No. 668,406.

Patented Feb. 19, 1901.

W. H. HOLT.

SAFETY GAS COCK.

(Application filed Dec. 15, 1900.)

(No Model.)

Fig. 1.

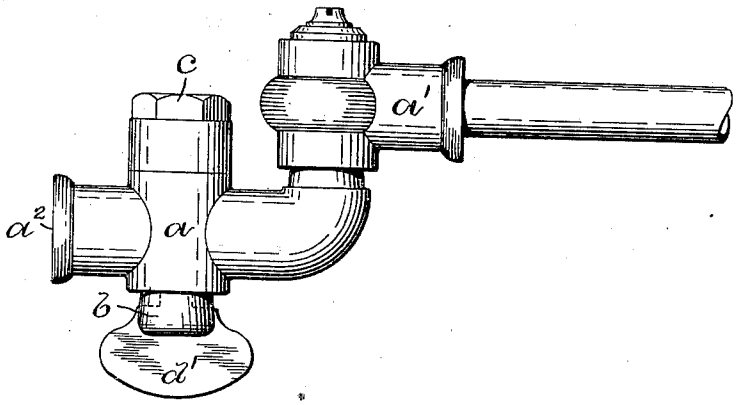


Fig. 4.

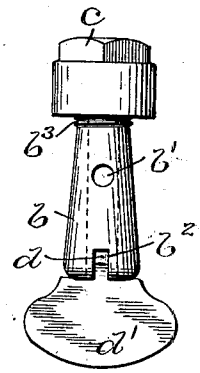


Fig. 2.

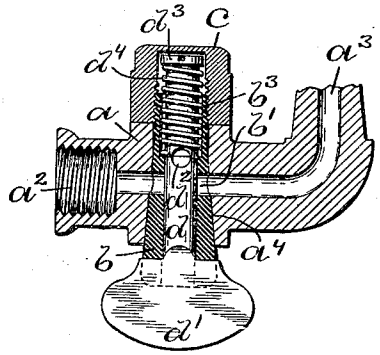
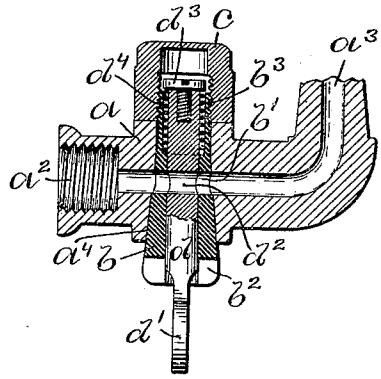


Fig. 3.



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UNITED STATES PATENT OFFICE.

WILLIAM H. HOLT, OF PROVIDENCE, RHODE ISLAND, ASSIGNOR OF ONE-HALF TO JOHN HOLT, OF SAME PLACE.

SAFETY GAS-COCK.

SPECIFICATION forming part of Letters Patent No. 668,406, dated February 19, 1901.

Application filed December 15, 1900. Serial No. 39,942. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. HOLT, a citizen of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in Safety Gas-Cocks, of which the following is a specification.

This invention has reference to an improvement in gas-cocks and is applicable to the gas-cocks as at present constructed.

The invention consists in the peculiar and novel construction and combination of the parts whereby the perforated plug is longitudinally moved to register with the gas-duct when the cock is opened and is longitudinally moved to close the gas-duct when the light is turned out, as will be more fully set forth hereinafter.

The object of the invention is to secure the plug against accidental movement, and thereby prevent the accidental escape of gas.

In the drawings the safety-plug is shown secured in a gas-bracket of the ordinary construction, so that by inserting a tubular sleeve into the present plug-opening of a gas-cock the same may be converted into a safety-cock; but the safety gas-cock may be provided with the perforated sleeve or formed with the perforated sleeve integral with the cock-socket.

Figure 1 is a side view of a gas-bracket provided with my improved safety-cock. Fig. 2 is a vertical sectional view of the safety-cock, showing the plug secured in the closed position. Fig. 3 is a sectional view of the safety-cock, showing the plug secured in the opened position. Fig. 4 is a side view of the parts adapted to be inserted into a plug-socket of a gas-cock of the old form.

In the drawings, a indicates the plug-socket of a gas-bracket; a', a pivoted arm such as is usually used to support the burner of a gas-bracket; a^2, the screw-threaded socket by which the gas-bracket is usually secured, and a^3 the duct through which the gas passes to the burner.

Referring now to the construction adapted to be used in connection with the present plug-socket of a gas-cock, the socket a^4 is the socket in which the plug of the gas-cock as heretofore constructed was inserted. Into this socket I drive the tubular sleeve b, provided with the transverse hole b', which when the sleeve is in place registers with the gas-duct a^3 of the bracket, as is shown in Figs. 2 and 3. The sleeve b is provided at its lower end with a slot b^2, extending across the end of the sleeve. The end b^3 of the tubular sleeve is screw-threaded and the cap c c is screwed onto the screw-threaded end of the tubular sleeve and bears against an annular shoulder on the bracket. The hole extending lengthwise through the tubular sleeve is enlarged at its upper end. Into the opening in the tubular sleeve the plug d, provided at its lower end with the thumb-piece d', is inserted. A hole d^2 extends transversely through the plug d, which hole, when the thumb-piece rides on the end of the tubular sleeve b, registers with the duct a^3. The screw-disk d^3 is secured in the upper end of the plug d, and the coiled spring d^4, surrounding the plug d, bears on the disk of the screw-disk d^3 and on the shoulder formed in the tubular sleeve b. The pressure exerted by the coiled spring d^4 moves the plug d longitudinally when the thumb-piece d' registers with the slot b^2 and draws the thumb-piece into the slot, thereby cutting off communication between the opposite parts of the duct a^3 and the supply of gas. When the plug d is in the last-described position, which is shown in Fig. 2, the gas cannot be turned on until the thumb-piece d' is pulled out of the slot b^2 and partially turned while riding on the end of the sleeve b, as is shown in Fig. 3. The accidental opening of the cock is thereby prevented, because the two successive movements of pulling, against the force of the coiled spring, the plug and thumb-piece longitudinally out of the slot b^2 and then partially turning the same are not liable to be performed accidentally.

It is evident that when the invention is to be applied to new and specially-constructed gas-cocks the tubular sleeve b may be formed integral with the body of the bracket.

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

1. A safety gas-cock having the socket provided with a slot extending transversely across the plug-opening, a plug provided with a thumb-piece engaging with the slot in the socket, a hole in the plug, a coiled spring sur-

rounding the plug and bearing on a disk secured to the plug and a cap extending over the plug, whereby the plug has to be moved longitudinally and partially rotated to open the passage of gas through the plug, as described.

2. In a safety gas-cock, the combination with the body adapted to receive the usual tapering gas-plug, of the tubular sleeve b, the slot b^2 and opening b' in the sleeve, the plug d having the perforation d^2 located as described, the thumb-piece d' and the disk d^3 secured to the upper end of the plug and the coiled spring d^4 surrounding the plug, as described.

3. The combination with the body of the socket of a gas-cock adapted to receive the usual perforated plug, of a tubular sleeve transversely perforated to correspond with the gas-duct, a slot in one end of the tubular sleeve, a cap in screw-thread engagement with the other end of the tubular sleeve, a plug provided with a thumb-piece and a coiled spring bearing on a projecting disk secured to the plug and on the tubular sleeve, whereby the plug is locked automatically by the longitudinal movement of the plug by the coiled spring when the thumb-piece registers with the transverse slot on the tubular sleeve, as described.

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

WILLIAM H. HOLT.

Witnesses:
J. A. MILLER, Jr.,
A. E. HAGERTY.