

(No Model.)

2 Sheets—Sheet 1.

A. G. MOREY.
GAS BURNER.

No. 421,602.

Patented Feb. 18, 1890.

Fig. 2.

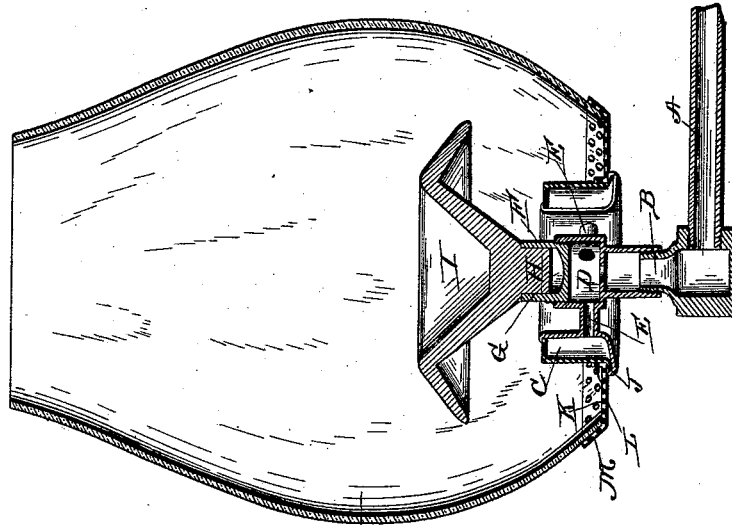
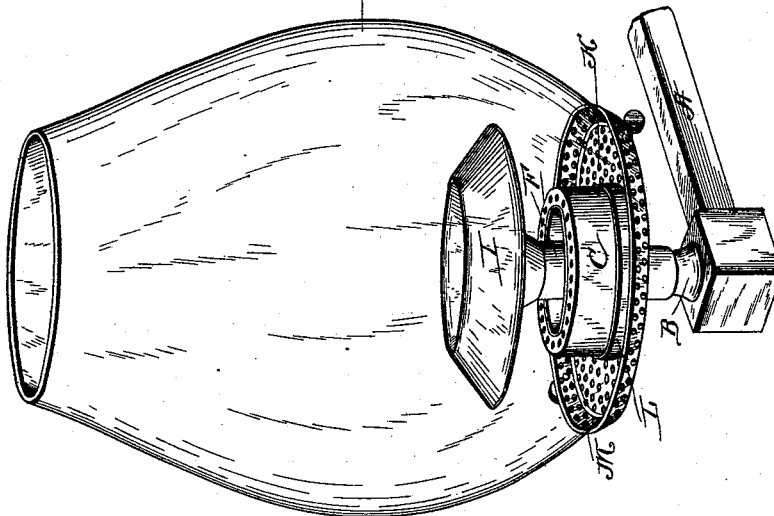


Fig. 1.



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2 Sheets—Sheet 2.

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Fig. 7.

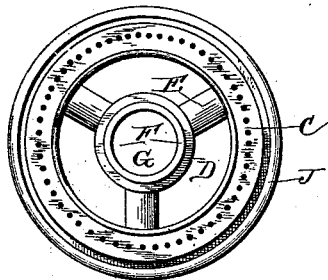


Fig. 4.

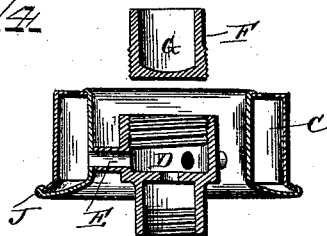


Fig. 5.

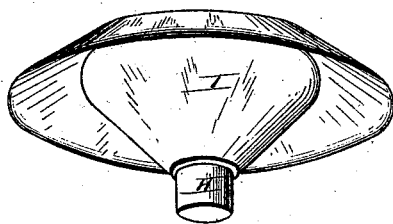
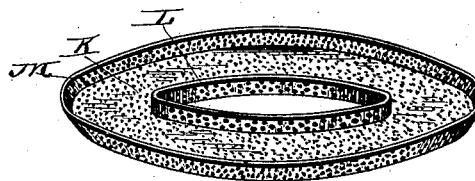


Fig. 6.



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UNITED STATES PATENT OFFICE.

ALBERT GIDEON MOREY, OF LA GRANGE, ILLINOIS.

GAS-BURNER.

SPECIFICATION forming part of Letters Patent No. 421,602, dated February 18, 1890.

Application filed January 17, 1888. Serial No. 261,038. (No model.)

To all whom it may concern:

Be it known that I, ALBERT GIDEON MOREY, a citizen of the United States, and a resident of La Grange, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Gas-Burners; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved gas-fixture complete. Fig. 2 is a vertical transverse sectional view of the same. Fig. 3 is a plan or top view of the Argand burner, which forms a part of my improved fixture. Fig. 4 is a sectional detail view of the Argand burner, showing the cap or socket detached from the main part of the burner. Fig. 5 is a perspective view of my improved flame deflector or "spreader;" and Fig. 6 is a similar view of the foraminated globe-holder, which forms a part of my improved fixture.

Like letters of reference denote corresponding parts in the several figures.

My invention has relation to gas-fixtures of that class in which an Argand burner is employed in conjunction with a device for spreading the flame for the purpose of causing complete combustion of the gas as it escapes from the apertures in the burner; and it consists in the improved construction and combination of parts of a gas-burner of that class, substantially as will be hereinafter more fully set forth.

In the accompanying drawings, the letter A designates the arm or bracket of a gas-fixture of any desired construction provided with the usual externally-threaded orifice B, adapted to receive the burner. A so-called "Argand" burner C is secured upon the fixture, so as to feed the gas into an annular receptacle provided in its upper end with a series of small apertures, as usual in that class of burners. The central part of the burner C consists of a cylindrical chamber D, from which the gas is fed to the burner proper through the branch pipes E, and the chamber D is open at its upper end and provided with

an interior screw-thread to adapt it to receive a plug or cap F, the inner part of which forms a recess or socket G, adapted to receive the tenon H of the flame-deflector or spreading device I. The construction of the latter will be readily understood from the drawings, from which it will be seen that it consists of a circular disk supported upon an inverted cone and having its outer rim deflected or turned downwardly, so as to overlap the burner. The angle formed by this deflected outer rim, which is preferably a sharp angle, is placed directly over the openings in the burner C, so that as the flame passes upward it strikes the deflector within this angle and is thrown downward and outward, thereby causing the rays of light to be deflected downward and outward from the spreader, aside from the manifest advantage in obstructing and spreading the flame to such an extent that more complete combustion is obtained than would be without the deflected portion of the rim.

This "spreader," so-called, may be made of any desired material; but for my particular purpose I prefer to make it of a composition consisting of a mixture of refined clay or terra-cotta, asbestos, and manganese, mixed in suitable proportions and molded into the proper shape. Not only is this material practically indestructible by heat, but after it becomes thoroughly heated it becomes to a certain extent incandescent and reflects its own light through the thin film of flame encircling it, thus giving a peculiarly white and pure light, which cannot be attained, as far as my experience and experiments go, by the substitution of other material.

The body of the burner C is provided at its lower part with an annular rim or flange J, forming a support for the foraminated chimney-holder K. The latter is struck up from a single piece of perforated sheet metal and provided with an inner and outer upwardly-turned flange, (denoted by the letters L and M, respectively.) The outer flange M fits closely around the lower rim of the globe or chimney N, and may be provided with a set-screw or any other of the well-known means for binding the globe in position and preventing it from falling off.

By making the cap I removable it can be taken off at any time to be replaced by different ones or to remove any obstructions of any kind that should happen to get into the burner.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The herein-described gas-fixture, consisting of the arm or bracket, the orifice connected thereto, the cylindrical chamber having the depending portion connected to said orifice, the plug fitting in the upper end of the chamber, the conical spreader fitting in the plug and having the downwardly-inclined rim, the burner-body consisting of the plate having the flanges at the upper and lower ends and the plate secured in place by said flanges, and the chimney-holder having the inner upturned edge supported on the body and the outer inclined edge for surrounding

the lower edge of the burner, substantially as described.

2. In a gas-burner, the combination of the cylindrical chamber, the burner communicating therewith having the flange at the lower end thereof, the plug fitting in the said chamber, the conical spreader fitting in the plug and having the downwardly-inclined rim, the chimney-holder supported on the flanges of the burner and having the inner rim surrounding the burner and the outer inclined peripheral rim surrounding the chimney, substantially as shown.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

ALBERT GIDEON MOREY.

Witnesses:

WILLIAM FRANCIS AUGUSTIA,
JENS MARTIN OVESON.