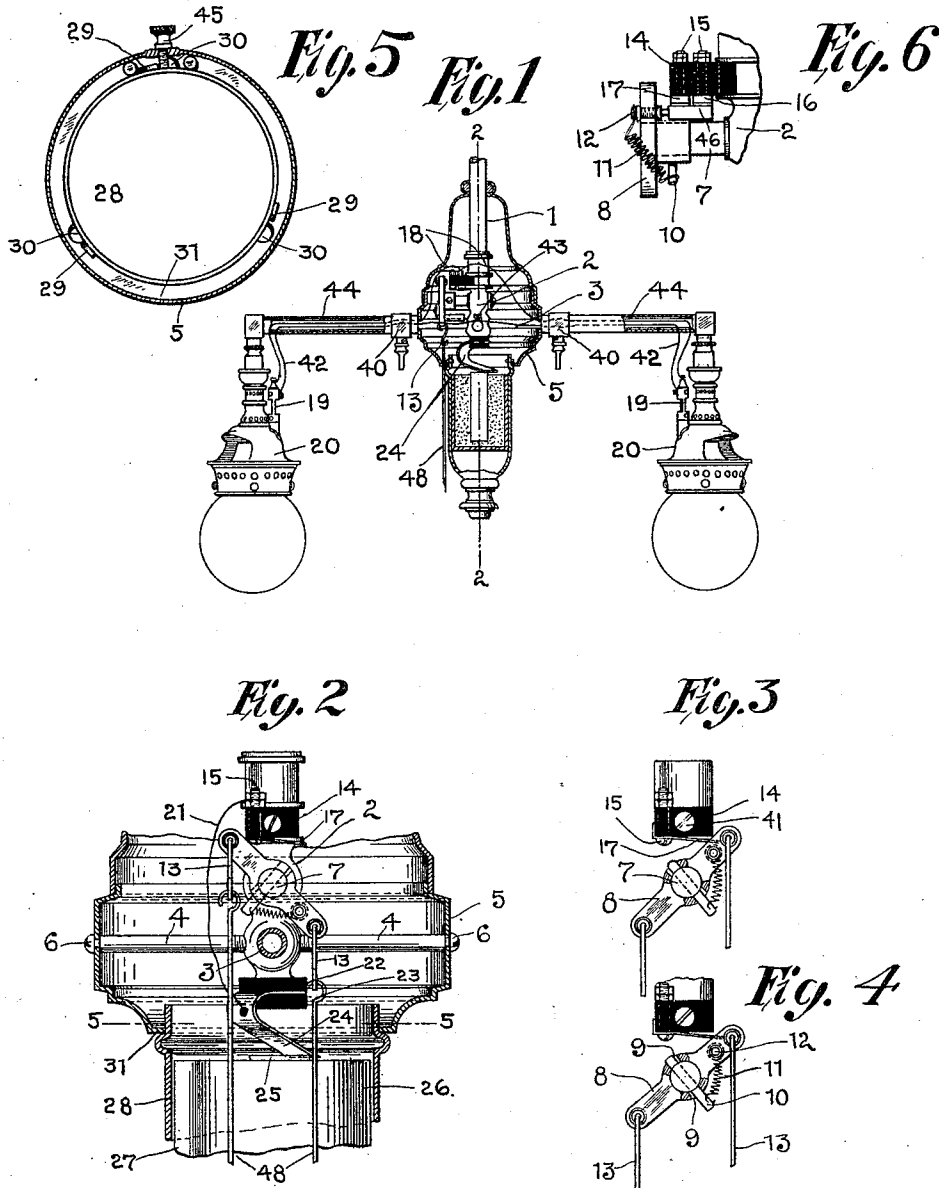


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GAS FIXTURE.

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1,046,819.

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# UNITED STATES PATENT OFFICE.

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## GAS-FIXTURE.

1,046,819.

Specification of Letters Patent.

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*To all whom it may concern:*

Be it known that I, HOWARD LYON, a citizen of the United States, and a resident of Gloucester City, in the county of Camden and State of New Jersey, have invented certain new and useful Improvements in Gas-Fixtures, of which the following is a description.

My invention relates to an improved gas fixture adapted more particularly for use with inverted incandescent burners, although obviously capable of more extended application.

The main object of the invention is to provide a self lighting fixture having a plurality of burners, each of the burners having an ignition device supplied with current at the proper time from a central source. The source of current is preferably a dry cell carried by and electrically connected to a metallic holder which depends from and is capable of being engaged with or disengaged from the shell of the fixture.

My invention further comprises a central base which is adapted to receive support from the usual gas supply pipe and to afford support to the fixture shell. This base also serves to distribute gas to the various burners and to control the flow thereof and it also acts as a support for a central electrical distribution and control.

My invention also comprises various details of construction which are hereinafter described and claimed.

Reference is hereby made to the accompanying drawing of which—

Figure 1 is a side elevation of my improved fixture, partly in section; Fig. 2 is a section on line 2—2 of Fig. 1; Fig. 3 is a detail view of the gas and electric current controlling lever in position for causing ignition; Fig. 4 is a similar view of the same member when released to open the electric circuit while permitting a flow of gas; Fig. 5 is a section on line 5—5 of Fig. 2, and Fig. 6 is a side view of Fig. 3.

The fixture illustrated comprises a central gas supply pipe 1 of ordinary form by which the fixture is supported. Upon the lower end of this pipe is threaded a cock 2 which forms a central base for the fixture. Horizontal pipes 3 extend outwardly from the cock 2 for supplying gas to the various burners. The fixture shown is of the two burner type but obviously a greater number

of burners may be used. Each of the pipes has an individual gas controlling cock 40. At right angles to the pipes 3 are rods 4 threaded into the cock 2. An ornamental brass shell 5 incloses the central base 2 and is supported by the pipes 3 which pass there-through and by screws 6 threaded into the ends of the rods 4. The cock 2 has a plug 7 which controls the flow of gas through the pipe 1. A lever 8 is loose upon one end of the plug 7 and is provided with slots 9 through which passes a pin 10 carried by the plug. A tension spring 11 is secured at one end to said pin 10 and at the other to a pin 12 carried by the lever 8. Upon the free end of the pin 12 is mounted a metallic sleeve 46 suitably insulated therefrom. At either extremity of the said lever is secured a link 13 from which depends a draw rod, chain, or cord 48.

The base 2 is provided with an insulating block 14 secured thereto by a screw 41 and upon this block and secured thereto by screws or binding posts 15 are a pair of contact springs 16 and 17. Conducting wires 18 run from the spring 16 to ignition devices 19 mounted upon the canopies 20 of the gas burners. The ignition devices may be of any desired type, but I prefer to use the form fully disclosed in my application Serial No. 566,408 filed June 11, 1910, and in which the current is passed through a very fine wire or filament of platinum alloy, the current being preferably of a strength sufficient to initiate catalytic action of the wire upon the gas and air mixture, but insufficient of itself to heat the wire to the ignition temperature of the gas. Return wires 42 run from the ignition devices 19 and are grounded upon one of the rods 4 by a screw 43. The wires 18 and 42 are preferably run through the spaces between the pipes 3 and ornamental shells 44. A conducting wire 21 runs from the binding post 15 of the spring 17 to a contact spring 24 which is held between insulating blocks 22 and 23 bolted to the lower end of the cock 2. The spring 24 is bent to bring its free end into position to engage one pole 25 of the battery 26. This battery is preferably a single dry cell of which one electrode 25 is situated at its center and the other is the usual zinc container 27. The cell 26 is loose within a brass cup 28 with which the container 27 makes contact. The cup 28 may

be removably engaged with the shell of the fixture in any suitable manner. As shown there are a plurality of pins 29 extending outward from the cup 28 and corresponding notches 30 are formed in the flange 31 of the shell 5 which permit the passage of said pins. The cup is then rotated sufficiently to allow the pins to rest upon the flanges as shown in Fig. 5. A screw 45 is threaded in the shell 5 and serves to lock the cup 28 in position.

In order to light the burners the individual cocks 40 are first opened and may remain so at all times as the gas for the entire fixture is controlled by the cock 2. One of the draw rods 48 is then pulled and the lever 8 and plug 7 of the cock 2 are moved into the position shown in Fig. 3. This completes electric circuits from the battery through spring 24, wire 21, spring 17, sleeve 46, spring 16, wires 18, ignition devices 19, wires 42, rod 4, shell 5, and cup 28 back to the battery. The burner will be ignited very quickly and the draw rod is then released, whereupon the spring 11 moves the lever 8 into the position shown in Fig. 4, thereby opening the electric circuit. In order to turn off the burners it is only necessary to pull the other draw rod and move the plug of the cock 2 into the position shown in Fig. 1.

Having now described my invention, what I claim is:

1. In a gas fixture, the combination of a supply pipe, a cock applied to the end thereof for controlling the flow of gas there-through and having a plurality of outlets, a plurality of supports extending radially from said cock, a fixture shell carried thereby and inclosing said cock, a contact carried by and insulated from said cock and in line with the center of the fixture, a container removably applied to said shell, and a battery within and concentric to said container and having a center contact adapted to engage said first named contact, substantially as set forth.

2. In a gas fixture, a supply pipe having

a cock for controlling the flow of gas, said cock comprising a movable plug having a longitudinal extension, an arm rotatably mounted on said extension and extending transversely thereto, a spring, a pin and slot connection between said arm and extension for limiting the relative movement thereof, tension members applied to opposite ends of said arm, a contact carried by said arm, and a contact applied to said cock in the path of said movable contact, substantially as described.

3. In a gas fixture, the combination of the main and lateral supply pipes, a shell inclosing the junction thereof, the bottom of said shell being formed with a central opening surrounded by an inwardly extending horizontal flange having a plurality of notches 30, and a container or cup having pins adapted to pass through said notches and rest on said flange.

4. In a gas fixture, the combination of the main and lateral supply pipes, a shell inclosing the junction thereof, the bottom of said shell being formed with a central opening surrounded by a horizontal flange having a plurality of notches 30, and a container or cup having pins adapted to pass through said notches and rest on said flange, and a bead immediately below said pins.

5. In a gas fixture, the combination of the main and lateral supply pipes, a shell inclosing the junction thereof, the bottom of said shell being formed with a central opening surrounded by an inwardly extending horizontal flange having a plurality of notches 30, a container or cup having pins adapted to pass through said notches and rest on said flange, and means for locking said cup against movement necessary to liberate said pins.

This specification signed and witnessed this 15th day of June 1910.

HOWARD LYON.

Witnesses:

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