

workshop practice up to the standard of the first two years of the university course may well be the rule in a well-staffed and well-equipped school.

The technical high schools ought undoubtedly to be directed more definitely along the line of real technical work. At present they are not far removed in outlook and in syllabus from secondary schools of conventional type. Each technical high school should work in close connection with a technical college and courses should be provided in this college for diplomas in engineering and other skilled trades. There is an abundant field for this work which does not trench upon university courses. It is essential that the technical college should offer the higher courses. For just as the research work and honours work in a university school affect the more elementary work, so the close contact with the higher technical work will give an orientation and an aim to both the technical high school and the technical college courses which they now greatly need.

Technical high schools should have a technical orientation.

One hindrance, however, to the development of engineering trade courses in the technical colleges at Christchurch and Auckland is the competition of the departments of engineering within the university colleges. Professor Powell, giving evidence on behalf of the Engineering School at Christchurch, said, "The handicaps under which the School of Engineering suffers are large. Although the school is particularly well equipped with apparatus, this apparatus is continually in use for the ordinary teaching work of the establishment. Modern engineering research usually requires special apparatus of an expensive character, and New Zealand is geographically so far away from the centres of engineering activities that the time spent in ordering and procuring such apparatus is prohibitive. The staff is so fully occupied with instructional duties that no time is available; even the vacations are largely taken up with routine work." Later, in answer to questions, he stated, "The evening classes, of course, are attended by local apprentices generally, and included in those are what we call the extra students—i.e., students who may possibly take day classes or evening classes, as the case may be, but who are not matriculated."

University courses and technical-college courses overlapping.

It is difficult to understand why a University School of Engineering which is professedly suffering from overwork on the part of the staff, leading to the almost total abandonment of one very necessary function of the school, should continue to enrol non-matriculated students and give them instruction which should more properly be the concern of the technical school half a mile away. The total enrolment in the Engineering School at Christchurch is as follows: Day students, 115; evening students, 110. Of the latter only twenty-three have matriculated.

We think that there are very good reasons why university colleges should cease to enrol non-matriculated students for engineering courses, which are only trade courses and not professional ones. If the time and energy of the teaching staff are diverted from necessary university work, that fact alone should justify the College authorities in handing over the classes to the Technical College. But the interests of the technical college and of the technical high school demand that they also should have a field for development in higher technical work. Engineering is the best subject for this purpose, for the term "Engineering" comprises varied courses of training ranging from that required for the most highly skilled professional man to that required for the high-grade artisan. The Director of the Christchurch Technical College and Technical High School, when asked, "How can your institution, under present conditions, be anything else than a secondary school of a type very little different from the ordinary grammar school, but with associated trade classes in the evening?" replied, "No, there is not much chance of its being anything else."

University schools should keep to university work.

A very valuable link between the technical college and the university should be effected through the institution of a representative Technical Schools Board to act with the advice of local and other special committees as a Board of Technical School Studies and Examinations. This proposal has been elaborated by one of your Commissioners (Mr. Tate) in a recent report furnished to the Minister of Education. We therefore consider it unnecessary to deal with the question further.

Another matter requiring attention is the relation which should exist between the existing art school at Christchurch and the university and the technical college. Every technical college should have its department of applied art staffed by well-trained teachers. It was pointed out that no satisfactory training for expert art

Necessity for training teachers of applied art.