

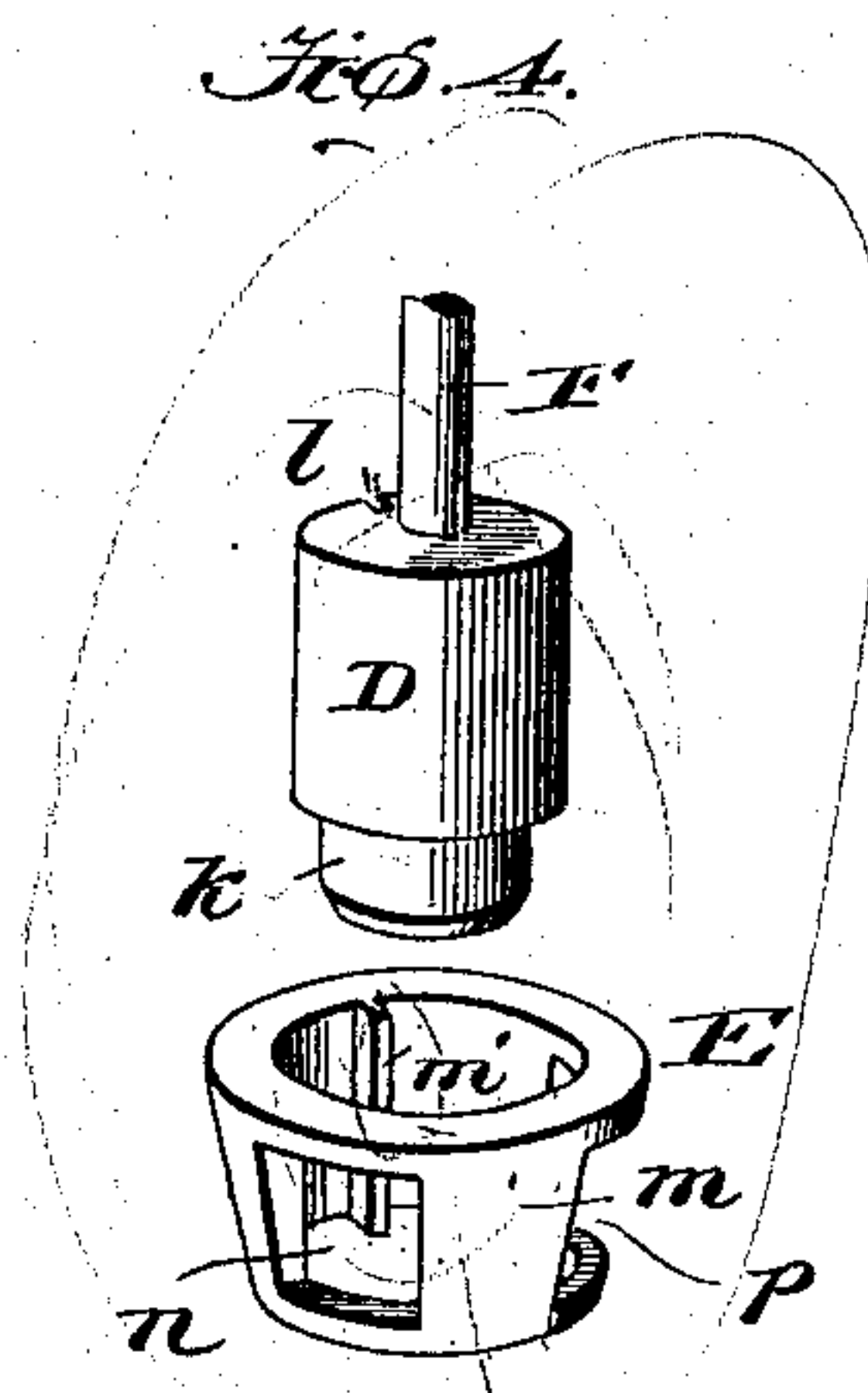
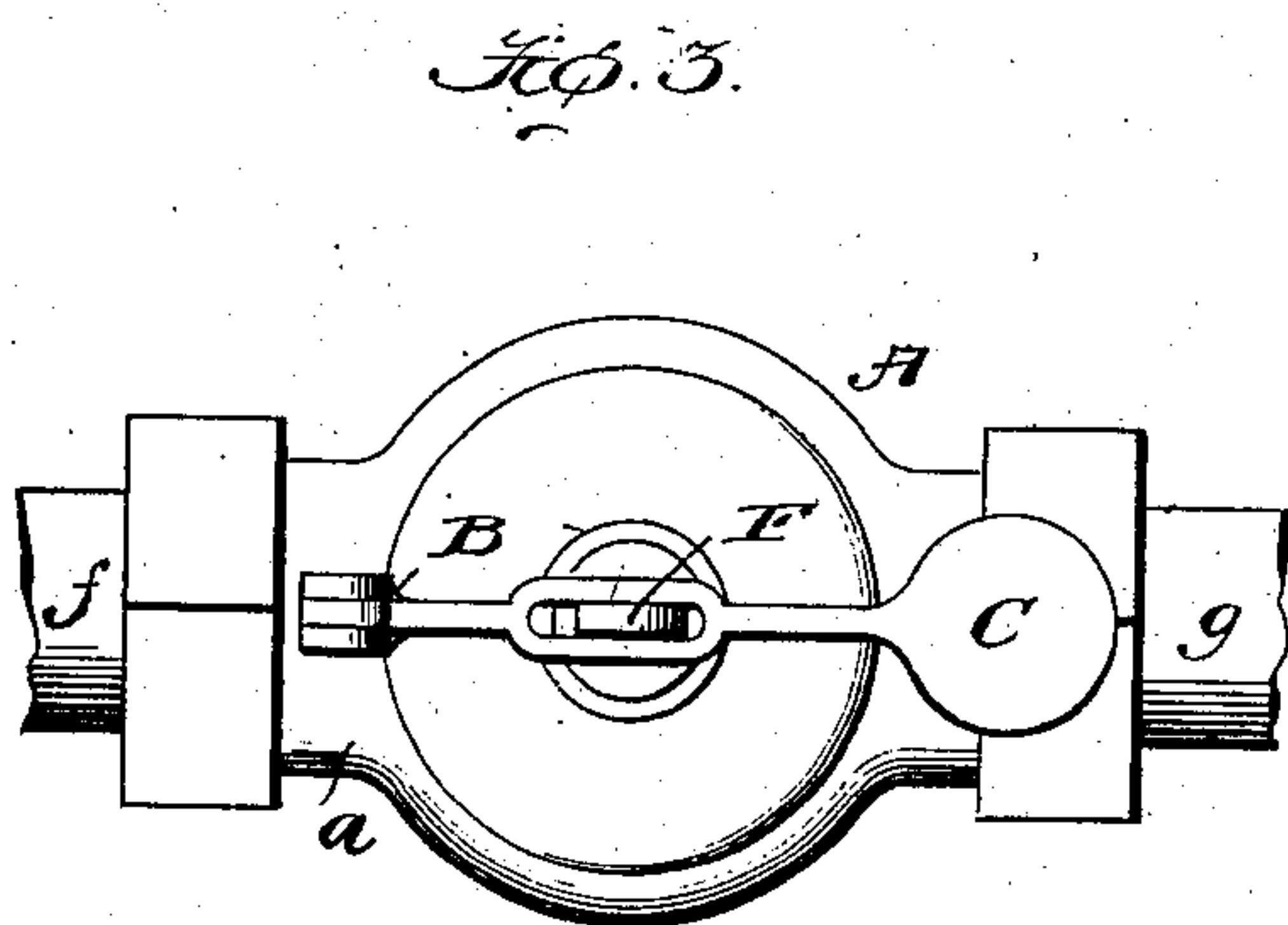
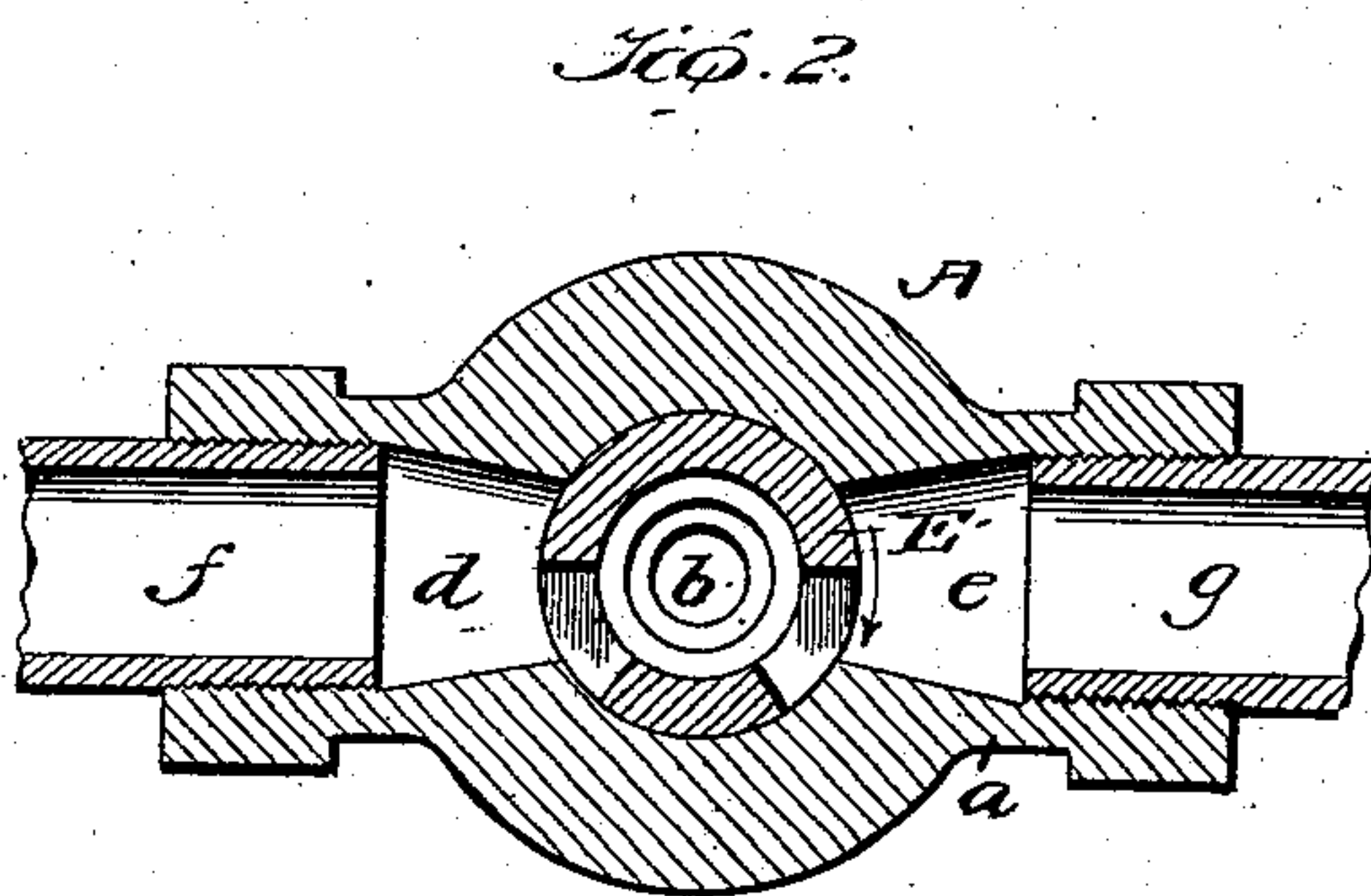
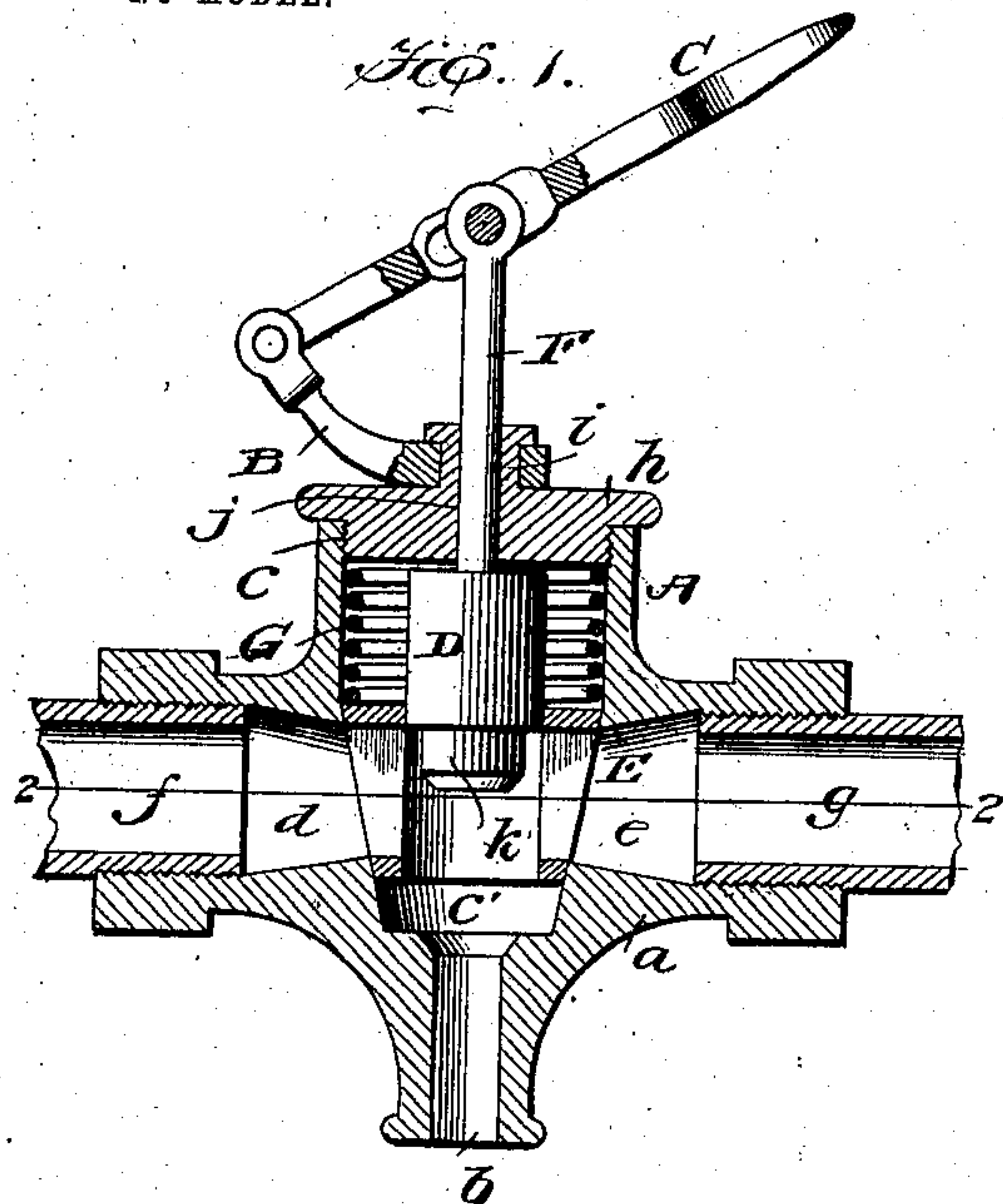
No. 742,327.

PATENTED OCT. 27, 1903.

J. G. HUYE.  
FAUCET.

APPLICATION FILED JUNE 4, 1903.

NO MODEL.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

JOSEPH G. HUYE, OF NEW ORLEANS, LOUISIANA.

## FAUCET.

SPECIFICATION forming part of Letters Patent No. 742,327, dated October 27, 1903.

Application filed June 4, 1903. Serial No. 160,091. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH G. HUYE, a citizen of the United States, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented new and useful Improvements in Faucets, of which the following is a specification.

My invention pertains to hot or cold water faucets, and its novelty, utility, and practical advantages will be fully understood from the following description and claims when taken in connection with the accompanying drawings, in which—

Figure 1 is a vertical diametrical section of the faucet constituting the preferred embodiment of my invention with the valve arranged for the simultaneous discharge of hot and cold water. Fig. 2 is a horizontal section taken in the plane indicated by the broken line 2 2 of Fig. 1. Fig. 3 is a top plan view of the faucet, and Fig. 4 comprises disconnected perspective views of the parts of the valve.

Similar letters designate corresponding parts in all of the views of the drawings, referring to which—

A is the casing of my improved faucet. This casing by preference comprises a body *a*, having a discharge-opening *b* at its lower side, a threaded opening *c* at its upper side, a downwardly-tapering central bore *c'*, communicating at its lower end with the opening *b*, and diametrically opposite ports *d* *e* in communication with a cold-water-supply pipe *f* and a hot-water-supply pipe *g*, respectively, and also in communication with the central taper bore, and a threaded cap *h*, bearing in the opening *c* of the body and having a pivot-post *i* on its upper side.

B is an arm mounted on the pivot-post *i*, so as to swing horizontally; C, a hand-lever pivotally connected to the arm B, whereby it is adapted to swing vertically; D, the rectilinearly-movable cylindrical plunger of my improved valve; E, the rotary bushing of the valve, and F a stem extending through a central bore *j* in the cap *h* and connecting the plunger D and the hand-lever C. The plunger D is preferably of brass and has a reduced lower end *k*, adapted to close the opening *b*, and also has a vertical groove *l* in its side, as shown in Fig. 4. The bushing E is likewise preferably of brass and is exteriorly tapered

toward its lower end, as indicated by *m*, so as to snugly fit in the taper bore of the casing-body. Interiorly the bushing is of even diameter throughout, so as to enable the plunger to move up and down therein, and it is provided with an interior vertical key *m'*, disposed in the groove *l* of the plunger, whereby it will be seen that while the plunger is free to move up and down independent of the bushing the bushing will always turn axially with the plunger irrespective of the vertical adjustment of the latter. The bushing is also provided with ports *n* *p*, which are by preference relatively arranged, as shown in Fig. 2.

G is a coiled spring arranged in the upper portion of the casing-body *a* and interposed between the cap *h* and the upper end of the bushing E. The said coiled spring has for its purpose to press the bushing E downwardly, so as to enable said bushing to take up wear between itself and the wall of the taper bore *c'*, and thereby preclude leakage of either hot or cold water.

In the practical use of my improved faucet when it is desired to discharge hot water alone from the faucet the bushing E is turned to carry the port *p* into register with the port *e* and the port *n* out of register with the port *d* and the plunger D is raised to the position shown in Fig. 1. To discharge cold water alone from the faucet, the bushing E is turned, through the medium of the plunger D, to carry the port *n* into register with the port *d* and the port *p* out of register with the port *e*. When both hot and cold water are to be discharged from the faucet at the same time, the bushing is turned to the position shown in Fig. 2. With the bushing in this latter position it will be observed that the proportion of hot water may be diminished and the proportion of cold water increased by turning the bushing in the direction indicated by arrow, while by turning the bushing in the direction opposite to that indicated by arrow the proportion of hot water may be increased and the proportion of cold water diminished. It will be observed that with the bushing in any of the positions stated the volume of water discharged through the faucet may be readily diminished to the extent desired by lowering the plunger D. When the said plunger is in its lowermost



position, it will be observed that it closes the ports *n p* of the bushing as well as the opening *b* in the casing-body, with the result that liability of the faucet leaking is reduced to a minimum.

In virtue of the bushing of the valve being tapered and held under the pressure of a spring in the correspondingly-tapered bore of the body it will be seen that the bushing is self-grinding, and consequently will always tightly fit the body notwithstanding the frequency with which the valve may be opened and closed. From this it follows that when the valve is adjusted to discharge cold water alone there is no liability of hot water leaking past the valve and mingling with the cold water, while when the valve is adjusted to discharge hot water alone there is no liability of the temperature of such water being lowered by cold water.

I have entered into a detailed description of the construction and relative arrangement of the parts embraced in the present and preferred embodiment of my invention in order to impart a full, clear, and exact understanding of the same. I do not desire, however, to be understood as confining myself to such specific construction and arrangement of parts, as such changes or modifications may be made in practice as fairly fall within the scope of my invention as claimed.

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

1. In a faucet, the combination of a casing, a valve arranged in the casing, and comprising a rotary bushing, and a plunger keyed to the bushing so as to turn with and move endwise independent of the same, and having a stem extending through the casing, an arm mounted to swing on the casing, and a lever pivoted on said arm, and connected to the stem of the valve-plunger.

2. In a faucet, the combination of a casing having a taper bore, a discharge-opening at the reduced end thereof, and opposite inlet-ports, a valve comprising a rotary, tapered

bushing arranged in the taper bore of the casing, and having ports adapted to register with the inlet-ports, and a plunger keyed to the bushing so as to turn with and move endwise in and independent of the same, suitable means for turning and moving the plunger endwise, and a coiled spring interposed between the large end of the bushing and the casing.

3. In a faucet, the combination of a casing having a taper bore, a discharge-opening at the reduced end thereof, and opposite inlet-ports, a valve comprising a rotary, tapered bushing arranged in the taper bore of the casing, and having a bore of even diameter throughout and also having ports adapted to register with the inlet-ports, and a cylindrical plunger keyed to the bushing so as to turn with and move endwise in the same, and having a stem extending through the casing, and a coiled spring surrounding the plunger, and interposed between the large end of the bushing and the casing.

4. In a faucet, the combination of a casing having a taper bore, a discharge-opening at the reduced end thereof, and opposite inlet-ports, a valve comprising a rotary, tapered bushing arranged in the taper bore of the casing, and having a bore of even diameter throughout and also having ports adapted to register with the inlet-ports, and a cylindrical plunger keyed to the bushing so as to turn with and move endwise in the same, and having a stem extending through the casing, a coiled spring surrounding the plunger, and interposed between the large end of the bushing and the casing, an arm mounted to swing on the casing, and a lever pivoted on said arm, and connected to the stem of the valve-plunger.

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

JOSEPH G. HUYYE.

Witnesses:

DAN McKEARAN,  
FRANK BRADY.