

G. W. EDDY.
Stop-Valves.

No. 140,407.

Patented July 1, 1873.

Fig. 1.

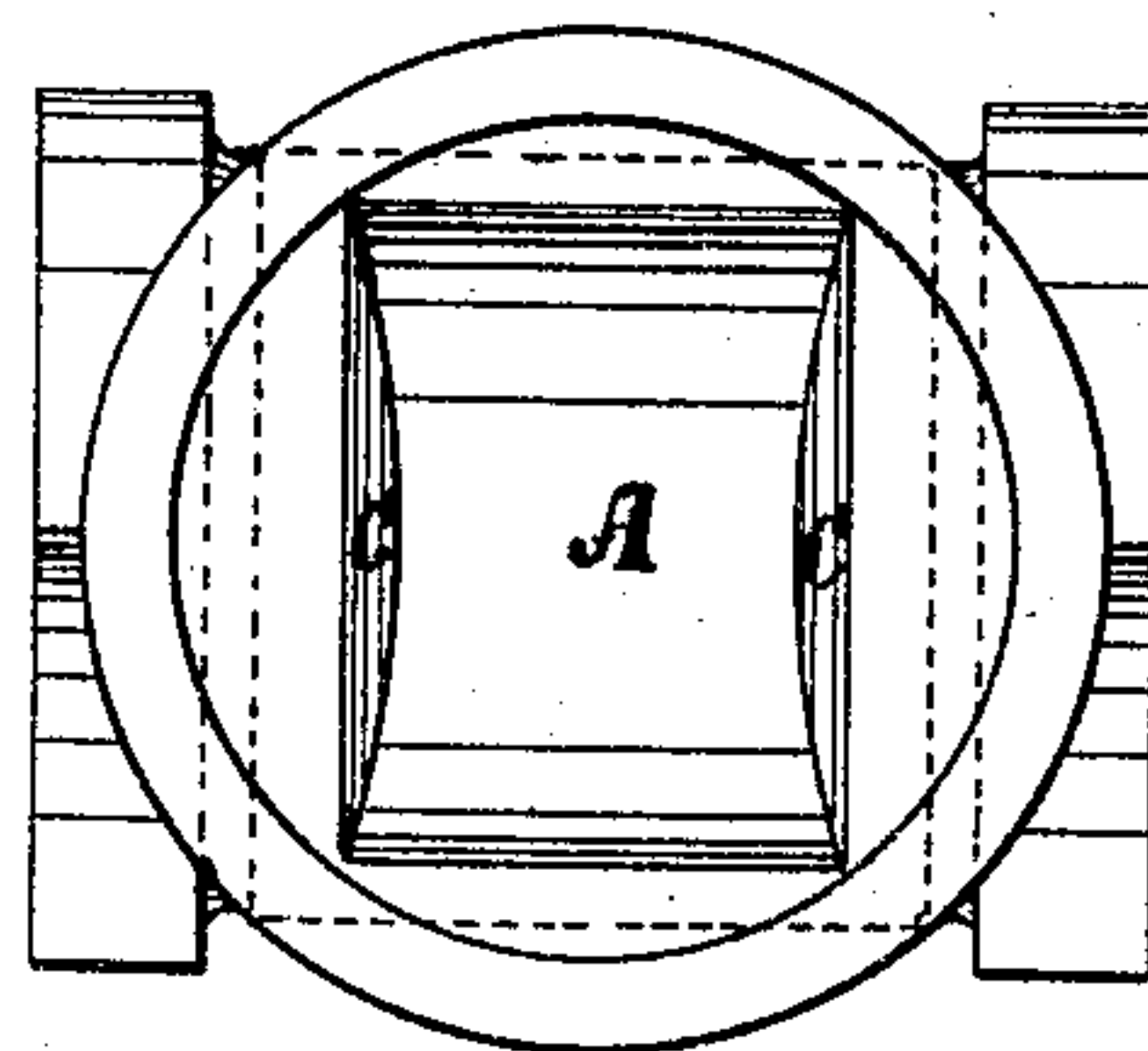
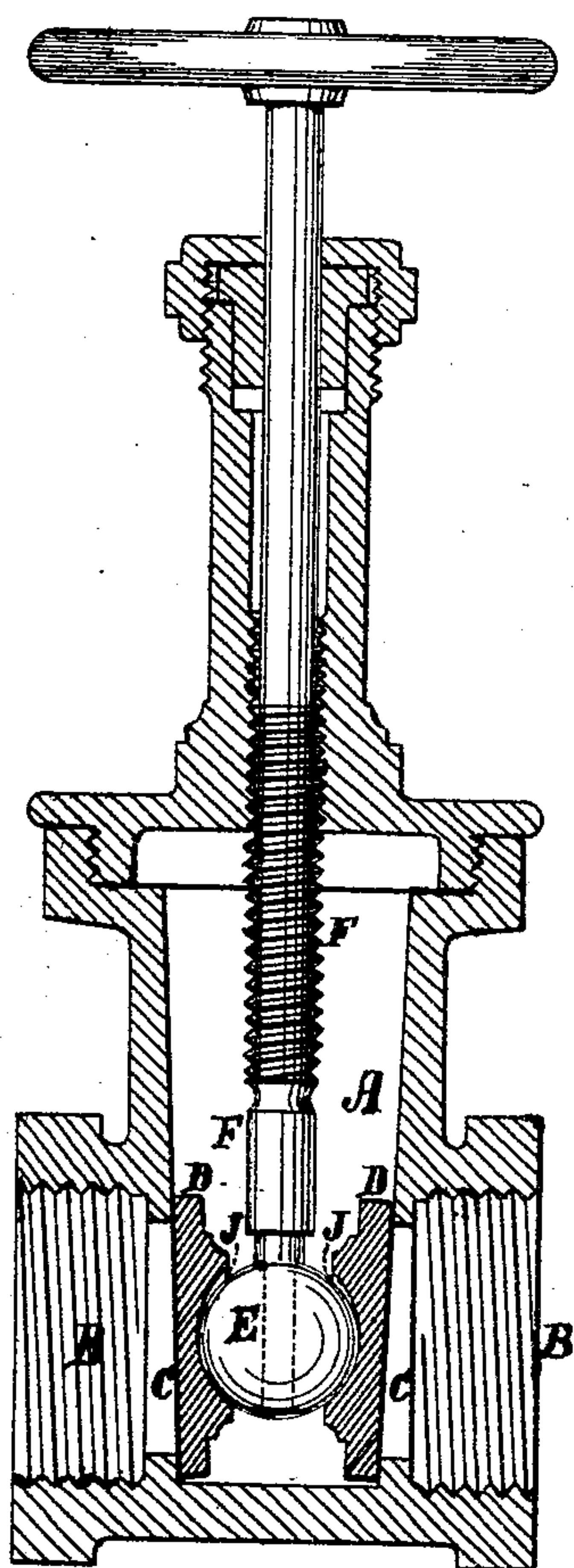


Fig. 3.

Fig. 2.

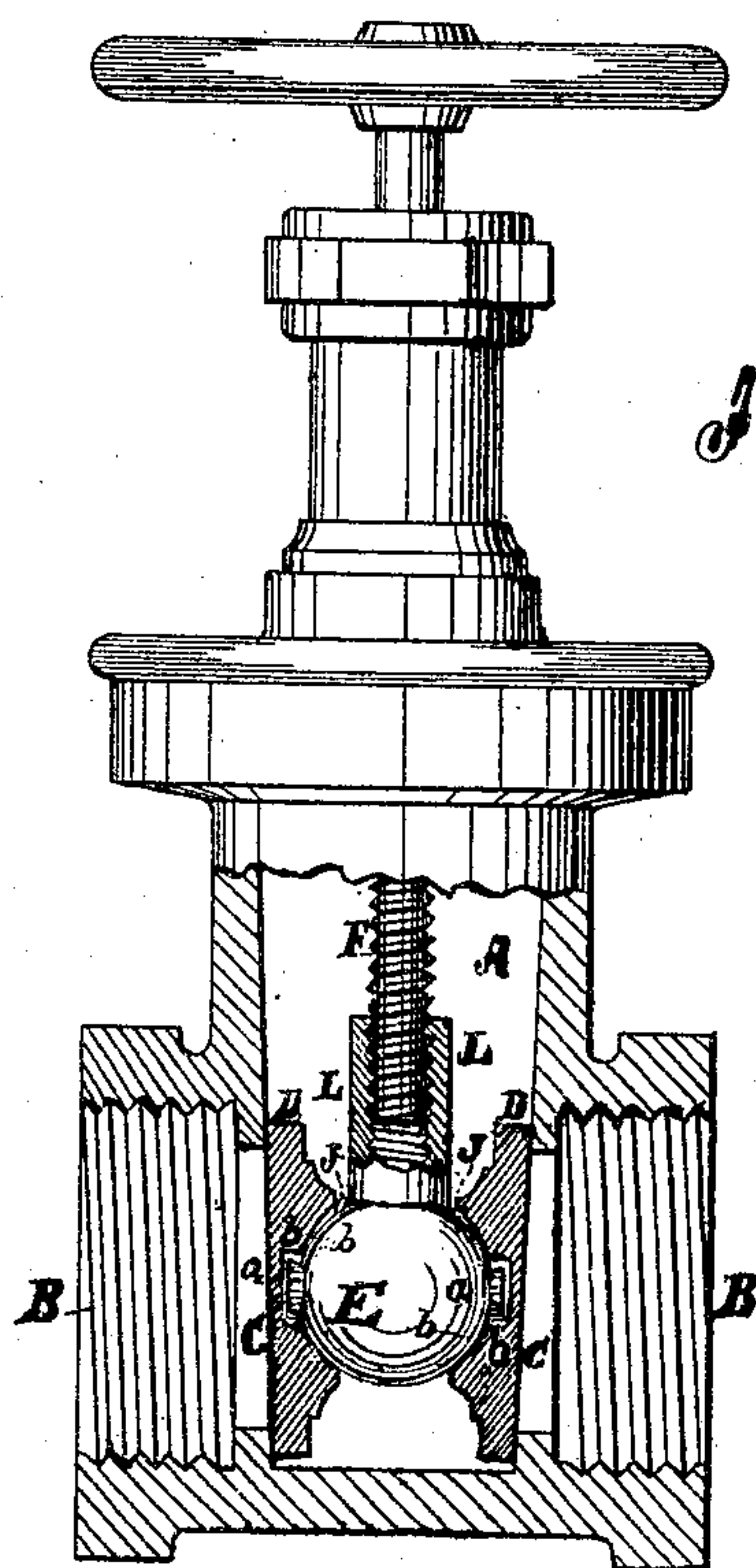
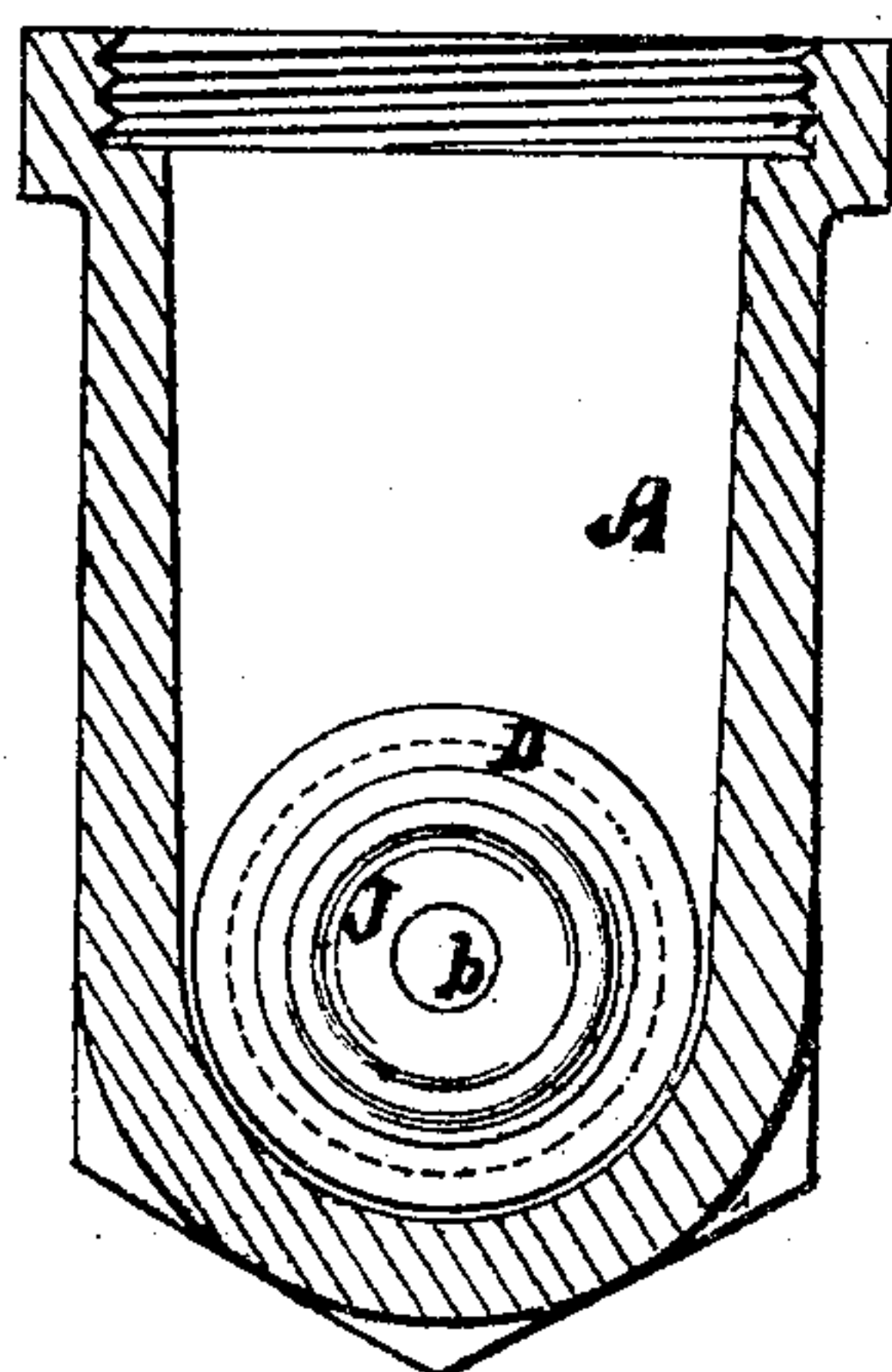


Fig. 4.



Witnesses:

A. D. ...
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UNITED STATES PATENT OFFICE.

GEORGE W. EDDY, OF WATERFORD, NEW YORK.

IMPROVEMENT IN STOP-VALVES.

Specification forming part of Letters Patent No. **140,407**, dated July 1, 1873; application filed April 5, 1873.

To all whom it may concern:

Be it known that I, GEO. W. EDDY, of Waterford, in the county of Saratoga and State of New York, have invented a new and useful Improvement in Stop-Valves; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing forming a part of this specification.

My invention relates to that class of stop-valves in which two disks are arranged to move forward and backward at right angles to the water-channel in a chamber through which the channel passes at openings on opposite sides whereat the seats are formed for the disks, and on which they are caused to press tightly when moved upon them; and it consists in the improvement hereinafter described and claimed.

Figure 1 is a longitudinal sectional elevation of a stop-valve constructed according to my improvements, when the stem for working the disks screws forward and backward with them. Fig. 2 is a similar section, showing the arrangement when the stem screws through the ball to actuate the disks and does not have endwise motion. Fig. 3 is a top view of the valve-chamber and pipe-connections without the cap, disks, and the devices for actuating the disks; and Fig. 4 is a transverse section of the valve-chamber.

A represents the valve-chamber; B, the water-ways; C, the valve-seats; D, the disks; E, the ball; and F, the valve-stems. The valve-seats may either be slightly inclined toward each other, as represented in the drawing, or exactly parallel. The disks have a concave recess, J, in the center of the back, a trifle larger, in respect of its curvature, than

the ball. The ball is as large as the space between the cavities will permit and allow of opening the passages by drawing the disks away from their seats without binding, so that when the seats are slightly contracting it will wedge the disks firmly against them as soon as they arrive fairly thereon, and when they are parallel it will wedge them on by moving against the sides of the concavities as soon as the disks are stopped in front of their seats. The bosses *a* and sockets *b* are used to prevent the ball from turning.

It will be seen that this contrivance is very simple and also economical in respect of space, whereby it is well adapted for the very smallest valves of this kind. No fitting will be required except the facing of the seats and the faces of the disks and the fitting of the valve-stem in the ball.

The ball and the disks may be cast on smooth-metal chills so as to be hard, and thus be capable of lasting a great while, and be sufficiently smooth to require no finishing, except the faces of the disks, as aforesaid. In case of heavy valves arranged horizontally these disks will roll on the side of the chamber in opening and closing, and thus work much easier than other valves.

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

The concave disks D J having sockets *b*, combined with ball E having bosses, as and for the purpose described.

GEO. W. EDDY.

Witnesses:

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