

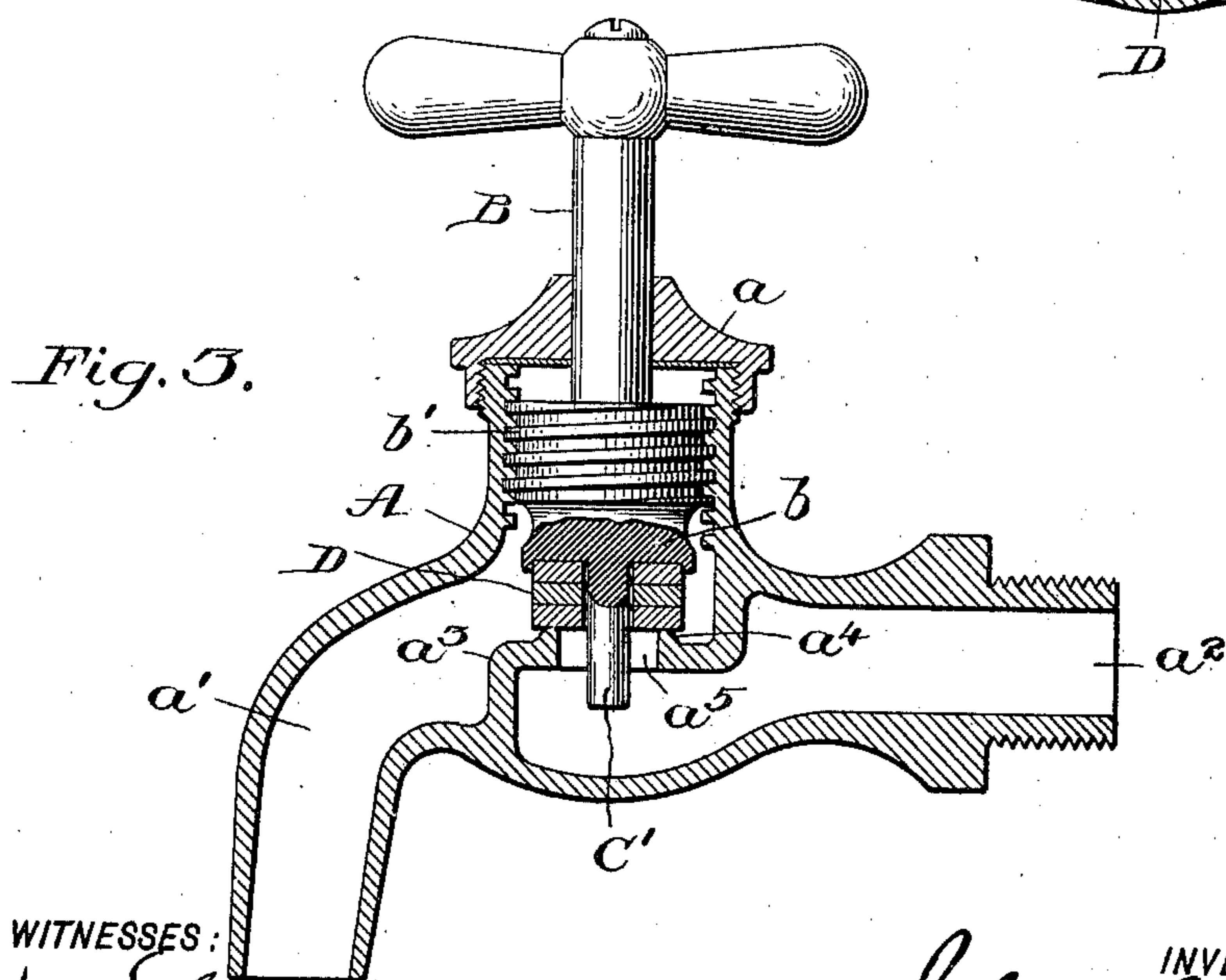
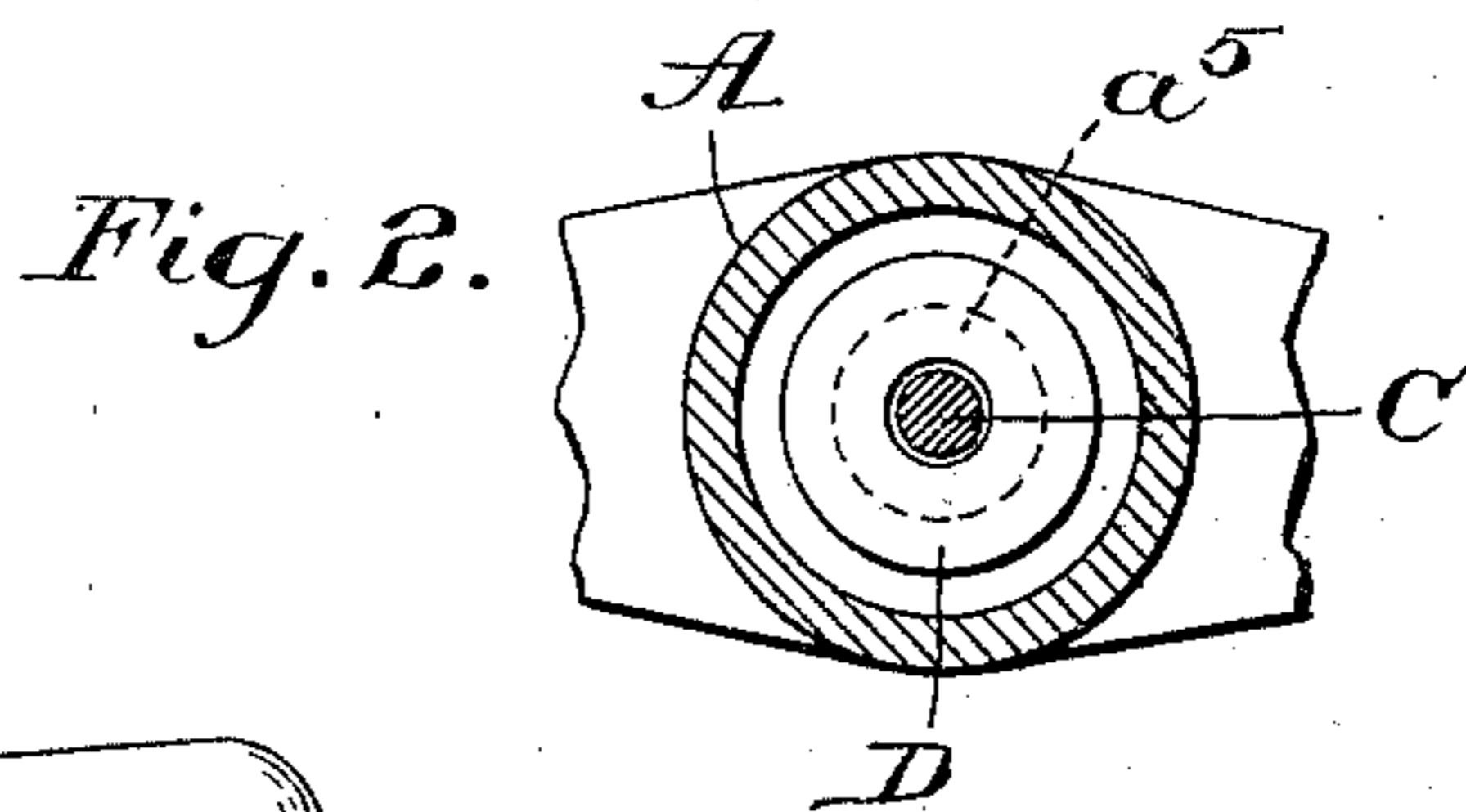
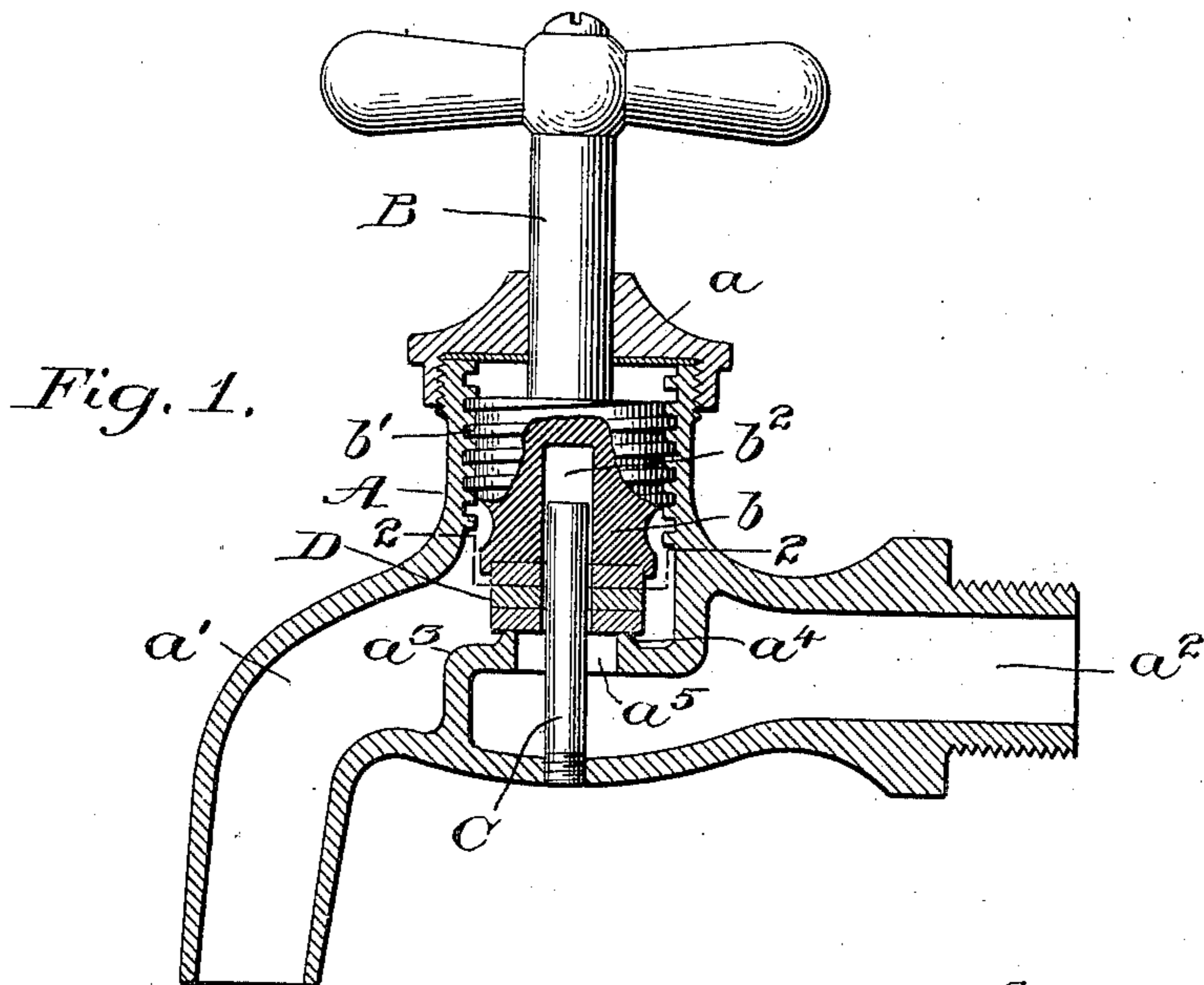
No. 628,691.

Patented July 11, 1899.

J. H. CALAHAN.
COMPRESSION COCK.

(Application filed Mar. 1, 1899.)

(No Model.)



WITNESSES:

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JOHN H. CALAHAN, OF PHILADELPHIA, PENNSYLVANIA.

COMPRESSION-COCK.

SPECIFICATION forming part of Letters Patent No. 628,691, dated July 11, 1899.

Application filed March 1, 1899. Serial No. 707,345. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. CALAHAN, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Compression-Cocks; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to compression or bib cocks, stops, and faucets; and the object of my improvement is to provide a construction wherein may be employed one or more independently-movable valve-closing washers that will, by turning the valve-stem, be automatically guided into the required position for opening or closing the outlet of the cock and be easily and quickly renewed when worn out. To accomplish the desired result, I loosely secure upon a post or stem extending through the valve-opening a suitable washer or washers in such a position that the downward movement of the valve-stem will force the washers tightly against the bottom of the valve-stem and the seat of the valve in the manner hereinafter described.

In the accompanying drawings, Figure 1 is a sectional elevation of an ordinary compression or bib cock having my improvement therein. Fig. 2 is a horizontal section, as on line 2 2 of Fig. 1. Fig. 3 is a view similar to Fig. 1 and shows a modified form of the invention.

A represents the body of the cock, which is constructed in the ordinary manner and provided with the usual form of screw-cap a .

B is the valve-stem, passing through the cap a and provided with a screw-threaded enlarged end portion b , fitting into a corresponding threaded portion b' of the cock.

b^2 is a cylindrical opening formed in the central portion of the enlarged bottom part of the valve-stem.

a' and a^2 are the inlet and outlet passages through the body of the cock.

a^3 is a horizontal partition separating the passages a' and a^2 .

a^4 is a valve-seat formed on the upper part of the partition a^3 around the opening a^5 .

C is a vertical post secured in the bottom of the passage-way a^2 and extending upwardly into the cylindrical opening b^2 in the bottom part of the valve-stem.

D are the movable valve-closing washers, provided with a central opening large enough to allow them to fit loosely around the vertical post C.

The cock being constructed as shown and the valve-stem screwed down, as illustrated in Fig. 1 of the drawings, the washer or washers D will be forced down tightly between the lower enlarged end of the valve-stem and the valve-seat a^4 , thus effectually closing the opening. When the valve-stem is screwed upwardly, the pressure is released from the washer or washers D, and the force of the water or other fluid passing through the cock will lift them from the valve-seat and allow the fluid to freely pass through the cock from the passage a^2 into the passage a' and out at the discharge-opening. The up-and-down movement of the valve-stem B is sufficient to allow the washers to be moved upwardly by the action of the water when the cock is opened, but it is not enough to allow the top of the post C to come out of the opening b^2 . Consequently the washers are always held in place.

In the modified form of the valve shown in Fig. 3 the post C' is made integral with the valve-stem B and long enough to extend through the opening a^5 in the partition. In this form also the up-and-down movement of the valve-stem is sufficient to allow a free and independent movement of the washer or washers D, but not enough to allow them to come off of the end of the post.

If desired, several washers may be placed on the post C or C' at one time. When more than one is placed upon the post and the bottom washer is worn away, it will become disengaged from around the post and be forced out at the discharge-opening of the cock, when the next washer will fall down and fit over the valve-seat and be in position to close the

valve when the valve-stem is screwed down, and so on until each succeeding washer is worn away, when a new supply may be placed upon the post C or C' by removing the cap and unscrewing the valve-stem.

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

1. In a cock or faucet having inlet and outlet passages, a horizontal partition separating said passages and provided with an opening, a post or stem projecting through said opening and carrying loosely thereon a washer, said washer being adapted to fit over said post and between the valve-seat and the base of the valve-stem for the purpose of closing the opening between the inlet and outlet passages when the valve is closed, and adapted when said stem is raised to be forced up by the pressure of the water independently of the post to permit the flow, as set forth.

2. A cock or faucet having the inlet and outlet passages separated by a partition provided with an opening through which projects a post secured in the bottom of the inlet passage-way, said post fitting into an opening in the bottom of the valve-stem and loosely carrying a washer adapted to fit over the opening between the inlet and outlet passages, substantially as shown.

3. A cock or faucet having inlet and outlet passages, a horizontal partition separating said passages and a post projecting through an opening in said partition from one passage into the other, a washer loosely mounted on said post and movable independent thereof adapted to fit over said opening and to be held tightly between the bottom of the valve-stem and the opening when said valve is closed, and when the valve-stem is raised adapted to be lifted by the force of the inflowing water to permit its passage, as set forth.

4. A cock or faucet having inlet and outlet passages, a horizontal partition provided with an opening therethrough, a stem or post projecting from one passage into the other through said opening and loosely carrying a supply of washers adapted to move independently of said post or stem, said washers being so loosely held in such position on said post that when the bottom one has worn away the next adjacent washer will fall into place to close the opening in said partition, as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN H. CALAHAN.

Witnesses:

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