V. F. BERNESSER & J. J. CROTTY.

TANK VALVE.

APPLICATION FILED JUNE 30, 1908.

930,454. **Patented Aug. 10, 1909.**

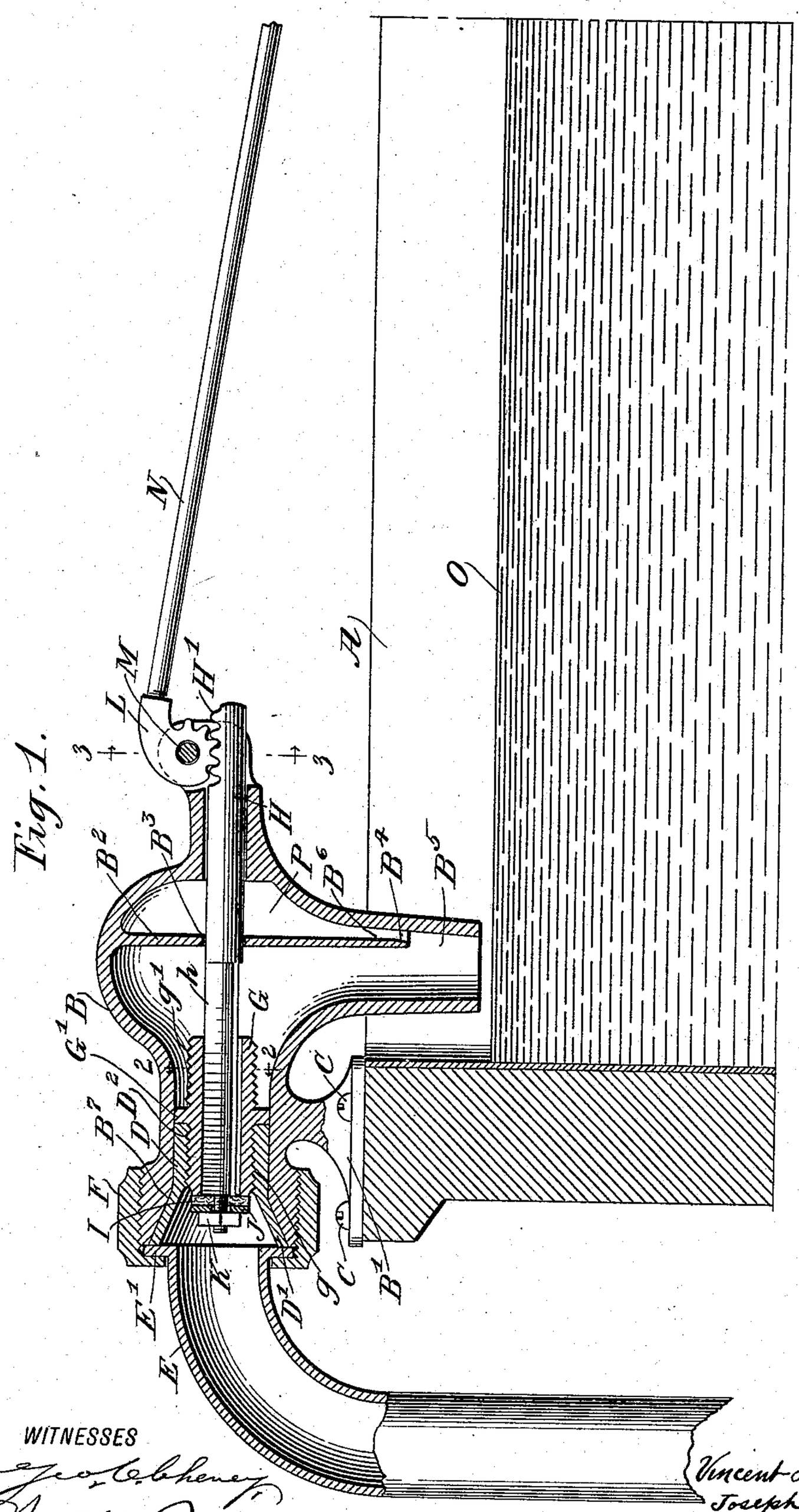

Fig. 1.

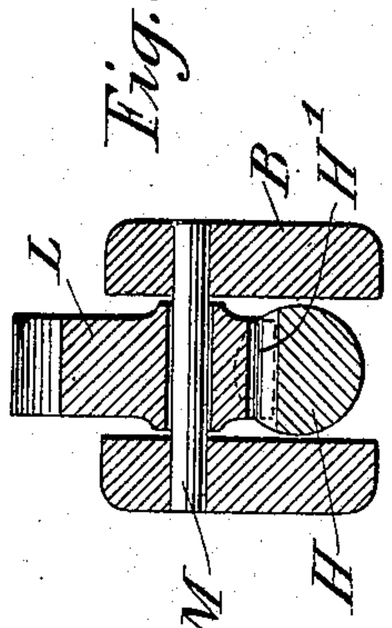

Fig. 3.

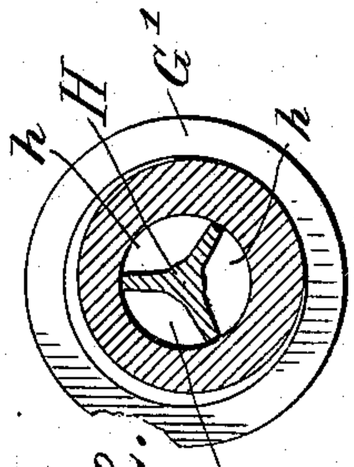

Fig. 2.

WITNESSES

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UNITED STATES PATENT OFFICE.

VINCENT F. BERNESSER AND JOSEPH J. CROTTY, OF NEW YORK, N. Y.

TANK-VALVE.

No. 930,454. Specification of Letters Patent. Patented Aug. 10, 1909.

Application filed June 30, 1908. Serial No. 441,252.

To all whom it may concern:

Be it known that we, VINCENT F. BERNESSER and JOSEPH J. CROTTY, citizens of the United States, and residents of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Tank-Valves, of which the following is a specification.

Our invention relates to valves of the type used in overhead tanks and known as ball cocks.

The object of our invention is to provide a valve of this character having two valve seats, either of which may be used as the seat on which the valve rests, and to provide a holder for said seats, which may be removed from the body of the valve to permit a new valve seat element to be connected thereto, or for the purpose of changing the position of the seats relative to the holder.

One of the advantages of the present construction is that the body portion may outwear several valve seats, and by this construction new seats and holders may be kept in stock and be furnished to the user at any time, by reason of the fact that the seat holders are interchangeable with the body portions of the device.

A further object of the invention is to provide an improved means for actuating the valve stem.

Referring to the drawings which form part of this specification, Figure 1, is a longitudinal sectional view of our improved valve. Fig. 2 is a cross sectional view on line 2—2 of Fig. 1, and shown on a larger scale; and Fig. 3 is a cross sectional view on line 3—3 of Fig. 1.

A, indicates a tank, and B the body portion of the valve, which is provided with a base flange B′, which rests on the upper edge of the tank and is secured thereto by screws C—C. The body portion B is also provided with a partition B^2, which has a hole B^3 located in alinement with its longitudinal axis, and said partition extends downward and within the outlet portion B^5, to the point B^4, thus forming a conduit B^6 within the outlet portion B^5. The portion B is further provided with a conical surface at B^7, against which a nipple holder D is held by the flanged end E′ of the tube E, which in turn is held by the coupling nut F as shown. The outer surface of the nipple holder D conforms to the inner form of the portion B at this end, and its outer end projects slightly beyond the end of the body B, so that the flange E′ will bear against it and hold it firmly to its seat B^7. The nipple holder D is of larger internal diameter at its outer end D′ than at its opposite end, to permit the water to flow freely past the valve when same is opened, and is provided with a thread D^2. A nipple G is provided with a flange G′ and threads *g* and *g′* respectively, located at each side of said flange and which fit the thread on said holder D, and each end of said nipple is formed to serve as a valve seat. The valve stem H is provided with grooves *h*—*h*—*h*— and with a valve seat I of suitable material, and a washer and nut J and K respectively, are used to hold said seat in position. The stem H is also provided with a rack H′ which engages with a pinion member L, which is supported in position and connected to the body by a pin M as illustrated. A rod N is connected to the member at one end, and its opposite end is connected to a float (not shown) to operate the valve.

It will be obvious that the nipple holder D may be readily removed from the body B, and that the nipple may be reversed to permit either end to serve as a seat, and that the parts may be kept in stock to supply worn out parts and thus prolong the use of the body portions. When the water level O in the tank drops, the float will force the stem H inward, thus opening the valve against the pressure of the fluid in pipe E. Therefore should the float become disengaged from the rod N, the fluid would hold the valve in its closed position, whereas if the valve seated against the water pressure in the main, the valve would open under this condition, and flood the tank A. By carrying the partition B^2 to a low point in the portion B^5, any water passing through hole B^3 would fall in conduit B^6, and the escaping water passing in the opposite conduit to the outlet, would thereby create a draft which assists in quickly drawing the water from the chamber P.

The construction is simple and exceptionally durable.

Having thus described our invention what we claim as new and desire to secure by Letters Patent is,

A tank valve comprising a faucet having a body portion; a valve holder slidably mounted in said body portion, and having an in-

ternal screw threaded passage; a screw threaded nipple mounted in said screw threaded passage of the valve holder and having a valve seat at both ends; a suitable device to hold said valve holder in said faucet; a valve adapted to seat upon said valve seat, and having a stem extended through said nipple and provided with flanges to guide the same in said nipple; and suitable mechanism comprising a float for reciprocating said valve stem to seat and unseat the valve.

Signed at New York in the county of New York and State of New York this 27th day of June A. D. 1908.

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