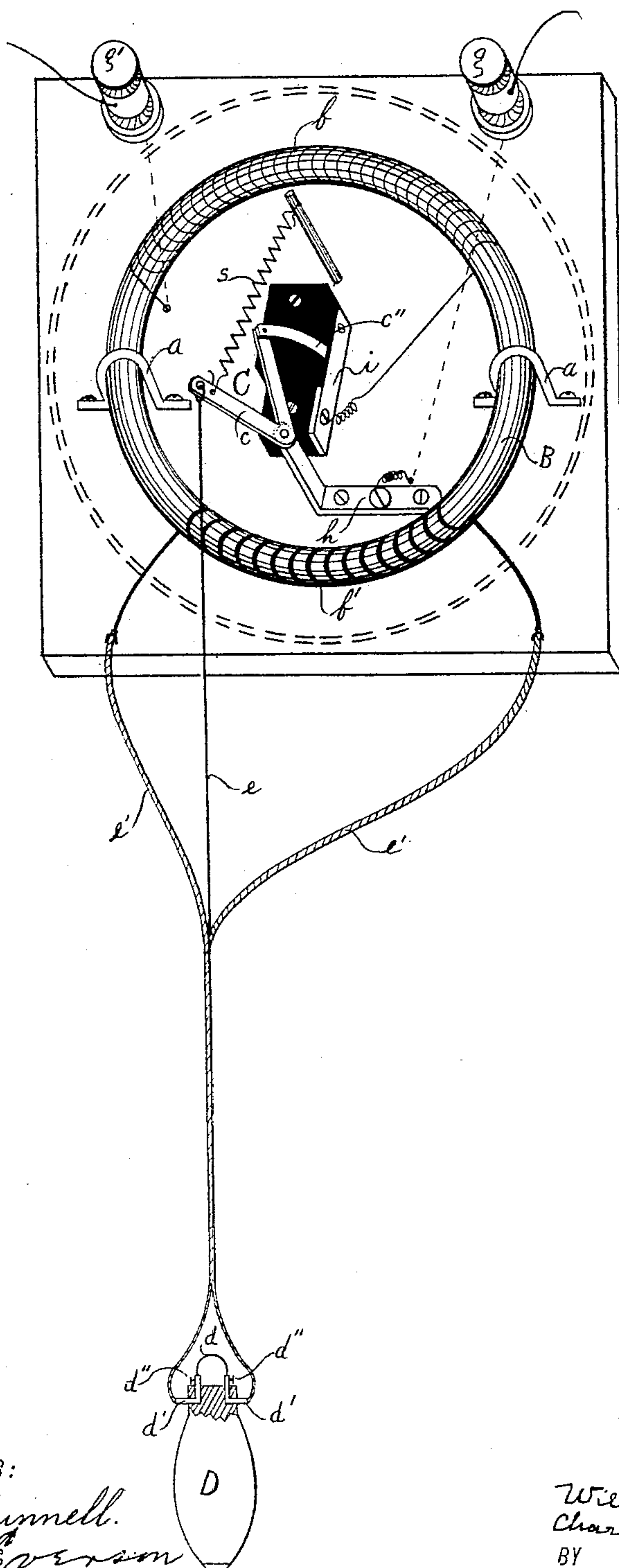


(No Model.)

W. CARTER & C. E. WILLEY.
ELECTRIC CIGAR LIGHTER.

No. 495,929.

Patented Apr. 18, 1893.



WITNESSES:

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WILLIAM CARTER AND CHARLES E. WILLEY, OF LOUISVILLE, KENTUCKY.

ELECTRIC CIGAR-LIGHTER.

SPECIFICATION forming part of Letters Patent No. 495,929, dated April 18, 1893.

Application filed July 18, 1892. Serial No. 440,420. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM CARTER and CHARLES E. WILLEY, of Louisville, in the county of Jefferson, in the State of Kentucky, have invented new and useful Improvements in Electric Cigar-Lighters, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

10 This invention relates to improvements in electric heating and lighting devices, and consists in peculiarities hereinafter more fully pointed out and specifically referred to in the claims.

15 In the annexed drawings we have shown a perspective view of our invention applied to a cigar lighting device, though it may also be used, in general features, in connection with soldering tools or in points for pyrogravure work without materially departing from the spirit of our invention, by means of which we utilize an alternating current in an economical and practicable manner, whereby the main or primary circuit is only closed at such times as it is desired to utilize the resultant heat for the purpose to which our invention is applied.

20 In the annexed drawings —A— is a suitable base to which are secured the other parts of our device, and we now describe the operation and relation of the several parts.

25 On the base —A— are two binding posts —g'—g—, from the former of which runs the primary coil —b— around the core B of the converter to the metallic plate —i— which forms part of the switch, while the opposite end runs from the binding post —g— to the base —h— of the movable switch section —C— to one arm —c— of which is connected a cord or other suitable suspension device —e— which carries a weighted piece —D—, and to which also runs the low tension current through the wires —e'—, and from them to retaining devices —d'—d'— attached to said weighted piece, and held by said retaining pieces —d'— is a suitable incandescing body held therein by set screws or any other suitable means.

30 It will be observed that the switch —C— which controls the primary, or high tension current, is held normally open by the weight —D— drawing the arm —C'— of the same

from the contact plate —i—, and that as soon as the weight is raised the spring —S— will draw the two parts of the switch —C— together and close the primary circuit, immediately upon which the secondary, or low tension current, will be developed and the body —d— will be raised to incandescence, when it may be used as a cigar lighter or for any other suitable purpose.

35 It will be observed that we can use our invention for a variety of purposes, and we do not desire to limit ourselves to the specific construction we have shown, as a variety of points may be used in place of the piece —d— and different degrees of heat developed therein, and that a great variety of styles of switch may be used to accomplish the same purpose as will be readily apparent to the expert.

40 In order that it may be readily renewed, the incandescing body —d— is removably held in the retaining nipples —d'— by means of the set-screws —d''—. It being essential that the resistance in the secondary circuit —e'— be as low as possible the terminals of the coil —b'— are soldered to the conductors —e'— and they are in turn soldered to the nipples —d'—.

45 The operation of our improved device is as follows: The holder —D— being raised the weight is removed from the cord —e— and the spring —S— acts to bring the contact spring —c''— into contact with the contact block —i— thus completing the primary circuit which is a high tension alternating current, which induces a current of lower tension, but of greater quantity in the coil —b'— which traverses the conductors —e'— and body —d— and raises said body to a high point of incandescence at which time it may be applied to a cigar or other object which it may be desired to ignite. On releasing the weighted holder —D— its weight will act against the spring —S— withdrawing —c''— from the contact block —i—, thus breaking the primary circuit and rendering the body —d— inactive.

50 Having described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a device of the described character, a converter, or inductorium, a primary coil for the high tension alternating current and a sec-

ondary coil for the induced low tension current wound thereon, a switch in the circuit of the high tension current, a body capable of being raised to incandescence in the circuit
5 of the secondary coil, a weighted holder carrying said incandescing body, a connected hanger carrying said weighted holder from said switch and holding the same normally open, and means for closing the switch upon
10 raising said weight from its normal position, substantially as specified.

2. In a device of the described character, the combination of a suitable support having a converter or transformer of electric energy
15 secured thereto, the primary coil —b— the

switch —C— in the circuit of said primary coil, a holder suspended from a switch lever, a suitable suspending device supporting said holder, retaining devices in said holder, an incandescing body carried by said holders, conductors—e'—, secondary coil—b'—and spring
—S— connected with said switch, substantially as specified. 20

In testimony whereof we have hereunto set our hands this 2d day of July, 1892.

WILLIAM CARTER.

CHARLES E. WILLEY.

Witnesses:

FREDERICK H. GIBBS,

H. H. SENG.