

Wash water supplied by separate wash water pump, giving a wash water velocity of 12 to 13 inches vertical rise per minute. Plant operation variable.

Garnett.—Plant installed 1908. New York Continental Jewell Filtration Company standard equipment. Filters washed with water only. Water supplied directly from distribution system, at a pressure of approximately 60 pounds per square inch at the manifold, giving a wash water velocity of approximately 18 inches vertical rise per minute. Sand replaced in 1915; in a very dirty condition in 1917. Plant operation poor.

Olathe.—Installation test August, 1914. Pittsburg Filter Company's equipment. Air and water wash. Wash water velocity 14.7 inches vertical rise per minute. In January, 1918, the filters washed unevenly and several of the strainers were clogged. Operation good.

This investigation has not been carried to a point where it can be definitely stated that the darkening of the sand has any effect upon the efficiency of the filter, but there is a feature well worth investigation along this line because it seems that penetration of the bed is followed by this coloration. At the present time the only definite discovery is an ocular index of improper operation. This is something the small plant filter operator can be warned to look out for. If he finds that his sand is becoming dark, he should change his time or method of washing so that he will have no fouling or penetration of the bed.

PERSONALS

COL. G. G. NASMITH, director of the bacteriological department of the City of Toronto, slipped on the steps of the City Hall recently and broke his leg, necessitating his removal to a hospital.

A. T. FRASER, of the Canadian National Railways, has been appointed chief engineer of the western lines. Mr. Fraser was with the C.N.R. at Edmonton for several years. His headquarters will be at Winnipeg.

ARTHUR MOSS, chief engineer of the Hydraulic Service, Quebec, and a member of the Quebec Streams Commission, has been added to the Dominion Power Board as a representative in the interests of the Province of Quebec.

E. R. GRAY, city engineer of Hamilton, has been appointed a member of the Natural Gas Advisory Board of the Ontario Government. This Board will co-operate with the department of Lands, Forests and Mines in connection with the gas problems of the province.

SIR CLIFFORD SIFTON has resigned as chairman of the Commission of Conservation. The work is being carried on by James White, assistant to the chairman and deputy head of the commission, pending a new appointment by the government. No reason for the resignation was given by Sir Clifford, who is now in England.

G. M. GEST, of Montreal, is managing-director of the Sino-North American Company, Ltd., which has been organized to promote Canadian export trade. Mr. Gest is well known as a conduit contractor. His new company has opened offices in Peking, Hong Kong, Shanghai and Vladivostok, and the company expects to open an office in India. The company represents the Dominion Textile Co., the Ogilvie Flour Mills, Steel Company of Canada, Canada Carbide Co., Warden King & Co., Brandram-Henderson, Dominion Bridge Co., Thos. Davidson & Co., Empire Typewriter Co., and Waterous Engine Works. Among those connected with the company are Sir Herbert Holt, of Montreal, and A. E. Aldred, president of the Shawinigan Water & Power Co.

MAJOR F. L. C. BOND has been appointed chief engineer of the Grand Trunk Railway, with headquarters at Montreal. Major Bond, who succeeds Mr. H. R. Safford, recently appointed engineering assistant to the Regional Director of the Central Western District, United States Railroad Administration, has just returned from overseas after two

years' service with the 10th Battalion Canadian Railway Troops. He was born in 1877 at Montreal, and graduated from McGill University in 1898. He later entered the services of the Grand Trunk as assistant resident engineer of the Eastern Division, and in 1901 was appointed engineer in charge of double track construction. In 1902 he was night superintendent on the construction of the Park Avenue tunnel of the New York subway, but returned to the Grand Trunk as resident engineer, Eastern Division, a position which he held until 1913. From that time until 1916, when he went overseas, Major Bond was division engineer, Eastern Lines.

OBITUARIES

L. O. CLARKE, of Toronto, died recently in his 38th year. Mr. Clarke was a surveyor, and had the distinction of surveying the townsite of Cobalt. He recently had been engaged in work for the C.P.R. on the Lake Superior division.

LIEUT. JOHN R. KIRBY, B.A.Sc., Toronto University, was killed December 15th as a result of an aeroplane accident in England. Lieut. Kirby, who was in his 28th year, was born and educated in Toronto, winning honors in 1916 in the Faculty of Applied Science.

WALTER KENDALL GREENWOOD, B.A.Sc., engineer of the Orillia Water, Light & Power Commission, died last Friday at Orillia, aged 37, after a brief illness, from pneumonia. Mr. Greenwood was a graduate of the Faculty of Applied Science, University of Toronto. He was the eldest son of Russell Greenwood, of Toronto.

WM. J. GALBRAITH, a graduate of McGill University, 1909, died recently from pneumonia. He was born at Lachine 32 years ago. Mr. Galbraith was engaged in the construction of a ship canal and shipyard at New Orleans, La., which was designed to be, in time, the largest plant of its kind on the North American Continent.

CLIFFORD E. ROGERS, a graduate of the School of Practical Science, University of Toronto, who enlisted as a private in the Canadian Corps, Cyclist Battalion, died of wounds November 7th, in France. Prior to enlistment, Pte. Rogers was an inspector in the Department of Works, Water Supply Section, Filtration Plant, Toronto.

L. A. DAREY, of Sherbrooke, P.Q., died suddenly on Nov. 29th at the age of 53. He was born in Montreal and spent a number of years in South America in railroad construction work. Of late years he had been engaged on the C.N.R., G. T.P., and the Transcontinental Railways. For the last four years Mr. Darey had been a prominent worker in the good roads movement.

LOGAN WALLER PAGE, director of the United States Office of Public Roads and Rural Engineering, who was well known to many Canadian highway engineers and contractors, died suddenly in Chicago, December 9th, while in attendance at the annual meeting of the American Association of State Highway Officials. He was born in Richmond, Va., in 1870, and was a student in engineering at Virginia Polytechnic Institute for two years and at Harvard University for six years. Later, at Harvard, he was in charge of tests of all materials used by the Massachusetts Highway Commission and some for other states and Canada. In 1899 he made an extended study of road building in Europe. A year later, he became chief of the road material laboratory, United States Government, afterwards re-organized as the Division of Tests. In 1904 he became Director of the Office of Public Roads, which combined the Division of Tests and the Office of Public Roads Inquiry, in the Department of Agriculture.

TAKE NOTICE that J. W. Bowley, of Simpson, Saskatchewan, duly manufactured the Lockout System for Party Line Telephones covered by *Canadian Patent No. 166845*, and is prepared to supply any further orders for said Lockout system at a reasonable price.—J. W. Bowley, Simpson, Sask.