

worth and value of a permanent adviser. This is perhaps most marked in the matter of purchasing coal, for large buyers who give attention to the reduction in their fuel bills are beginning to realize that coal can no longer be profitably bought by the ton only. They recognize the importance of quality as well as weight, and now insist that their coal be bought with the same care that is exercised in the selection and purchase of such commodities as wheat, wool, lumber, ores, fertilizer, etc.

The up-to-date buyer now seeks to obtain the most power or heat for a dollar, and in order to do this buys strictly on a heat unit basis. This method is perfectly fair to seller and buyer and protects the latter in that if poor coal is delivered to him it forms the basis for settlement or allows him to reject it. Further, he does not pay a good price for moisture, ash, etc.

The purchase of coal on a B.t.u. basis calls for sampling and chemical analyses, processes which require both scientific training and a laboratory with modern equipment. The coal buyer has neither; he therefore turns to the commercial laboratory of engineering chemistry which, when properly organized and equipped by trained fuel engineers will save him many times the cost of the service.

### T. S. SCOTT.

Mr. Thomas S. Scott, B.A. Sc., who recently resigned the position as Principal Assistant of the City Engineer of Toronto, received his university training at Queen's University, Kingston. Mr. Scott was a member of the Class of '94 in Arts, graduating with honors in mathematics, physics and English. Completing his course in Arts he took up the course in civil engineering, then being established in the Kingston School of Mines and in 1897 received a degree of B.Sc., being the first student of Queen's to receive that honor.

The year of his graduation, Mr. Scott went to southern British Columbia to report on a hydraulic mining scheme, and it was when returning from this work that he came in touch with one of the most difficult problems he ever had to solve.

Major Walsh of the Northwest Mounted Police required the transportation of a large quantity of supplies through the Chilkoot Pass. This was a year before the White Pass Railway was built and the difficulty of transporting men and supplies by this route may well be imagined when it is known that for a space of 12 miles the goods had to be carried on men's backs and that the transportation of freight through this pass cost \$1,000.00 a ton. The prestige of the N.W.M.P. of Canada was involved and Mr. Scott handled the work with such dispatch that this feat is still looked upon as one of the most successful transportation expeditions of the West.

In the winter of 1898 Mr. Scott joined the G.T.R. as foreman on the construction of a new yard: that spring he was transferred to the general road-master's office, as chief clerk, and from there went out on the road in charge of a switch gang and was shortly promoted to the position of road-master. In 1901 he resigned from the G.T.R. Maintenance Department, and went to Niagara Falls as Instrument man for the Canadian Niagara Power Company on the wheel pit.

In 1902 he joined the Ontario Power Company as Field Engineer on accurate surveys, and was later placed in charge of a section of their construction work. In 1904 he was engaged by one of the contractors on the rock excavation work in connection with the same power development work at Niagara. In 1905 he was chosen as the mutual representative of the contractors and the company to complete the

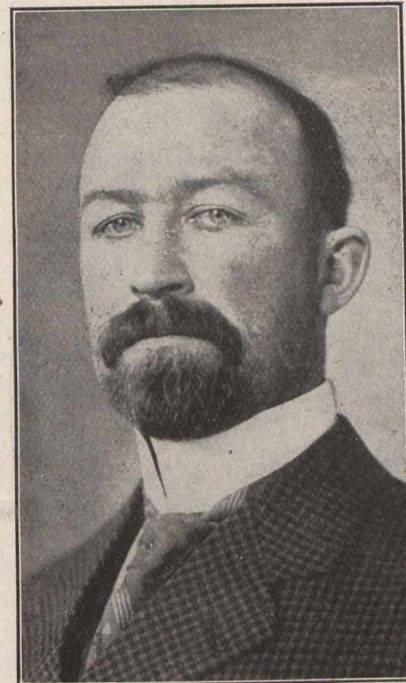
wheel pit extension at the Canada Niagara Power Company's plant.

During 1905 and 1906 he was engaged by the contractors on the high tension transmission line from Rochester to Syracuse, N.Y. From this work he went in charge of construction work on the Shawenegan Falls Tunnel and in 1908 he was representing the contractors who had charge of macadam road construction in New York State. In the latter part of this year and 1909 he returned to railroad work and completed forty-five miles of the T. & N. O. Railway, acting as the representative of the contractors and the Commission.

At the completion of this work Mr. Scott was appointed principal assistant to City Engineer Rust in Toronto, and resigned in March of this year.

Mr. Scott went to Vancouver as president and general manager of the British Columbia organization of the Bitulithic Paving Company.

Mr. Scott's experience has been varied and each change of work has meant a promotion. Experience and promotion are two things that the engineer appreciates, but it is in-



Mr. T. S. Scott, B.Sc.

teresting to know that in connection with Mr. Scott's career he can look back with great pleasure upon three particularly difficult tasks which he carried through successfully and to the great satisfaction of his employers.

Major Walsh congratulated him and complimented him upon the resourcefulness and dispatch exhibited in the transporting of supplies and men across the Chilkoot Pass before winter set in.

General Superintendent McGuigan of the G.T.R., telegraphed his compliments to him for his management in changing steel on 9½ miles of track in ten hours with one gang of men working in one direction, this being the record for North America.

Chairman J. Englehart, of the T. & N. O. Railway Commission, specially thanked Mr. Scott for his completion in one season of forty-five miles of railway.

These commendations coming from leaders in different lines of activity must have been particularly gratifying as too frequently we find that the engineer does not receive the credit due him.