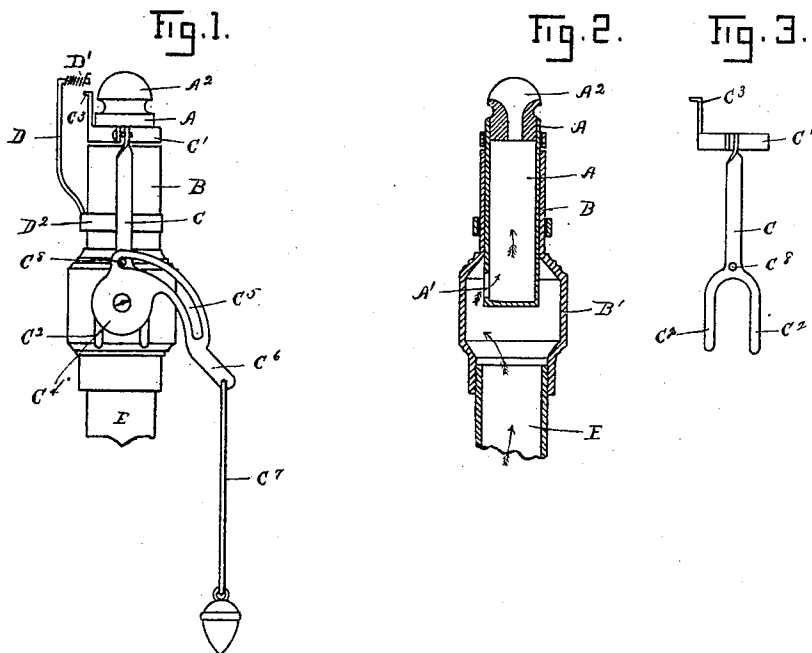


(No Model.)

W. H. FARGO.
ELECTRIC GAS LIGHTING ATTACHMENT.

No. 583,303.

Patented May 25, 1897.



WITNESSES

Baldwin Valer
H
H. H. Hart

INVENTOR

William H. Fargo

BY

Bruce Willard
ATTORNEYS

UNITED STATES PATENT OFFICE.

WILLIAM H. FARGO, OF SAN FRANCISCO, CALIFORNIA.

ELECTRIC GAS-LIGHTING ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 583,303, dated May 25, 1897.

Application filed August 6, 1896. Serial No. 601,863. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. FARGO, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented certain new and useful Improvements in Electric Gas-Lighting Attachments; and I do hereby declare the following to be a full, clear, and exact description of said invention, such as will enable others skilled in the art to which it most nearly appertains to make, use, and practice the same.

This invention relates to improvements in gas-lighting attachments, and more particularly to electric gas-lighting attachments; and it consists in the novel arrangement and construction of the parts, as hereinafter set forth.

In the drawings, Figure 1 is a side elevation of the invention. Fig. 2 is a vertical section of the same. Fig. 3 is a detail view of the lifting and sparking attachment of the invention.

The objects which this invention has in view are to provide a device simple in construction and positive in action and in the obviating the dependence on any spring action in the operative parts, and also in producing a non-leaking gas-tip. To accomplish these objects, I provide the construction as shown in the drawings, in which the letter A designates the tip-holder. In this invention the tip-holder is a small section of pipe having a closed bottom. The gas is admitted through the tip-holder A by a small opening A' in the side of the holder, as shown by the arrows in Fig. 2 of the drawings. Between the tip-holder A and the stationary tube B is inserted a packing to prevent leakage of the gas. This packing may be composed of any suitable material to accomplish the purpose. The tip A² is inserted in the end of the holder in the usual manner.

To turn the gas on or off with this invention, the tip-holder is depressed or raised, as the case may be, to carry the opening A' up into the smaller tubing B to close the opening, or to extend it downward into the chamber B' of the said tubing, where the gas is permitted to flow through the opening.

To raise and lower the tip-holder, various means may be employed. That, however, shown by me consists of a connecting-rod C,

rigidly attached to the tip-holder by a band C'. In its action the rod is steadied by the forked construction of the ends C² C³, which extend behind the cam C⁴. The rod is raised and depressed by the cam, which is provided with the cam-slot C⁵, into which the pin C⁶ of the rod C extends. The cam is pivotally mounted on the tubing B, and is rotated by the raising or lowering of the operating-bar C⁷, which is hung on the end of the slotted extension C⁶. The forked ends C² C³ may enfold either a square embossment extended from the tubing B or a round embossment on the back of the cam C⁴. This construction for raising and lowering the tip-holder may be varied in many ways, even to the simplest construction, which would be to extend the rod C to within reach that the holder B might be raised and lowered directly. The construction shown in the drawings is that most preferred by me, for the reason of the ease of regulating the position of the tip.

The electric sparking attachment consists of the spring-contacts C³ and D', the former being metallicly attached to the tip-holder, which is electrically grounded. The end of the contact C³ is turned over to form a hook, under which the end of the contact D' strikes when the tip-holder is depressed. The contact D' is mounted on the arm D, which is mounted on the stationary tubing B by the band D². Between the band D² and the tubing B is placed electric insulating material. To the said band is attached one of the battery-leads of the wire circuit.

The current being established, the circuit is completed only when the contacts C³ and D' are brought together, and when separated the spark is caused. This transpires when the opening A' in the holder A has passed into the chamber B' and the gas is flowing at nearly full force. While the contacts are in engagement, D' is depressed against the tension of the coil-spring formed by winding it about the arm D. When the contact C³ is depressed to pass D', the latter springs upward to a height where the contacts do not engage as the tip-holder is raised until the opening A' is nearly completely within the tube B and the gas closed off. By means of this arrangement the flow of the gas may be regulated, as having lighted it at full force

the operating-bar may be immediately raised to admit the limited quantity of gas through the opening A' to produce the desired flame and light.

5 Having thus described this invention, I claim—

1. In an electric sparking attachment for gas-lighting, a tip-holder adapted to be raised and lowered in the tubing of the fixture and
10 provided with a closed end and an opening in the side for the passage of the gas into the holder, in combination with tubing to contain the holder having chambers of different diameters the one exposing the opening to the
15 passage of the gas and the other closing the same, suitable operating attachments for raising and lowering the tip-holder to extend the said opening into either of said chambers, and electric contacts to complete and break the
20 electric circuit as the tip-holder is so moved, substantially as described.

2. In an electric sparking attachment for gas-lighting, a tip-holder adapted to be raised

and lowered in the tubing of the fixture and provided with a closed end and an opening 25 in the side for the passage of the gas, in combination with tubing to contain the holder having chambers of different diameters, the one exposing and the other closing the said opening when and as extended into them, a 30 cam-actuated mechanism for operating the said holder to raise and lower it, consisting of a cam pivotally mounted on the fixture, a connecting-rod attached to the tip-holder and engaging the said cam to be raised and low- 35 ered thereby, and an operating-bar to rotate the cam, and spring electric contacts to complete and break the electric circuit as the tip-holder is moved to permit the gas to flow, substantially as described. 40

In testimony whereof I have hereunto set my hand this 26th day of June, 1896.

WILLIAM H. FARGO.

Witnesses:

E. F. MURDOCK,
E. E. PARLIN.