J. B. FULLER.

Argand Gas-Burner.

No. 165,321. Patented July 6, 1875.

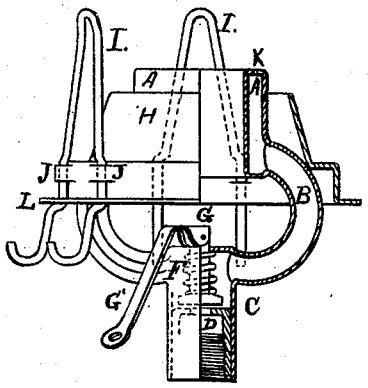

FIG. 1.

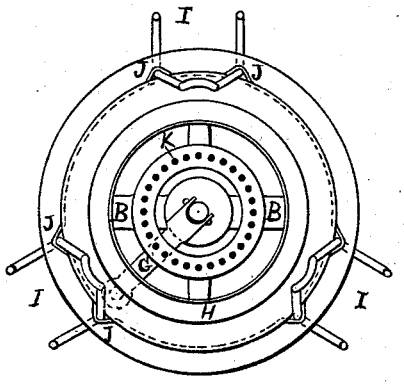

FIG. 2.

Martin Bauer.
Jacob. Bauer.

WITNESSES.

Jim. Billings, Fuller

INVENTOR.

UNITED STATES PATENT OFFICE.

JIM BILLINGS FULLER, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN ARGAND GAS-BURNERS.

Specification forming part of Letters Patent No. **165,321**, dated July 6, 1875; application filed June 16, 1875.

To all whom it may concern:

Be it known that I, JIM BILLINGS FULLER, of Brooklyn, New York, have invented certain Improvements in Argand Gas-Burners, of which the following is a specification, in which—

Figure 1 represents half elevation and half vertical section; and Fig. 2, a plan of a gas-burner, showing said improvements.

Heretofore this class of burners has been made in several parts, of cast or sheet metal, or both combined, each part being turned, bored, stamped, or pressed into the desired form, and then the whole secured together by lapping, pressing, soldering, or otherwise.

My invention consists, first, in a burner made by depositing on a metallic mold, the surface of which corresponds with the interior of the body of the burner, by means of an electric current, a suitable covering of copper or other metal of the desired thickness to form said body or shell; then drilling through the copper and into said metal mold the apertures for the escape of gas, and thereafter melting out said metal mold, leaving the outer metallic shell complete; second, the device shown and described, for governing the flow of gas, consisting of a valve, operated by an eccentric lever, which rests upon the top of the pillar in such a manner that the said lever, by being lifted or depressed, opens and closes the valve, and so arranged that it may be adjusted horizontally to any desired position for convenience of operation.

A, B, and C represent the body of the burner; A, being the annular gas-chamber; B, the hollow arms; and C, the pillar.

In making this part of the burner, I first cast a metallic mold of type, or other easy melting metal, and of the required form. I hang this mold in an ordinary electroplating bath until it has deposited upon its surface the required thickness of metal, after which I cut off the lower end, cutting through the plating. I then drill the holes K for the escape of gas, drilling a short distance into the metallic mold, thus preventing the formation of a burr around the inner edge of the holes. In this manner said holes are more perfect than those made by punching or drilling, as ordinarily done. I then melt out the metal mold, leaving the shell or body of the burner complete. At the lower end of the pillar C, I solder in a bushing, D, of thicker material, which constitutes the nut by which the burner is secured to the gas-fixture, and also forms the seat for the valve by which the flow of gas is regulated.

F is a valve resting on the opening in the top of the bushing D, its stem passing up through the shell, as shown, and kept in position by a spring. At the upper end of this valve stem is secured an eccentric, G, forming part of the lever G′. This eccentric so rests upon the top of the pillar C that by raising or lowering the lever G, the valve F is opened or closed, thus regulating the flow of gas through the burner, while, by moving the lower end of the lever horizontally around, the valve being the axis, the lever can be adjusted in any desired position convenient for operation.

I propose to make a separate application for patent for the chimney and shade holder, shown in the drawing.

I claim—

1. In an Argand gas-burner, constructed as described, the upper annular ring, provided with holes for the escape of the gas, drilled through the metal thereof previous to the removal of said form, thereby preventing the formation of burr around the inner edge of said holes, as set forth.

2. The valve F of the eccentric G, and the lever G′, combined and arranged substantially as above described, so that a vertical motion of said lever opens and closes the valve, while, by a horizontal motion of the lever, it can, without opening or closing the valve, be adjusted in any required position for convenient operation.

JIM BILLINGS FULLER.

Witnesses:

J. N. CRANDALL,

HORACE CRAIGHEAD.