

DeGurse, Windsor; Road Metal, by H. J. Bowman, Berlin; Country Roads in New Jersey, by T. B. Speight, Toronto; Crown Surveys, by Jas. Dickson, Fenelon Falls; The Ditches and Water-courses' Act of 1894, by B. J. Saunders, Brockville; Some Notes on Concrete and its Application to Various Works, by M. J. Butler, Napanee; Measurement of Base Lines with Steel Tape, by L. B. Stewart, D.L.S., Toronto; Evidence, by V. Sankey, Toronto; The Maintenance of a Separate Sewerage System, by T. Harry Jones, Brantford; The Engineering Field of America, by A. R. Davis, Napanee. Also others not yet specified.

Reports from the following committees will also be presented, viz: Land Surveying, Drainage, Engineering, Entertainment, Publication, Topographical Surveying, Polar Research, Standard Measures of Length, Biography.



JOSEPH HOBSON, M.I.C.E., ENGINEER IN CHIEF OF THE GRAND TRUNK RAILWAY.

Joseph Hobson, C.E., who has just been promoted from the position of divisional engineer to be engineer-in-chief of the whole Grand Trunk system, is a Canadian, having been born near Guelph, Ontario. He served his apprenticeship as a Provincial land surveyor in Toronto, and after having passed his examinations as such, he was engaged for a number of years in private practice as a surveyor and an engineer, and in the location and construction of different lines of railway in Canada and the United States. At the beginning of 1870 he was appointed resident engineer of the international bridge at Black Rock, Buffalo, and was continuously on the ground during the construction of the bridge. On the completion of the work at the end of 1873, he was appointed chief assistant engineer of the late Great Western Railway of Canada, his associate being Mr. Kennedy, now engineer of the Montreal Harbor Board, and about two years later he was appointed chief engineer of the line. He still holds that position under the management of the Grand Trunk Railway Company. His professional experience extends over a period of about thirty-two years. The Grand Trunk Railway tunnel under the St. Clair River was designed and constructed to a finish by Mr. Hobson, Sir Henry Tyler being president of the road at the time. This gentleman had every confidence in Mr. Hobson's ability to build this marvellous piece of engineering work, yet Mr. Hobson, by the way, is one who, to quote Sir Henry Tyler, had never been outside of Canada to profit by the advantages and education which Sir Henry appeared to think could not be had in this country—a country, however, from which the Shanlys went forth to complete the great Hoosac Tunnel in the United States, after the engineers there had hesitated before the task. The St. Clair tunnel, built to carry the traffic of a great railway under a wide and deep river, is the first of its kind on this continent or elsewhere in operation. It is, however, likely to be followed in other localities. After Mr. Tyler and the G. T. R.

board in London, England, had got every information on it, they decided on the employment of Mr. Hobson as the engineer of the great undertaking. At a banquet held at the opening of the tunnel, when there were United States and Canadian railway notabilities present, Sir Henry Tyler spoke of the numerous difficulties encountered and overcome in its construction; he ended by proposing the health of Mr. Hobson. The applause by which this was received made the rafters ring. When called on to respond Mr. Hobson spoke as few words as possible, and what little was said regarding the technical work was extracted from his assistant, Mr. Murphy. There are few great engineering works of modern times that have exhibited greater skill or have been so economically and carefully brought to completion as the Sarnia Tunnel, but Mr. Hobson seldom alludes to the subject, and when he does so speaks of his own part in the work in a self-depreciating way, and is careful to inform the enquirer that the idea of excavation by a cylindrical core was not original with him. Among men whose life work is historical it would be hard to find one who is so completely free from vanity or egotism. He never pushed himself forward, and all his promotions have been made because those at the head of affairs perceived his solid abilities. Perhaps the best evidence of the rare gift which the new general manager of the Grand Trunk seems to possess of selecting capable men and reading men almost at a glance, is shown in "sizing up" Mr. Hobson after a short interview on his way to Montreal.

It may be of interest here to give a few facts respecting the Sarnia Tunnel, which an American engineering paper describes as the "greatest sub-marine tunnel on the North American continent." It extends from Port Huron, in the State of Michigan, to Sarnia, in the Canadian Province of Ontario, and connects the Grand Trunk railway system of Canada with the lines operated under Grand Trunk management west of the St. Clair river, and with the Flint and Pere Marquette and other Michigan railways. The tunnel was built and is owned by the St. Clair Tunnel Company, organized under special Act of the Canadian Parliament. The length from portal to portal is 6,025 feet; length from portal on the American side to river bank, 1,729 feet; length from portal on Canadian side to river bank, 2,006 feet; length under river bed, 2,290 feet. The tunnel is a perfect cylinder with an interior diameter of 19 feet 10 inches; the segment filled in at the bottom for the railway road bed has a flat surface from side to side of 11 feet 6 inches; the length of the cutting on the American side to the portal is 2,487 feet. The depth at the portal to the road bed, below the natural surface, is 50 feet; the length of the cutting on the Canadian side to the portal is 3,116 feet, and the depth of the portal is 57 feet; the grade on the American side is 1 in 50, or 105.60 feet per mile; the grade on the Canadian side is 1 in 50, or 105.60 per mile. The cost was \$2,500,000.

Mr. Hobson is a member of the Institute of Civil Engineers of Great Britain, of the American Society of Civil Engineers, and of the Canadian Society of Civil Engineers.

CANADIAN SOCIETY OF CIVIL ENGINEERS.

The regular meeting of the society was held on Thursday, 9th January ult., at the society rooms, Montreal, the subject for discussion being "The most suitable shape of timber for testing." Messrs. Irwin, Smith, Vantelet, Kennedy and Wallis took part in the debate.

Prof. C. B. Smith, M. Can. Soc. C.E., read Part 2 of his paper on "Cement Testing."

W. C. McDonald was elected an honorary member of the Can. Soc. C.E., in consideration of the benefits he has conferred upon the engineering profession of Canada, in the erection, equipment and endowment of the Engineering and Physical buildings for the Faculty of Applied Science of McGill University.

Alexander King Kirkpatrick, of Smith's Falls, Ont., and Arthur Tristram Phillips, Ottawa, Ont., were transferred from the class of associate member to that of member of the society.

Charles Burrard Kingston, of Montreal, and John King McDonald, of Dunkirk, N.Y., were transferred from class of students to the class of associate members.

Walter Moffat Scott, of Charlottetown, P.E.I., was elected to class of student.

At the regular meeting on Jan. 30th the discussions on W. B. Dawson's paper and Prof. Cecil B. Smith's paper regarding frost tests of cement, were continued.

At the meeting on Feb. 13th the following question will be debated: "Resolved that engineering works should be constructed by day's work, under the immediate direction of a civil engineer, instead of being done through a contractor."

THE ANNUAL MEETING.

The annual general meeting of the Canadian Society of Civil