

UNITED STATES PATENT OFFICE.

JAMES D. KEEGAN, OF NEW YORK, N. Y., ASSIGNOR TO HIMSELF AND
JAMES D. KEEGAN, JR., OF SAME PLACE.

IMPROVEMENT IN STOP-VALVES.

Specification forming part of Letters Patent No. 181,684, dated August 29, 1876; application filed
July 22, 1876.

To all whom it may concern:

Be it known that I, JAMES D. KEEGAN, of the city, county, and State of New York, have invented a new and Improved Stop-Valve for Water-Works, of which the following is a specification:

Figure 1 is a vertical section on line *xx* in Fig. 2. Fig. 2 is a section on line *yy* in Fig. 1.

Similar letters of reference indicate corresponding parts.

The invention consists in rendering the stop-valve of water-works more easy and convenient in operation by providing the case and valve with a flange and balls, arranged as hereinafter described.

A is a casing of a valve, in the bottom of which the annular groove *a* is formed. B is a valve, having the staves *b* connecting the upper and lower portions of the valve, the whole being fitted closely to the casing A, so that the staves *b* will stop the passage through the valve when turned so as to cover the openings in the casing. In the bottom of the valve B an annular groove, *c*, is formed, which corresponds with the groove *a* in the bottom of the casing. When balls are used to support the valve, the grooves *a* and *c* are nearly semi-circular in section; but when rollers are used the grooves are made to conform to the rollers. *d d* are balls placed in the groove *a* to support the valve B. A gudgeon, *e*, projects from the

center of the lower end of the valve B, and has a suitable bearing in the casing A. At *f* there is a flange which rests in a recess in the casing and assists in supporting the valve. The upper portion of the valve B is bell-shaped, and terminates in a cylindrical stem, *g*, which is squared at the outer end to receive a wrench or lever. C is a hemispherical cover provided with a flange, *h*, which is bolted to a flange, *i*, on the casing A. D is a stuffing-box formed on the cover C which surrounds the stem *g*. If a valve is so large as to require gearing to move it, the gearing may be placed at the bottom of the casing, so that a portion of the weight of the valve may be supported by it. In very heavy valves the flange *f* may be provided with teeth on its periphery, and a pinion may be placed in the casing on a suitable shaft, which projects through a stuffing-box in the casing, so that it may be turned with a wrench or lever.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The combination of the casing A, valve B, flange *f*, and balls *d*, as shown and described.

JAMES D. KEEGAN.

Witnesses:

T. B. MOSHER,
ALEX. F. ROBERTS.