

(No Model.)

R. T. CRANE.
STUFFING BOX FOR VALVES.

No. 411,425.

Patented Sept. 24, 1889.

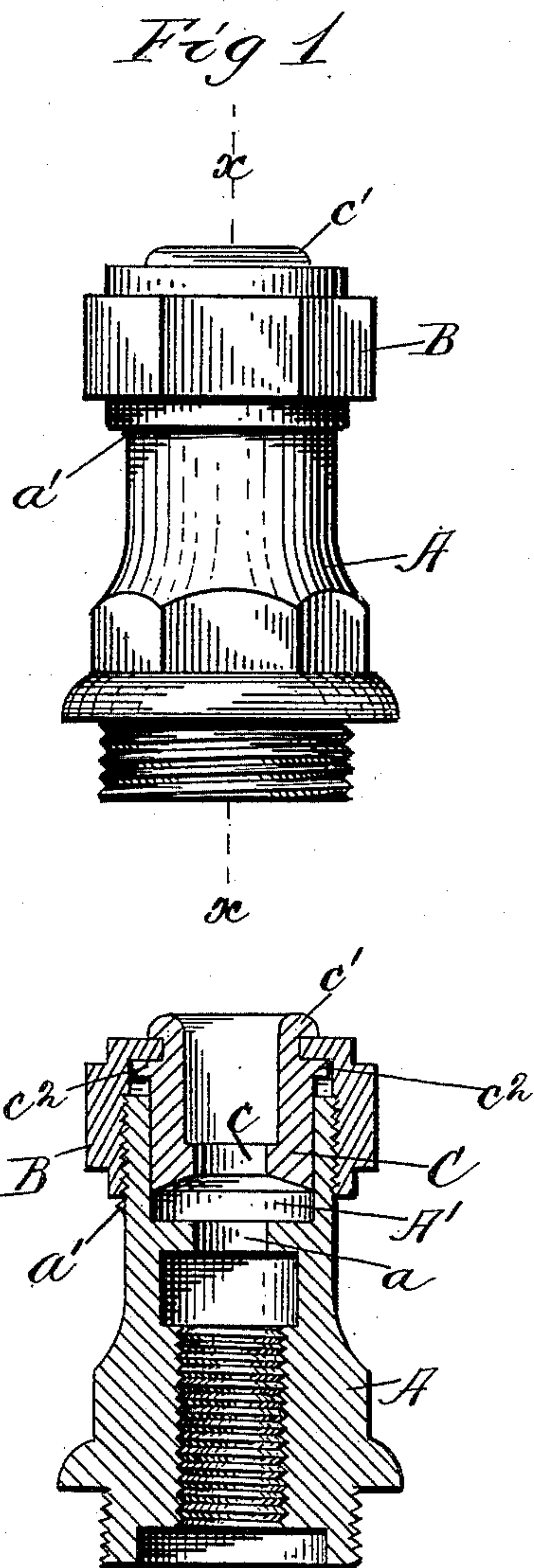


Fig 2

Witnesses
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UNITED STATES PATENT OFFICE.

RICHARD T. CRANE, OF CHICAGO, ILLINOIS.

STUFFING-BOX FOR VALVES.

SPECIFICATION forming part of Letters Patent No. 411,425, dated September 24, 1889.

Application filed November 19, 1888. Serial No. 291,244. (No model.)

To all whom it may concern:

Be it known that I, RICHARD T. CRANE, a citizen of the United States, and residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Stuffing-Boxes for Valves, which is fully set forth in the following specification, reference being had to the accompanying drawings, in which—

10 Figure 1 is an elevation of a construction embodying my invention, and Fig. 2 a sectional view of the same taken on the line xx of Fig. 1.

Like letters refer to like parts in both figures of the drawings.

My invention relates to stuffing-boxes for valves, and has for its object to provide a construction whereby the gland may be more firmly held in place and at the same time prevented from being lost; and to these ends my invention consists in certain novel features, which I will now proceed to describe, and will then particularly point out in the claim.

25 In the drawings, A represents the body of the stuffing-box, which is provided at its upper end with a recess or chamber A' to receive the packing, and which has a longitudinal passage a throughout its length to receive the valve-stem. At its upper end the stuffing-box is threaded externally, as shown at a' , to receive the cap B, which is in the present instance constructed in the form of a nut threaded internally to screw upon the upper end of the stuffing-box. The cap B is centrally apertured at its top for the purpose of having the gland connected thereto.

C represents the gland, which fits within the recess A' and is apertured centrally at c for the passage of the valve-stem, its lower face being beveled, as shown, in order to compress the packing around the valve-stem, as is usual in constructions of this class. The gland C is connected to the cap B by a swiveled connection, so that the said cap and gland are free to rotate independently of each other, while at the same time the gland is carried downward or upward by the cap as it is screwed down or up. This connection is preferably made by extending the gland upward through the aperture in the top of the cap and then spinning the projecting ends down over the top of the cap, as shown at c' . The portion of the gland which ex-

tends through the aperture in the cap is reduced, thereby forming a shoulder, which bears upon the under side of the top of the cap and prevents upward displacement of the gland, and the gland is preferably further held in position by means of a collar c^2 , which bears upon the under side of the top of the cap.

When the parts are assembled and the cap is being screwed into place, it is obvious that the gland as it bears upon the packing will be pressed upon the same without rotating, and thereby tending to displace the packing and carry it around in the box. Moreover, since the gland is swiveled to the cap it will not become loose in the box, and may be applied and removed along with the cap with great facility. In stuffing-boxes of this class as heretofore constructed where the gland is made separate from the cap it is difficult to remove and replace, and where it is made in one piece with the cap or rigidly attached thereto it is obvious that it tends to displace the packing while being screwed down thereon. These disadvantages are overcome by the construction which I have devised, in which the gland is swiveled to the cap, so as to move therewith and at the same time allow the cap to rotate independently.

It is obvious that various modifications in the details of construction may be made without departing from the principle of my invention, and I therefore do not wish to be understood as limiting myself strictly to the precise details hereinbefore described, and shown in the drawings.

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

In a stuffing-box, the combination, with the body A, having recess A' and threaded externally at a' , of the cap B, internally threaded to screw thereon and centrally apertured at the top, and the gland C, having a shoulder to rest against the under side of the cap, and having a portion extended through the aperture in the cap and spun upon the top thereof to form a swiveled connection between the gland and cap, substantially as and for the purposes specified.

RICHARD T. CRANE.

Witnesses:

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