

choice of subjects than would be afforded in an English or German secondary school of equal standing. The illustrations of various laboratories and workshops in the Brooklyn Manual Training High School will show the completeness of the equipment of the school for its special aims. The new buildings of the Stuyvesant High School (the manual-training high school of the Borough of Manhattan) are still more elaborate, and the equipment is on an even larger scale than at Brooklyn. All instruments and machines are full working-size—that is, they are not mere laboratory models, but are similar to those actually used in machine-shops and manufactories, modified only in so far as it is necessary to adapt them for the purpose of experiment and exact measurement.

This is the same principle as that to which reference is made in the note upon the electrical engineering department of the Oundle Grammar School, England. In England the usual practice, even in well-equipped secondary schools and technical schools, is to employ only model machines adapted to laboratory work, and the exceptions to that rule are few and far between; in America, it is held that experiments with full-sized machinery give the pupils much more real and correct ideas of the underlying principles—they have nothing to unlearn, the work is much more thorough, and at the same time the students gain an insight into the economic conditions of modern industry which could not be obtained if models only were used. The same feature is prominent in the Massachusetts School of Technology (the “Boston Tech.”), where the working models originally employed have been replaced by up-to-date full-sized engines and instruments. This policy entails a heavy expenditure, which would not be warranted unless the number of students were large. The Stuyvesant High School, built for 2,000 pupils, and having at the time of my visit nearly 1,500, will have cost, when completed, one and a half million dollars (say, £300,000) for buildings and equipment. It is evident that it will be very many years before we in New Zealand have either the need or the means to establish such an institution at that. What we have to do, as far as any single line of work is concerned—engineering, for example—is to maintain one institution of the highest grade in as high a state of efficiency as our means will allow, and to send thither by means of scholarships and bursaries those who by earlier success have shown themselves capable of receiving higher training. This is all that even Switzerland with three and a half times our population attempts; it is much better, as well as more economical, than attempting to run a third-rate engineering college in each of the provincial towns. But each of the latter should have a good technical school for the training of apprentices and foremen, and of those who may afterwards proceed to the institution of higher rank. The larger secondary schools could, too, do much in giving suitable preliminary instruction to those who have a bias towards mechanical and technical pursuits; and the experience of the New York high schools, and of such schools as Oundle and St. Dunstan’s College in England show that this may be done without lessening the amount of literary and general culture that such boys receive. Similar remarks apply to the secondary education of girls, with whom, especially in America, a sound course in domestic science naturally takes the place of the pre-professional studies of the boys.

The same idea of “reality” dominates the methods of the New York High School of Commerce: the pupils learn business methods almost in the same way as if they were in a large office, and much more thoroughly than they would in most offices. Their desks resemble not the ordinary school-desks, but the best types of desks to be found in the great commercial houses of the city. At the same time, their attention is constantly directed to the economic and social principles on which the various processes are founded: by inquiring into the social needs supplied by the working of the commercial system—how this or that makes for an advance in civilisation, and what purpose in the needs of society is served in this or that manner—they gain a considerable amount of wide human culture. Nor is pure literature or science neglected; the time devoted to these subjects is as great as, and the standard reached is higher than, in most of our schools.

The American schoolmaster is not afraid of losing breadth in education by specialisation of this kind; and he does not lose it either. We are often so afraid of the bogey of specialisation, that in order, nominally, to give a wide culture, we teach all boys Latin grammar—just as we should if we were going to make classical specialists of them.

In the short account of the New York teachers’ training-schools given in this report will be found a summary of the general high-school course through which student teachers must pass before admission. An ordinary pupil has a somewhat wider choice, but the programme given will afford a