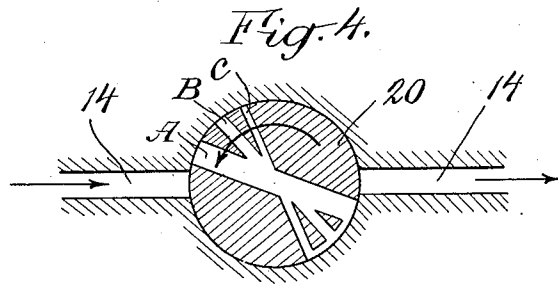
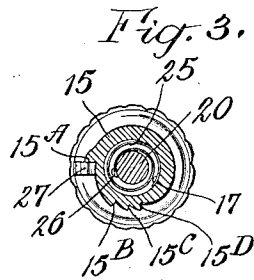
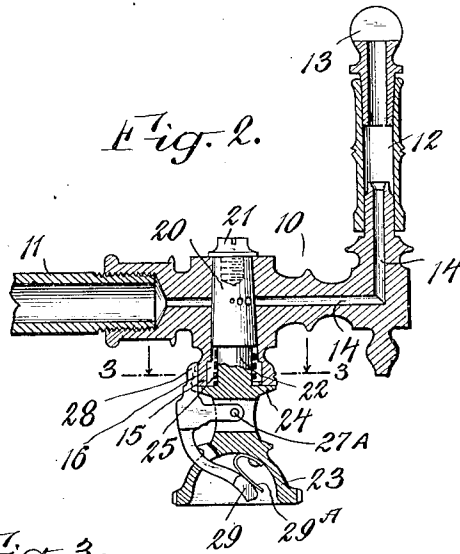
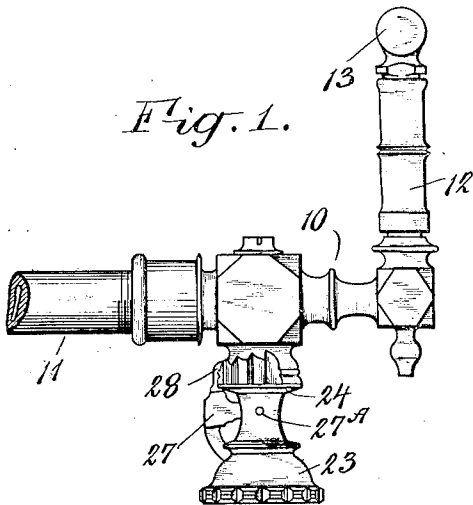


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 SELF CLOSING GAS FIXTURE.
 APPLICATION FILED MAY 16, 1908.

926,774.

Patented July 6, 1909.



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CARL SCHMIDT, OF LONG ISLAND CITY, NEW YORK.

SELF-CLOSING GAS-FIXTURE.

No. 926,774.

Specification of Letters Patent.

Patented July 6, 1909.

Application filed May 16, 1908. Serial No. 433,330.

To all whom it may concern:

Be it known that I, CARL SCHMIDT, a subject of Franz Josef, Emperor of Austria-Hungary, and resident of Long Island City, in the county of Queens, State of New York, United States of America, have invented certain new and useful Improvements in Self-Closing Gas-Fixtures, of which the following is a specification.

My invention relates to improvements in self-closing gas fixtures, and its object is to provide a simple and efficient device by means of which more or less gas may be turned on to a burner in a manner similar to that in common use, but which insures the complete closure of the gas outlet whenever it is designed to shut the gas off.

To these ends my invention consists in the arrangement and construction of parts described in the following specification and shown in the accompanying drawing and the novel features of which are set forth in appended claims.

Referring to the drawings, Figure 1 is a side elevation of a gas burner fixture made according to my invention. Fig. 2 is a similar view in section. Fig. 3 is a sectional plan view on the line 3—3 of Fig. 2. Fig. 4 is an enlarged diagrammatic representation of some of the parts showing the arrangement of the ports in the stop cock.

Like characters of reference designate corresponding parts in all of the figures.

10 designates a gas burner fixture which may be of any desired shape or design, and which may be screwed onto or otherwise connected with a gas pipe 11 from a suitable source of supply. The opposite end of the horizontal portion of this fixture terminates in an upright portion to which a hollow spindle 12 is affixed. I prefer to make the connection between these parts a smooth tapered joint without screw threads, as in this simple manner a tight connection may be made.

13 designates a gas-tip which is tightly fitted into the upper portion of the spindle 12 and which preferably comprises a flat circular portion having a thin slot cut therein.

14 designates passages through the gas fixture connecting the gas pipe 11 with the hollow spindle 12 and the gas tip.

At a point intermediate the length of the horizontal portion of the fixture, a tapered hole is provided, into which the stop cock 20 is tightly fitted. 21 designates a screw which

is arranged to hold this stop cock in position. The center of this stop cock passes through the passage 14. The portion 22 of the stop cock is made of a somewhat smaller diameter as shown. Below this the stop cock is carried down to form the knurled handle 23.

24 designates a flange formed as an integral part of the stop cock.

The under portion of the gas fixture is carried down, as shown at 15 to fit over the flange 24 and to form above the flange and about portion 22 of the spindle an annular chamber 16. 25 designates a spiral spring which is situated within this chamber. One end of this spring is connected with the stop cock 20 at 26 and the other end of it is attached to the portion 15 of the gas fixture at 17.

27 designates a lever which is pivoted at 27^A in the lower portion of the stop cock. The upper end 28 of this lever is adapted to come in contact with the outer surface of the portion 15 of the gas fixture. The outer surface of the portion 15 of the gas fixture is provided with a series of notches or ratchet-teeth 15^A, 15^B, 15^C and 15^D. The lower portion 29 of the lever is extended into the inner portion of the handle 23. A spring 29^A is arranged to press against this lower portion 29 of the lever and to press the upper portion 28 of the lever against the outer surface of the portion 15 of the gas fixture. This upper portion 28 is arranged to engage with the notches or ratchet-teeth above described in a manner which will be pointed out later.

Referring to Fig. 4 it may be seen that the stop cock 20 is provided with three holes A, B, and C of different diameters. The first of these, A, is of approximately the same or greater diameter than that of the passage 14 through the gas fixture. The second, B, preferably has an area which is about half of that of the hole A, and the third, C, has an area about equal to one fourth of that of the hole A. It is evident that when the stop cock 20 is rotated slightly, until the hole A is brought into alinement with the passage 14, there is an unobstructed passage from the gas supply to the burner. When the rotation is carried farther, until the hole B is in alinement with the passage 14, about half the amount of gas from the supply can reach the burner, and when the hole C is brought into alinement with the passage 14, about one quarter of the gas can reach the burner.

The operation of this device is as follows:

When the stop cock is turned by means of the handle 23 a sufficient amount to bring the upper end 28 of lever 27 into the notch or ratchet-tooth 15^b, the gas is turned full on. This part of the operation is done against the action of the spring 25, but the fixture will be held in the new position by the engagement of the upper end of lever 27 with the ratchet-tooth 15^b. A further movement of the stop cock against the action of spring 25 will bring the upper end of lever 27 into engagement with the ratchet-tooth 15^c, when the hole B will be brought into alinement with the passage 14 and the gas will consequently be partly turned off. When the stop cock is turned farther, until the upper end of lever 27 engages with ratchet-tooth 15^d, the hole C will be in alinement with the passage 14, so that but a small amount of gas reaches the burner which will then give a small flame. Whenever it is desired to shut off the gas, the lower portion 29 of the lever 27, which forms a thumb-piece, may be pushed inward. This will release the upper end of the lever from the ratchet-tooth with which it is in engagement and allow the spring 25 to rotate the stop cock 20 until the upper end 28 of the lever abuts against the ratchet-tooth 15^a. When in this position, the stop cock 20 will be in the position in which it is shown in the diagram in Fig. 4 and the gas will be shut off completely.

It is to be noted that both of the springs used in this device are situated below the fixture where they cannot be injuriously affected by the heat of the flame. They are also covered by the parts of the fixture so that they are protected from injury.

This invention greatly decreases the danger in the use of gas. In the simple manner above described, it positively shuts off the gas when the user thereof wishes it and makes it impossible for gas to flow out through the burner through carelessness in operating the stop cock, which, in other fixtures, has been the frequent cause of serious accidents.

What I claim is.—

1. In a gas burner fixture, a rotatable member, the upper part of which is arranged to form a stop-cock, and the lower part of which is constructed to form a hollow handle, a spiral spring within the fixture and sur-

rounding the rotatable member, said member being arranged to be manually moved to allow gas to pass to the burner, a pawl member pivoted to the rotatable member, and a spring arranged to press the pawl member into engagement with the portion of the fixture which surrounds the spiral spring, the outer surface of said portion of the fixture being provided with a catch with which the pawl member is adapted to engage to lock the stop-cock in its open position against the action of the spiral spring, the lower end of said pawl member being within said hollow handle and arranged to move the upper end of the pawl member to allow the spiral spring to close the stop-cock, said spiral spring and pawl spring being situated below the gas burner.

2. In a gas burner fixture, a rotatable member, the upper portion of which is arranged to form a stop-cock and the lower part of which is constructed to form a hollow handle, a spiral spring within the fixture and surrounding the rotatable member, said member being arranged to be manually moved into different positions against the action of said spring to allow different amounts of gas to pass to the burner, a pawl member pivoted to the rotatable member, and a spring arranged to press the upper end of the pawl member into engagement with the portion of the fixture which surrounds the spiral spring, the outer surface of said portion of the fixture being provided with ratchet-teeth with which the pawl member is adapted to engage to thereby lock the stop-cock in its different positions against the action of the spiral spring, the lower end of said pawl member being within said hollow handle and arranged to move the upper end of the pawl member out of engagement with said ratchet-teeth to allow the spiral spring to close the stop-cock, said spiral spring and pawl spring being situated below the gas burner.

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

CARL SCHMIDT.

Witnesses:

ERNEST W. MARSHALL,
ELLA TUCH.