(No Model.)

J. J. EBERHARD & C. G. SCHIMKATT.

ELECTRIC CIGAR LIGHTER.

No. 522,934. Patented July 10, 1894.

Fig. 1.

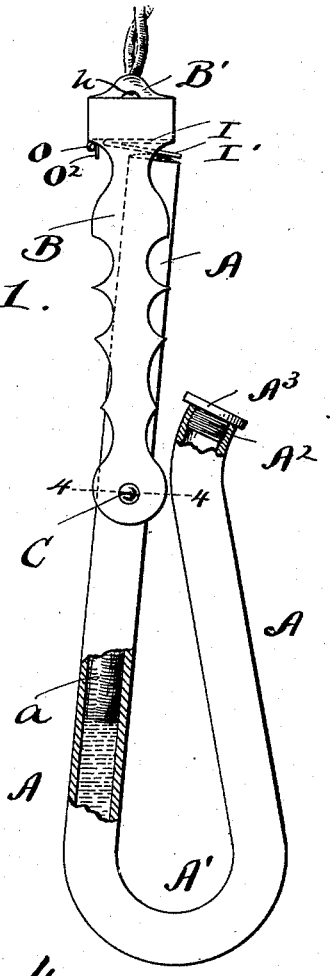


Fig. 2.

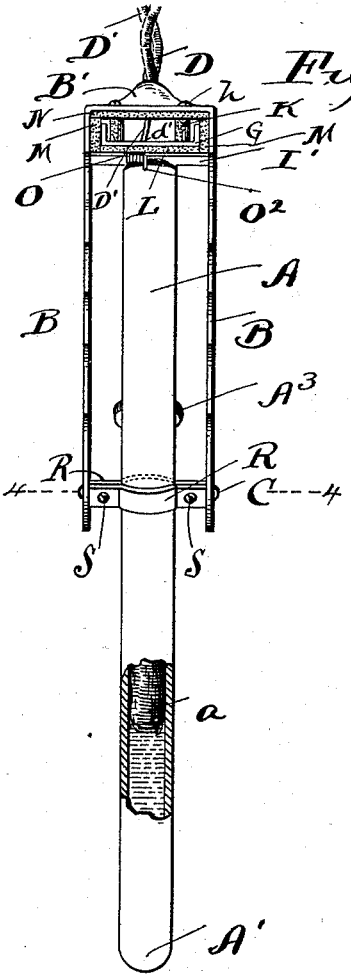


Fig. 4.

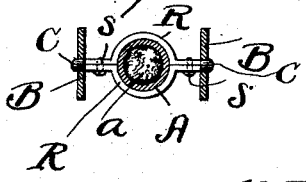
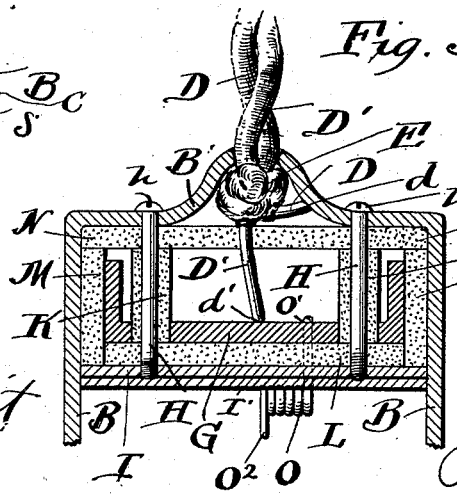


Fig. 3.



Witnesses.
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UNITED STATES PATENT OFFICE.

JOHN J. EBERHARD AND CARL G. SCHIMKATT, OF FREMONT, OHIO, ASSIGNORS TO THE UNITED STATES ELECTRIC LAMP LIGHTER COMPANY, OF DETROIT, MICHIGAN.

ELECTRIC CIGAR-LIGHTER.

SPECIFICATION forming part of Letters Patent No. 522,934, dated July 10, 1894.

Application filed September 25, 1893. Serial No. 486,422. (No model.)

To all whom it may concern:

Be it known that we, JOHN J. EBERHARD and CARL GUSTAVE SCHIMKATT, of Fremont, in the county of Sandusky and State of Ohio, have invented certain new and useful Improvements in Electric Cigar-Lighters; and we do hereby 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 pertains to make and use the same.

Our invention relates to improvements in electric cigar-lighters; and it consists in certain features of construction and in combinations of parts hereinafter described and pointed out in the claims.

A preferable construction embodying our invention is illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the lighter, portions being broken away and in section to more clearly show the construction. Fig. 2 is a front side elevation of the lighter, or left hand side elevation relative to Fig. 1, portions being broken away and in section to more clearly show the construction. Fig. 3 is an enlarged elevation in section hereinafter more fully described. Fig. 4 is a top plan in section on line 4—4, Figs. 1 and 2.

Referring to the drawings, A represents a lamp preferably composed of a metallic, or electric current conducting, tube open at its upper end for receiving a wick or suitable absorbent and inflammable material, *a*. The remaining portion of the tube is bent to form a loop or handle, A′, that serves as a reservoir for receiving the oil or liquid fuel, said reservoir having a nozzle A^2 for filling purposes, a cap or plug A^3 being provided for said nozzle. The lamp is pivotally hung, as at C, between a pair of arms or brackets, B, that are suitably connected at the top by a cross-member, B′, suspended from the ceiling or support overhead by means of the insulated wires D and D′ that lead from the two terminals of an electric battery or other electric source (not shown). Members B B and B′ are preferably composed of a single piece of metal or conducting material, forming a U-shaped frame. Upon the insulating material that incloses one or both of the electric-wires is preferably formed a knot, E, that engages the under side of the central portion of and thereby supports cross-member B′, the latter being preferably bent upwardly at that point to more conveniently accommodate the location of said knot and other parts hereinafter described. The one electric wire, namely, wire D, electrically connects with member B′, as at *d*, member B′, through supporting-arms or brackets B, and the pivotal bearings of the lamp, having electrically connected therewith the wick-holding tube of the lamp. The other electric wire D′ electrically connects with an electric-current conducting-plate, G, suitably supported a suitable distance below member B′, preferably from screws, H, the heads *h* whereof engage the upper side of member B′, and the shanks of the screws extend through said conducting-plate and screw into an extinguishing-plate I located below the conducting-plate and hereinafter more fully described. Said conducting-plate is electrically insulated from supporting arms or brackets B, and consequently from the lamp, insulating-bushings K being mounted upon the supporting-screws where the latter extend through the conducting-plate, insulating material L being interposed between the conducting and extinguishing-plates, insulating-material M being interposed between the flanged edges of the conducting-plate and the supporting-arms or brackets, and insulating material N lining the under side of cross-member B′. By the construction just described, the conducting-plate is effectually insulated from the lamp. A spring O suitably supported, is electrically connected with the conducting-plate a suitable distance in advance of the aforesaid extinguishing-plate (see Figs. 1 and 2), said spring being preferably of the coiled variety with the one end of the coiled portion electrically connected with the conducting-plate, as at O′, and the other end projecting downwardly into the path of the upper extremity of the wick-holding tube of the oscillating or swinging lamp, as at O^2, the arrangement of parts being such

that, normally, the lamp hangs in position with the upper end of the wick-holding tube rearward of the aforesaid contact-spring, so that upon oscillating or actuating the lamp forwardly upon its pivotal bearings, the upper end of the wick-holding tube thereof makes and breaks contact with the contact-spring first closing and thereupon interrupting the electric circuit, resulting in the production of an electric-spark that establishes the ignition of the wick or absorbent and inflammable material of the lamp.

The extinguishing-plate I hereinbefore referred to, as already indicated, is supported by means of screws H. It is located at the rear of the contact-spring O and has a downwardly and rearwardly extending incline or arc-shaped member I, (see Fig. 1) located just outside of the path of the upper extremity of the wick-holding tube of the lamp, so that when the lamp is released after use, and thereupon swings rearwardly by gravity, the light thereof will swing in under and close to the incline or arc-shaped member of the extinguishing-plate, and be extinguished thereby.

Another feature of considerable importance consists in the adjustability of the lamp, relative to the contact-spring, so that proper contact shall be made between said spring and lamp in the operation of the device. A preferable construction for the purpose is exhibited very clearly in Figs. 1, 2 and 4 wherein the pivotal bearings of the lamp are a part of two clamp-sections R R, that embrace opposite sides of the wick-holder of the lamp, respectively, and are caused to clamp said holder by tightening screws or bolts S S that extend through the clamp-sections on diametrically opposite sides of the holder, respectively. By loosening said securing-screws or bolts the clamp releases or loosens its grip on the lamp, whereupon the latter can be adjusted vertically to bring the upper extremity of the wick-holding tube in the position required relative to contact-spring O.

What we claim is—

1. In an electric cigar lighter a suitably supported framework carrying a contact device, and comprising the cross bar, the depending hangers, the lamp pivoted to the lower end thereof also carrying a contact device adapted in the swinging of the lamp to engage with the contact device on the framework; substantially as described.

2. An electrical cigar lighter, comprising arms or brackets B connected at the top by a cross member B′, electrically connected with one terminal of a source of electricity, an insulated conducting plate supported a suitable distance below member B′ and in electrical connection with the other terminal, a contact spring in electric connection with the conducting plate, a lamp pivotally hung between the aforesaid arms or brackets, said lamp being electrically connected with the supporting arms or brackets and comprising a wick holder normally out of contact with said contact spring, the arrangement of parts being such that the upper extremity of the wick holder shall upon the oscillation or vibration of the lamp make and break contact with the aforesaid contact spring; substantially as described.

3. An electric cigar lighter, comprising a lamp having an oscillating or vibrating wick-holder whose upper extremity is composed of electric current conducting material electrically connected with the wire leading from one of the poles or terminals of an electric battery or electric source, and a contact device electrically connected with the wire leading from the other pole or terminal of the battery or electric source, but normally insulated from the wick-holder, two clamp sections engaging opposite sides of the lamp, respectively, and pivotally supported, and suitable means for loosening and tightening the clamp sections upon the lamp to enable the latter to be adjusted and held in the required adjustment relative to the aforesaid contact device, the arrangement of parts being such that the upper extremity of the wick-holder shall be capable of being swung or actuated to make and break contact with the aforesaid contact-device, substantially as and for the purpose set forth.

4. In an electric cigar lighter, supporting arms or brackets B, B, suspended by means of one or both of the wires leading from the poles or terminals of an electric battery or electric source, an insulated electric current conducting plate suitably supported between the upper ends of said arms or brackets, the two wires leading from the poles or terminals of the battery or electric source being electrically connected with the supporting arms or brackets and said conducting plate, respectively, a contact spring electrically connected with said conducting plate and a lamp pivotally hung between the lower ends of the supporting arms or brackets, said lamp comprising a reservoir and wick-holder electrically connected with the supporting arms or brackets, the arrangement of parts being such that the upper extremity of the wick-holder shall, upon the oscillation or vibration of the lamp, make and break connection with the aforesaid contact spring, substantially as and for the purpose set forth.

5. In a cigar lighter, the combination, with a frame comprising a cross-bar and two depending members, of a lamp pivotally and adjustably secured at the lower ends of said members, the center of gravity of the lamp being below the pivotal point, and means for automatically forming an electrical spark when the end of the lamp and the frame are disconnected, substantially as set forth.

6. In a cigar lighter, the combination, with a frame comprising a cross-bar and two depending members, of a lamp pivotally secured at the lower ends of said members, the cross-bar of the frame being provided with an inclined extinguishing plate and the up-

per end of the lamp being cut at an angle whereby the light of the lamp is extinguished when the end of the lamp passes under the extinguishing plate, and means for automatically forming an electrical spark when the end of the lamp passes out from under the plate, substantially as set forth.

7. In a cigar lighter, the combination, with a contact device electrically connected with an electrical source of supply, of a vibratory lamp electrically connected with the source of supply and normally insulated from the contact device, said contact device constructed with arms or brackets B, B, a cross member B′ connecting said arms at the top and having an insulated electrical conducting plate supported beneath the member B′, and a contact spring electrically connected with said conducting plate, substantially as set forth.

In testimony whereof we sign this specification, in the presence of two witnesses, this 15th day of July, 1893.

JOHN J. EBERHARD.
CARL G. SCHIMKATT.

Witnesses:
LESTER WILSON,
V. D. BUTMAN.