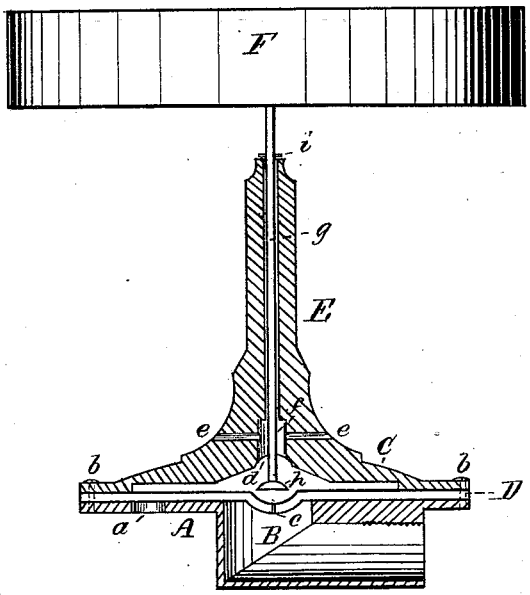
J. HADFIELD.

Valve for Water-Tanks.

No. 164,645. Patented June 22, 1875.



WITNESSES:

Nas. E. Oliphant

George E. Buckley

INVENTOR.

Joseph Hadfield,
per Chas. H. Fowler.

ATTORNEY.

THE GRAPHIC CO. PHOTO-LITH. 39 & 41 PARK PLACE, N.Y.

UNITED STATES PATENT OFFICE.

JOSEPH HADFIELD, OF NEW YORK, N. Y.

IMPROVEMENT IN VALVES FOR WATER-TANKS.

Specification forming part of Letters Patent No. **164,645**, dated June 22, 1875; application filed April 9, 1875.

To all whom it may concern:

Be it known that I, JOSEPH HADFIELD, of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Valves for Water-Tanks; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The drawing represents a vertical section of my improved valve.

This invention has relation to that class of valves wherein a float is employed for the purpose of regulating the height of the water in tanks or other similar vessels; and the object is to cheapen the construction, and at the same time to make a valve possessing great delicacy of action, as will be hereinafter more fully described.

In the drawings, A is designed to represent the lower valve-plate, having connected thereto the inlet or supply pipe B. This lower valve-plate A is provided with a series of openings, *a*, and is securely held to an upper valve-plate, C, by suitable screw-bolts *b*, and between said plates is interposed a circular leather disk, D, having a small central opening, *c*. The upper valve-plate C is hollowed out, as shown in the drawings, and at its center is formed a valve-seat, *d*, and an upwardly-projecting sleeve, E, near the lower part of which are formed small waste-outlets *e*, communicating with a central chamber, *f*. Through the center of the sleeve E passes a rod, *g*, carrying upon its lower end a suitable valve, *h*, and upon its upper end a float, F, of wood or other light material, and a stop, *i*.

The operation of my invention may be easily understood from the following: The water being below the desired level, the supply is turned on, the water entering the pipe B. As the water flows in, it forces up the circular leather disk D, and passes out through the openings *a* into the tank. When the water has obtained the desired height in the tank it lifts the float F, which causes the valve *h* to close upon its seat, closing the openings or waste-outlets *e*, the water pressing through the central opening *c* of the leather disk into the space above it, thus causing the leather disk to be held down upon the openings *a*, and shutting off the supply.

If desired, a circular piece of wire-gauze, conforming to the size of the valve-plates, may be placed under the leather disk, and secured by the same bolts that connect the two valve-plates, acting as a strainer to prevent any rubbish from stopping up the openings *a*, and impeding the operation of the valve.

Having now fully described my invention, what I claim, and desire to secure by Letters Patent, is—

The combination, with the float F, valve-rod *g*, and valve *h*, of the upper plate C, having waste-outlets *e*, and the leather disk D, with central opening *c*, and plate A, having openings *a*, and supply-pipe B, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own invention, I affix my signature in presence of two witnesses.

JOSEPH HADFIELD.

Witnesses:
WM. R. DUNNING,
WM. WELMOT KISSAM.