

FOR THE CANADIAN ENGINEER.

WATER LIFT.

This sketch illustrates a new system of water lift, which is claimed to be especially adapted to the displacement of heavy fluids, and in shallow lifts will have the advantage in not having to raise the water any higher than required to effect the discharge. The sketch is one-sixteenth to the foot of a combination to discharge 500 cubic feet per second over an embankment six feet high.

There are two wedged-shaped dippers, *A*, pivoted at the small end and suspended by lifting arms at lower end. There are 4 spur wheels which form the cranks; there is also a cross shaft upon which are secured 4 pinions, which engage the 4 spur wheels in such a manner as to require one of the dippers to descend while the other is coming up, thus effectually balancing the dippers and all other parts. A large valve is placed at *B*, through which the burdened water enters while the dipper is descending.

The motive power will be applied to the pinion shaft in any manner deemed best. This lift is the invention of Wm. Golding, New Orleans, Va.

NATIONAL CONVENTION OF MASTER PLUMBERS OF CANADA.

The first four days in July were marked by the meeting of the Master Plumbers of Canada in Toronto for their second annual convention. There were thirty-four delegates present against eighteen last year at the first convention. The representation was one delegate to every ten members. The following delegates were present:

Quebec—R. Sampson, A. Forrest, J. R. Cane, J. O. Matte, A. Pickard. Montreal—Thos. Moll, E. C. Thibault, J. W. Harris, John Watson, P. C. Ogilvie, Arthur Martin, P. J. Carroll, E. C. Mount, Wm. Briggs, J. W. Hughes, Joseph Lamarche. Windsor, Ont.—M. B. Squires, Halifax—John Borton, Geo. A. Perrier. Ottawa—John McKinley, F. J. Johnson. St. John, N.B.—W. H. Dunbrack, J. H. Doody. St. Catharines—J. A. Caslake. Toronto—J. B. Fitzsimons, Joseph Wright, A. Purdy, H. Beavis, J. K. Allison. Winnipeg—J. W. Hughes. London—W. H. Heard, W. Smith, E. Holland, Benjamin Noble. West Toronto Junction—Represented by the five Toronto delegates. St. Thomas—W. Flaherty. Peterborough—Adam Hall. The Executive Committee reported that during the year local associations in affiliation with the Dominion Association had been organized in Winnipeg, Man., and Windsor, Stratford, St. Thomas, and St. Catharines, Ont. Negotiations are now going on that will, it is hoped, result in the formation of an Association in Vancouver, B.C.

Notice was given of a motion to form Provincial organizations, each to be part of the larger association, whose officers would then be known as the supreme officers.

Drafts of by-laws which the association will endeavor to have passed in the various municipalities were submitted to the association. They comprised by-laws to license and regulate plumbers; to provide plumbing inspectors, plumbing examiners and their duties. The legislative committee reported against the proposed incorporation of the association.

President Lamarche reported the progress of the association during the first year of its existence. A great deal of work had fallen on the officers, and a great deal of correspondence had been necessary in perfecting their organization. The resolution of the master plumbers had been signed by most of the wholesale dealers in Toronto, Montreal and Quebec. He urged the members to be most careful in sending the names of all master plumbers in their neighborhood, so that the wholesale men should know the names of all the master plumbers. The president said: "Too much trouble cannot be taken to see that this is carried out, as the wholesale men are not able to distinguish between master plumbers, journeymen plumbers and contractors. If a man comes in the store with his money, calling himself a master plumber, the wholesale man will not nor cannot take time to go after possible information to see if he is the right man to whom he should sell. It is, therefore, our duty to see that they receive a complete list of bona fide master plumbers, monthly notices of changes, and the deserved help from us. Complaints of the agreement

