

trial efficiency is an all-important item in the successful development of Canada. The commission, by investigation and by personal observation, is to secure all the information possible on the industrial life of Canada. It expected to receive much valuable information from the employers of labor, and would call for and welcome any representative of the laboring man himself. In fact it would receive information from every source. It would investigate all kinds of labor and also how the man working for wages spent his time, and as well would look to see if the people were working under favorable conditions. He hoped that in investigating the transportation services something of great benefit would be discovered. In carrying on the work the commission will confer with the educational authorities in order to learn what facilities are already provided for industrial training and technical education. It will consult the foremen of factories, farmers and other practical men. When it has gathered this information its trip abroad will give the members opportunity to study what has already been accomplished along these lines in order that they may be better prepared to suggest the methods of education best suited to the people of Canada.

Evidence of F. H. Sexton.

Mr. F. H. Sexton, Director of Technical Education for Nova Scotia, gave an outline of the system of technical education carried on in Nova Scotia. The Government of Nova Scotia laid down a system of technical education two months before the State of Massachusetts, which was the first State to take up this work, and as Nova Scotia was the first Province in Canada, this Province was, therefore, the pioneer in establishing a system of technical education in America. When the scheme was proposed there were four colleges in a healthy condition that were sturdy rivals, all of which had gone into the work to be taken up by the Technical College. Representatives of the colleges were brought together, and a working agreement was arrived at. To-day there exists in all the colleges a uniform course of study for the first two years' work, and when the pupils come to the Provincial Technical College they can go into whichever branch of engineering they most desire. The college did not have to purchase equipment for a complete course, and the Government did not have to provide instructors for the first two years' work. When the question of technical education was taken up there were throughout the Province a number of night schools, mostly for miners, which were not very efficient. These schools were re-organized and to-day are of greater benefit of the miners. These coal mining schools are supported by the Government, and are entirely free. They have prepared the native-born Nova Scotians to take responsible positions, and have made a better class of miners. There is no other State or Province that carries on coal mining schools for miners. If the men work altogether at night, instructors give them instruction in the day time. These schools, like the various schools established throughout the industrial centres were not to increase the number of men seeking employment, but to increase the efficiency of those already at work.

Second Sitting at Halifax.

President Forrest of Dalhousie University stated there was more money going out of the Province for correspondence school courses than would be necessary to establish and equip several technical schools, some \$70,000 or \$80,000 a year going out of Nova Scotia alone. When the Technical College was started it took over the work begun by Dalhousie. He did not know of anything that had so stirred up the public to the need of technical education as the evening technical classes had. There was no work that the university had ever touched that had been so successful as technical schools. He

added that the trades unions had done all they could to assist technical education.

Commercial Education.

Geo. S. Campbell, chairman of the Board of Governors of Dalhousie, said that what was apparently neglected was commercial education. Many young men, he said, when they left college, knew very little about business matters. All the colleges in Nova Scotia were doing excellent work, but all had the same difficulty—lack of funds.

University of Toronto.

President R. A. Falconer pledged the support of his university, and emphasized the value of technical education as a humanizing influence, as producing better workmen, as training leaders, and, above all, as establishing better relations between employer and employees, which would go a long way to bringing about industrial peace.

Technical Training For Women.

Mrs. F. H. Sexton, who is a graduate of the Massachusetts Technical College, said the question of technical education for girls is more complicated than for boys, because they must be trained as home-makers as well as to earn a living. The complicated part of the question arises when we consider the tremendous number who must earn a living. In the United States there are 6,000,000 women who must earn a living. In Canada there are about 300,000 engaged in gainful occupations. About nine per cent. in the United States enter the professions; about ten per cent. enter commercial pursuits.

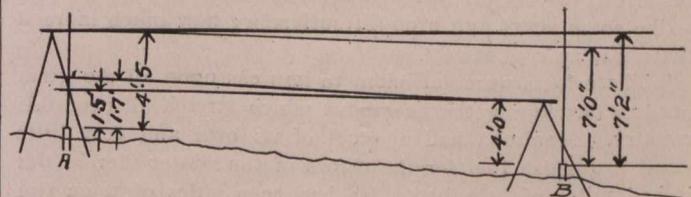
Mrs. Sexton gave a detailed account of what Boston is doing in her trade schools for saleswomen, and all that outside agencies are doing to induce women to enter agricultural pursuits. About twenty-five per cent. enter manufacturing in the United States, and about forty per cent. enter domestic service. If we are to train this forty per cent. we must go back to the mistresses and train them first, which is essential. From investigation in Halifax she thought it would not be difficult to give practical training to girls for domestic service.

ADJUSTING A DUMPY LEVEL.

A. R. Sprenger, Cochrane, Ont.

Many engineers object to using a dumpy level on account of the time it takes to adjust the crosshairs for collimation. The textbooks are to a great extent to blame for this as they give such a long-winded, tedious method. The following will be found a useful short cut:

Drive 2 stakes A and B about 200 feet apart, set up over one, say A, sufficiently to one side that the H.I. can be read at the eyepiece, call it 4.5. Next read the rod held at B,



which we will assume to be 2.5 feet lower than A. Were the instrument in adjustment the reading should be 7.0 feet, but as the crosshairs are not true, let it read 7.2 feet, thus showing B to be apparently 2.7 feet lower than A, an error of .2 feet.

Reverse the proceedings—set up at B, find the H.I. by reading at the eyepiece, say 4.0 feet. The true reading of