15th. Mr. Richardson will resume his former connection with the G. H. Archibald Construction Company of that city.

H. E. BALLANTYNE, B.A.Sc., a graduate of '93, School of Practical Science, and a prominent architect of New York City, addressed the University of Toronto Engineering Society recently on "The Architect and Engineer in Modern Architecture,"

J. B. CHALLIES, Superintendent, and J. T. Johnson, hydraulic engineer, were the representatives from the Water Power Branch Department of the Interior, at the recent session of the International Waterways Commission in Washington.

PAUL D. SARGENT, M.Am.Soc. C.E., Chief Engineer, State Highway Commission, Augusta, Me., on January 20th delivered an illustrated lecture on "Gravel and Its Use in Highway Construction" before the Graduate Students in Highway Engineering at Columbia University.

J. G. FETHERSTON is assistant designer in the engineering division of the Street Cleaning Department of the city of Toronto. Mr. Fetherston is a younger brother of Mr. John T. Fetherston, who was recently appointed Commissioner of Street Cleaning of New York City. Previous to coming to Toronto Mr. Fetherston had charge of the erection of an incinerator plant at Savannah, Ga.

J. E. JONES has accepted the position of mechanical engineer in the engineering division of the Street Cleaning and Refuse Department, city of Toronto. Mr. Jones was previously with the Electric Bond and Share Company of New York as chief designer. He has had considerable previous experience in hydro-electric and steam plant projects. Mr. Jones graduated from the School of Practical Science, Toronto, with the class of '94.

E. W. OLIVER, manager of construction, Canadian Northern Railway, Toronto, gave a talk, on Jan. 22nd, to the members of the Civil's Club of the University of Toronto, an organization among the civil engineering students of the third year in the Faculty of Applied Science and Engineering. Mr. Oliver dwelt upon the process of organization of railway companies, factors of location, supplies and construction procedure, and outlined the phases of railway work that presented opportunities for the civil engineer.

E. H. DRURY has returned to Canada from Chili, and has joined E. J. Walsh of Ottawa in the firm of Walsh and Drury, consulting engineers, Booth Building, Ottawa. Mr. Drury was general manager and chief engineer of the Longitudinal Railway of Chili, and had previously been connected with a number of other railways in Canada and Cuba, and also with the construction and operation of power houses in Canada and Mexico. Mr. Walsh has had a wide experience as engineer for various departments of the Dominion Government, in connection with a number of Canadian railroads, as chief engineer of Trent Canal surveys, in municipal engineering and in public works engineering in the West Indies for the Department of the Secretary of State for the Colonies.

## OBITUARY.

The death is reported from British Columbia of Mr. JAS. D. SWORD, a prominent consulting mining engineer, and a resident of that province for over 20 years. Mr. Sword was widely known in Canada, Mexico and Colorado. He was actively associated with the Rossland and Kootenay activities in British Columbia in the earlier days. He was also associated with the founding of the Canadian Mining Institute. Death was due to accidental drowning while on a trip to record some assessment work on a mining claim.

## ENGINEERING STAFF OF THE GREATER WINNIPEG WATER DISTRICT

The following engineers are those who are engaged on the Shoal Lake water supply project of the Greater Winnipeg Water District, of which W. G. CHACE, B.A.Sc., is chief engineer. (This scheme was discussed in *The Canadian Engineer*, Vol. 25, pp. 431 and 605, issues of September 11 and October 23, 1913.)

MAX V. SAUER is the Chief of Design in the Winnipeg office. He is a graduate of the University of Toronto, Faculty of Applied Science, 1902. Since taking his degree he served for two and one-half years in various capacities under Messrs. L. L. and P. N. Munn on the staff of the Ontario Power Company, Niagara Falls, Ont., having latterly been assistant to the mechanical engineer. For one year he was chief designer and had charge of transmission line structures on the staff of the Niagara Falls Power Company, being responsible there for the transmission line from the plant of the Canadian Niagara Power Company to Buffalo and for the Buffalo sub-station. The next year he spent as construction engineer for the Niagara, Lockport and Ontario Power Company in charge of their transmission lines between Niagara and Syracuse, N.Y. Since 1907, Mr. Sauer was first chief draughtsman, and then for four years, mechanical assistant and mechanical engineer for the Ontario Power Company. During this period, he served in a similar capacity on the design of the Salmon River Power Company's hydro-electric plant near Syracuse, N.Y.

GEORGE F. RICHAN.—A graduate of Acadia University, N.S., has been engaged nearly altogether in railway work, having begun with the New York and New England Railroad as rodman. He was engaged for 12 years in various capacities on the maintenance of way and on the construction staffs of the Boston and Albany Railroad, having amongst other duties that of locating engineer in charge of branch line work and on the re-location on the main line. His duties involved abolition of certain grade crossings and rearrangement of various railway services. He served throughout the entire period of preliminary and location surveys on the construction of the National Transcontinental Railway, having resigned after completing, in July, 1913, the duties of division engineer on Divisions Nos. 5 and 6.

ARCH PAGET.—Mr. Paget is also a railway man, having served from 1897 to 1908 in various capacities in the construction department of the western lines of the Canadian Pacific Railway. Since 1908 he has served in the employ of contractors as superintendent of construction and as engineer; and his last duty prior to joining the staff of the Greater Winnipeg Water District was the supervision of the double track work of the Canadian Pacific Railway on the Lake Superior division, district 3.

DOUGLAS L. McLEAN.—A graduate of McGill University in Civil Engineering, who won the British Association medal and prize in 1909. During his college course he served with railway engineers and with surveyors. Since graduation, he has been designer for Mr. J. B. McRae, consulting engineer of Ottawa, Ont., assistant chief engineer to the International Commission on the River St. John, and for two years has served the Water Power Branch of the Department of the Interior in explorations of the Winnipeg River, having latterly been chief engineer to the Manitoba Hydrographic Survey.

A. C. D. BLANCHARD.—A graduate of McGill University in Civil Engineering in 1901; was for five years assistant engineer and latterly construction engineer for the Canadian Niagara Power Company of Niagara Falls, Ont. He then served as engineer in charge of construction under Messrs. Ross and Holgate of Montreal in charge of the 32,000 horse-