

(No Model.)

J. H. BLESSING.  
STOP COCK.

No. 298,062.

Patented May 6, 1884.

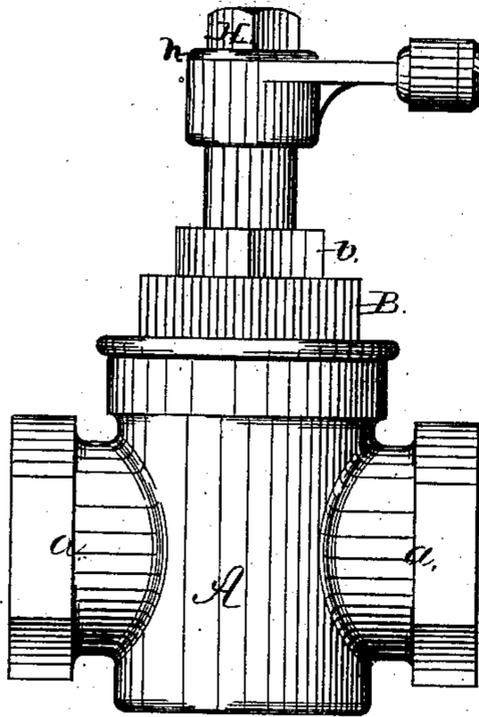


Fig. 1.

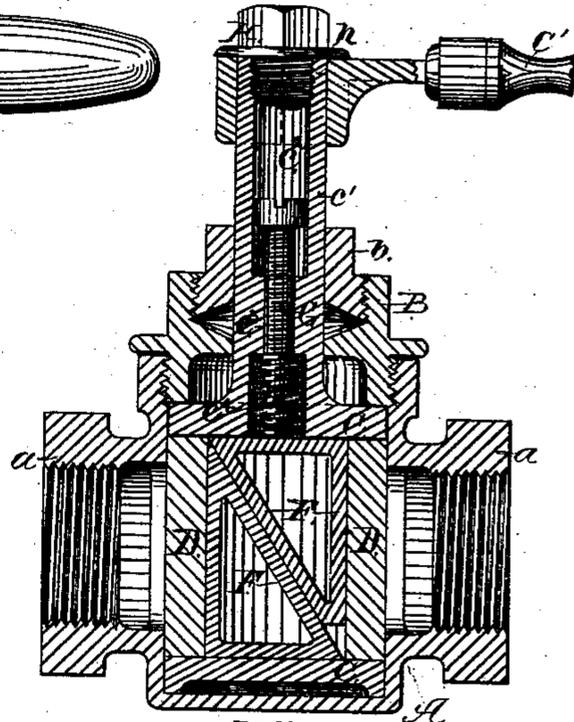


Fig. 2.

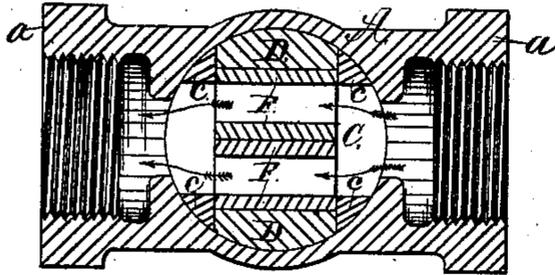


Fig. 4.

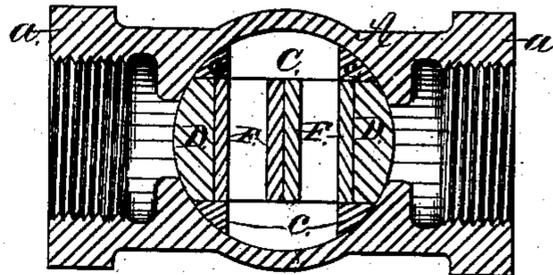


Fig. 5.

Witnesses:

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by

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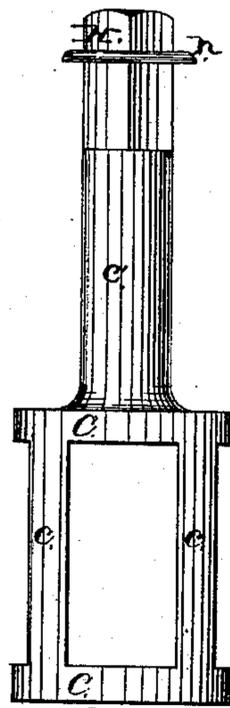


Fig. 5.

# UNITED STATES PATENT OFFICE.

JAMES H. BLESSING, OF ALBANY, NEW YORK.

## STOP-COCK.

SPECIFICATION forming part of Letters Patent No. 298,062, dated May 6, 1884.

Application filed December 18, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES H. BLESSING, of the city and county of Albany, in the State of New York, have invented certain new and useful Improvements in Stop-Cocks, of which the following is a specification.

My invention consists in providing stop-cocks and other similar appliances with turn-plugs having removable and renewable segmental sections or gibs, that are adapted to form tight joints with the bore of the casing or shell of the cock; and the object of my improvements is to afford ready, effective, and inexpensive means for remedying a leakage of the cock without removing the cock from its place in a line of pipe. This object I attain by means of the construction illustrated in the accompanying drawings, which form part of this specification, and in which—

Figure 1 is a side elevation of a cock containing my improvements; Fig. 2, a longitudinal section of the same; Fig. 3, a horizontal section of the same, showing the plug turned to close the openings; Fig. 4, a like section with the plug turned to open the passages through the cock, and Fig. 5 a side elevation of the skeleton cage of the turn-plug.

As illustrated in the drawings, A is the casing or shell for the cock, made in cylindrical form, and provided with lateral branches, *a*, for receiving the connecting-pipes. The lower end of said casing is made closed; and the upper end—made open—is closed by means of a cap, B, that is screwed thereinto. Said cap has a central hole formed therein for the stem of the turn-plug, and is provided with a stuffing-box, *b*, for forming a tight joint around said stem. The turn-plug consists of a skeleton cage composed of two circular disks, C, arranged one above the other, and connected together by means of vertical bars *c*, so as to form two passages, which cross each other at right angles. Extending upward from the center of the uppermost one of the disks C there is a hollow stem, *c'*, which contains an upper chamber, *c''*, a screw-threaded portion, *c'''*, and a lower chamber, *c''''*, for the purposes hereinafter explained. The stem *c'* passes through the stuffing-box *b*, and has on its outer end a handle or lever, C', by which the turn-plug is operated. Segmental gibs D are loosely fitted into two of the oppositely-located passages formed between the vertical bars *c*, and have their convex surfaces closely fitted—by

grinding or other means—to the bore of the casing A, so as to form a tight joint therewith. A spring, E, fixed in the chamber *c''*, exerts its pressure against the uppermost one of a pair of angle-frames, F, which are arranged in reversed positions between the gibs D, so as to press the said gibs outward and keep them in close contact with the bore of the casing A. For the purpose of grinding in the turn-plug, (wherever this operation is required,) a screw, G, is fitted into the threaded portion of the stem, and is so arranged that it can be screwed down to bear, with any required degree of pressure, upon the uppermost one of the angle-frames F, and rigidly hold the gibs D during the operation of grinding. The head of the screw G is contained in the upper chamber, *c''*, and is provided with a slot or other means for receiving a driver or other tool for turning said screw when occasion requires. A screw-plug, H, inserted in the upper end of the hollow stem *c'*, is provided with a flange, *h*, which overlaps onto the eye of the handle C', and secures the latter in place on the stem of the turn-plug.

It is manifest that in this form of cock the greatest wear will come upon the segmental gibs D, which, being removable from the turn-plug, can be readily renewed at a very slight cost.

I claim as my invention—

1. The combination, with a casing, A, provided with branches *a*, of a turn-plug consisting of a skeleton cage provided with expansible gibs D, angle-frames F, and a spring, E, substantially as and for the purpose herein specified.

2. The combination, with a casing, A, for a stop-cock, of a turn-plug consisting of a skeleton cage provided with expansible gibs D, mechanism for forcing said gibs outward, and a set-screw, G, as and for the purpose herein specified.

3. In a stop-cock, the combination, with a turn-plug consisting of a skeleton cage provided with a hollow stem, substantially as described, of the expansible gibs D, angle-frames F, and set-screw G, substantially as and for the purpose specified.

JAMES H. BLESSING.

Witnesses:

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