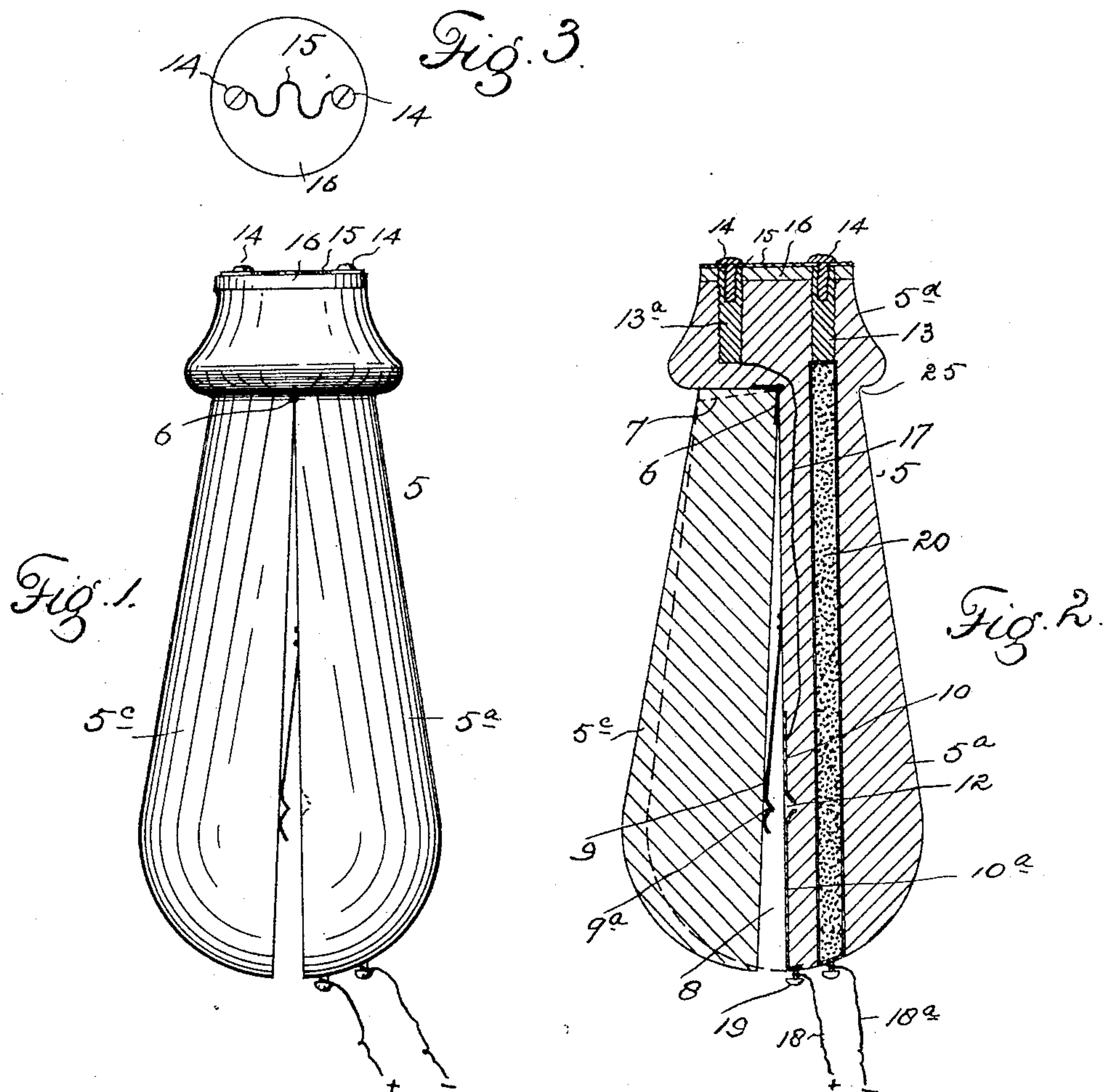


(No Model.)

W. P. CARSTARPHEN, Jr.  
ELECTRIC CIGAR LIGHTER.

No. 497,404.

Patented May 16, 1893.



WITNESSES:  
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# UNITED STATES PATENT OFFICE.

WILLIAM P. CARSTARPHEN, JR., OF DENVER, COLORADO, ASSIGNOR OF TWO-THIRDS TO JAMES E. GREGG, OF SAME PLACE, AND RICHARD W. WEBB, OF SANTA FÉ, TERRITORY OF NEW MEXICO.

## ELECTRIC CIGAR-LIGHTER.

SPECIFICATION forming part of Letters Patent No. 497,404, dated May 16, 1893.

Application filed August 17, 1892. Serial No. 443,283. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM P. CARSTARPHEN, Jr., a citizen of the United States of America, residing at Denver, in the county of Arapahoe and State of Colorado, have invented certain new and useful Improvements in Electric Cigar-Lighters; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in electric cigar lighters and the object of the invention is to provide a device of the class stated in which simplicity and economy of construction is combined with efficiency durability and convenience in use.

To these ends the invention consists of the features, arrangements and combinations hereinafter described and claimed and will be fully understood by reference to the accompanying drawings in which is illustrated an embodiment thereof.

In the drawings, Figure 1 is a side elevation of the device; Fig. 2 a longitudinal section taken through the center, and Fig. 3 a top plan or end view of the lighting extremity.

Similar reference characters indicating corresponding parts or elements of the mechanism in the several views let the numeral 5 designate a hand piece preferably constructed of wood. This piece is composed of two parts 5<sup>a</sup> and 5<sup>c</sup> hinged together at 6, part 5<sup>c</sup> being cut away at the top as indicated by the dotted line 7 to allow said part to occupy its normal position, or that when the current is broken and a space 8 is left between the two parts of the hand piece. The two parts of piece 5 are normally maintained in the broken-circuit position by a spring 9 secured at one extremity to the inner surface of part 5<sup>a</sup>, its opposite extremity bearing against the adjacent surface of part 5<sup>c</sup>. Part 5<sup>a</sup> is also provided on its inner surface with a contact plate located below the point of attaching spring 9.

This plate is divided into two parts 10 and 10<sup>a</sup>, the adjacent extremities of these parts being separated by a space 12 adapted to receive a projection 9<sup>a</sup> formed on spring 9 and adapted to electrically unite the two parts of the plate when the parts of the hand piece are pressed together.

The top 5<sup>d</sup> of the hand piece is preferably formed integral with part 5<sup>a</sup> and is provided with two conductors 13 13<sup>a</sup> which extend therein a suitable distance and receive binding screws 14 which engage the extremities of the lighter 15 which may be composed of platinum or other suitable material adapted to become incandescent under the influence of the current. Between the top of the hand piece and the lighter is located a plate 16 composed of porcelain or other suitable material which is both non-combustible and an insulator. Contact 13<sup>a</sup> is connected with part 10 of the divided contact plate by a conductor 17, while the other part 10<sup>a</sup> of this plate is connected with the circuit wire 18 by a binding screw 19. The opposite contact 13 is electrically connected with the other circuit wire 18<sup>a</sup> in any suitable manner. As shown in the drawings these two parts are connected by a column 20 of some suitable high-resistance material. This rheostat will be necessary when the device is located in a circuit carrying a high voltage current, as an incandescent-light current, to prevent the fusing out of the lighter 15. When, however, the electro-motive force of the current is low, as when a battery current is employed, the contact 13 should be connected with the circuit wire 18<sup>a</sup> by a metallic or other good current conductor.

It is evident that my improved cigar lighter may be located in any suitable circuit. When not in use it may be supported on a forked hook engaging the shoulder 25 formed on the hand piece between the top and body part in a position handy for use, or it may be suspended in a suitable position supported only by the circuit wires. In any event it is first grasped by the hand, which act presses the two parts 5<sup>a</sup> and 5<sup>c</sup> together, forcing projection 9<sup>a</sup> into space 12 and closing the circuit.



The end of the cigar is then applied to the lighter which becomes incandescent by the action of the current.

Having thus described my invention, what I claim is—

1. In an electric cigar lighter a two-part insulating hand-piece, the parts being hinged together, a spring attached to the inner surface of the one part, bearing against the adjacent surface of the other part and normally separating the two parts, a divided contact plate located also on the inner surface of one part, an exposed lighter having its extremities connected with conductors 13 and 13<sup>a</sup> located in one extremity of the hand piece, a conductor connecting one of these contacts with one part of the divided contact plate, the other part of said plate being connected with one of the circuit wires, the other part 13 being electrically connected with the other circuit wire, substantially as described.

2. In an electric cigar lighter a two part insulating hand-piece, the parts being hinged together, a spring contact attached to the inner surface of the one part, bearing against the adjacent surface of the other part and

normally separating the two parts, a divided contact plate located also on the inner surface of one part, an exposed lighter having its extremities connected with conductors 13 and 13<sup>a</sup> located in one extremity of the hand piece, a conductor connecting one of these contacts with one part of the divided contact plate, the other part of said plate being connected with one of the circuit wires, the other contact 13 being connected with the other circuit wire by a column of high-resistance material located in the hand piece, substantially as described.

3. An electric cigar lighter consisting of a divided hand piece, the parts being normally held in such relative position as to break the circuit, one part of the handle being provided with a column of high resistance material located in the circuit, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM P. CARSTARPHEN, JR.

Witnesses:

WM. MCCONNELL,  
C. A. HULL.