UNITED STATES PATENT OFFICE.

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SAFETY GAS-COCK.


To all whom it may concern:

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

My invention consists of a gas-cock which when closed is adapted to remain in that condition, thus preventing any improper escape of gas at the burner and whose plug is controlled against displacement.

Figure 1 represents a perspective view of a safety gas-cock embodying my invention. Fig. 2 represents a partial top or plan view thereof and a partial horizontal section on line x x, Fig. 3. Fig. 3 represents a longitudinal section on line y y, Fig. 2. Fig. 4 represents a longitudinal section showing the cock in closed condition. Fig. 5 represents a perspective view of the plug of the cock. Fig. 6 represents a perspective view of a detached portion.

Similar letters of reference indicate corresponding parts in the figures.

Referring to the drawings, A designates the body of a gas-cock, and B B designate sections of opposite gas-pipes connected therewith, said pipes forming continuities of said body in the same longitudinal direction. The interior of said body A forms the seat for the plug C, which has ports or passages therein, usual in such case, whereby the gas may be turned on or cut off.

D designates a stirrup which occupies a position on the exterior of the body A and has its ends connected with the plug C, it being noticed that the upper end of the plug has a groove or recess E therein, the same receiving the adjacent terminal of the stirrup, the sides of said recess forming shoulders which embrace said terminal. A screw F is passed through said portion of the stirrup into the plug at the base of said groove and when tightened on the stirrup firmly connects the latter with the adjacent end of the plug, said portion of the stirrup thus being positively connected with said plug and so prevented from shifting or disconnection. The other terminal portion of the stirrup is connected with the lower end of the plug by the screw F', which passes through said portion of the stirrup into the end of the plug, it being noticed that a washer G is interposed between the portion of the stirrup and the adjacent surface of the body A.

As the stirrup is connected at both of its ends with the plug, the latter may be readily rotated by the stirrup and so moved into closing or opening position.

For convenience of operation of the stirrup it is provided with a handle H, which projects outwardly or laterally from the same, and so is convenient of access.

The operation is as follows: The gas may be turned on to full extent by moving the stirrup in the present case to the right, the position of parts being shown in Figs. 1, 2, and 3, and being evident that the stirrup may be moved to partial extent to lower the light, if so required. When the gas is to be turned off completely, the stirrup is moved in the opposite direction—in the present case to the left, when the plug assumes the position shown in Fig. 4, the effect of which is evident.

It will be noticed that the end walls of the body A act as stops for the stirrup, and the contacting of the stirrup with the end wall at the left indicates that the plug has been completely turned, and so the gas is fully cut off without the liability of escaping unburned at the tip.

To prevent any strain on the stirrup as it strikes either stop, the head J of the screw K, which connects the handle H with the stirrup is on the inner side of the latter and is adapted to abut against the end walls of the body, which walls in the present case are of the form of beads or shoulders L. (See Fig. 4.) Again, as the stirrup is connected with the ends of the plug, the latter is controlled against displacement from the body A either by rising therein or dropping therefrom, thus preventing any possible escape of gas from said body at the top or bottom thereof.

Furthermore, the stirrup obviates the use of shoulders or stops on the plug and shoulders on the body around the opening which said plug occupies. Again, the stirrup D is adapted to be made of a piece of light metal, and the terminal of one limb is fitted on the shoulder on the lower end of the gas-plug C, leaving the terminal of the other limb free to be pushed or sprung into the recess E, whose side walls form shoulders, as has been stated, the same preventing lateral displacement of the last-named limb. The screws F F' are then respectively passed through the terminals of the stirrup into the ends of the plug, thus firmly connecting the stirrup, it being noticed that I utilize the shoulder on the narrow end of the plug for the connection of
one limb of the stirrup therewith and form the recess E in the wide end thereof for the connection of the other limb of said stirrup, said limb being seated in said recess flush with the end of the plug, thus producing a simple, compact, and inexpensive device for the purpose intended, the gas-plug C as such not materially altered, excepting in the removal of the thumb-piece or handle heretofore integral with said plug and the substitution of the recess E therefor. Again, the screw K, which connects the handle H with the stirrup D, has its head J on the inner side of said stirrup, the same being somewhat tapering and constituting a practical stop for the opposite motions of the stirrup in opening and closing the cock.

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

1. A gas-cock having a plug, an operative yoke therefor, one end of said plug having a transversely-extending recess therein, one terminal of said yoke being connected with the other end of said plug, and the other terminal of said yoke being seated in said recess and embraced by the side walls thereof, and a securing-screw, the latter passing through said terminal into said plug, and abutting said walls, said yoke freely embracing the body of the cock, and being adapted to abut in either direction against said body.

2. A gas-cock having a plug, a yoke, the latter having its terminals extending from the opposite ends of said plug, and screws for connecting said terminals with said ends, said plug having one of its ends formed with a transversely-extending recess, and the adjacent terminal of the yoke being seated in said recess, and being embraced by the side walls of the latter, said yoke freely embracing the body of the cock.

3. In a gas-cock, a body, a plug and a yoke, the latter having its terminals extending from the ends of said plug, means for connecting said terminals with said ends, and a handle on said yoke, one of said heads having therein a transversely-extending recess, and the adjacent terminal being seated in said recess and being embraced by the side walls thereof.

4. A gas-cock consisting of a body, a plug and a yoke, the latter having its terminals connected with the opposite ends of said plug, a handle for said piece, and a screw connecting said handle with said yoke, the head of said screw being on the interior of said yoke, and forming a single stop to abut against the body of the cock in the opposite motions of the yoke.

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Witnesses:

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