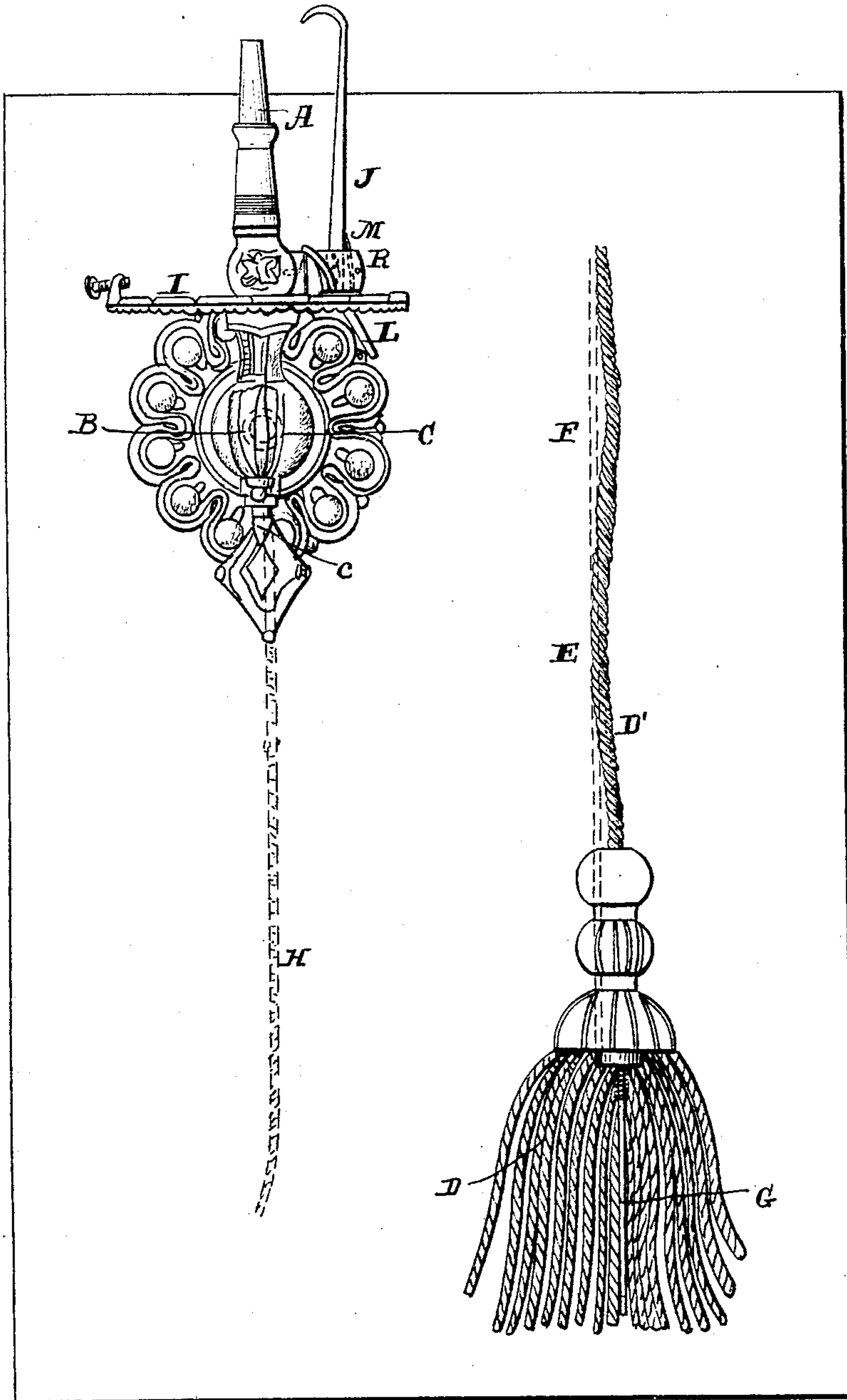


S. GARDINER, Jr.
Electric Gas Lighter.

No. 55,641.

Patented June 19, 1866.



Witnesses:
P. E. Wilson
C. D. Smith.

Inventor.
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UNITED STATES PATENT OFFICE.

SAMUEL GARDINER, JR., OF NEW YORK, N. Y.

IMPROVEMENT IN LIGHTING GAS BY ELECTRICITY.

Specification forming part of Letters Patent No. 55,641, dated June 19, 1866.

To all whom it may concern:

Be it known that I, SAMUEL GARDINER, Jr., of the city, county, and State of New York, have invented a new and useful Improvement in Lighting Gas by Electricity; and I do hereby declare the following to be a full, clear, and exact description of the nature, construction, and operation of the same, sufficient to enable one skilled in the art to which it appertains to fully understand and use the same, reference being had to the accompanying drawing, which is made a part of this specification, and which represents a front view of a gas bracket or burner with my invention applied.

This invention relates to a novel device for lighting single burners; and it consists, chiefly, of a suspended tassel connected to one of the poles of a galvanic battery, and adapted to apply the electrical spark either directly to the burner or through the medium of a pivoted igniter or finger, the latter being brought into requisition to afford ready access to the burner when a globe or shade is employed, as will be presently explained.

I shall now proceed to describe the device in connection with the drawing.

A may represent a gas-burner supported upon an ordinary bracket and communicating with the gas-pipe B. C is the cock for turning on and off the gas. D is a tassel, suspended in suitable proximity with the burner by a cord, D', around which is coiled a flexible conducting-wire, E, which is connected to a wire, F, constituting one of the poles of a galvanic battery. G is a stiff piece of wire suspended within the tassel and attached to the flexible conducting-coil E. The stiff wire E is pointed with platina. H is a wire connected to the gas-pipe B, and constituting the other pole of the galvanic battery.

The devices thus far described embrace the first part of my invention, and the operation will be readily understood.

To light the gas it is, as usual, turned on by means of the cock C, and then the tassel D is taken in the hand, and by it the stiff wire G is placed in contact with the burner and close to the orifice where the gas is emitted. In this way the poles E and H are brought into connection, the electric current is formed,

a spark given off at the extremity of the stiff wire G, and the escaping gas is lighted.

It is the intention to employ this device in connection with single burners, of whatever character they may be; and I contemplate such modifications as may conduce to the simplification or ornamentation of the contrivance.

When a globe or shade is employed in connection with the burner, such globe or shade is supported upon a globe-holder, I, of common construction, which may be supported upon the bracket in any suitable manner.

To afford means for readily applying the electric spark to the burner when the globe is used, I employ an igniting metallic finger, J, armed at one extremity with platina, and near its other end pivoted to a non-conducting or hard-rubber stud, R, which, by means of the screw k, is fastened to the socket of the burner A.

L is a small finger-lever, which is also pivoted within the non-conducting stud R, and has its extremity fitted within a corresponding notch, j, in the end of the igniter J.

The lever L projects below or outside of the globe and globe-holder, so that it may be pressed upon by the stiff wire G appended to the tassel D. By pressing this lever inward the bent extremity of the igniter J will be thrown in contact with the burner and over the escape-orifice of the gas.

When the stiff wire G, lever L, and igniter J are thus brought together or in mutual contact, and in contact with the burner, the electric circuit is formed, a spark given off, and the gas lighted, as before.

The igniter having been applied to the burner and the gas lighted, a small spring, M, fixed in the stud R, retracts the igniter, or, in other words, moves it out of contact with the burner.

The non-conducting stud R preserves the circuit intact until it is made available at the burner.

The substantial equivalent of the cord and tassel might be employed under various forms; hence I wish it understood that the invention is intended to embrace any analogous contrivance located in the vicinity of the burner for the purpose stated.

Having thus described my invention, the following is what I claim as new herein and desire to secure by Letters Patent:

1. The combination, with a gas-burner, of an electrical conducting cord and tassel, D D', connected with the poles of a battery, substantially as described.

2. The combination, with the above, of the stiff wire G, igniting-finger J, lever L, and spring M, substantially as described.

3. In combination with the electrical lighting devices herein described, the non-conducting or insulating stud R, employed in the manner described.

SAML. GARDINER, JR.

Witnesses:

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