



Domestic Science in the Technical High School, Toronto.

the supply of skilled help is adequate. Organised labour is keenly alive to the situation. They know that apprenticeship has clearly gone by the board, and that outside of Toronto and Montreal and one or two localities in Nova Scotia facilities are wanting for the workman or his children to learn the principles of a trade. Canadian workmen have been driven, in fact, to patronise foreign correspondence schools. Not long ago it was found that Montreal mechanics alone were paying at least \$100,000 yearly to these institutions. If mechanics are doing the same in other cities, as they doubtless are, Canadian workmen are paying not less than half a million dollars annually for instruction that on all grounds of national efficiency they are entitled to secure at home.

In other federal countries the central and local government and manufacturers co-operate in securing industrial education. It does not seem as if Canada can be an exception. But until it was established what educational arrangements would best aid the development of our natural resources and industries, early or definite action can hardly be expected. Fortunately, at the present moment, both the Manufacturers' Association and organized labour are memorialising the Dominion Government to show its interest by appointing a commission of enquiry on Technical Education.

Technical training in other countries offers some striking object lessons. In England, where the movement began with local trade schools supported by guilds and by municipalities, some of the schools appear to have done splendid work. But technical education in England as a whole fell short of making the impression that was expected until some broader organisation was given to it through the establishment of central institutions as guides and sources of inspiration. Victoria University, with its affiliated colleges, the University of Birmingham, and the National Physical Laboratory are examples. This rounding off of the English system of technical education was long in process, but was hurriedly completed as a buttress to free trade on account of the severity of trade competition and the rumblings of tariff reform. In Germany the growth was different. The Fatherland began with large schools in selected centres but gradually found it necessary to erect local institutions. The outcome has been much the same, and to-day English and German technical education are in many respects very much alike. The same tendencies are to be seen in Switzerland and France. As for the United States, the peculiarity of technical education there seems to be that it is still in the stage of big impressive institutions, each giving instruction to hundreds or at times thousands of students under one

roof. Very few small schools suited to local industry are to be found as yet. As a result of this, and of the absence of apprenticeship, writers on industrial education in the United States assert that American workmen, while highly ingenious, lack the skill of well trained English or German craftsmen.

The Canadian memorial solicits the co-operation of the Federal Government in the interests of trade and commerce, which are under the protection of the federal authority. Here it breaks new ground; for the British North America Act gives education in charge of the provinces. But popular understanding of education is very different to-day from what it was forty or fifty years ago. This problem of a right definition of the word was fought out years ago in the United States, which has a constitution similar to our own respecting both industry and education. The outcome was that on behalf of trade and commerce the Federal Government decided to support industrial education. It now not only maintains a magnificent natural museum and the well known Bureau of Education, but, what is still more important, pays 40.8 per cent. of the total expenditure on Technical Education in the Union. It is following, moreover, the example set originally by Germany, in establishing a combined research and standardising institute for the general benefit of American industry. In this it is only treading in the steps of European countries.

If a capable commission of inquiry is appointed in this country, and works out a broad system of industrial instruction adapted to our natural resources, it would be helpful in at once developing and conserving them, and in relieving a situation that is already acute and threatens to become chronic. The benefits cannot be lightly measured.

Painting Department—Students at Work.
New York Trade School.