No. 635,012. Patented Oct. 17, 1899.

H. H. FASSETT.

SAFETY GAS COCK.

(Application filed Mar. 18, 1899.)

(No Model.)

Fig. 1.

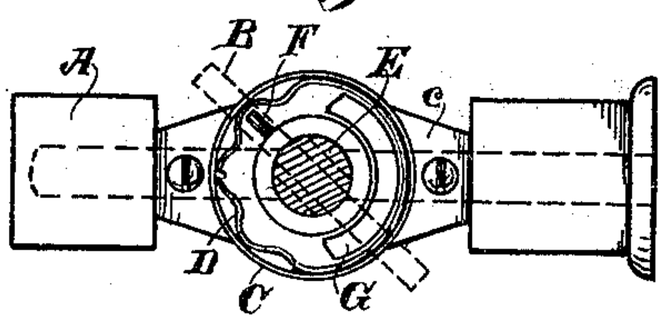
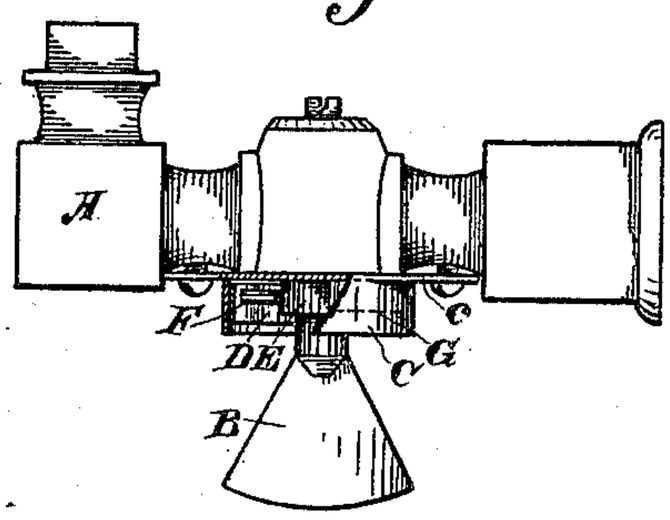


Fig. 2.



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UNITED STATES PATENT OFFICE.

HARRIS H. FASSETT, OF SAN FRANCISCO, CALIFORNIA.

SAFETY GAS-COCK.

SPECIFICATION forming part of Letters Patent No. 635,012, dated October 17, 1899.

Application filed March 18, 1899. Serial No. 709,633. (No model.)

To all whom it may concern:

Be it known that I, HARRIS H. FASSETT, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented an Improvement in Safety Gas-Cocks; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to a device for preventing the escape of gas and the danger arising from turning the gas-cock back, so that the gas is allowed to escape, after it has once been closed and the gas extinguished.

It consists, essentially, of an elastic wavy-outline spring fitting circumferentially within a case or inclosure surrounding and concentric with the axis of the gas-cock. A pin projecting from the cock in line with the spring forms contact with each of the raised portions of the wavy outline as it passes, and when it is left at the point where it is closed or opened it is practically locked between two of these raised portions, so that it cannot be turned from its position without the exercise of considerable force.

Referring to the accompanying drawings, Figure 1 is a bottom view showing the burner, gas-cock, and my attachment. Fig. 2 is a side elevation of the same.

It often occurs that gas-cocks are left so loose from wear or other causes that they turn very easily, and when they have been turned to extinguish the gas a touch or slight pressure upon one side upon letting go of the cock will often turn it to such an extent as to allow the gas to again escape.

It is the object of my invention to prevent such accidents.

A represents a gas-burner of any well-known or desired form.

B is the thumb-piece of the gas-cock, the barrel of which extends through a suitable chamber formed in the length of the burner and having passages by which the gas is allowed to pass when the cock is turned in one direction, the gas being cut off when it is turned to stand transversely to this direction.

Surrounding the cock and concentric therewith is an inclosing ring or chamber C at a sufficient distance from the barrel of the cock to receive the spring D. This spring is made with a wavy or corrugated outline, as shown, extending around about half of the circumference, and it is fitted within the chamber C about the barrel E.

Upon the barrel E of the gas-cock is fixed a pin F, which projects so that its outer end will lie in one of the depressions of the spring when the cock is fully opened or fully closed. Intermediate between these depressions the spring approaches more nearly to the center by reason of its wavy outline, and in order to pass the pin from one of the depressions to another it must be turned with such force that the point of the pin will momentarily depress the curved portion of the spring over which it is passing. As soon as the pin has passed this elevation it falls into the next groove or channel, while the elasticity of the spring returns the elevated part to its normal position and will prevent the pin from passing back into the other depression unless a considerable amount of force is used.

G is a permanent segmental stop fixed within the casing C, against which the pin F contacts when the cock is turned in either direction, so that its opening stands transversely to the main passage of the fixture and the gas is shut off. The curved spring is here shown as extending around the outside of this segment, between it and the case, and this portion of the spring is made with a plain smooth curvature. From the ends of this stop the wavy outlines or corrugations commence by an outward curve, so that the end of the pin lies in one of these curves when the cock is closed. When the cock is turned to open, it passes over one or more of these elevations, according to the frequency of the corrugations, and in doing so presses this raised portion outward until the pin passes into the next depression, when the elasticity of the spring will return the raised portion to its former position. When the cock is turned so as to allow gas to flow, the pin stands between two of these raised portions, lying in the corresponding depression of the spring, which prevents it from being turned instantly in either direction. In closing the cock the same movements take place, the pin forcing the spring out of the way whenever it passes either of the elevations until it reaches the closed position, when it will be practically locked by the stop G on one side and the cur-

vature of the spring on the other. It will thus be impossible for the cock, however loose it may be in its chamber, to be accidentally turned so as to allow gas to flow, and whatever the position of the cock it will always take considerable force to turn it from that to another position.

This device may be applied to any old gas-fixture, as the circular chamber carrying the spring is fixed upon a base-plate *c*, which is readily secured by screws to the lower part of the pipe through which the cock passes, and by introducing the pin into the turnable barrel of the cock the whole device is in readiness for use.

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

1. The combination with a gas-burner and turnable cock by which the gas is allowed to flow or be cut off, of a wavy-outline spring surrounding the gas-cock, and a pin projecting from the barrel of the cock so as to contact with the inward curves of the spring when it is turned from one point to another.

2. In a gas-fixture, a passage conveying gas to the burner, a cock turnable with relation to said passage so as to open or close it, a circular chamber surrounding the barrel of the cock exterior to the fixture, a wavy-outlined correspondingly-shaped spring fitting within the circular chamber and a pin projecting from the barrel of the gas-cock, so as to contact with the inward curves of the spring and momentarily force them back to allow the pin to pass, said curves renewing their position and preventing the return of the pin except by pressure.

3. In a gas-burner, a conducting-pipe by which gas is conveyed to the burner, a cock turnable with relation to said passage to open or close it, a circular chamber surrounding the barrel of the cock concentric therewith, a circular spring fitting within the chamber having a wavy or corrugated outline, a pin projecting from the barrel adapted to contact with and depress each of the inward curves of the spring as it passes them, and a fixed semicircular stop within the chamber against which the pin contacts when the cock has turned in either direction to close the passage.

In witness whereof I have hereunto set my hand.

HARRIS H. FASSETT.

Witnesses:
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