## PERSONALS

Lieut. J. B. L. Heney, of Ottawa, who, before enlistment, had completed three years' study in Applied Science at McGill University, has been awarded the Military Cross.

R. J. Cole, C.E., of Syracuse, N.Y., was recently in Hamilton, Ont., looking into conditions for the erection of a large coke plant in that city for the Semet-Solvay Coke Company.

Capt. Joseph A. LeRoyer, civil engineer, formerly of Montreal, has been awarded the Military Cross. He originally joined the 163rd Battalion, Montreal, and was then transferred to the Royal Flying Corps.

Lieut. Laurence B. Kingston, of the Canadian Field Artillery, and a McGill University graduate of the class of Science, '08, has been awarded the Military Cross. He was practising as a civil engineer in Toronto when he joined a battery as a subaltern and went overseas in 1915. Lieut. Kingston's home is in Ottawa.

Lieut.-Col. Chas. H. MITCHELL, M.Can. Soc. C.E, of the firm of C. H. and P. H. Mitchell, consulting engineers, Toronto, has been made an officer of the Order of Leopold by the King of Belgium. The honor is a reward for Col. Mitchell's distinguished services in the fighting in Belgium, which culminated recently in the battle of Messines.

Lieut. D. M. EWART, of the Canadian Engineers, son of David Ewart, consulting architect of the Department of Public Works, Ottawa, has been awarded the Military Cross. He was graduated in Applied Science at McGill University in 1910, and is twenty-seven years of age. Enlisting as a sapper in 1915, he was in England promoted to the rank of sergeant-major, and in November, 1916, won his commission. Lieut. Ewart was resident engineer at West Toronto for the C.P.R. when he enlisted.

## OBITUARY

GEO. BROMLEY KIRKPATRICK, who until a year ago held the position of Director of Surveys for the Ontario government, died at his home in Toronto on August 3rd at the age of eighty-two. He was born in 1835 near the city of Dublin, Ireland, and was educated at Trinity College. Upon graduating in 1857 he came to Canada, and was engaged for some time in the construction of the G.T.R. system in Ontario, finally becoming a land surveyor. In 1866 he entered the Crown Lands Department at Toronto, but a year later, the time of Confederation, when the government moved, he went to Ottawa. After serving twelve years in the Dominion office he was appointed in 1878 director of surveys for the government of Ontario, which position he held up to a few years ago, when he retired.

The Milton Hersey Company, Limited, Montreal, have been appointed as specialists in connection with the asphalt paving work on the Quebec-Montreal Highway. This work is expected to start in the near future, the asphalt paving plant for making the surface mixture being now in the process of erection. The Milton Hersey Company have also been retained by various cities, including Quebec, Montreal and Woodstock, upon a flat price per square yard, including consultation, reports on materials and mixtures, and inspection. C. A. Mullen, A.M.Can.Soc.C.E., is the director of the paving department, and Walter C. Adams, B.A.Sc., is chemical engineer.

## PORTABLE CEMENT-GUN OUTFIT

The Burns Cement-Gun Construction Co., Limited, of Toronto, has designed and built a portable cement-gun outfit which appears to have several advantages over previous types. A light auto truck hauls the cement-gun and the workmen to the site of the job and at the same time pulls a trailer on which are mounted a compressor, engine and pump.

After placing the trailer in working position and unloading the gun, the truck is then used for hauling the sand and cement, and, where necessary, the reinforcing materials. The gasoline engine on the trailer is a 4-cylinder, 30-h.p. Gray marine type engine. The compressor is a Gardner, 8" x 6", duplex, with capacity of 180 cubic feet at 75 lbs. pressure, at 400 r.p.m. The compressor is belt-driven. The unloader of the compressor is regulated for 50 lbs. pressure.

Mounted on the trailer is also a 1½" Albany centrifugal pump which cools the motor and supplies the water jacket of the compressor and also the nozzle of the cementgun. The piping is so arranged that either the water or air can be taken from either side of the compressor, and when city water pressure is available, the pump can be cut out entirely. The pump is belt-driven from the compressor fly wheel. Underslung under the trailer is the air tank.

The company considered various types of portable outfits now in use by cement-gun construction companies in the United States, specially the type where the compressor is driven by the automobile motor, but rejected all of them on account of lack of flexibility. The arrangement decided upon has the advantage of allowing the truck to be used for hauling materials.

## THE GREATER WINNIPEG AQUEDUCT

(Continued from page 108.)

At the end of the 1915 construction period, 14.6 miles of aqueduct had been completed. This mileage represented 17.1% of the work let. In 1916, 35.5 miles were built, making 50.1 miles of completed aqueduct, or 52% of the total mileage. If the contractors succeed in completing their schedule for 1917, by December of this year only 15% of the work east of Deacon will remain unfinished.

An administration board consisting of the mayor of Winnipeg, as chairman, and the Board of Control (four members), the mayor and one member of the St. Boniface Council, the mayor of Transcona, and the reeves of Assiniboia, St. Vital, Fort Garry, East and West Kildonan, conduct the affairs of the district. Subject to this board, two commissioners, R. D. Waugh (chairman) and J. H. Ashdown, manage the corporation. W. G. Chace is chief engineer in charge of construction, and J. H. Fuertes, of New York, is consulting engineer.

A new cement mill, with a capacity of from 50,000 to 100,000 barrels of cement per year, has just been opened about one mile from Guatemala City by American interests, acting under a special concession of the Guatemalan Government. The plant has been under construction for two years, and involves not only the mill itself, but two miles of railway connecting with the port. Practically all the machinery was manufactured in the United States. The new company is restricted under its franchise to a maximum charge of \$4 per barrel for its product. The managers state that they will be able to manufacture cement at a cost of \$1.25 per barrel.