No. 750,822. PATENTED FEB. 2, 1904.

M. R. DALEY.

SAFETY GAS COCK.

APPLICATION FILED MAY 22, 1903.

NO MODEL.

Fig. 1.

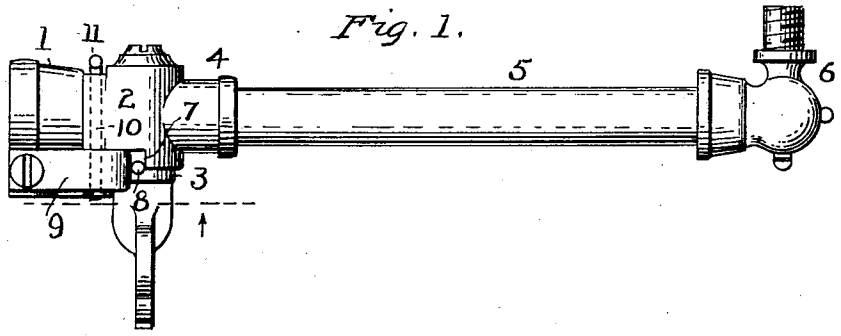


Fig. 2.

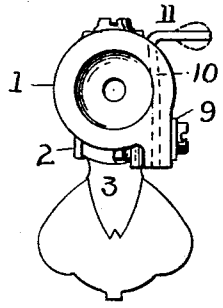


Fig. 3.

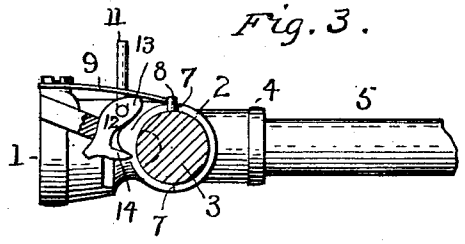


Fig. 4.

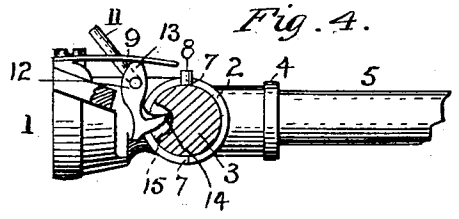
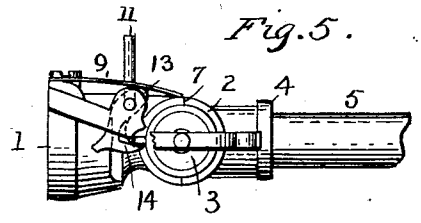


Fig. 5.



Witnesses

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No. 750,822. Patented February 2, 1904.

UNITED STATES PATENT OFFICE.

MICHAEL R. DALEY, OF FALL RIVER, MASSACHUSETTS.

SAFETY GAS-COCK.

SPECIFICATION forming part of Letters Patent No. 750,822, dated February 2, 1904.

Application filed May 22, 1903. Serial No. 158,314. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL R. DALEY, a citizen of the United States, residing at Fall River, in the county of Bristol and State of Massachusetts, have invented new and useful Improvements in Safety Gas-Cocks, of which the following is a specification.

This invention relates to gas-fixtures for lighting or heating systems; and its object is to provide a safety-cock which will prevent the accidental turning on of the gas. The cocks upon gas-fixtures usually have a stop-pin on the plug that abuts against shoulders on the barrel or casing in which the plug turns, and thus limits the angular movement of the plug, so that the gas will be shut completely off when the pin strikes either shoulder; but as the plug frequently gets loose an inexperienced or careless person is liable to turn it partially or wholly back after shutting off the gas and extinguishing the light, thus permitting the unlighted gas to escape into the room. Many serious accidents have happened from this cause, and many devices have been proposed to prevent such an accidental opening of the gas-cock.

My invention consists in the combination, with a gas-cock, of a spring-catch which operates with the pin on the plug so as to lock the plug when it is closed and the light is extinguished. In order to release the plug, I provide a rock-shaft so arranged that when it is rocked the catch will be thrown out of engagement with the stop-pin and leave the plug free to be opened; but in the operation of turning on the gas the rock-shaft is actuated and the catch is reset, so that when the gas is turned off again the catch once more engages with the stop-pin and locks the plug in its closed position.

In the accompanying drawings, Figure 1 is a side elevation of a gas-fixture embodying my invention. Fig. 2 is an end elevation of the same. Fig. 3 is a cross-section showing the cock closed and locked. Fig. 4 is a cross-section showing the cock closed but unlocked. Fig. 5 is a bottom plan view, partly broken away, showing the cock open.

The fixture has the usual screw-threaded base 1 for attachment to the gas-main, the transversely-apertured barrel 2 for the tapered plug 3, and the threaded nipple 4 for the pipe 5, which conveys the gas to the burner, whose base is shown at 6. The barrel has the customary shoulders 7 for limiting the angular movements of the plug and determining when the cock is closed by the abutting of the stop-pin 8 on the plug against said shoulders.

In order to lock the plug in its closed position, I provide a spring-catch, preferably a flat spring 9, secured at one end to the barrel 2 and having its other end so located that when the plug is closed the stop-pin will pass under and beyond the free end of the spring, which will drop in behind said pin and hold it from any backward movement, as clearly shown in Figs. 1 and 3. To disengage this spring-catch from the pin, I provide a rock-shaft 10, suitably journaled in a bearing in the barrel 2 and having at one end an arm or handle 11, which may be simply a round bar, or it may be flattened to give a better finger-hold. To the other end of the shaft is secured a head 12, having a projecting arm 13, which rests under the spring 9, so that when the shaft is rocked, as shown in Fig. 4, said arm 13 will lift the spring out of engagement with the stop-pin and hold it so disengaged. On the head 12 there is also a finger 14, which when the shaft is rocked enters a recess 15 in the plug, as shown in Fig. 4. The edge of said recess acts as a cam when the plug is turned and pushes the finger back to the position it occupies in Figs. 3 and 5, thereby permitting the spring to return into contact with the plug in position to engage with the stop-pin when the cock is again closed. The finger also serves as an abutment for the stop-pin to limit the angular movement of the plug and determine when the cock is fully open, as shown in Fig. 5. By means of this simple device it will be seen that the shaft can be rocked and the spring disengaged and the gas turned on with one hand, as the arm 13 stands on a dead-center when it has lifted the spring, so that the spring is held disengaged from the pin without the necessity of retaining hold of the handle 11. In this respect the device is a great improvement over those which require a locking device to be held open with one hand

while the gas is turned on with the other, since it is of course desirable to have in one hand a lighted match ready to light the gas the instant it issues from the burner.

Having thus described my invention, what I claim is—

1. In a gas-cock, the combination with a turning plug provided with a stop-pin, of a spring-catch to engage with said pin when the cock is closed, and a rock-shaft having an arm to disengage said catch.

2. In a gas-cock, the combination with a turning plug provided with a stop-pin, of a spring-catch to engage with said pin, a rock-shaft having an arm to disengage said catch, and means for automatically rocking said shaft to return the catch to operative position when the cock is open.

3. In a gas-cock, the combination with a turning plug provided with a stop-pin, of a spring-catch to engage with said pin, a rock-shaft having an arm to disengage said catch, a finger on said shaft, and a cam on the plug to actuate said finger, when the cock is opened.

4. In a gas-cock, the combination with a turning plug provided with a stop-pin and having a recess, of a spring adapted to engage with said pin when the cock is closed, a rock-shaft having an arm to lift said spring and hold it disengaged from said pin, and a finger on said shaft adapted to enter said recess and be pushed back by the edge thereof when the cock is opened, and to serve as an abutment to limit the angular movement of the plug in opening.

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

MICHAEL R. DALEY.

Witnesses:

ARBA N. LINCOLN,

JOSIE L. RIDLON.