

Representing Southern Quebec—Mr. R. S. Lea, Mr. J. M. Shanly.
 Representing Northern Ontario—Mr. C. R. Coutlee, Mr. Jas. White.
 Representing Southern Ontario—Mr. W. H. Breithaupt, Mr. R. W. Leonard.
 Representing Manitoba—Mr. G. A. Bayne, Mr. E. E. Brydone-Jack.
 Representing Saskatchewan—Mr. A. J. McPherson, Mr. W. R. W. Parsons.
 Representing Alberta—Mr. J. S. Dennis, Mr. J. Chalmers.
 Representing British Columbia—Mr. H. J. Cambie, Mr. T. H. Tracy.

ROYAL COMMISSION ON TECHNICAL EDUCATION.*

From Nova Scotia and New Brunswick the Commission went to Charlottetown, P.E.I., on August 8.

The chief points brought out were that the industrial development was handicapped by transportation difficulties. Technical night schools were required. Agriculture was progressing, but there was room yet for improvement by way of advanced instruction. A short course in Truro Agricultural College was recommended. More school gardens were necessary. The advantages of manual training as a preparation for industrial training were strongly endorsed.

The witnesses included: Dr. Anderson, Chief Superintendent of Education; Hon. J. Richards, Commissioner of Agriculture; Dr. Robertson, Principal Prince of Wales College; Mr. W. E. Bentley, President of the Board of Trade; Mr. A. B. Warburton, M.P.; Mr. D. C. McLeod, Chairman of the Provincial Education Commission; Mr. Theodore Ross, Secretary of Agriculture; Mr. J. N. Clark, Superintendent Experimental Farm; Mr. A. McNair, Manager of Bruce Stewart & Company; Mr. W. P. Aitken, Mr. A. E. Dewar and other representative business men and farmers.

At the opening of the Commission's sittings at St. John, N.B., on August 17, the announcement was made as to the particular work of each Commissioner.

Jas. W. Robertson, C.M.G., LL.D., Montreal—Chairman of the Commission.

Gaspard de Serres, Montreal—The artistic element in industry and transportation problems.

Gilbert M. Murray, B.A., Toronto—Organization of industries and office management.

Rev. George Bryce, M.A., D.D., LL.D., F.R.S.C., Winnipeg—University and technological colleges and bibliography of industry.

David Forsyth, B.A., Berlin, Ont.—Collegiate and secondary technical schools, and relation of Public schools to manual training.

James Simpson, Toronto—Hours of labor, factory ventilation, light, etc., rates of wages, etc.

Hon. John Neville Armstrong, North Sydney, N.S.—Relation of industrial training to legislation.

Several witnesses were called who gave evidence in connection with agriculture. All made a plea for an agricultural college.

Mr. Lewis Simms was then called. Mr. Simms said that he was engaged in managing the broom and brush factory of T. S. Simms & Co., Limited. He had learned the practical side of the business. There was no regular system of apprenticeship, most of the employes simply learning to run one machine. Their greatest difficulty was in getting people to remain long enough to learn the work. They employed about 200 people.

In the brush making skilled men were employed, but they learned their work by advancing from one department to another. Manual training might help in the wood working or machine department, but would be of little help to those taking up the brush making. His own knowledge of the business had been secured by practical experience and by visiting factories in the United States. He knew of no special system of instruction in any other brush factory. Evening classes would be of little use in helping to make better brush makers. His only suggestion would be some regulation that would prevent boys from shifting around to half a dozen factories in a year. There was a chance for the apprenticeship system in some of their departments. The work done by girls was not considered skilled labor. He did not think it would be an advantage to the management for the foremen to know more about the various materials used.

In reply to Mr. Simpson, Mr. Simms said that they adopted the most up-to-date labor-saving machinery, which they found did as good work as hand methods. Their employes entered their service at ages as much over fourteen as they could get them. They found the younger boys showed a tendency to play at their work.

Mr. Simms, continuing, said that the employes worked eight and nine hours a day, and earned from \$2 a week to \$1,000 a year.

Mr. John B. Cudlip, manager of the Cornwall and York Cotton Mills, was called next. He said they manufactured cotton cloths and employed 550 hands. It took about five years to make a thoroughly trained hand. Lack of training was due as much to lack of desire as lack of opportunity. From his observation at home and abroad, he did not think the average hand would take advantage of opportunities for training unless compelled to do so, as in Germany. In St. John they could secure training by correspondence, but the workers objected to the expense and time required. He knew of nothing to stimulate the workers along this line. The opportunities for promotion were little. At the Manchester Technical Schools there was a big attendance, but of a different class from what we have around St. John. We have no communities specializing on various trades as there are in England. Educational work would have to be general. The Public schools did wonders, but he found in children leaving the lower grades a lack of perception and observation. He thought the lower grades would be improved by greater concentration on fewer subjects. He believed in the study of classics for training the observation and memory, possibly even more than manual training and handling materials. He believed the foundation of education should be a training in observation and reflection. Some of their employes took the correspondence course, but he did not believe that correspondence could take the place of personal contact with the teacher. Mr. Cudlip referred to the apprenticeship system as used in England, referring to one machine shop where £300 premium was paid by parents for the admission of their boys. He believed in the apprenticeship system. His own boy was now serving his time as an apprentice. One of the chief difficulties of establishing technical schools was that it was such an immense proposition to establish a general school covering all trades. He believed that the specialized school was the best, but only a community which specialized could support one.

Mr. Charles McDonald, manager of the St. John Iron Works, followed. He said they made engines and other forms of machinery. They employed 100 people. They had a voluntary apprenticeship system covering three years. Some of the boys would leave, but the supply was greater than the demand. Some of the boys took night classes in drawing, etc., at the Y.M.C.A. He knew of none taking the correspondence courses. It would be better for them and their employers if they could read blue prints with facility. He believed in the value of the

*See also Can. Eng., Vol. XIX., Pages 126, 159.