

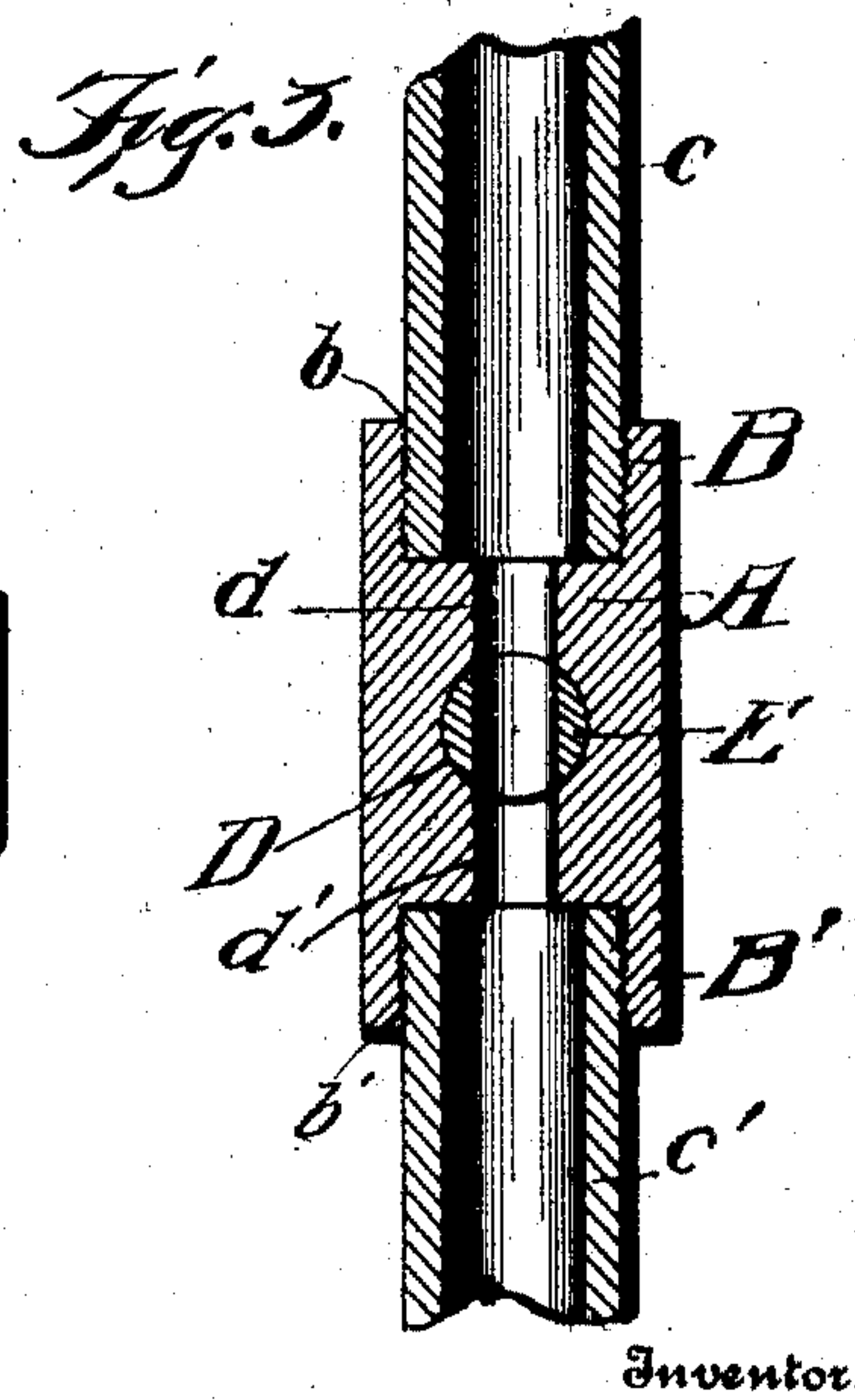
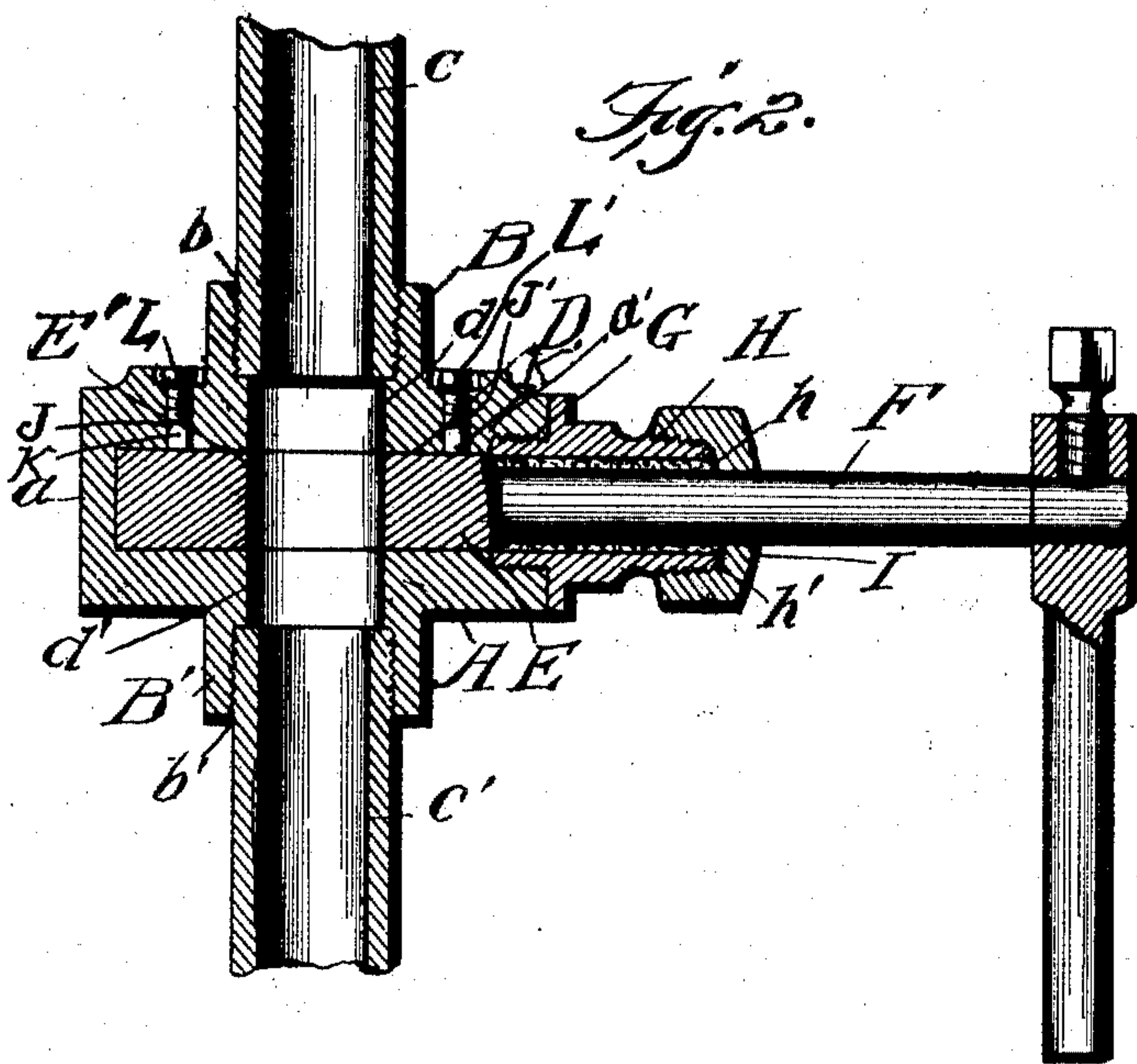
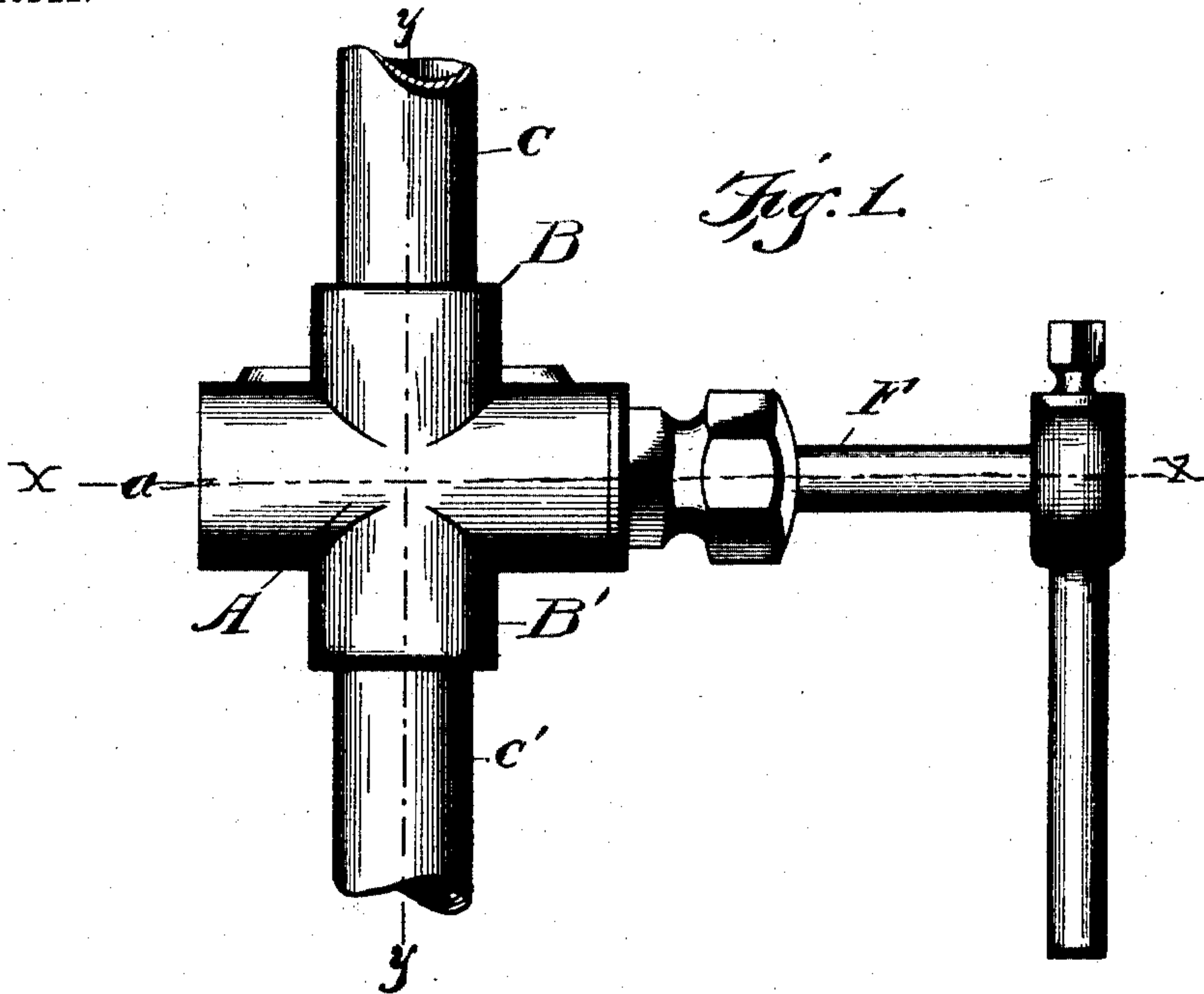
No. 776,901.

PATENTED DEC. 6, 1904.

J. W. FULLER.  
VALVE.

APPLICATION FILED APR. 8, 1904.

NO MODEL.



Witnesses

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## UNITED STATES PATENT OFFICE.

JESSE W. FULLER, OF WAYLAND, NEW YORK.

## VALVE.

SPECIFICATION forming part of Letters Patent No. 776,901, dated December 6, 1904.

Application filed April 8, 1904. Serial No. 202,259. (No model.)

*To all whom it may concern:*

Be it known that I, JESSE W. FULLER, a citizen of the United States, residing at Wayland, in the county of Steuben and State of New York, have invented new and useful Improvements in Valves, of which the following is a specification.

My invention relates to improvements in valves, and pertains more particularly to throttle-valves for steam-engines, &c.

The object of my invention is to provide a valve of this character which after the plug has become worn can be reversed and practically form a new valve, thus obviating the necessity of the replacing thereof by a new plug.

A further object of my invention is to provide means for causing the plug to at all times firmly rest against the inlet end or side of the valve, thus absolutely preventing any leakage of steam through the valve when the plug is turned in a closed position.

In the accompanying drawings, Figure 1 is a side elevation of my improved plug. Fig. 2 is a vertical sectional view taken on line *xx* of Fig. 1. Fig. 3 is a transverse sectional view taken on line *yy* of Fig. 1.

Referring now to the drawings, A represents the casing of the valve, which, as clearly shown, is of a cylindrical form and provided with a closed end *a*, which is formed with or cast as a part of the casing. The said cylindrical casing on two of the opposite sides is provided with outwardly-extending circular members B and B', which are provided with internally-screw-threaded openings *b* and *b'*, into which fit the inlet and outlet pipes C and C'. Communicating with said openings *b* and *b'* and with the enlarged central opening D of the casing A are vertically-arranged elongated openings *d* and *d'*, which will be hereinafter more fully described.

Rotatably mounted in the opening D is a plug E, which is of a corresponding shape, and thus there is positively no wedging action of the plug with the opening. The said plug rests upon the end *a* of the casing and extends up within a short distance of the upper end *a'* of the casing. The said plug carries at its upper end an upwardly-extending

operating-rod F, which extends a considerable distance out beyond the casing. The upper end of the casing above the plug is internally screw-threaded at G, and screwed therein is a bushing H, having a central opening *h*, through which the plug-operating rod F loosely passes. The inner end of the bushing rests against the outer end of the plug, and thus the same is held therein against any longitudinal movement. The outer end of said bushing is provided with a screw-threaded portion *h'*, and screwed upon said upper end is a packing-box I, which is to prevent any leakage of steam around the plug-operating rod. The plug E intermediate its ends is provided with a transverse passage-way E', which is of a shape and size to correspond with the inlet and outlet openings *d* and *d'*, and it is readily seen that when the plug is so turned to allow the passage of steam or water there- through there is a straight passage through the valve.

In the use of valves of this character it has been found that when the plug is partially open the passage of the steam engaging the sharp edges of the plug at the openings will soon wear the same, and thus the plug becomes worn and loose within the casing. By the construction shown it will be seen that I can turn the plug completely around, so that the discharge end of the opening in the plug can be turned opposite the inlet-opening, and thus the new and worn edges are brought into service. In addition to this I provide the casing A on the opposite to the inlet-opening with two screw-threaded openings J and J', which communicate with the central opening of the casing and loosely fit in the inner ends of said openings, and bearing against the plug E are the blocks K and K'. Screwed within said openings J and J' are the screws L and L', which bear against the outer ends of the blocks. By screwing the screws L and L' inwardly the blocks are brought to bear against the plug, and the same is firmly held against the inlet side of the casing and prevents any leakage of the steam around the plug. I not only provide means for taking up the wear of the plug by this construction, but I also provide means whereby the plug can be so



held in the casing that it cannot be turned, and thus the same cannot be accidentally turned. The outer end of the plug-operating rod F may have any desired operating mechanism connected thereto.

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

1. A turning-plug comprising a casing having oppositely-arranged inlet and outlet openings, a plug within the casing and having a passage-way therethrough, said casing having a depression on each side of said outlet-opening and openings communicating with said depressions and passing through the casing, blocks within the inner end of said openings and bearing against the plug, and screws within the outer ends of said openings and adapted to force the blocks against said plug.

2. A turning-plug comprising a casing, a plug therein, and having a passage-way therethrough, openings in the casing on the opposite side from the inlet-opening, blocks within said openings and engaging the plug and screws within said openings and forcing said blocks against the plug.

3. A turning-plug comprising a casing having oppositely-arranged inlet and outlet openings, a plug within the casing and having a

passage-way therethrough, said casing having an opening on each side of the outlet-opening, blocks within the inner end of said openings, screws within said openings and forcing said blocks inwardly in engagement with the plug, whereby the plug is held tightly against the inlet side of the casing.

4. A turning-plug comprising a casing having oppositely-arranged inlet and outlet openings, a cylindrical plug of the same diameter throughout its entire length, and having a passage-way passing transversely therethrough equal distances from the ends, said casing having a depression on opposite sides of said outlet-opening, and screw-threaded openings communicating with the depressions and the opening in the valve-casing, blocks within the inner ends of said openings and bearing against the plug, and screws within said screw-threaded openings and adapted to force the blocks inward against said plug.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JESSE W. FULLER.

Witnesses:

FRED L. ROBINSON,  
H. M. UNDERHAND.