modern system of minute specialization of function of tradesmen in order to facilitate economic production on a large scale and of the extended use of machinery to perform tasks which were formerly done by skilled men by hand methods.

No doubt there has been a good deal of exaggeration in what has been written and spoken as to the effects of the mass production of goods by specialized machinery in that state of industrial organization known as "Technocracy," and whatever validity these opinions may have is mainly in regard to highly industrialized countries in the Northern Hemisphere; yet it cannot be doubted that the movement has already made itself felt in New Zealand and that it will rapidly and increasingly do so in future years.

The building trade, which at one time included the third largest number of employees among the industries of New Zealand, may be taken as an example.

Here a single firm situated in one of the centres produces by mass-production methods sashes, doors, and specialized joinery of such quality and at such low prices that their products are competitive in most places throughout the Dominion and take the place of the local product.

Large public buildings are now almost wholly constructed of steel-framing and concrete or of reinforced concrete, so that on these jobs the work of carpenters is largely restricted to that of fixing and removing the boxing. Thus the carpenter gives way to the engineer and mechanic, but here again fabrication of steel members is usually done, not on the job itself, but in highly specialized plants adapted for this purpose; or the steelwork may be imported completely fabricated and needing only riveting or welding to complete the structure. Thus both the number of mechanics employed and the range of work is restricted.

In the case of engineering the same tendency is easily observable. The Railways Department of New Zealand has found it necessary to concentrate its building and repair activities in highly specialized plants in both islands and to close down local repair shops which once existed. Though no doubt the result has been increased efficiency and decreased costs, it cannot be doubted that much labour has been displaced.

The motor-engineering trade, as far as maintenance of road vehicles is concerned, tends to restrict its activities solely to the replacing of worn or broken parts by new ones supplied by the manufacturers at such cost that locally made or repaired parts could not possibly compete either on the basis of cost or of satisfaction to the user.

One motor-car manufacturer with world-wide ramifications has a scheme whereby worn or defective engines may be replaced with a new or reconditioned engine for a comparatively small charge, the defective engine being returned to the factory for attention. Thus fewer men tend to be employed, and those of a constantly narrowing range of skills.

Analysis of almost all the trades hitherto regarded as skilled would reveal similar tendencies to a greater or less degree; the movement for rationalization in industry is world-wide and although we in New Zealand are only just beginning to feel its effects it cannot be doubted that the tendency will increase and that industrial dislocation must be increasingly evident. Modern industry is governed by the cost-accountant, and, in self-defence, can take little account of the social welfare of the human material it employs, except on a basis of cost per unit of production.

No doubt means will eventually be adopted whereby this state of affairs will be remedied, but in the meantime the outlook is extremely disturbing to all who have the welfare of the youth and manhood of the nation at heart.

Thus a very grave responsibility is thrown on those who are in charge of the technical schools of the Dominion so to arrange their courses and their teaching as to mitigate as far as possible the ill effects of present-day maladjusted industrialism.

It would appear that in continuing to give courses of predominantly pre-vocational character, including an introduction to the culture that is our heritage and to those accepted principles of science and mathematics upon which the industrial state is built, they will best be serving the interests of those who must soon find themselves facing the problem of earning a livelihood in a disordered world.

It would seem true that any large extension of the trade-school idea, apart altogether from the inherent difficulties such as the high cost of specialized equipment and the difficulty of disposing of the product, would not in the present state of industrial organization be of advantage to the students in our technical schools. These are likely to succeed better the more they have a sound knowledge of scientific principles, a disciplined intelligence, and a developed power of adaptation and initiative.