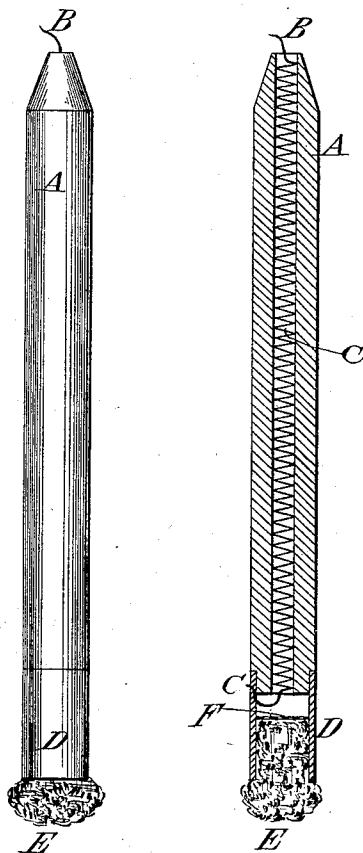


(No Model.)

J. B. KING.  
ELECTRIC LIGHT CARBON.

No. 256,803.

Patented Apr. 18, 1882.



Witnesses:  
A. Friedrich  
Fred. E. Lockwood

Inventor:  
John B. King

# UNITED STATES PATENT OFFICE.

JOHN B. KING, OF BROOKLYN, NEW YORK, ASSIGNOR OF ONE-HALF TO  
ALPHONSE FRIEDRICK, OF SAME PLACE.

## ELECTRIC-LIGHT CARBON.

SPECIFICATION forming part of Letters Patent No. 256,803, dated April 18, 1882.

Application filed May 26, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN B. KING, of Brooklyn, in the county of Kings and State of New York, have invented an Improvement in Electric Lamps, of which the following is a specification.

Heretofore in arc-lamps both solid and tubular carbons have been used; but in either case the combustion has been more or less imperfect and the ashes or unburned carbon has caused a flickering and unsteady light.

The object of my invention is to keep the carbons clean, to equalize combustion, to render the light steady, and to insure longer life for the carbons; and to that end my invention consists in the combination, with a hollow carbon, of a moist sponge through which atmospheric air may pass to the arc, and also in an electric conductor passing through the electrode, as hereinafter described and claimed.

Reference is to be had to the accompanying drawing, wherein an electrode of my improved construction is shown by a longitudinal section.

In carrying out my invention I make the carbon with a hole or channel longitudinally from base to apex.

A is the carbon, and B the hole or channel.

D is a tube or cap attached on the base of the carbon, containing a sponge, E, that is covered by wire-gauze F. In the cap is an aperture that allows air to enter beneath the sponge, from whence it may pass through the sponge to the carbon.

C is a spiral wire within the carbon and ex-

tending its whole length, the lower end of the wire passing through the hole in the cap to the outside, where it will have electric connection.

The sponge is to be kept moist. Usually the lamp will be self-supplying in that respect by the chemical union of the hydrogen and oxygen effected by combustion or the electric current. The quantity of air passing through the carbon is regulated by the intensity of combustion, and the moist air has the effect to cast off the ashes. The point of the spiral terminating at the arc supplies an increased electric force at the center of the arc, which has the effect to render the light steady and equalize the combustion of the carbon.

A lamp fitted with these improved carbons burns steadily without the usual singing noise, and with more equal combustion of the two electrodes.

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

1. The combination of hollow carbon A, containing wire helix C, with holder D and sponge E, substantially as described.

2. The combination, with a tubular carbon, of a hollow cap fitted to its base and forming an air-passage to the interior of the carbon, and a sponge placed in said passage, substantially as described.

JOHN B. KING.

Witnesses:

ALPHONSE FRIEDRICK,  
JOSEPH V. SCULLEY.