

SOCIETY NOTES.—Continued.**Ontario Land Surveyors.**

The seventeenth annual meeting of the Ontario Land Surveyors will be held at Toronto, February 23rd, 24th, and 25th, 1909, and the meetings, except the Tuesday evening meeting, will be held in the Parliament Buildings.

Tuesday morning will be taken up with the receiving of reports of committees. In the afternoon Mr. A. J. Van Nostrand will give his presidential address, and the following papers will be read:—"Topographical Surveys," B. J. Saunders; "The Mill Lot, Township of Plantagenet," E. T. Wilkie; "Grade Crossings of Railways," F. L. Somerville.

Tuesday evening, Mr. Elihu Stewart will give an illustrated lecture at the Engineers' Club, 96 King Street West, on "Down the Mackenzie River and up the Yukon."

Wednesday morning the following papers will be taken up:—"The Sewerage System, Hamilton, Ontario," E. G. Barrow; "Hudson Bay, a National Asset," J. W. Tyrrell; "The Road Surface," W. A. McLean; "Local Improvements," George Ross; "The Seigniority of Longueuil," E. T. Wilkie.

Wednesday afternoon:—"The Future of Surveyors in Northern Ontario," J. F. Whitson; "Equipment and Management of a Party on Township Outlines," T. B. Speight; "Professional Status," B. J. Saunders; "Gravity," Otto Klotz; "Determining Azimuth by the Polar Star," L. B. Stewart.

Wednesday evening, dinner at McConkey's.

Thursday morning, paper on "Iron Ore Mining,—Belle Island, Newfoundland," W. B. Ford.

Report of committees and election of officers.

Canadian Forestry Association.

The annual meeting of the Canadian Forestry Association was held in the Convocation Hall, University of Toronto, on February 11th and 12th, 1909. The attendance was large and representative. The president, Mr. W. B. Snowball, presided.

Earl Grey was present and gave an interesting address. He referred to the great loss a country sustained by deforestation, not only because of timber waste, but the loss to agriculture. "The teaching of the people how to care for their forests is becoming the first object of the American Government," said His Excellency. "I hope it will also become the first object of the Canadian people. The forest area in the Dominion is 354,000,000 acres. By far the greater part of this is still Crown land, or in other words, belongs to the people. The question for you to determine appears to me to be this:—Shall this great inheritance, of which you are the trustees, be handed over to uncontrolled individuals to be misused, without regard to the interests of posterity, or shall it be managed under careful and well considered regulations on lines which will increase the public revenues, at the same time that they will ensure a steady advance in capital value."

Hon. J. M. Gibson spoke very briefly. Effective fire ranging was necessary to protect the forests, he said, and very important steps had been taken along that line. When he was Minister of Crown Lands there was selected and set apart many forest areas, and these could be found in Ontario areas, no good for agriculture, on which second-growth timber was coming, which was set apart and held held sacred and protected as forest reserves for all time.

Hon. W. C. H. Grimmer, Surveyor-General of New Brunswick, said he believed in the absolute preservation of the forests. He referred to the work done by the Government of New Brunswick. The exportation of pulp, he said, was a serious question in the eastern province. Great precautions had been taken to prevent fire in New Brunswick forests, and a new departure had been made by getting the correct scales of timber cut.

Mr. Frank Hawkins, Secretary of the Canadian Lumbermen's Association, said all lumbermen were intensely interested in the question of the protection of the forests. He

thought that lands which had been denuded of timber should be utilized in some way.

Prof. McClement, of Queen's University, said it was time that Ontario was taking measures to conserve the water supply. The Province was lacking in coal supply and would suffer in the near future if the water supply was not conserved. In all the instruction at Queen's, he said, he would point out the necessity of every man subordinating his own private interests to those of the public and the future, and in some extent sow the seeds of public opinion which would prevent the exploitation of the forests in a wasteful manner.

"General Forestry Conditions and Forestry Education" was the subject of a paper read by Mr. R. B. Miller, of the Department of Forestry of the University of New Brunswick, who was of the opinion that education was the best way to preserve the forests.

The convention closed with a banquet given at the National Club on Friday evening, at which the chair was occupied by the President of the Board of Trade, Mr. J. P. Watson, and the chief guest was His Excellency Earl Grey. Among those also present were His Honor the Lieutenant-Governor of Ontario, Sir James Whitney, President Falconer, Mr. Leveson-Gower, Hon. Frank Cochrane, Hon. W. C. H. Grimmer, Hon. Colonel Matheson, Mr. J. B. Miller, Major J. F. Macdonald, Mr. W. J. Gage, Mr. W. B. Snowball, Hon. J. S. Duff, Mayor Oliver, Dr. B. E. Fernow, Mr. A. H. Campbell, Mr. Thomas Southworth, Mr. A. H. D. Ross, Mr. R. S. Gourlay, and Mr. G. H. Gooderham, M.P.P.

Institute of Engineers.

At the Institution of Engineers and Shipbuilders in Glasgow, Mr. A. S. Biggart described several of the most important bridges constructed within recent years by Sir William Arrol and Company, under his supervision. The first bridge described was that for the Caledonian Railway Company over the Clyde at Glasgow, which has accommodation for 13 railway tracks at the north end. As the main girders are underneath the deck of the bridge there is ample provision for rearrangement of lines or crossings. The piers of concrete hearting faced with granite were built on rectangular steel caissons sunk to a depth of 50 feet below the bed of the river, and filled with concrete. These caissons were built on a timber staging erected across the river, and were lowered to the river bed by hydraulic jacks. The next bridge noticed was that across the River Barrow, in the south of Ireland, serving the railway between Rosslare Harbor and Waterford. This bridge is 213 feet long, and consists of 13 fixed spans, each of a clear width of 140 feet, and a swing span giving two clear openings of 80 feet. The main girders are of lattice type, and carry the railway floor from the bottom booms. The chief difficulty encountered in the work was the exceptional depth reached by some of the pier cylinders. This depth (in one case 120 feet below high water), necessitated special arrangements to ensure reduction of pressure and to prevent illness among the workmen.

The new bridge over the River Wear, at Sunderland, was the next described. It carries a double line of railway for the North-Eastern Company, a roadway of 26 feet wide and two 7 feet footpaths. The bridge measures 1,220 feet between the principal abutments, and consists of one main river span 330 feet long and 85 feet above high water, and three land spans each 200 feet long. The main piers are of granite, and are built on concrete foundations. A steel caisson was adopted for the north river pier.

The new road bridges over the River Nile at Cairo were designed by Sir William Arrol and Company, and supervised by Mr. Biggart. The largest bridge is 1,755 feet long, and the smaller bridges are 272 feet and 220 feet respectively. The chief difficulty encountered was the extremely high level to which the River Nile rose every autumn, and which necessitated staging stronger than is generally used for such work. The Walney bridge, which connects Barrow-in-