

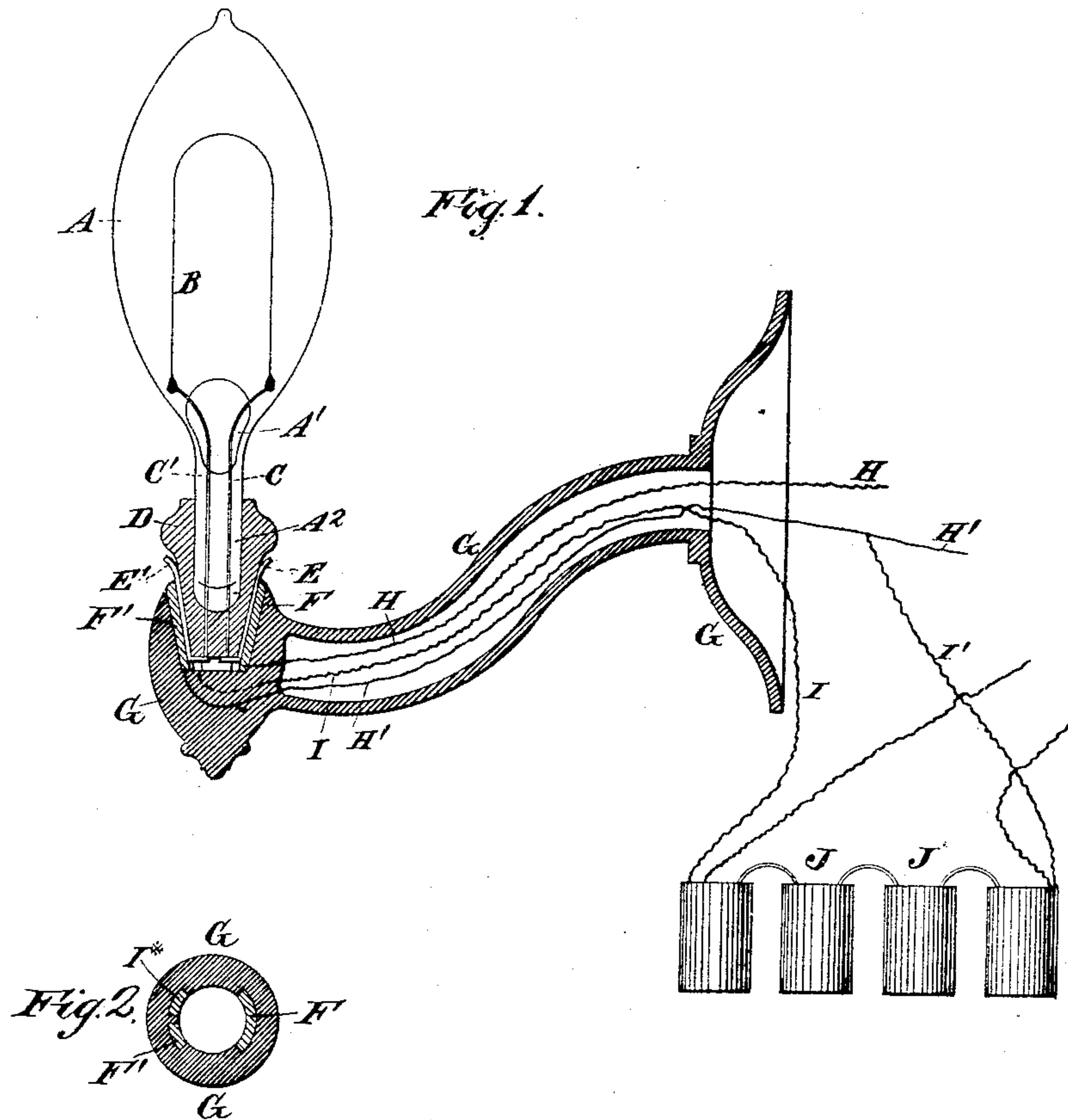
(No Model.)

W. L. VOELKER.

ELECTRIC LAMP.

No. 263,257.

Patented Aug. 22, 1882.



Witnesses—  
Charles R. Searle,  
W. A. Lane

Inventor—  
William L. Volker.  
By A. M. Pierce,  
Atty

# UNITED STATES PATENT OFFICE.

WILLIAM L. VOELKER, OF MORTON, PENNSYLVANIA, ASSIGNOR TO JOHN H. IRWIN, TRUSTEE, OF SAME PLACE.

## ELECTRIC LAMP.

SPECIFICATION forming part of Letters Patent No. 263,257, dated August 22, 1882.

Application filed January 23, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM L. VOELKER, of Morton, in the county of Delaware and State of Pennsylvania, have invented certain new and useful Improvements in Electric Lamps, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention relates especially to the construction and arrangement of incandescent electric lamps, and has for its object the production of a device easy to construct and simple to operate, and wherein provision is made for regulating the amount of light given by the lamp without the aid of useless artificial resistance, but by storing the excess of electrical energy in secondary batteries for use with other electrical devices; and my invention involves certain novel and useful combinations or arrangements of parts and peculiarities of construction and operation, all of which will be hereinafter first fully described, and then pointed out in the claims.

In the drawings, Figure 1 is a sectional view of my lamp, showing the method of arrangement; and Fig. 2 is a horizontal sectional view through the support at the base of the lamp.

Like letters of reference, wherever they occur, indicate corresponding parts in both the figures.

A is the globe or vacuous bulb of the lamp, provided at bottom with tube A<sup>2</sup>, fitting into a supporting-thimble, D, constructed of any suitable non-conducting material.

B is the incandescing filament of carbon inclosed within the bulb, and held in place by the conductors C C', sealed within the support A'.

Upon each side of thimble D are affixed springs E E', having electrical connection with the conductors to the interior of the lamp.

Thimble D fits into a socket in bracket G, prepared for its reception.

As thus constructed the lamp may be lifted from its place in the bracket at pleasure, the springs E E' making electrical connection with metallic contact-pieces F F', affixed within the socket in G. Metallic piece E has electrical connection with the + wire H of the circuit and E' with the - wire H', and are so ar-

ranged as to establish the circuit through the lamp when placed in position upon the bracket.

Affixed to the lamp-socket, insulated from each other, are one or more strips, I\*, having electrical connection with the cups of a secondary battery, J, by means of wire I I', running from the battery to the line.

When constructed and arranged in accordance with the foregoing description electrical energy heretofore wasted in devices of this character by the use of artificial resistance may be saved, and the light of the lamp may be readily regulated and turned down or out by simply turning the lamp in its supporting-socket. When the lamp is in position, with its springs in contact with F and F', the filament of carbon is thoroughly incandescent. By turning the lamp a part of a revolution in its socket contact is made with I\*, the conductor to the secondary battery. The internal resistance of the secondary battery reduces the strength of the current sufficiently to heat the carbon bright red, and by adding a number of strips I\*, with corresponding battery-connections, a varying resistance may be obtained, by which the light given by the lamp may be effectually regulated. The electrical energy, instead of being wasted, is stored in the secondary battery, and may be utilized for annunciators, burglar-alarms, or any device requiring electricity for its operation. In extinguishing the lamp connection is broken by simply turning the lamp half around in its socket.

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

1. In combination, a main circuit, an incandescent electric lamp in one branch thereof, a secondary battery in other branch thereof, and a switch in the socket of the lamp for connecting either branch with the main circuit, substantially as described.

2. In combination with a secondary battery, a supporting-socket for incandescent electric lamps, having contact-pieces F F' and springs E E', electrically connected with the line, and strips I\*, electrically connected with the secondary battery, substantially as described.

3. In combination, a secondary battery, an



incandescent electric lamp capable of revolution in its socket, and a socket provided with contact-pieces F F', springs E E', and strips I\* for the purpose of making electrical connection with the secondary battery by a partial revolution of the lamp, thereby diminishing or extinguishing the light of the lamp or regulating the current to a series of lamps, substantially as set forth.

10 4. In combination, a secondary battery and an incandescent electric lamp removable from its socket and capable of revolution within the same, and provided with contact-pieces F F' and springs E E' for the purpose of breaking  
15 or making electrical connection with the line, and having strips I\* for the purpose of mak-

ing electrical connection with a secondary battery, substantially as described.

5. In combination with an incandescent electric lamp, the conductors C C', the thimble 20 D, the socket with contact-pieces F F', the springs E E', the strips I\*, the line-wires H and H', and the secondary battery, substantially as described.

In testimony that I claim the foregoing I 25 have hereunto set my hand in the presence of two witnesses.

WILLIAM L. VOELKER.

Witnesses:

GARRETT E. SMEDLEY,  
HORACE R. MANLEY.