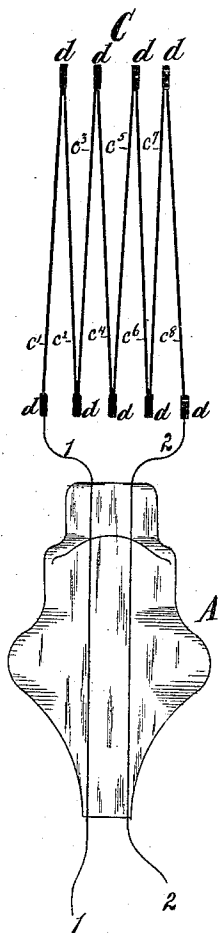


(No Model.)

T. A. EDISON.
INCANDESCING ELECTRIC LAMP.

No. 358,600.

Patented Mar. 1, 1887.



WITNESSES:

Thomas E. Birch.

D. D. Mott

INVENTOR:

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UNITED STATES PATENT OFFICE.

THOMAS A. EDISON, OF MENLO PARK, NEW JERSEY, ASSIGNOR TO THE
EDISON ELECTRIC LIGHT COMPANY, OF NEW YORK, N. Y.

INCANDESCING ELECTRIC LAMP.

SPECIFICATION forming part of Letters Patent No. 358,600, dated March 1, 1887.

Application filed August 7, 1882. Serial No. 68,610. (No model.)

To all whom it may concern:

Be it known that I, THOMAS A. EDISON, of Menlo Park, in the county of Middlesex and State of New Jersey, have invented a new and useful Improvement in Incandescing Electric Lamps, (Case No. 386;) and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

The object I have in view is to produce another way of constructing carbon filaments of high resistance for incandescing electric lamps. This I accomplish by securing together by electroplated joints a number of carbon filaments, the end filaments being electroplated to the leading-in wires of the lamp.

In carrying out my invention I preferably take a natural fiber—such as a wood fiber—and cut into straight pieces or filaments with enlarged ends. These straight filaments are then carbonized without being bent. A number of the straight carbon filaments are then placed parallel with each other, and are secured together, end to end, by mechanical unions—as, for instance, by wrapping with fine wire or with metal foil. These unions are then electroplated, the carbon filaments being kept separated by tissue-paper or other suitable material. After electroplating, the connected carbon filaments are sprung apart, so that they assume a zigzag form, and the end filaments are first mechanically secured to the leading in wires and then electroplated thereto.

The drawing shows the glass wire-support of the incandescing electric lamp, the leading-in wires, and the carbon in elevation.

A represents the glass wire-support, in the upper part of which the leading-in wires 1 2 are sealed.

C is the incandescing carbon conductor of the lamp, composed of straight carbon filaments c' to c^b , inclusive. These filaments have enlarged ends d , which are secured together by electroplated unions, the lower ends of the outer filaments, $c' c^b$, being electroplated to the leading-in wires.

It is evident that any number of straight carbon filaments (four or more) can be secured together in this way to secure the desired high resistance and form the zigzag carbon.

What I claim is—

1. An incandescing conductor for an electric lamp, composed of two or more carbon filaments joined together by electroplating, substantially as set forth.

2. The combination, in an electric lamp, of two or more carbon filaments joined together by electroplating, and leading-in wires connected with such carbon filaments by electroplated joints, substantially as set forth.

3. The zigzag incandescing conductor for an electric lamp, composed of a number of separate straight carbon filaments joined together at their ends by electroplating, substantially as set forth.

This specification signed and witnessed this 13th day of December, 1881.

THOS. A. EDISON.

Witnesses:

RICHD. N. DYER,
H. W. SEELY.