

## PERSONALS

A. S. CLARSON, who has acted as city engineer of Verdun, P.Q., for the past two years, has resigned.

T. J. BROWN has been reappointed chief superintendent of the Nova Scotia Steel and Coal Co. at Sydney Mines, N.S.

EDWARD L. COUSINS, B.A.Sc., chief engineer and manager of the Toronto Harbor Commission, has been appointed deputy fuel controller for the Province of Ontario. Mr. Cousins will assist the new provincial fuel controller, R. Home Smith, who succeeded R. C. Harris after the latter's resignation owing to pressure of other work. Mr. Cousins was born June 11th, 1883, in Toronto, and was educated at the Toronto public schools and Toronto University. He graduated with honors in

the class of 1906, Faculty of Applied Science and Engineering. After graduation Mr. Cousins was appointed engineer of the middle and southern divisions of the Grand Trunk Railway, and remained in that position until June, 1910, having 1,200 miles of main line under his direction. He had also considerable railway experience prior to graduation from the university in the capacity of assistant engineer of the Grand Trunk Railway at To-



International Press Photo.

ronto for two years; also from May to October, 1905, as assistant engineer of the Central Vermont Railway on the reconstruction of the West River branch. He was also on the engineering staff of the Grand Trunk Railway in 1906. In July, 1910, Mr. Cousins was appointed as assistant city engineer of Toronto, having charge of the department of railways, bridges and docks, and retained this position until February, 1912, when he resigned in order to become chief engineer of the Toronto Harbor Commission. In the latter capacity he prepared the development plans for the Toronto water front improvements, providing for an expenditure of \$25,000,000. In 1913 he was appointed consulting engineer to the Federal Plan Commission of Ottawa and Hull and prepared a very thorough report on that work in conjunction with E. H. Bennett, consulting architect. In 1915 Mr. Cousins was associated with R. C. Harris, commissioner of works of the city of Toronto, and with F. A. Gaby, chief engineer of the Ontario Hydro-Electric Power Commission, as engineer in charge of the preparation of a report on rapid transit and radial railway entrances for the city of Toronto. The report which this board made at that time is notable for the unique and striking manner in which all the statistics were presented in very ingeniously devised multi-colored charts. In 1916 Mr. Cousins was appointed a member of the permanent transportation commission of the city of Toronto, and in the

same year he was given full control of the Toronto Harbor Commission work as manager. During the progress of the Toronto harbor work very serious disputes had arisen with the contractors, during the course of which Mr. Cousins showed great strength of character and a thorough grasp of his work, earning his title as manager. He succeeded in an effort to make the contractors repair, at considerable loss to themselves, alleged faulty work said to have been done by sub-contractors.

F. W. GRAY has resigned as chief clerk of the Dominion Steel Corporation to accept an appointment on the staff of the Nova Scotia Steel and Coal Co.

E. E. ESTLIN, consulting gas engineer to the Ontario Railway and Municipal Board, has been appointed Provincial Commissioner of Natural Gas for the purpose of dealing with all complaints in connection with the administration of the board's orders regarding that fuel.

CHARLES W. WEST, B.A., C.E., who was expected to read a paper on "Reinforced Concrete Construction" at the Halifax meeting of the Engineering Institute of Canada, was prevented from doing so owing to illness. Mr. West is a patient at the St. John Infirmary but is gradually recovering.

RICHARD A. SARA, B.A.Sc., sales manager of the city light and power department, Winnipeg, Man., has been appointed to an executive position by the American Cellulose and Chemical Manufacturing Co., of New York, who expect to erect a \$5,000,000 plant in Maryland for the manufacture of non-inflammable moving picture films and chemicals for treating airplane wings. Mr. Sara graduated with honors in the class of 1909, Faculty of Applied Science and Engineering, University of Toronto.

## ROAD WORK IN MANITOBA

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municipality \$3.25 per mile per season (up to \$250 per municipality), for any road properly maintained throughout the season.

The government also provides the services of an expert dragman and grader man whose services are free to any municipality for demonstration in dragging or push grader work. For earth roads the plank-drag or steel drag is used, generally the latter. While the plank-drag probably gives better results if used at the proper time, in most cases the road is not dragged until it has pretty well dried out, in which case the steel drag gives better results. For gravel roads we have found the Minnesota planer to be by far the most satisfactory implement for maintaining a smooth surface on this type of road.

At present about fifty municipalities are building roads under the Good Roads Act and nineteen hundred miles have been accepted by the Good Roads Board. Three hundred and sixty-five miles of earth roads and one hundred and ninety-one miles of gravel roads have been constructed up to the end of 1917 and one hundred and ninety miles are under construction. One hundred and forty-nine wooden structures have been built up to the end of 1917. This year about sixty-five concrete structures and fourteen wooden structures will be built. Up to the end of 1917 the government had paid \$680,000 as its share of work performed under the Good Roads Act.

Announcement has been made that the Mining Society of Nova Scotia, the oldest association of mining men in Canada, is about to amalgamate with the Canadian Mining Institute.