

G. G. SHELDON.
Gas-Fixtures.

No. 138,766.

Patented May 13, 1873.

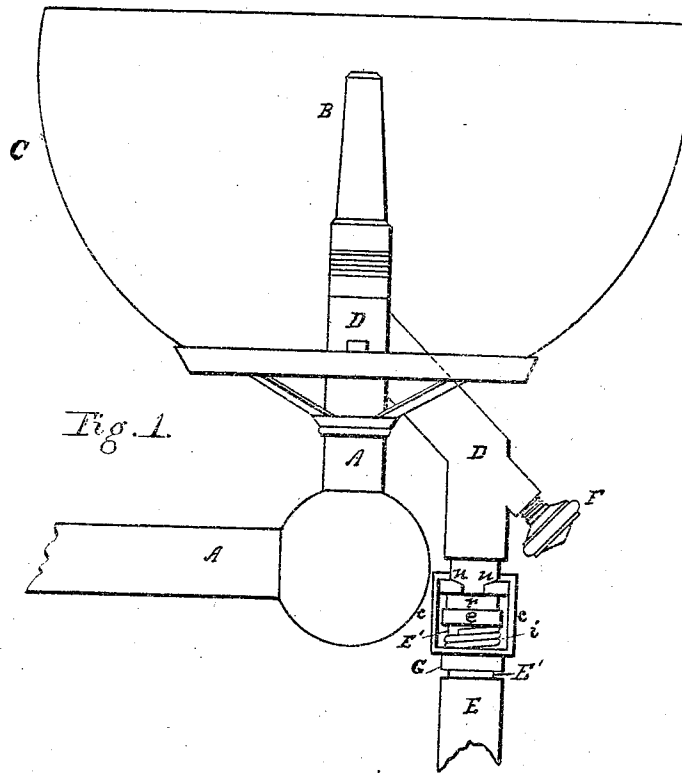


Fig. 1.

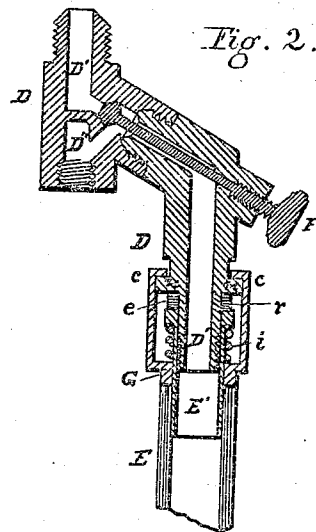


Fig. 2.

WITNESSES—

E. A. Herring.
S. M. Millard

INVENTOR—

George G. Sheldon
By Lindley & Warner
attys

UNITED STATES PATENT OFFICE.

GEORGE G. SHELDON, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN GAS-FIXTURES.

Specification forming part of Letters Patent No. **138,766**, dated May 13, 1873; application filed April 12, 1873.

To all whom it may concern:

Be it known that I, GEORGE G. SHELDON, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Gas-Fixtures, of which improvements the following is a full, clear, and exact description, which will enable others skilled in the art to which my invention appertains to make and use the same, reference being had to the accompanying drawing forming a part of this specification, and in which—

Figure 1 is a side elevation of my improved device when applied to a gas-fixture, and Fig. 2 a vertical central section of the same when detached.

Like letters of reference indicate like parts.

Heretofore the drop-light tube has been arranged on a burner-tip, and in such a manner that a burning jet could not proceed from the tip while the tube was attached to it. A support has also been required in order to prevent flexible tubes from "buckling," and to prevent them from resting on the globe when globes were used, and rigid tubes have been curved or bent so that they could be properly arranged on the tip. This mode of attaching the tube to the fixture is not only inconvenient, but often results in breaking globes, even when considerable care is employed in applying and removing the tube.

The object of my invention is to remove these objectionable features. I also aim to improve the means employed for the purpose of attaching the drop-light tube to a nozzle.

To the end that the objects above set forth may be accomplished, my invention consists in providing the fixture with a tube-receiving nozzle, arranged below the burner-tip and in a manner substantially the same as hereinafter described, so that neither a support for a flexible tube nor a rigid "goose-neck" need be used, and so that there will be less danger of breaking the globes. It also consists of a tube-receiving nozzle provided with a bifurcated channel and with an adjustable valve or cock, so that the flow of gas may be thereby directed both to the burner-tip on the fixture and to the drop-light at the same time, and to either alone, and so that a burning jet may proceed from both at the same time, and from either alone. It further consists in the means,

substantially as hereinafter described, of attaching the drop-light tube to a nozzle.

In the drawing, A represents a gas-fixture; B is a burner-tip, and C is a globe. D is a tube-receiving nozzle, and E is a flexible drop-light tube attached thereto. It will be perceived, on reference to the drawing, that the nozzle D is arranged below the burner-tip, and so that neither a support for a flexible tube nor a goose-neck need be used for the purposes above set forth, and that there will be little or no danger of breaking globes in applying and removing the tube.

I am aware that an extra tip not provided with a globe has heretofore been arranged on chandeliers, so that the tube could be attached to the fixture without being arranged over a globe, and so that the remaining tips could all be used while the drop-light was being used; but, so far as I am aware, this extra tip has been so arranged that either a support for flexible tubes or a rigid "goose-neck" was necessary in order to make a proper attachment with convenience; and I do not here claim an extra tip so arranged.

D' is a channel extending through the nozzle D, and communicating with the burner-tip and with the drop-light tube. D'' is also a channel in the nozzle D, and communicates with the fixture and with the channel D'; in other words, the nozzle is provided with a bifurcated channel communicating with the fixture, the burner-tip, and the drop-light. By this means, and by means of a suitable adjustable valve or cock arranged at the junction of the branches of the bifurcated channel, the flow of gas may be directed either to the tip or to the drop-light, or to both at the same time. F is a thumb-screw entering the channel of the nozzle, and extending to the junction of the branches of the channel. The inner end of the screw F is provided with a head, and the channel D' is constructed to form a seat on each side of the channel D'' for this head, so that a tight joint will be made when the head rests on either seat.

It will be perceived, from reference to Fig. 2, that the inner head of the screw F does not fill the space between the seats, and that the stem of the screw is considerably smaller than that part of the channel in which it rests. By

this means the flow of gas may be readily conducted either to the burner-tip or to the drop-light, or to both at the same time; and a burning jet may proceed from either or from both.

I do not here intend to limit myself to any particular construction of valve or cock, for the reason that various devices of that class may be employed for the purpose of regulating or shifting the flow of gas in the manner described.

The tube E is attached to a short tubular piece, E', which is provided with a shoulder or flange, e. G is a sleeve on the piece E', and c c are bent arms or clasps projecting from the sleeve G. i is an open spiral spring arranged between the shoulder e and the sleeve G. The end of the tube e forms a seat for the sleeve B, and resists the action of the spring i. When a rigid tube is employed instead of a flexible one it should either be provided with a shoulder corresponding to the end of the flexible tube or attached to the part E' in the same manner that the tube E is. The part E', if extended for that purpose and provided with a collar, will constitute a suitable rigid tube for the drop-light. u u are ribs or shoulders, each of which extends less than half way around the nozzle D; and their upper faces are beveled, as shown in Fig. 1. r is a rubber washer arranged below the ribs u u. In order to apply the drop-light tube to the nozzle the arms c c are passed between the ribs u u and then turned until they engage the latter.

The spring i allows the clasps to ride up the beveled part of the ribs, and the flange e is pressed firmly against the washer r, which is also pressed firmly against a shoulder on the nozzle, as shown, and a tight joint is thus formed. It will be perceived, from the foregoing description and from reference to the drawing, that the beveled ribs u u will also operate to draw the tube E' firmly against the washer if the arms or clasps c c are rigidly attached to the tube E'; hence, such an attachment may be made, and the spring i and shoulder e need not be used. It will also be perceived that when the spring i and shoulder e are employed in connection with the sleeve G, the ribs u u need not be beveled in order to make a tight joint, but I deem it preferable to attach the tube to the nozzle by means of beveled ribs and a yielding clasp, substantially as described.

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

1. The hereinbefore-described arrangement, substantially as shown and specified, of a tube-receiving nozzle in a gas-fixture, for the purposes set forth.

2. In a gas-fixture, a tube-receiving nozzle having a bifurcated channel and provided with an adjustable valve or cock arranged at the junction of the channels for the purpose of controlling and shifting the flow of gas through either and both channels, substantially as and for the purposes specified.

3. As a new article of manufacture, a gas-fixture attachment, consisting of a tube-receiving nozzle having a bifurcated channel, and provided with an adjustable valve or cock arranged at the junction of the channels for the purpose of shifting the flow of gas both through a burner-tip arranged on the fixture and through a drop-light, and through either.

4. The nozzle D having the bifurcated channel D' D'', constructed and arranged substantially as described, and provided with the thumb-screw F, also constructed and arranged substantially as described, for the purposes set forth.

5. The arrangement, substantially as described, in the channel of a drop-light tube-receiving nozzle, of an adjustable valve or cock for the purpose of shifting the flow of gas both to a burner-tip on the fixture and to a drop-light, and to either.

6. The drop-light tube E' provided with the bent arms or clasps c c, in combination with a tube-receiving nozzle provided with the open and beveled shoulders or ribs u u and with the washer r, arranged to receive and engage the end of the tube E, substantially as and for the purposes specified.

7. The combination and arrangement of the tube E' provided with the shoulder e, sleeve G provided with the bent arms or clasps c c, spring i, open shoulders or ribs u u, and washer r, all substantially as and for the purposes specified.

8. In a gas-fixture, a tube-receiving nozzle, in combination with a valve or cock for shifting the flow of gas both through the fixture and the nozzle, and through either, substantially as and for the purposes specified.

GEORGE G. SHELDON.

Witnesses:

N. C. GRIDLEY,
F. F. WARNER.