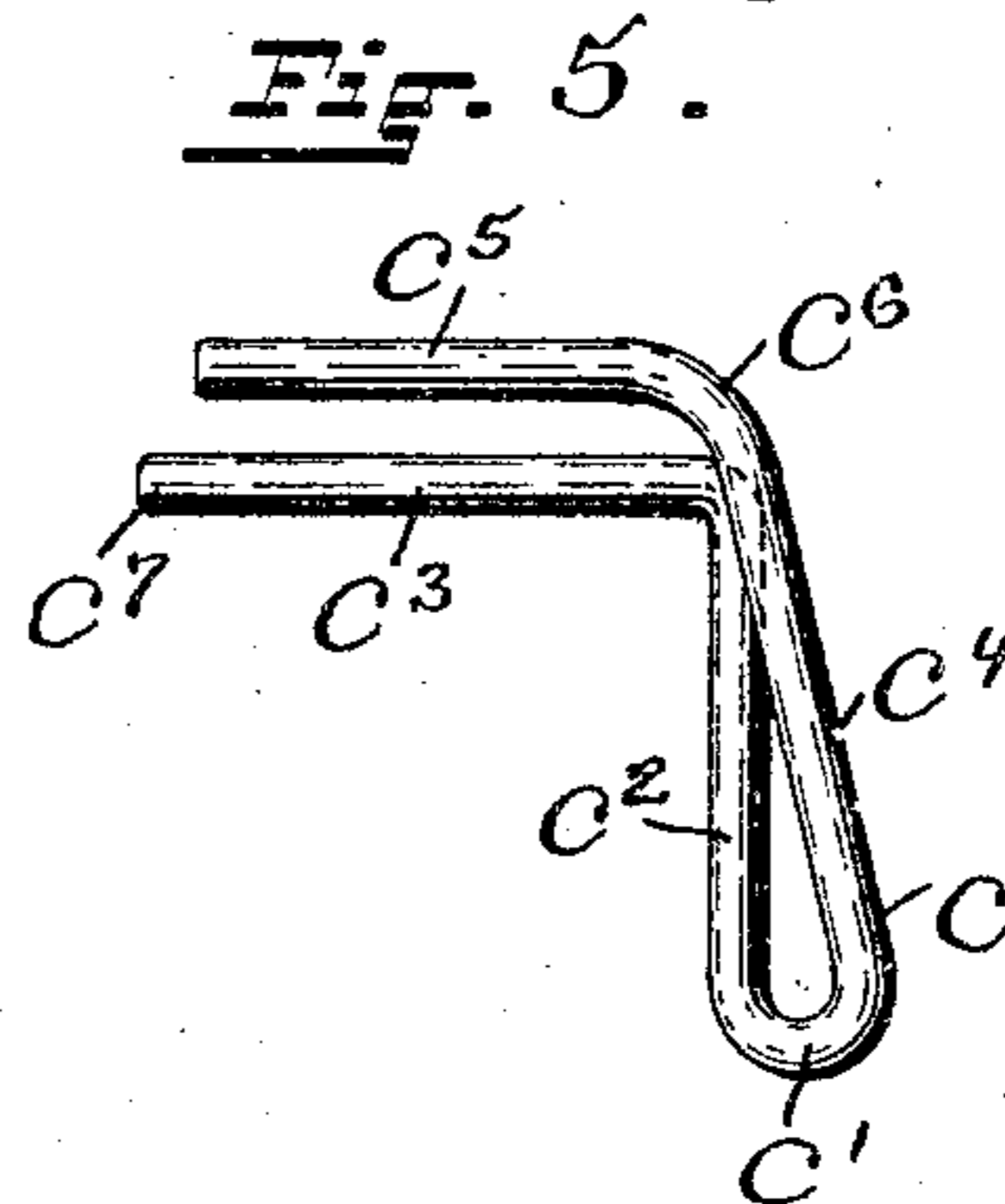
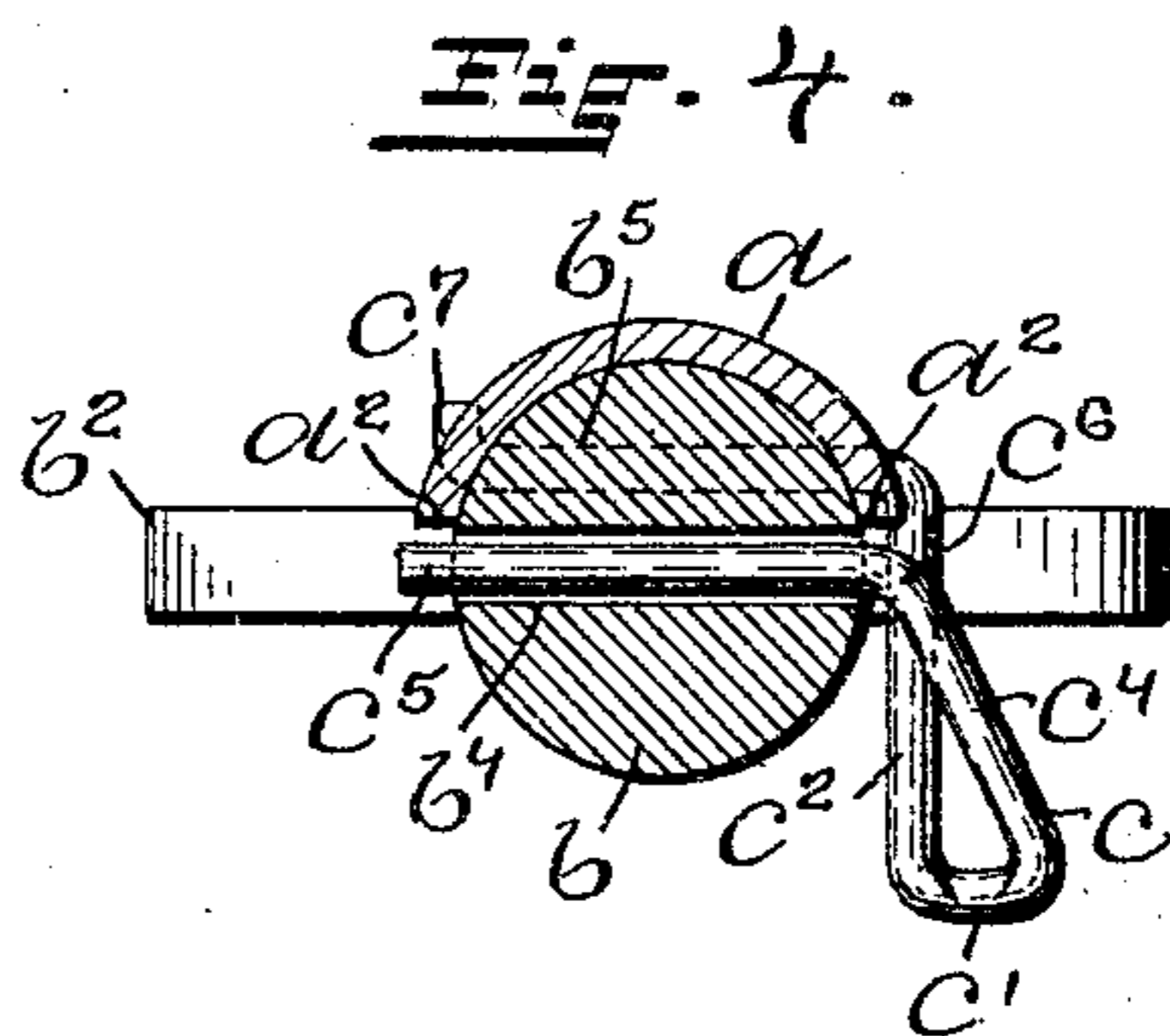
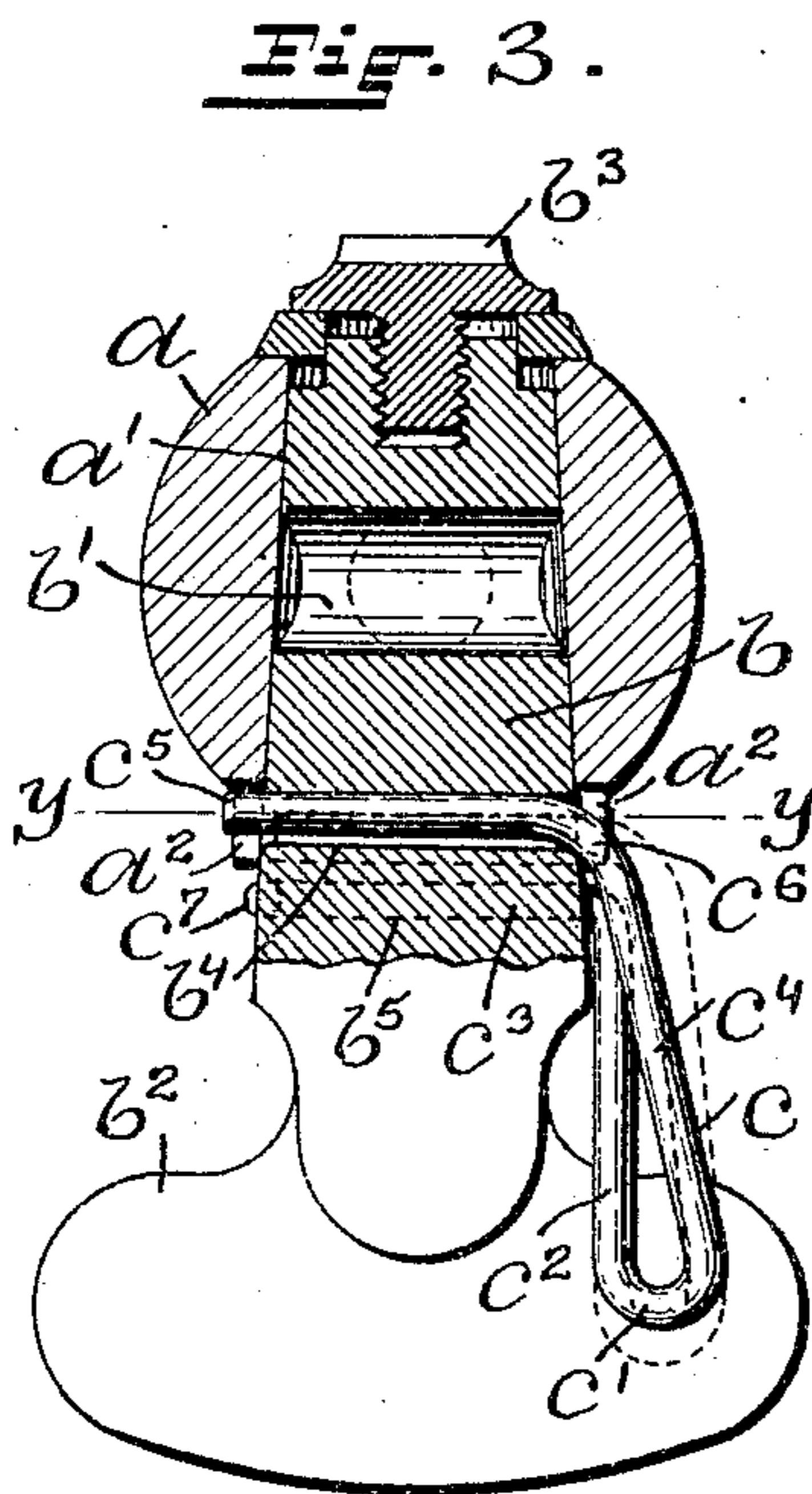
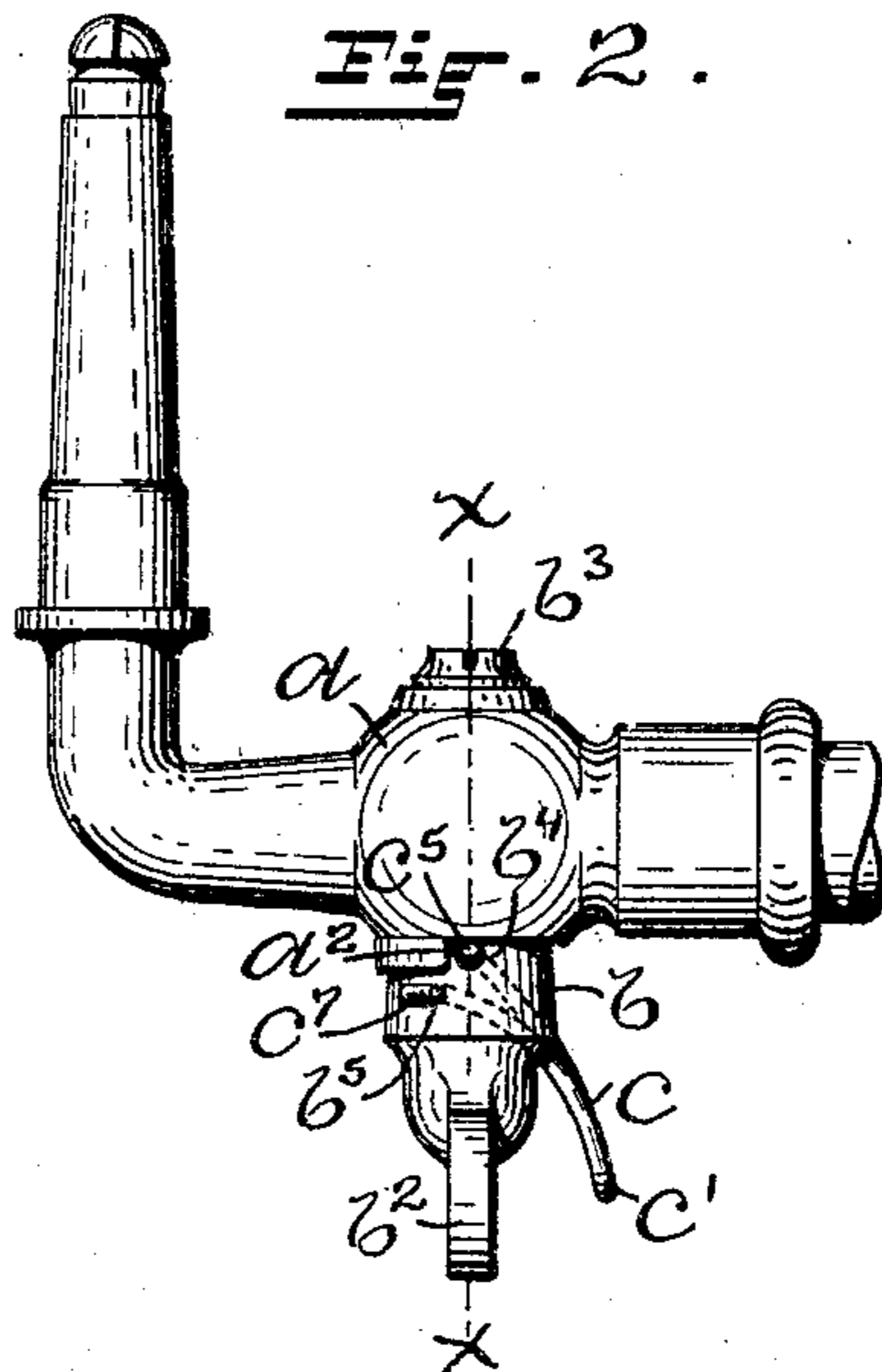
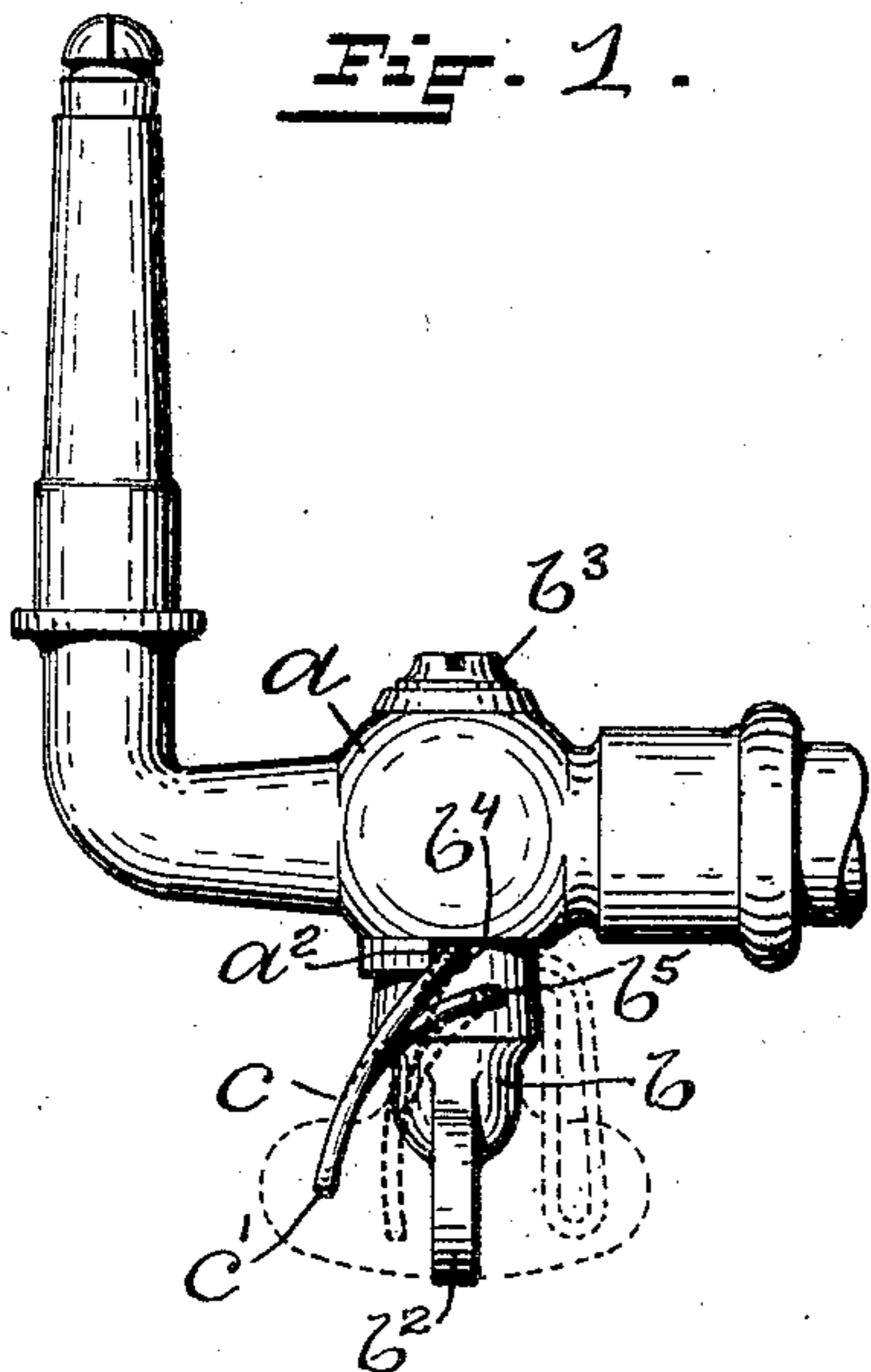


No. 788,220.

PATENTED APR. 25, 1905.

J. A. OLSON.
SAFETY ATTACHMENT FOR GAS COCKS.

APPLICATION FILED JUNE 28, 1904.



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JOHN A. OLSON, OF PAWTUCKET, RHODE ISLAND.

SAFETY ATTACHMENT FOR GAS-COCKS.

SPECIFICATION forming part of Letters Patent No. 788,220, dated April 25, 1905.

Application filed June 28, 1904. Serial No. 214,545.

To all whom it may concern:

Be it known that I, JOHN A. OLSON, a citizen of the United States, residing at Pawtucket, in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in Safety Attachments for Gas-Cocks, of which the following is a specification.

This invention has reference to an improvement in gas-fixtures, and more particularly to an improvement in safety attachments for gas-cocks.

The object of my invention is to provide an automatic lock for gas-cocks which will secure the valve against accidental movement and automatically lock the valve in its closed or shut-off position.

A further object of my invention is to simplify the construction of a safety attachment for gas-cocks, thereby reducing the cost of the same.

Another object of my invention is to provide a safety attachment for gas-cocks that can be easily attached to the existing forms of gas-cocks by boring two transverse holes through the plug-valve of the cock.

My invention consists in the peculiar and novel construction of an automatic locking safety attachment secured to a gas-cock by boring a central transverse hole through the plug-valve on a line with the stop-shoulders on the fitting, and an off-center parallel transverse hole through the plug-valve below and adjacent to the first hole, said safety attachment consisting of a spring-wire bent together approximately in the center forming a lever having a lower L-shaped arm and an upper arm bent at right angles and curved in the bend, the lower arm being adapted to form the fulcrum of the lever by passing it through the lower hole in the plug-valve and pivotally securing it by bending the protruding end at right angles and the end of the upper arm being adapted to form the locking-pin by passing it through the upper hole in the plug-valve on a line with the stop-shoulders, whereby on depressing the end of the lever toward the thumb-piece of the valve the curved bend of the upper arm acts as a cam on the edge of

the hole and draws the end forming the locking-pin out of engagement with the stop-shoulder against the spring tension of the wire arm, as will be more fully set forth hereinafter.

Figure 1 is a side view of a gas-cock provided with my improved safety locking attachment, showing the plug-valve in the shut-off position in full lines, the depressed position of the spring-wire lever to unlock the valve in heavy dotted lines, and the open position of the valve in broken lines. Fig. 2 is a view similar to Fig. 1, showing the plug-valve locked in the extreme right shut-off position. Fig. 3 is an enlarged vertical sectional view taken on line X X of Fig. 2, showing the safety locking attachment in its locked position in full lines and in its unlocked position in broken lines. Fig. 4 is a transverse sectional view taken on line Y Y of Fig. 3, showing the locking-pin of the safety locking attachment in its locked position extending across the stop-shoulders on the fitting; and Fig. 5 is a face view of the safety locking attachment removed from the gas-cock.

In the drawings, *a* indicates the gas-cock fitting, *b* the plug-valve, and *c* my improved safety locking attachment. The fitting *a* is constructed in the usual way for securing it to a gas-fixture and has the usual gas-duct leading to the burner. The valve-seat *a'* consists of the usual tapered hole bored transversely through the gas-duct. A portion of the wall of the valve-seat *a'* extends downward, forming a semicircular lip, the ends of which form the stop-shoulders *a² a²*. The plug-valve *b* is of the usual construction, having the gas-duct *b'*, the thumb-piece *b²*, and the adjusting-screw *b³*, as shown in Fig. 3. For securing my improved safety locking attachment to the gas-cock I bore the hole *b⁴* centrally and transversely through the plug-valve *b* on a line with the stop-shoulders *a² a²* and the parallel hole *b⁵* off center and slightly below the hole *b⁴*, as shown in Figs. 1, 3, and 4.

My improved safety locking attachment *c* consists of a spring-wire bent together approximately in the center, forming the lever *c'*, having the lower arm *c²* with the L-shaped

fulcrum end c^3 and the upper spring-arm c^4 , having its end bent at right angles to form the locking-pin c^5 , and the curved bend c^6 , connecting the spring-arm c^4 with the locking-pin c^5 , which extends across both the stop-shoulders, as shown in Fig. 4.

The locking attachment c is secured to the gas-cock by passing the L-shaped end c^3 through the hole b^5 , with the locking-pin c^5 in the hole b^4 , and bending the protruding end c^7 of the L-shaped end c^3 at right angles, as shown in Fig. 4.

In the operation of my improved safety locking attachment the operator in grasping the thumb-piece b^2 to turn the valve depresses the lever c' , the end c^3 acting as a fulcrum in the hole b^5 in the valve. The depressing of the lever c' toward the thumb-piece b^2 tends to pull the locking-pin c^5 toward the fulcrum end c^3 , so that the curved bend c^6 , acting as a cam on the edge of the hole b^4 in the valve, forces the end of the locking-pin c^5 inward and out of engagement with the stop-shoulder a^2 against the spring tension of the arm c^4 , as shown in broken lines in Fig. 3. The gas is now turned on by turning the plug-valve b one-quarter of a revolution, as shown in broken lines in Fig. 1. The gas may now be shut off to turn out the light by turning the valve one-quarter of a revolution in either direction and automatically locked by the spring tension of the arm c^4 , forcing the locking-pin c^5 across the stop-shoulders a^2 , as shown

in Fig. 4, and preventing the turning of the valve in either direction.

The use of my improved safety locking attachment for gas-cocks insures absolute safety by its locking the valve automatically the instant the gas is shut off to prevent accidental movement of the valve, and the valve cannot be turned or opened without pressure on the lever of the locking attachment.

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

The combination with a gas-cock having stop-shoulders and a plug-valve in which is a central transverse hole on a line with the stop-shoulders and an off-center parallel hole, of an automatic safety locking attachment consisting of a spring-wire bent together approximately in the center and formed into a lever having a lower L-shaped arm forming the fulcrum of the lever and an upper spring-arm bent at right angles with a curved bend to form a locking-pin, the two arms of the locking attachment being supported in the respective holes in the plug-valve, and means for securing the locking attachment to the gas-cock, as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN A. OLSON.

Witnesses:

ADA E. HAGERTY,
J. A. MILLER, Jr.