

J. WINKLER.  
SAFETY COCK.  
APPLICATION FILED JULY 27, 1908.

925,257.

Patented June 15, 1909.

Fig. 1.

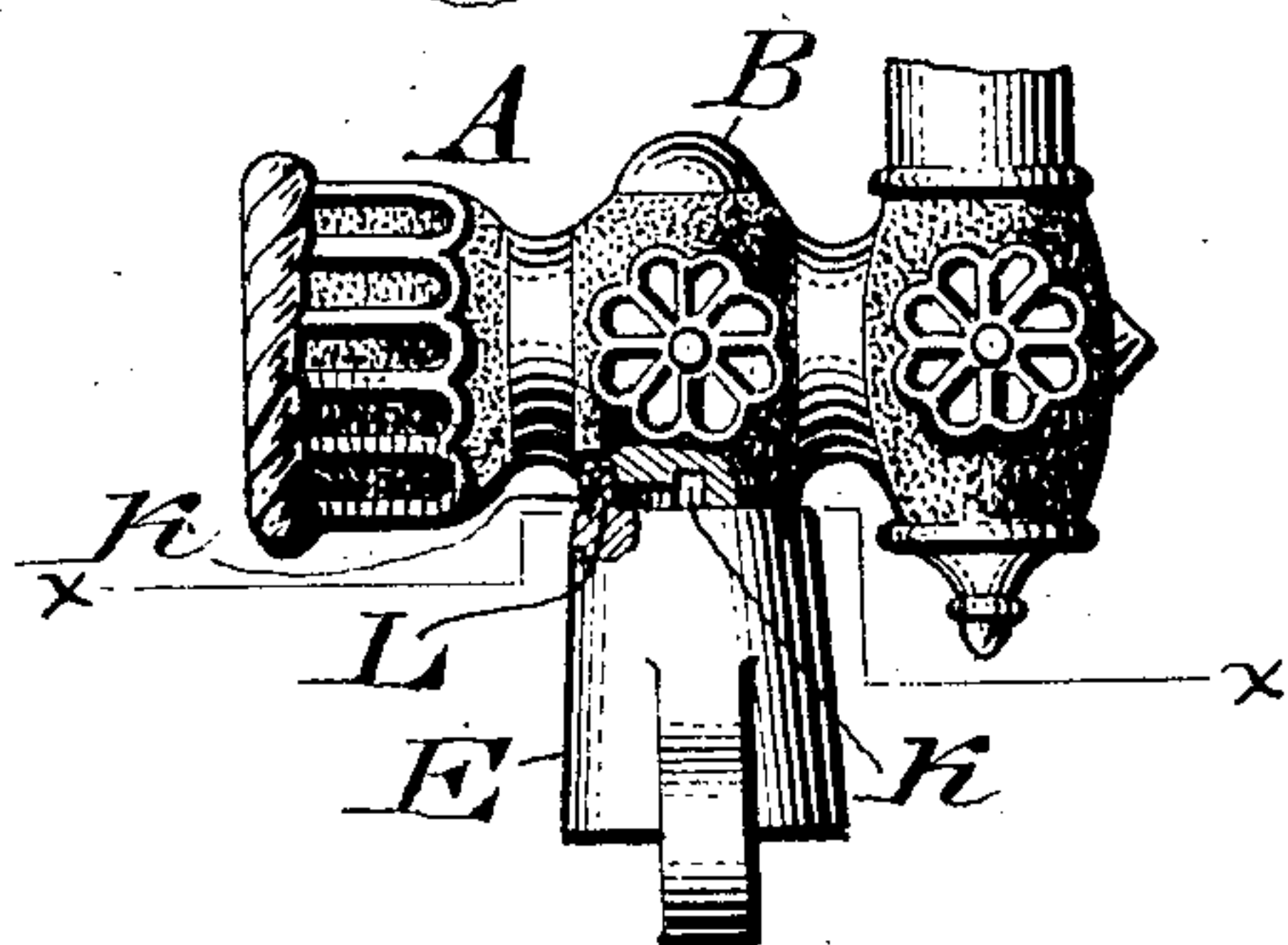


Fig. 2.

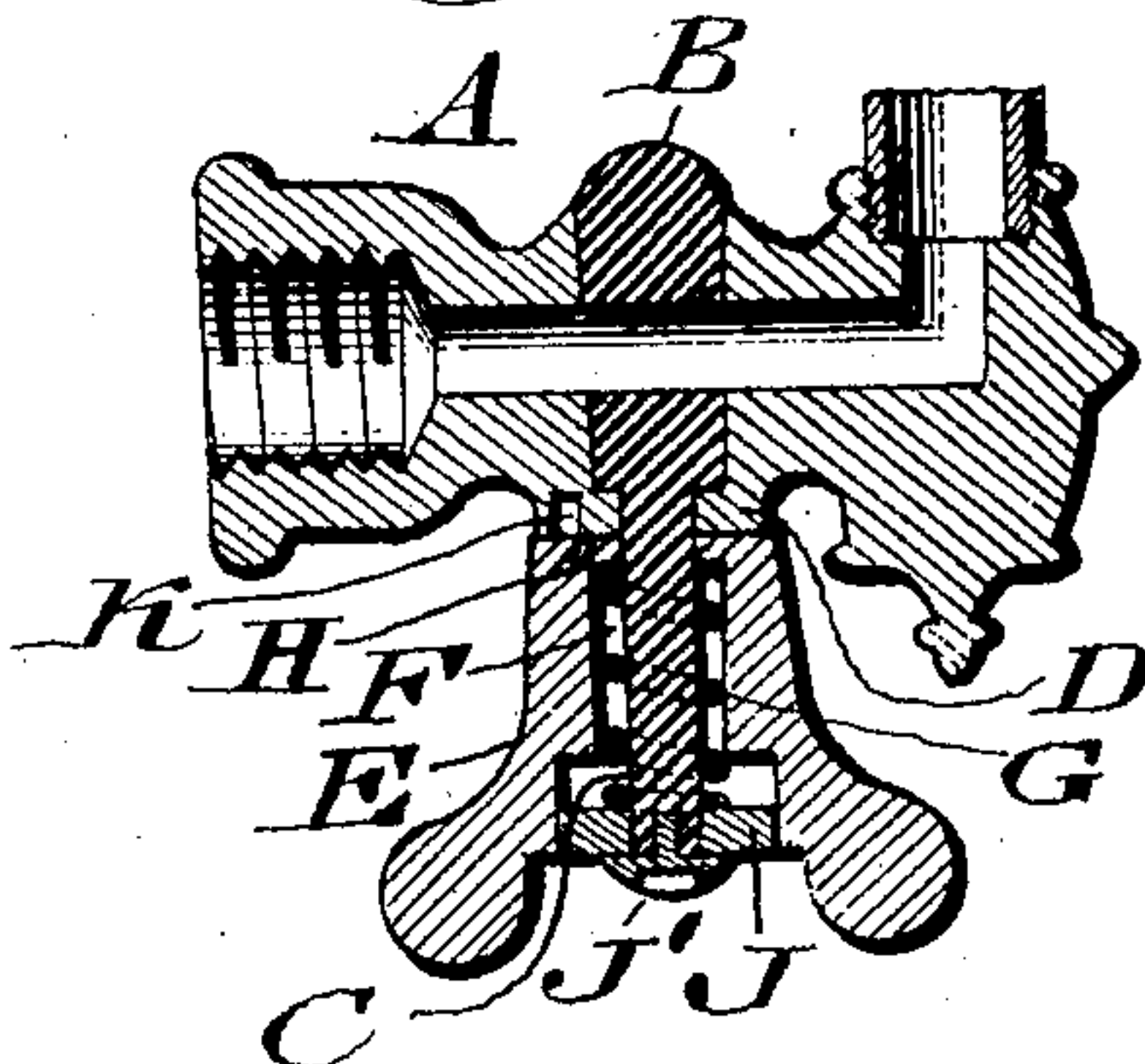


Fig. 3.

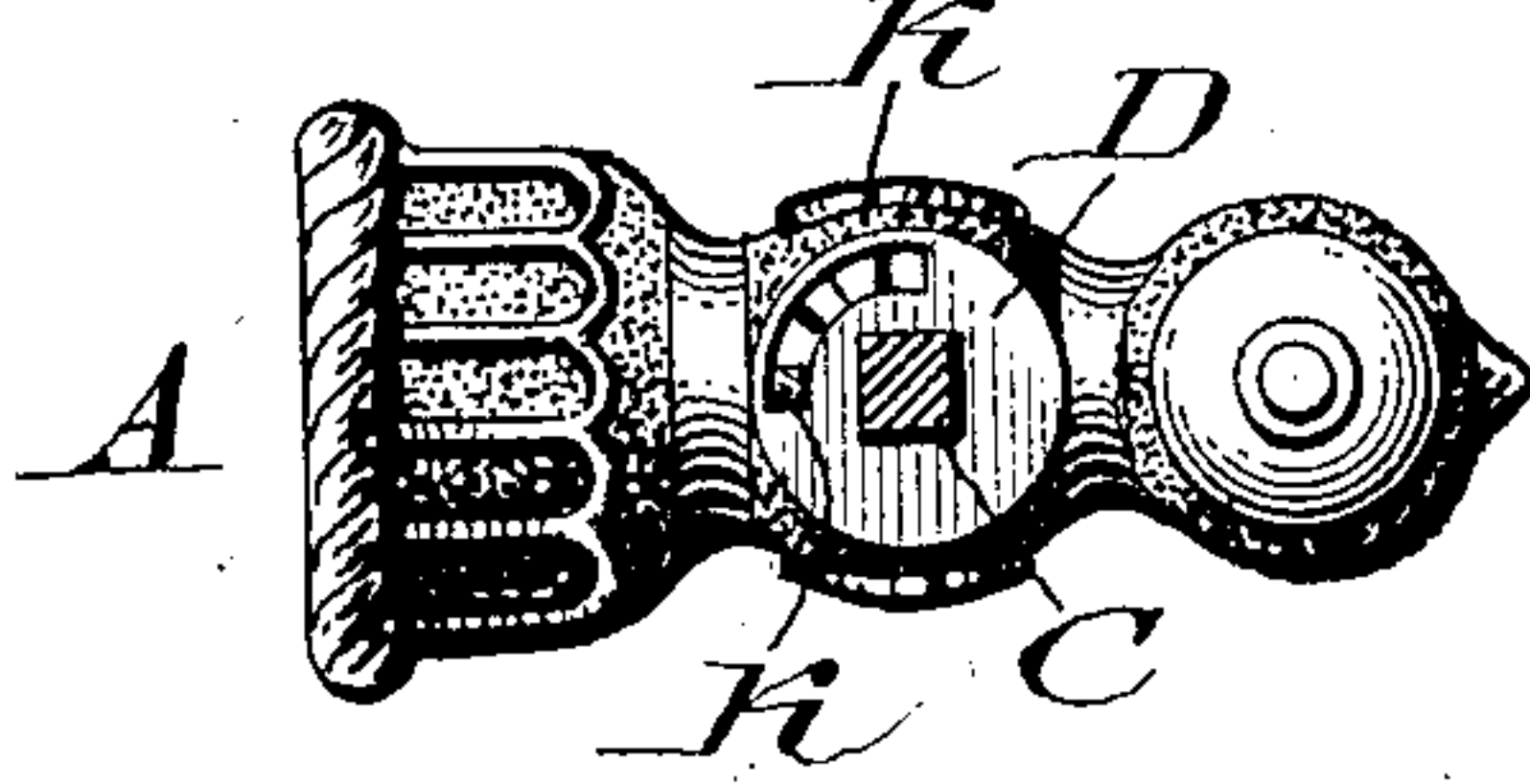


Fig. 5.

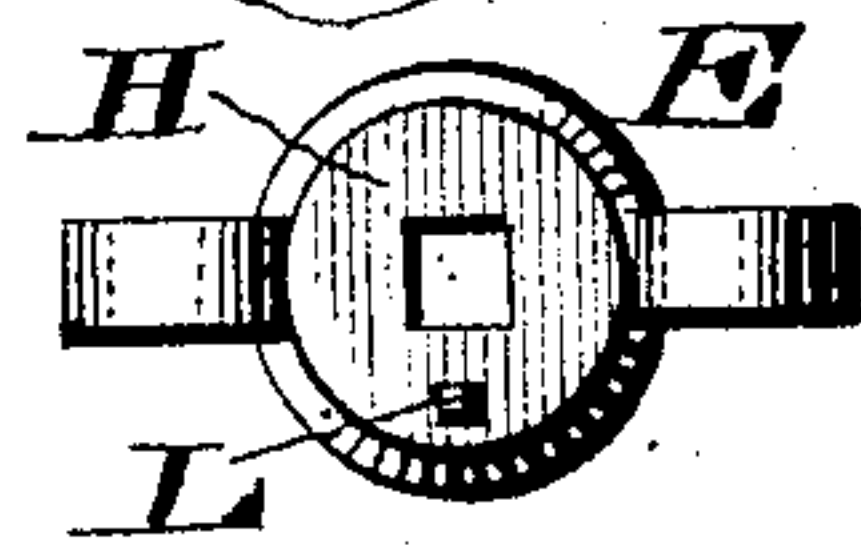


Fig. 6.

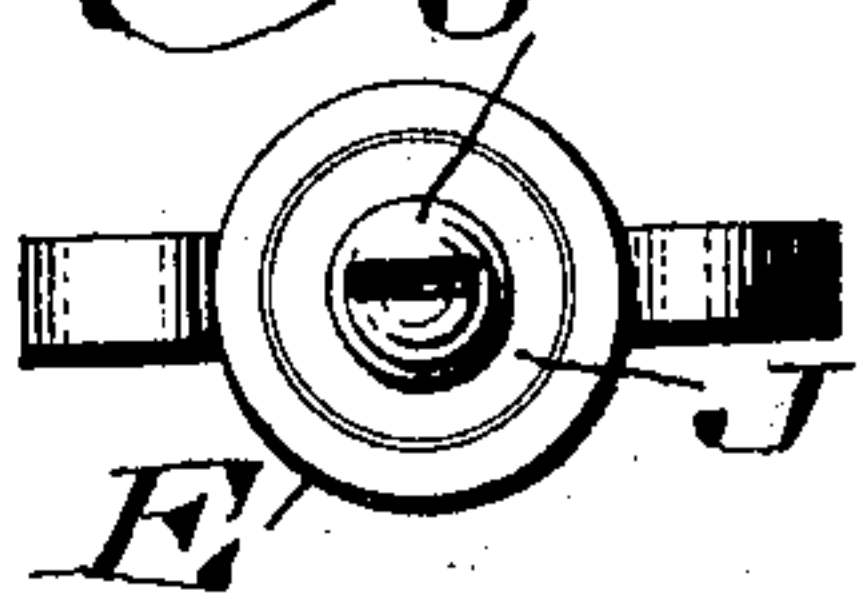


Fig. 4.

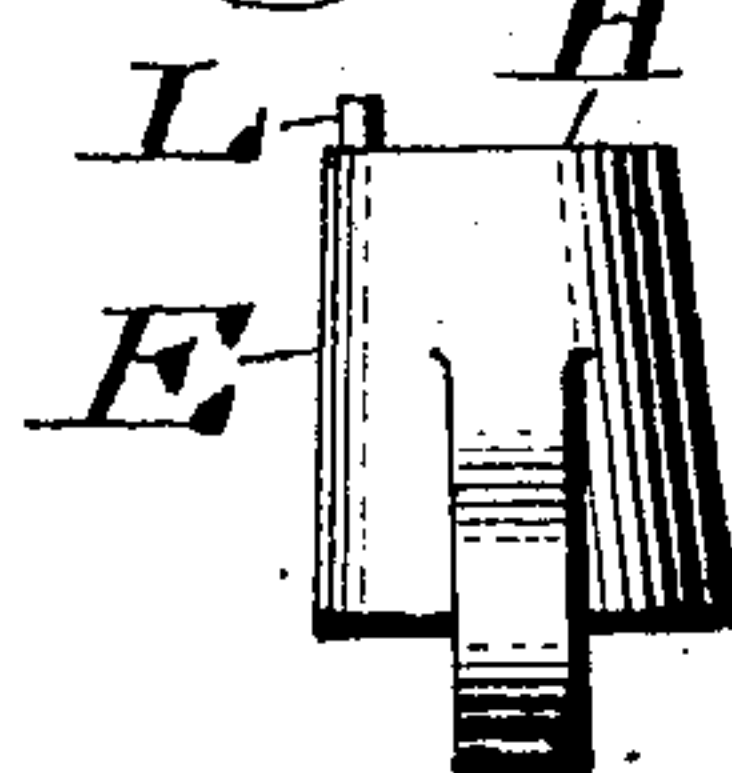
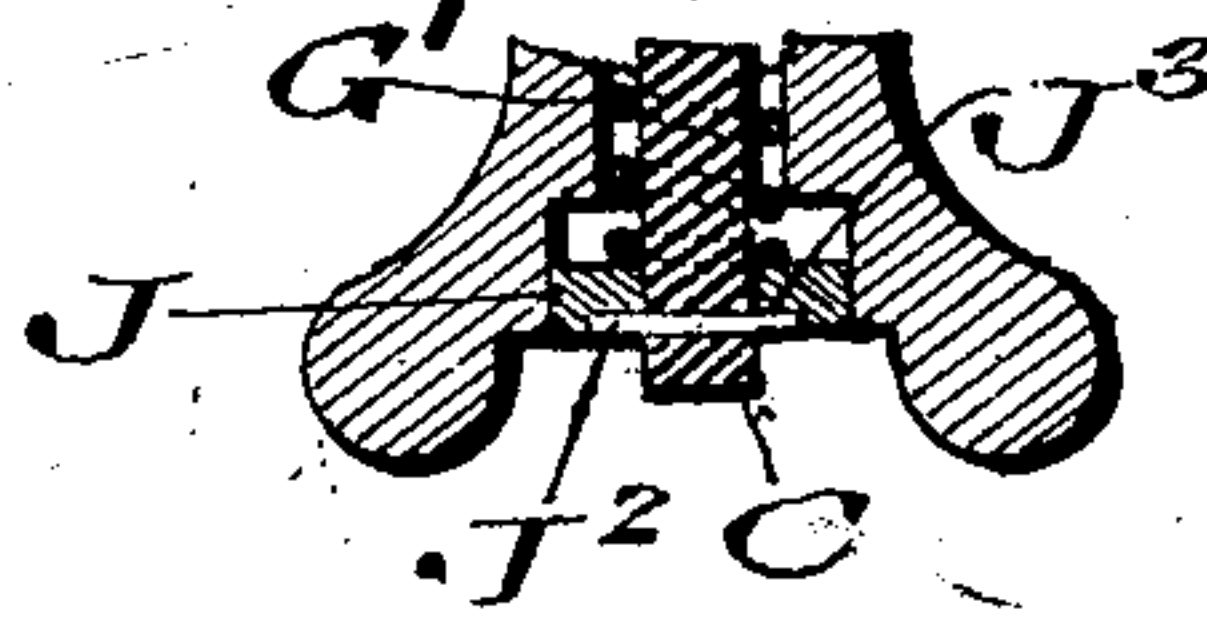
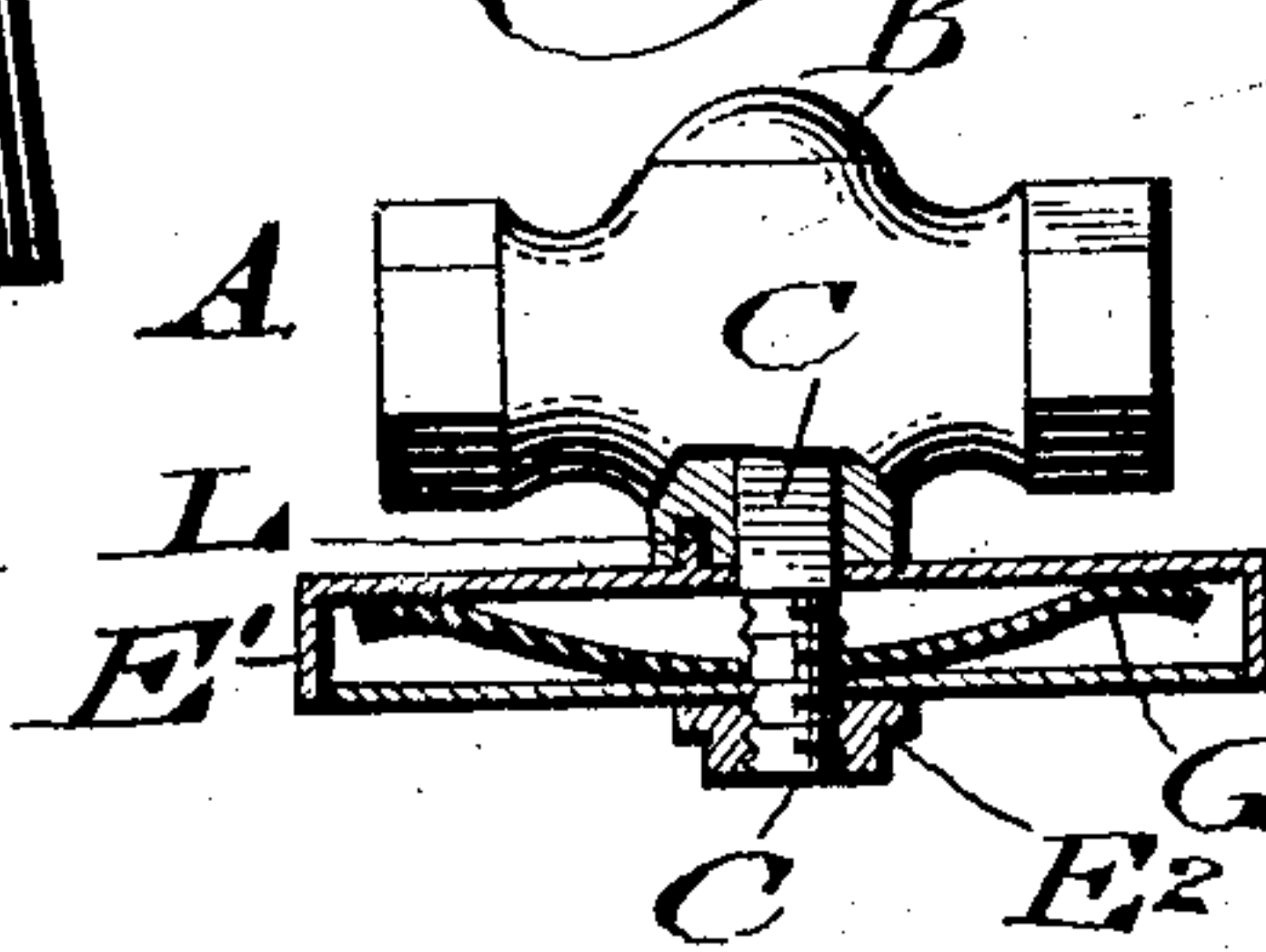


Fig. 8. Fig. 7.



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# UNITED STATES PATENT OFFICE.

JOHN WINKLER, OF PHILADELPHIA, PENNSYLVANIA.

## SAFETY-COCK.

No. 925,257.

Specification of Letters Patent.

Patented June 15, 1909.

Application filed July 27, 1908. Serial No. 445,542.

*To all whom it may concern:*

Be it known that I, JOHN WINKLER, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Safety-Cock, of which the following is a specification.

My invention consists of a safety cock, more particularly for a gas burner, wherein provision is made for locking the plug in either its closed, open or intermediate positions, while said plug may be operated when required without possibility of leakage of the gas, the locking of the plug preventing improper turning of the same.

For the purpose of explaining the invention, the accompanying drawing illustrates a satisfactory reduction of the same to practice, but the important instrumentalities thereof may be varied, and so it is to be understood that the invention is not limited to the specific arrangement and organization shown and described.

Figure 1 represents a side elevation of a safety cock embodying my invention. Fig. 2 represents a longitudinal section thereof. Fig. 3 represents a partial bottom plan view of one of the members of the cock, and a partial horizontal section, on line  $x-x$ , Fig. 1. Fig. 4 represents a side elevation of a detached member of the cock. Fig. 5 represents a top or plan view thereof. Fig. 6 represents a bottom plan view of said member. Fig. 7 represents a vertical section of a modification. Fig. 8 represents a partial vertical section and a partial side elevation of another modification.

Similar letters of reference indicate corresponding parts in the figures.

Referring to the drawing:—A designates the body of a cock, and B the plug therein, for opening and closing the passage through the cock as usual in such cases. Connected with said plug B is stem C, which extends through the wall D of the body A, and enters the sleeve E, which is adapted to slide on said stem, it being noticed that said stem C is angular in cross section, and the opening in the top wall of the sleeve which receives said stem is also of angular form, so that when the sleeve is rotated, its motion will be communicated to the stem C and consequently to the plug B, whereby the latter may be turned for opening and closing purposes as above stated. Within the sleeve

is the chamber F, in which is contained the spring G, which encircles the portion of the stem C which occupies said chamber and has its upper end bearing against the top wall H of said chamber, and has its lower end seated upon the washer J, which is fitted on the lower portion of the stem C and held thereon by the screw J', whose shank enters said stem and whose head bears against said washer, the effect of which is apparent on reference to Fig. 2, it being noticed that the lower portion of the sleeve E is adapted to slide freely over the periphery of said washer as the former is lowered and raised. The plug B is of inverted conical form so that the spring always exerts a downward pressure thereon, even when the sleeve is operated to be interlocked and it is held gas-tight in place without the usual washer and screw. In the under face of the wall D of the body A, is a series of depressions K, which are arranged in circular order thereon, and either of them is adapted to receive the nipple or stud L, relatively to the closed, open or intermediate condition of the plug B, said nipple or stud projecting from the wall H of the sleeve E. The lower portion of said chamber is widened, forming a shoulder which, when the sleeve is depressed, abuts the washer J and so limits the descent of the sleeve, whereby the stud L is fully withdrawn from the opening K which it occupies without lowering said sleeve to further improper extent.

The operation is as follows:—When it is desired to close or partly close the cock, it being shown open in Fig. 2, the sleeve E is moved on the stem C, whereby the nipple L is withdrawn from depression K, which it occupied and which held the plug in the open condition of the cock, the spring G being compressed by the motion of the sleeve. The plug is then turned to the required extent by means of the sleeve E, when the latter is let go, and the spring G by its expansion then returns the sleeve to its normal position, placing the nipple L in the relative depression K, whereby the sleeve is locked on the body A, and as the plug is controlled by said sleeve, the plug is also locked, and improper movement of the plug is prevented. When it is desired to open or partly open the cock, the sleeve is moved again, whereby it is unlocked and then rotated in the proper direction to the required extent, when it is let go,

the sleeve and consequently the plug being relocked in the open or partly open condition of the cock.

Attention is directed to the fact that the plug B is conical in form, and the body A has a similar seat therefor, thus making a tight joint between said parts. Now, while the stem C rotates said plug, being an integral connection therewith, it will not move the plug from its seat, and thus there will be no leakage at the plug during the operation of the sleeve either in opening or closing of the cock. Furthermore, the depression K and nipple or stud L are removed inwardly from the side walls of the members that they occupy, hence they are entirely concealed and not liable to be engaged by the fingers in operating the sleeve B and be clogged by dust or dirt.

In Fig. 7, the screw J' is substituted by the pin J<sup>2</sup>, which is fitted in a groove J<sup>3</sup> in the washer J, and passed through an opening in the stem C, thus retaining said washer in position without, however, varying the operation of the device.

In Fig. 8, the sleeve E' is of different shape from that shown in the other figures, the spring G' is elliptical instead of coiled, as in Fig. 2, and a nut E<sup>2</sup> is substituted for the screw J' without, however, producing different results.

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

1. In a device of the character described, a body having an opening in its lower face, a plug, a sleeve having a chamber therein, a stud rising from said sleeve and adapted to engage said opening, an extension of said plug being adapted to enter said chamber, a wall closing the top of said chamber and hav-

ing said extension freely occupying the same, and a washer on the lower end of said extension, said chamber having in its wall a shoulder which when the sleeve is depressed is adapted to abut against said washer, limiting the descent of the sleeve.

2. In a device of the character described, a body, the same having a flat under face, the latter being provided with a circularly arranged series of openings therein, a plug in said body, a sleeve having a chamber therein, and a top wall which closes said chamber, its upper face coinciding with said under face of the body, a stud rising from said top wall and adapted to enter either of said openings, a downward extension of said plug entering said chamber, a washer detachably secured to the lower end of said extension, and a spring encircling said extension and seated on said washer, the upper end of said spring being engaged by said top wall of the sleeve.

3. In a device of the character described, a body having an opening in its lower face, a plug in said body of inverted conical form and having a stem, a sleeve having a chamber therein, a stud rising from said sleeve and adapted to engage said opening, an extension of said plug being adapted to enter said chamber, a wall closing the top of said chamber and having said extension freely occupying the same, a washer on the lower end of said extension, said chamber having in its wall a shoulder which, when the sleeve is depressed, is adapted to abut against said washer limiting the descent of said sleeve, and a spring in said chamber seated against said top wall.

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