

manometer, rate-of-flow controller and other Simplex devices.

R. D. WOOD CO., PHILADELPHIA.—Represented by C. R. Wood, C. H. Becker and John Wistar. Hydrants, valves and fittings.

WALLACE & TIERNAN CO., NEW YORK.—Represented by W. F. Tiernan, A. R. Murphy and R. C. Donnelly. This exhibit showed manual and automatic control chlorinators. They also exhibited for the first time their automatic chlorinator, operated by the pitot tube, also an automatic chlorinator for intermittent use. By the use of a circulating pump much of the apparatus was shown in actual operation.

ELECTRO BLEACHING GAS CO., NEW YORK.—Represented by E. D. Kingsley, J. A. Kienle, G. R. Ellis and H. W. Gochbauer. Among the features of this exhibit were "model C" and "model F" manually controlled portable chlorinators for emergency purposes. A big photo of the newly-enlarged chlorine gas plant of this company at Niagara Falls, N.Y., attracted great attention. It is said to be the largest plant of its kind in the world, having a capacity of over 60,000 pounds per day.

R. U. V. CO., NEW YORK.—Represented by A. T. Smith, sales manager, and H. A. Stillwell, eastern representative. A typical filtration plant sterilizer was shown in such manner as to explain clearly the method of sterilization by bringing the water into close contact with ultra-violet rays.

EAST JERSEY PIPE CO., NEW YORK.—Represented by Grant A. Peacock, showing two sections of lock-bar pipe, one of them dipped, the other dipped and wrapped. This pipe is made in sizes from 20 in. to 72 in. in diameter, and in thickness of plate from $\frac{3}{16}$ in. to $\frac{1}{2}$ in.

BIRCH-HINZ MFG. CO., CHICAGO.—Represented by W. T. Birch. A very complete line of specially constructed pump valves with metal inserts.

ROSS VALVE CO., TROY.—Represented by Wm. Ross. "Trojan" pressure regulator valves and reducing valves constituted the main features of this exhibit.

H. MUELLER MFG. CO., DECATUR.—Represented by C. T. Ford. Display of water meter testers, with a multiple tester attached, waterworks brass goods and waterworks tools.

MARITIME COATING CORPORATION, NEW YORK.—Represented by J. Willoughby Mitchell, president. A composition which can be applied cold and forms an anti-corrosive paste. Can be applied either by trowel or dauber.

ALEXANDER MILBURN CO., BALTIMORE.—Represented by C. R. Pollard. Portable lights for trench work.

CARBIC MFG. CO., DULUTH.—Portable lights for trench work.

MULTIPLEX MFG. CO., BERWICK.—Represented by J. F. Casey, manager. Crispin slip joints and Crispin air valves for water mains, pipe lines, etc., attracted considerable attention.

LEADITE CO., PHILADELPHIA.—Represented by Geo. Mackay, Jas. P. Mackay and J. H. Glanding. This firm provided demonstrations of the merits of Leadite as a jointing material for water mains.

CHRIS. D. SCHRAMM & SON, PHILADELPHIA.—Represented by J. W. Gleeson. Portable air-compressors for rock drill work, pipe-caulking and diaphragm-pumping outfits.

PITTSBURGH FILTER MFG. CO., PITTSBURGH.—Represented by F. B. Leopold, general man-

ager, who explained special plants installed by that firm, using drawings and pictures of these plants for the purpose.

KENNEDY VALVE CO., ELMIRA.—Represented by E. Kennedy and Harry Overbaugh. This concern showed "New Type" hydrants and valves.

RENSSELAER VALVE CO., TROY.—Represented by Geo. M. Keefer and John S. Warde, Jr., showing working models of the Corey fire hydrant and of valves.

NATIONAL WATER MAIN CLEANING CO., NEW YORK.—Represented by Clinton Inglee and Burt B. Hodgman. Exhibit consisted of a large number of samples of pipe before and after cleaning.

BUFFALO METER CO., BUFFALO.—Represented by Chas. Bassett and W. J. Chellew. Various sizes and styles of Niagara and American meters.

NEPTUNE METER CO., NEW YORK.—Represented by D. B. McCarthy, Chas. Buchmann and H. F. Bown. Attractive display of "Trident" meters.

PITTSBURGH-DES MOINES STEEL CO., PITTSBURGH.—Showed illustrated catalogues and photographs of elevated steel tanks.

BUILDERS IRON FOUNDRY, PROVIDENCE.—Represented by F. N. Connett, chief engineer, and A. B. Coulters. This firm showed a Venturi meter, set up in connection with a water tank and geared pump.

Canadian Members Who Attended.—The following Canadian members of the association attended the convention: F. C. Laberge, Montreal; F. H. Pitcher, Montreal; H. Hymmen, Kitchener; R. L. Dobbin, Peterboro'; C. D. Brown, Walkerville; Jos. Race, Ottawa; Jas. J. Salmond, Toronto; W. H. Moore, Peterboro'; and W. E. McDonald, Ottawa.

INVESTIGATIONS OF RESEARCH COUNCIL.

That the Canadian Research Council is at present engaged chiefly in determining the extent to which lignite can be used as fuel, was a statement made by Professor A. B. McCallum, chairman of the council, in a recent interview.

"In the United States, Italy and Germany," said Mr. McCallum, "it is made usable by carbonizing. It is put into the form of briquets with the aid of pitch or tar. The question we have to solve is how to make these lignites economically usable. One would think that the same process employed elsewhere would be a success here, but that is not so because lignites are not all the same. The material, for instance, is poor in Saskatchewan and good in Alberta.

"The Commission is also investigating the possibility of utilizing Alberta's tar sands in connection with road paving. Reforestation is another subject of inquiry, as is also the production of potash. "Previous to 1870 the chief sources of potash were seaweed and burnt forests," said Prof. McCallum. "Since 1870 our supply has come chiefly from the potash beds in Germany. This is now cut off. Feldspar rock is looked to as our source of supply, but there is no method at present for putting it in shape for use. Then we have the question of phosphates and their treatment for fertilizers.

"We are gathering information on nitrogen fixation. By that I mean the process of getting nitric acid and ammonia from the air to replace Chilean saltpeter. Nitric acid and ammonia are needed for explosives and for fertilizer. The Imperial Munitions Board has asked us to take up this particular problem."