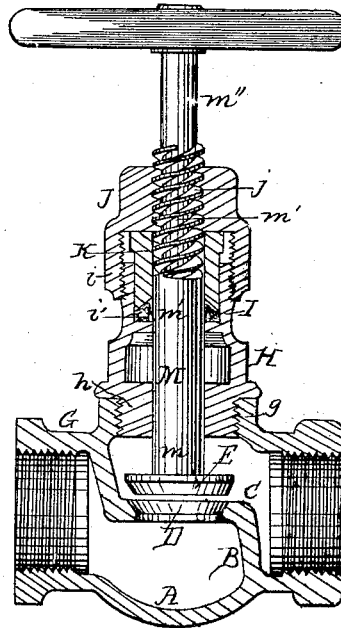
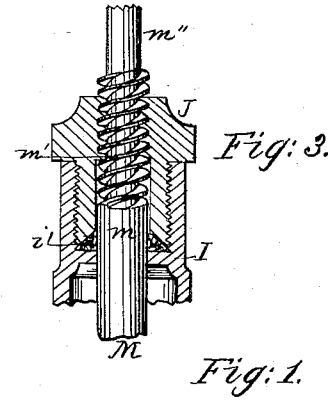
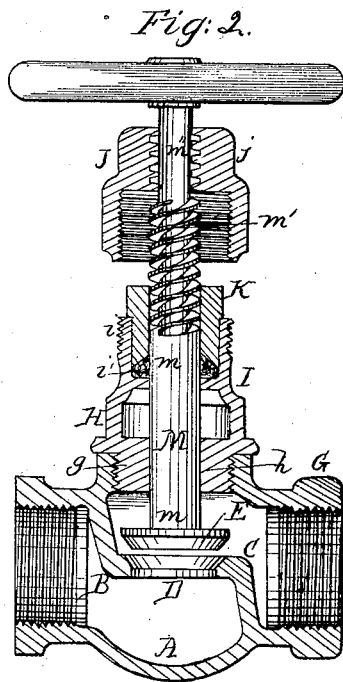


W. Chesley,
Globe Valve,
No 50,219, *Patented Oct. 3, 1865.*



Witnesses.
James H. Layman
J. L. Lillard

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UNITED STATES PATENT OFFICE.

WM. CHESLEY, OF CINCINNATI, OHIO.

IMPROVEMENT IN GLOBE-VALVES.

Specification forming part of Letters Patent No. 50,219, dated October 3, 1865.

To all whom it may concern:

Be it known that I, WILLIAM CHESLEY, of Cincinnati, Hamilton county, Ohio, have invented a new and useful Improvement in Globe-Valves; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

My improvement relates to the class of cocks known as "globe-valves;" and it consists in providing the cap of the stuffing-box with an interior screw to receive the thread of the valve-stem, which thread is situated wholly on the upper portion of the stem and operates above the stuffing and exclusively in said cap, which thus discharges the office of a nut, in addition to its ordinary and proper functions, the interior of the hub being threadless, and serving equally to guide the smooth lower portion of the valve-stem both in the act of grinding and in ordinary use as a valve.

Figure 1 is an axial section of my cock in condition for use. Fig. 2 is a similar section of the same in condition for grinding. Fig. 3 is an axial section, showing a modification of my cap.

A represents the body or shell of the cock.

B is the customary oblique diaphragm, having the usual circular opening, C, whose chamfered margin forms the seat D for a conical valve, E, of the ordinary form.

Immediately above the opening C, and coaxial with the said opening, the body A has the customary circular hole around which the body rises in the form of a neck, G, screw-threaded (*g*) interiorly to receive my exteriorly-screw-threaded hub H, whose central aperture, *h*, instead of taking the form and discharging the office of a nut for the valve-stem, is left entirely smooth and cylindrical, so as merely to guide the valve-stem, which stem is correspondingly smooth and cylindrical at its lower portion.

I is a customary stuffing-box in the upper part of the hub, screw-threaded (*i*) for the attachment of my cap J, which cap differs from the common form in having its crown thickened and its central aperture screw-threaded (*j*) to fit the screw-thread of the valve-stem.

K is a gland of the usual form.

The valve E may be of the accustomed conical shape, but its stem M, instead of being screw-threaded near the valve and wholly below the stuffing-chamber *i'*, is entirely smooth at that part *m* of its length to fit the central aperture of the hub, while the usually smooth upper portion of the stem is for a portion of its length screw-threaded (*m'*) to fit the screw-threaded interior of my cap, which cap is thus made to exercise the functions of a nut. Thus the screw-thread of my stem, instead of being wholly below the stuffing-chamber and working into the interior of the steam-chamber, is wholly above the stuffing-chamber and works out through the extreme top of the stuffing-box. A portion, *m''*, of my stem above the thread is cylindrical, to fit the tops or points of the threads in the central aperture of the cap J.

To prepare my valve for regrinding it is only necessary to screw off my cap J, as in Fig. 2, which liberates the thread of the stem and enables it to be freely worked up and down as well as rotated in the plane of the valve.

I have selected as the preferred type of my improvement the precise form which I have adopted in practice, but the same may obviously be modified without departing from the essential characteristics of my invention. For example, the gland K may be dispensed with and the stuffing may come directly in contact with the cap, as in Fig. 3.

I claim herein as new and of my invention—

A globe-valve the part of whose stem below the stuffing-chamber is smooth to fit the correspondingly-smooth interior of the hub, and the portion of whose stem above the stuffing-chamber is partly screw-threaded and partly smooth, so as to coact with the interiorly-screw-threaded cap of the stuffing-box in the manner explained.

In testimony of which invention I hereunto set my hand.

WILLIAM CHESLEY.

Witnesses:

GEO. H. KNIGHT,
JAMES H. LAYMAN.