

The first meeting of the mechanical section of this society was held October 22nd, with A. W. Robinson, president of the section in the chair. In his opening remarks, Mr. Robinson said the work of the mechanical engineer was so interwoven with that of the civil, mining, and electrical engineer that they could not exist without him. The country was yet young, and our resources were mainly of the field, forest and mine, but in their development the skill of the engineer found its greatest opportunity in accomplishing the greatest result for the least money. A great deal had already been accomplished in connection with transportation, the development of water-powers and in manufacturing industries, and those works should be recorded in their transactions. He hoped that the division of the society into sections would strengthen it, and that its transactions would be enriched by records of distinctively Canadian works.

A paper by Prof. H. M. Jaquays, "Some Notes on the Steam Turbine," illustrated by lantern slides, appears elsewhere.

At the meeting of the Mechanical Section on 26th November, a paper was read on "Modern Workshop Design," by A. Pringle, Montreal.

The first meeting of the Mining Section was held on 29th October. Dr. Porter, chairman of the section, presided. J. W. Robertson was appointed secretary.

Dr. Porter referred to the difficulty of conducting a Mining Section, where mining engineers do so little of their work in cities, but he was glad to say that five meetings had been arranged for the season, and at least one paper would be read at each. He hoped to get something done towards making abstracts of papers that appear in the technical press; and he had just completed for McGill University an index and bibliography of mining and metallurgy, with a partial index of books in the Canadian Mining Institute and in the libraries of friends who had offered the use of their books. These will be available to all members of the society. It was also hoped that the students' engineering societies of the Canadian universities would be brought into affiliation with the Canadian Society of Civil Engineers—a matter in which all sections are interested. It was further hoped that mining student meetings would be held at which prizes would be offered for students' papers of merit. The chairman then gave a review of the progress of mining engineering during the past year. Among other developments, through electricity, successful electric rock drills had at last been produced, though they had not yet proved their superiority to compressed air drills. They are likely to become popular soon for light work. Electric coal cutters are now to be had both of the chain and disc type, and are liked when the coal has a flat floor and gas is absent; but when the floor is irregular or when sulphur balls occur the compressed air pick is still preferred. Electric pumps are also proving satisfactory for pumping from outlying territory to the main pumps. The difficulties in using electricity in fiery mines, however, have not yet been overcome. For haulage underground the battle still rages between compressed air and electric locomotives, the friends of compressed air seeming to have the best of the case, as these locomotives can go into any part of a mine, while gathering their cars, whereas electric locomotives most remain in touch with the source of power. This drawback is now being overcome by a reel attachment, which pays out a cable from the trolley line. An interesting development is that the ancient method of bailing is coming into use again for pumping flooded mines, as well as ordinary pumping. Its advantage is that the bailers can be used on the main hoist. The bailers have valved bottoms, preferably inclined to lessen the shock in entering the water, and they are discharged either by opening the valve or by tipping at the surface. He announced a paper on electric smelting, by Dr. Stansfield, who would use two or three electric furnaces as a demonstration. He noted the rapid introduction of gas engines in connection with blast furnaces and other metallurgical work. The advances made in ore dressing would be dealt with in a later paper; but he would refer to the Elmore or oil process of concentration. This depends on the peculiar selective action of grease in picking out grains of certain

metallic minerals from crushed ore. When first announced some years ago, experts were incredulous, but the success of a number of plants in different parts of the world shows that it will advance in use.

The first meeting of the General Section was held on 5th November at 8 p.m., W. McLea Walbank, the chairman, presiding, and in his opening remarks said the general engineer was to the electrical, mining and mechanical engineer as the general practitioner was to the medical specialist. It was the foundation on which the work of the specialist was built.

A paper by E. Mohun, of Victoria, B.C., on the sewage disposal system of the provincial Jail, Victoria, was then read and discussed, and was followed by a description of the fireproof grain storage elevator of the Canadian Northern Railway at Port Arthur, by R. M. Pratt. Questions were asked as to the lateral pressure of grain in a deep bin, as compared to the pressure of a liquid of the same specific gravity, and if the pressure is greater per square inch in a tank of large or small diameter. These questions would likely be answered in a paper to be read by J. A. Jamieson at the meeting of December 10th.

Thomas C. Keefer, of Ottawa, a past president, and Lieut.-Col. Sir Percy Girouard, chief of the Imperial Railway System in the Transvaal, have been elected honorary members of the society.

At the meeting of the general section on December 10th, a paper, "The Presence of Grain in Deep Bins," will be read by J. A. Jamieson, C.E., Montreal.

A business meeting of the society was held on 12th November at 8 p.m., K. W. Blackwell, president, in the chair. The following programme for the annual meeting was announced:

Tuesday, January 26th, a.m.—Business meeting. Luncheon in the building. Papers in the afternoon and evening.

Wednesday, a.m.—Visiting the works of the Locomotive and Machine Company, C.P.R. shops, and Shawinigan transformer station, with luncheon at the Locomotive and Machine Co. shops. Dinner in the evening.

Thursday, a.m.—Conclusion of business. Reading of presidential address. Tea in the rooms in the afternoon.

NEW CORPORATIONS.

The Dominion Contractors' Co.; \$120,000; Montreal; J. D. Porcheron, and others.

Siche Light Co.; \$100,000; Montreal; T. F. MacKay, and others.

Mill Stream Lumber Co.; \$20,000; Quebec; C. E. Taschereau, and others.

Dominion Dump Car Co.; \$2,500,000; Ottawa; H. S. Hart, of Chicago, and others.

The Ledoux Carriage Co.; \$250,000; Montreal; Chas. Ledoux, and others.

Williams Iron Mines Co.; \$3,000,000; Sault Ste Marie; J. E. Burchard, of St. Paul, and others.

The Sprouted Food Co.; \$100,000; Toronto; J. N. Lake, and others.

Automatic Ventilating Closets; \$60,000; Toronto; Harold B. Robinson, and others.

Glengarry Mills; \$50,000; Toronto; A. W. McDougald, and others.

The Bradley Torpedo and Oil Company; \$30,000; Petrolea; W. J. Bradley, and others.

The Iron and Steel Company of Canada; \$300,000; Belleville; C. E. Carbonneau, of Paris, France, and others.

The Black Cat Gold Mining Company; \$2,000,000; Toronto; Frank W. Whitaker, of Hamilton, and others.

The Clifton Natural Gas Company; \$40,000; Niagara Falls, Ont.; D. A. Coste, and others.

The George Wilson Building & Contracting Company; \$40,000; St. Catharines; Geo. Wilson, and others.

The Preston-Bell Furniture & Lumber Company; \$95,000; Fort Frances; W. A. Preston, and others.