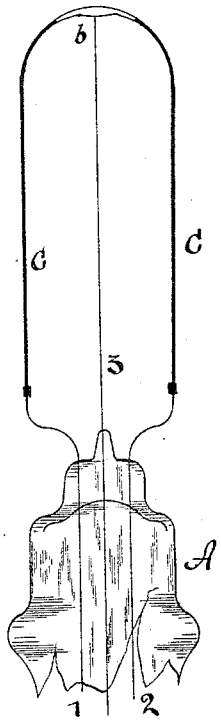
(No Model.)

T. A. EDISON.

INCANDESCENT ELECTRIC LAMP.

No. 454,558. Patented June 23, 1891.



WITNESSES:

D. D. Mott

Thomas E. Birch.

INVENTOR:

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BY Richards & Dyer,

ATTORNEY.

UNITED STATES PATENT OFFICE.

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

INCANDESCENT ELECTRIC LAMP.

SPECIFICATION forming part of Letters Patent No. 454,558, dated June 23, 1891.

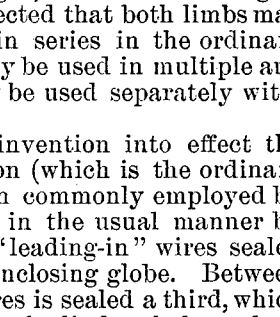
Application filed August 7, 1882. Serial No. 68,606. (No model.)

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 new and useful Improvements in Incandescing Electric Lamps; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The object of my invention is to produce an incandescent electric lamp in which one double-limbed carbon is used made integral throughout its length, such carbon being so arranged and connected that both limbs may be used together in series in the ordinary manner, or both may be used in multiple arc, or either limb may be used separately without the other.

In carrying my invention into effect the limbs of the carbon (which is the ordinary "horseshoe" carbon commonly employed by me) are supported in the usual manner by electroplating to "leading-in" wires sealed in the glass of the inclosing globe. Between these leading-in wires is sealed a third, which extends up between the limbs of the carbon, and is attached at the center of the arch or loop by electroplating thereto. When all these wires are properly connected to the system, the current passes through the central wire and is divided between the two limbs of the carbon, the latter thus being in multiple arc. If the central wire is disconnected and the two limbs attached to opposite wires of the system, the two are of course in series, or if one limb of the carbon is disconnected the other may be used separately. This may be better understood by reference to the accompanying drawing, in which the figure represents the carbon and connections, the globe of the lamp being omitted.



A is the interior supporting tube or stem of an incandescent lamp. 1 2 are the leading-in wires sealed therein and supporting the limbs C C of the carbon, to which they are secured by electroplating. A third leading-in wire 3 is also sealed in the glass stem A, and is attached above at the center of the arch by electroplating the wire to the carbon at *b*.

Suitable arrangements of contacts and circuit-controllers are made in the base of the lamp or elsewhere, so that the proper connections for the various uses of the lamp may be made, as described.

What I claim is—

In an incandescent electric lamp, the combination of an inclosing globe, a continuous integral loop-shaped carbon filament therein, conducting-wires attached to the ends of said filament and extending outside the globe for electrical connection with an external circuit, and a third conducting-wire connected with the middle point of the filamentary loop and also extending outside the globe for electrical connection, substantially as set forth.

This specification signed and witnessed this 5th day of December, 1881.

T. A. EDISON.

Witnesses:
H. W. SEELY,
WM. H. MEADOWCROFT.