

1310. This in itself proved conclusively that the educational system of Ontario had not met the requirements of the country. Mechanics must be educated in this country as well as elsewhere. Germany had superseded England in manufacturing industries as the result of her thorough technical schools, and he believed we should have primary technical schools in every manufacturing centre in Ontario. He was pleased to learn that it was proposed to introduce manual training in our public schools. At present our children were educated only for one course—a non-productive course, and no one could make a good mechanic without a thorough knowledge of mathematics. The Toronto Technical School had of late been the subject of much adverse criticism, of which he thought it was entirely undeserving. Taking the statistics in connection with education in Toronto, it was shown that 34,000 pupils were attending the public schools, 1,300 the High schools, and 1,310 the Technical School. The cost per pupil in the public schools was \$19, in the High schools \$31, and in the Technical School \$6. He thought this clearly showed that the money given to the Technical School was well and profitably spent. This school, he said, had been established largely as the result of efforts on the part of members of the Canadian Association of Stationary Engineers, in conjunction with Mr. John Galt, C. E. He wished the Association continued success.

A song by Mr. Ferrier followed.

The names of Mr. E. J. Philip, Vice-President, and Mr. R. C. Pettigrew, Treasurer, were coupled with the toast of "The Executive." Mr. Philip said that the Executive had brought up many new schemes, and were extending the field of the association. Two new branches had been started during the year. He hoped that they would shortly succeed in obtaining a license law, which he considered an absolute necessity. A thorough engineer required as much knowledge as any other profession, yet they had no law. There were plants in Toronto where hundreds of people were working above the boilers, which were in charge of incompetent and unreliable men. Their efforts to secure legislation had been defeated in the Ontario House, and now they proposed to endeavor to get an act through the Dominion Parliament.

Mr. Pettigrew referred briefly to the advantages to be gained by employing a licensed engineer.

A song by Mr. Blackgrove, entitled "Remember You Have Children of Your Own," was much appreciated.

The next toast was "Sister Societies."

The first speaker was Mr. John Yule, President of the Canadian Electrical Association. He congratulated the engineers upon the apparent success of their association, and thought their object was a worthy one and deserving of support.

A recitation was given by Mr. Post, and Mr. George Mills, President of the Brotherhood of Locomotive Engineers, spoke on behalf of that organization, which, he said, had been in existence for 33 years. It was first started in Rochester with twelve men, but now had a membership of 35,000. They had a Legislative Board both for Ontario and the Dominion, of which he was chairman.

Mr. A. E. Edkins represented the Ontario Association of Stationary Engineers, which, he said, was the outcome of the labors of the Canadian Association. Four

years ago a Board of Examiners was appointed to issue certificates, and he had just had the pleasure the previous evening of issuing the 650th certificate. Much credit was due the association for raising the standard of steam engineering over what it was fifteen years ago. Many engineers had been better fitted to fill their positions by the efforts put forth to qualify themselves to pass the examinations. During his visit to England he had been struck with the technical schools there, and had the pleasure of visiting the Birmingham Technical and Art School. In their efforts to secure legislation, he said the engineers should receive the support of steam users, and pointed to the advantages which would accrue. The English law did not require an engineer to hold a certificate, but steam users were compelled to employ a competent person and to have their plants inspected once a year. The owner is held responsible for any accident, and is therefore interested in preventing the same.

At this stage Dr. Orr proposed the toast of Toronto No. 1, to which Mr. James Huggett and Mr. Wickens responded. Mr. Huggett referred to educational matters and to the new library which had been commenced, while Mr. Wickens, in showing the advantages to be derived from the association, pointed out that many engineers had been thus enabled to double their salaries in a few years.

After a response to the toast, "Visiting Brethren," by Mr. Robert Mackie, of Hamilton, another song was rendered by Mr. Grant.

Mr. Hazlett, of Winnipeg, was also called upon. He stated that in Winnipeg they had a law relating to the inspection of boilers, and had tried to get a bill passed licensing engineers.

The hearty reception given to the toast of Mr. Fox, President of Toronto No. 1, was acknowledged in a few well-chosen remarks, and after "The Press" had been duly honored, and responded to on behalf of the Canadian Engineer and the ELECTRICAL NEWS AND STEAM ENGINEERING JOURNAL, the singing of "God Save the Queen" closed the evening's programme.

To the committee in charge of the arrangements is largely due the success of the banquet. Messrs. Thos. Eversfield, G. C. Mooring, A. M. Wickens, John Fox, J. Marr and J. Bain were the members thereof. Mr. R. G. Stapells presided at the piano.

TORONTO NO. 1.

At the regular meeting of the above association, held on Wednesday, the 2nd inst., one candidate was initiated. After the transaction of routine business, Bro. E. J. Philip gave the first of a number of short talks on "Natural Philosophy," which was greatly appreciated, and for which he received a hearty vote of thanks from the members. Another talk will be given at the next regular meeting, at which it is hoped a large attendance will be present.

LONDON NO. 5.

Our association met on the 19th ultimo and re-organized, with the following members as officers: G. B. Risler, Advertiser office, president; D. Campbell, Pottersburg, vice-president; W. Meaden, secretary-treasurer, re-elected; Duncan McKinley, recording secretary; Wm. McLean, guard. It was decided at the meeting to permit engineers to join before the first of January next at a lower rate. Some consideration was given