

(Model.)

J. G. WILLARD.
Globe and other Valves.

No. 233,902.

Patented Nov. 2, 1880.

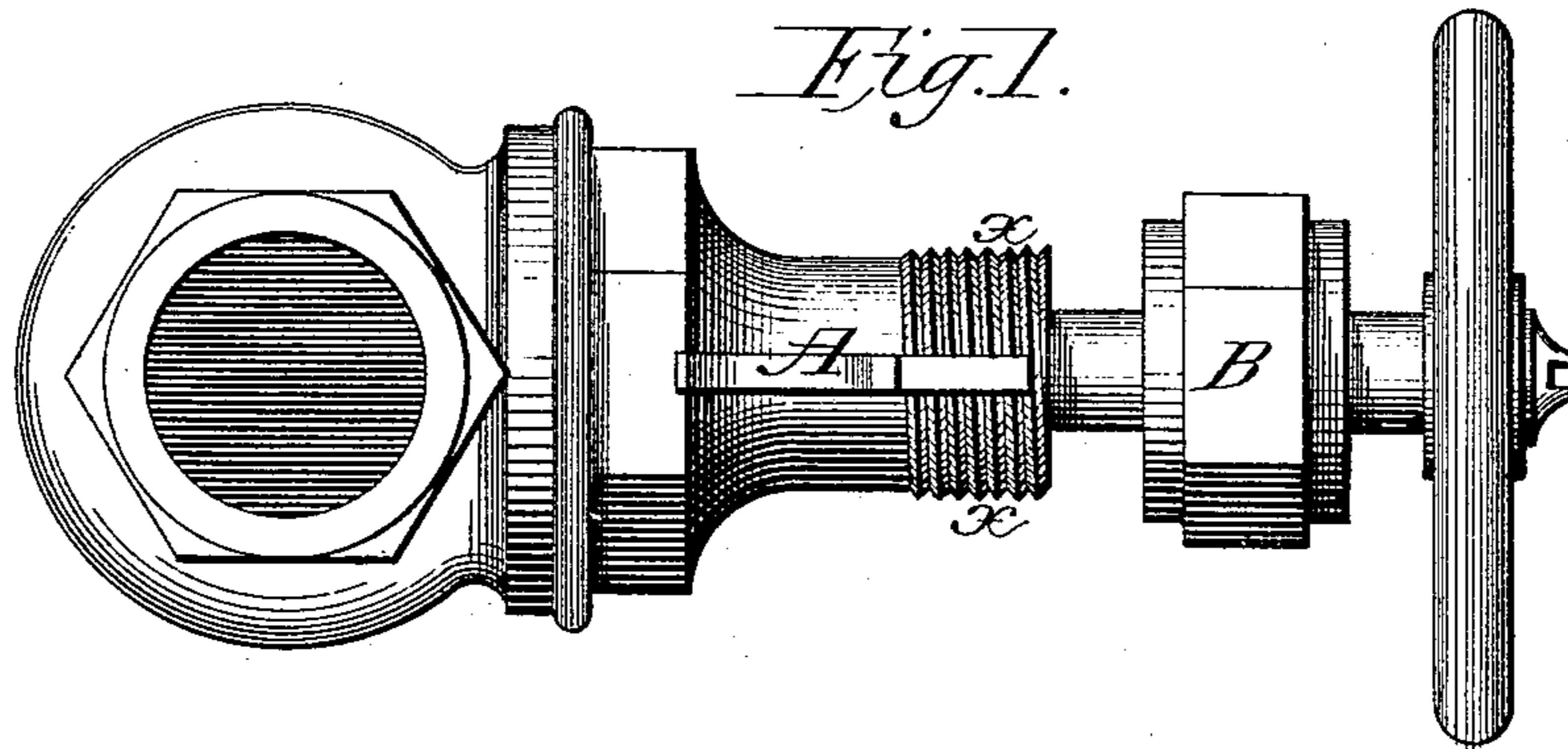


Fig. 2.

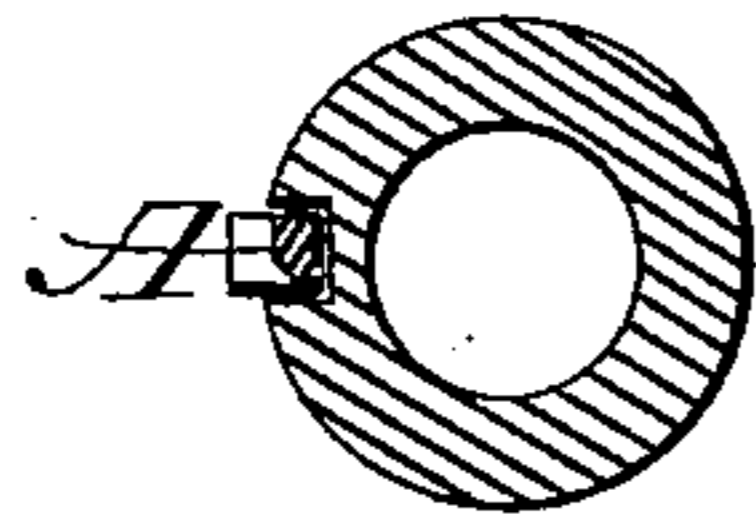


Fig. 3.

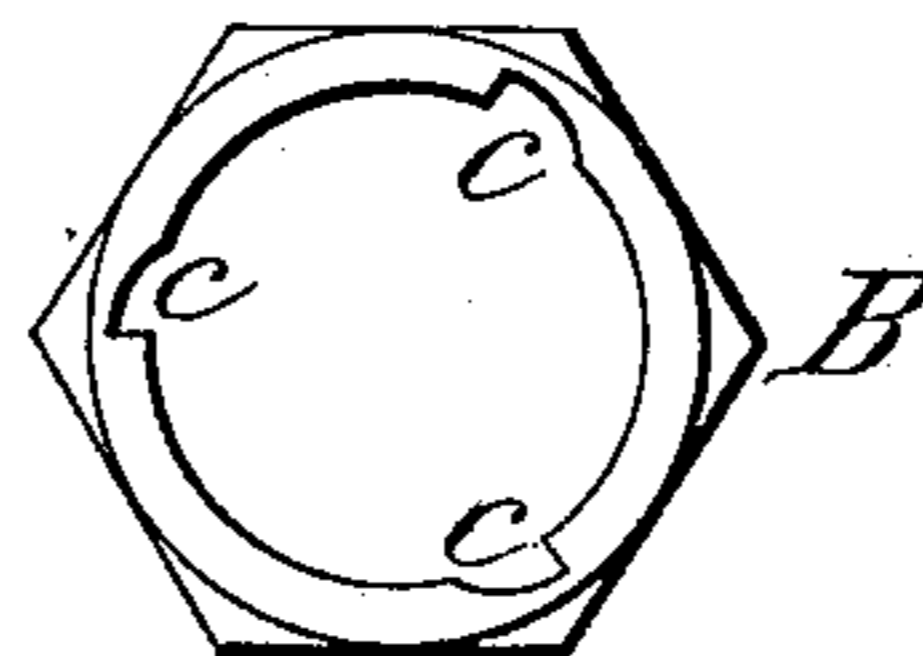


Fig. 4.



Fig. 5.



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UNITED STATES PATENT OFFICE.

JOEL G. WILLARD, OF NEW YORK, N. Y.

GLOBE AND OTHER VALVES.

SPECIFICATION forming part of Letters Patent No. 233,902, dated November 2, 1880.

Application filed June 29, 1880. (Model.)

To all whom it may concern:

Be it known that I, JOEL G. WILLARD, of the city, county, and State of New York, have invented a new and useful Improvement in
5 Globe and other Valves, of which the following is a specification.

The invention relates to a simple and inexpensive means of securing the cap of the stuffing-box to its head so that it may revolve freely
10 when turned in one direction, but be held by the spring-catch when to be turned in the opposite direction.

The invention consists in the cutting of one or more slots or channels upon the inside of the cap of a stuffing-box and of sinking a spring
15 into a channel cut in the head-piece of the valve, so that the spring, when operating, forces itself into the slot in the cap of the box whenever presented, and at the same time the impinging
20 side of the spring is shaped so that the cap of the stuffing-box moves with freedom when being turned to its place, but is held fast when the motion is reversed, except when the spring is depressed by the thumb of the hand or some
25 other convenient manipulator.

In the accompanying drawings, Figure 1 is a side elevation of a common globe-valve with the cap of the stuffing-box removed a short distance from the head-piece. This shows the
30 spring located in the body of the head-piece and extending through the threads of the head-piece nearly to the top. Fig. 2 is a cross-section of the head-piece cut through the line x of Fig. 1. This shows the channel for the spring and the spring itself. Fig. 3 is a view
35 of the under side of the cap of the stuffing-box, showing in this case three slots or channels cut upon the inside. Fig. 4 is a cross-section of the spring located within the space occupied
40 by the threads of the head-piece. This shows

a slope upon one side of the spring, but a square corner upon the other to engage with the cap of the stuffing-box in event of a reverse motion. Fig. 5 is a side elevation of the spring,
45 showing a projection upon one face for the pressure of the thumb when the reverse movement of the cap is desired.

In each figure the same letters designate the same parts.

In Fig. 1 the spring in its position is seen
50 at A, and the cap of the stuffing-box at B. In Fig. 3 the several channels cut upon the inside of the cap of stuffing-box, each with one sloping side, are seen at C. In Fig. 5 the projection for the thumb is seen at D.
55

In the use of valves much annoyance and danger occur in consequence of the perpetual turning backward of the cap of stuffing-boxes on the head-pieces of valves. This reverse motion of the cap is caused by the friction of the
60 cap upon the valve-stem, and also from the enlargement of the stem itself when under a high heat and the stem reversed for the necessary manipulation of the valve. The purpose of this simple device is to prevent the reverse
65 motion of the cap of stuffing-boxes, except when desired by the manipulator, by a pressure upon the thumb-piece of the spring.

I prefer the partially-concealed spring herewith shown and described, and wish to be pro-
70 tected in my rights thereto.

I claim—

A head-piece and stuffing-box of a valve, provided with a spring, in combination with a stuffing-box cap having internal lock-catches,
75 whereby the cap is automatically locked, substantially as described.

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