

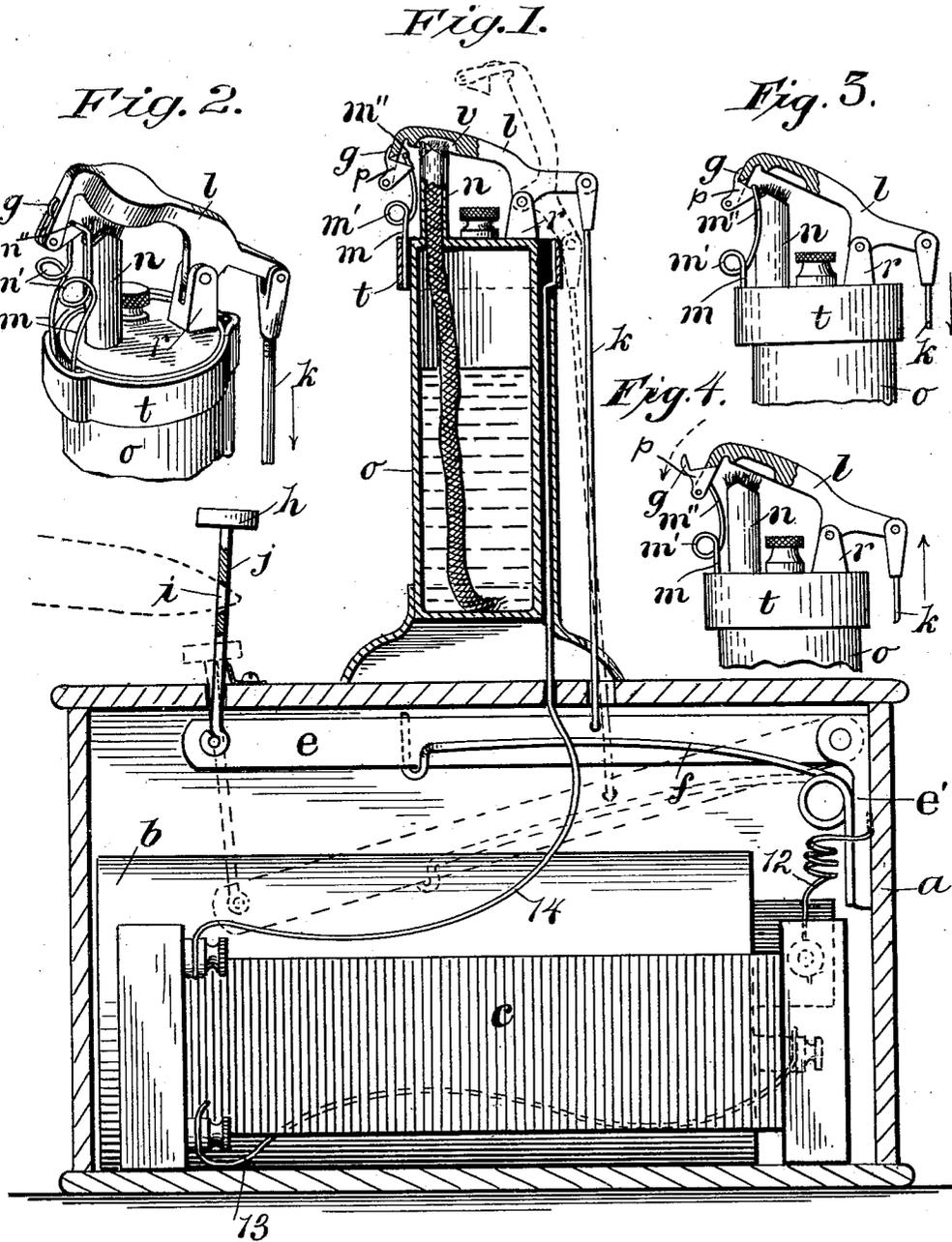
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C. J. BROSAN.
ELECTRIC CIGAR LIGHTING APPARATUS.

(Application filed Dec. 3, 1900.)

(No Model.)



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CORNELIUS J. BROSAN, OF SPRINGFIELD, MASSACHUSETTS.

ELECTRIC CIGAR-LIGHTING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 686,583, dated November 12, 1901.

Application filed December 3, 1900. Serial No. 38,406. (No model.)

To all whom it may concern:

Be it known that I, CORNELIUS J. BROSAN, a citizen of the United States of America, residing in Springfield, in the county of Hampden and State of Massachusetts, have invented certain new and useful Improvements in Electric Cigar-Lighting Apparatus, of which the following is a specification, reference being had to the accompanying drawings and characters of reference marked thereon.

The object of my invention is to provide a simple and inexpensive portable device by which a light can be quickly generated from an electric spark and a device in which the flame will automatically be extinguished.

My object is, further, to provide a construction wherein a spark will be made at the burner only when it is desired to light the torch; and my invention comprises such further details of construction, arrangement, and operation as will be hereinafter particularly described with reference to the accompanying drawings and then pointed out in the claims.

In the accompanying drawings, representing an apparatus embodying my invention in my preferred form, Figure 1 is a vertical section, certain parts being shown in plan. Fig. 2 is a perspective view of the upper part of the device. Figs. 3 and 4 are side elevations of the parts shown in Fig. 2, showing the moving parts in different relative positions.

Throughout the several views, *a* indicates a suitable case containing the dry battery *b* and the spark-coil *c*. A lever *e* is pivoted at one end of the box and has a spring-arm *f*, tending to retain it in its uppermost position. A rod *j* is connected to one end of the lever *e* and projects upward through an aperture in the top of the case and has a cap *h* at its upper end, by which the lever can be depressed. The rod *j* may have an aperture in which a cigar-tip may be inserted and cut off when the rod is depressed. A vessel *o* is secured to the top of the case for containing a supply of burning fluid. A burner-tube *n* projects from the top of the vessel *o* and contains the wick. A lever *l* is pivoted by an intermediate part on a support *r* on the top of the vessel *o* and has a rod *k* connecting one end with the lever *e* in the case, by which the lever *l* is moved from the position shown in full lines in Fig. 1 to the position indicated by dot-

ted lines when the rod *j* is depressed by the finger. When the latter is released, the spring *f* will return the lever *l* to its former position.

A spring contact device *m* is secured to the top of the vessel *o* opposite to the burner *n* by a collar *t*, but is insulated from the vessel. This device may consist of a substantially U-shaped spring wire or rod secured by its extremities and having one or more coils *m'* in each leg. The transverse portion *m''* of the spring is located opposite the free end of the burner *n* and normally a short distance therefrom, as shown in Fig. 1.

A latch *p* is pivoted in a slot in the one end of the lever *l*. It has a lug *g*, that engages the lever and retains the latch normally in the position in which it is shown in Fig. 1, with the point of the angular part of the latch lying under the end of the spring contact device. The end of the flat top of the latch engages the end wall of the slot in the lever, and thus limits its swing in the opposite direction, or away from the burner.

The current from one pole of the battery passes through wire 12 to the support *e'* of the lever *e*, then through lever *e*, rod *k*, and lever *l* to the latch *p*. From the other pole of the battery the current passes through wire 13 to one pole of the spark-coil, thence from the other pole of the latter by wire 14 to collar *t* and contact-spring *m*. Thus it will be seen that the latch *p* and the spring *m* are connected with opposite poles of the battery and if caused to engage and then separate will produce a spark.

The operation of my device is as follows: When the rod *j* is depressed by the finger, the lever *e* and rod *k* will move the latch end of the lever *l* upward toward the position shown in dotted lines in Fig. 1. The upper edge of the angular part of the latch will first engage the transverse free end of the contact-spring *m* and force the latter over into close proximity to the free end of burner *n*, as shown in Figs. 2 and 3, and then a further movement of the lever will cause the latch to release the spring, and thus make a spark in very close proximity to the wick, which will ignite the wick. A cavity *v* is formed in the lever *l* and serves to collect and retain a small amount of vapor from the burning fluid in the wick, which will assist in igniting the wick.

When released, the spring *m* will return to its normal position. On the removal of pressure on the rod *j* the spring *f* will return the lever *l* to its normal position. During this latter movement the latch will strike the transverse part of the spring *m*, which latter will spring, engage the lower edge of the angular part of the latch, and move it to the position shown in Fig. 4. When it passes downward beyond the end of the spring *m*, the latch will fall by gravity to its normal position under the end of spring contact device. Thus the tendency to spark on the return movement of the lever and latch will be reduced to a minimum, and no spark can be made in proximity to the end of the burner.

Having thus described my invention, what I claim is—

1. In a device of the character described, the combination of a burner, a spring contact device arranged with its free end normally a short distance from the burner, the contact device being connected with an electric terminal, a lever having a latch pivoted thereon, the lever being connected with an electric terminal of opposite polarity from said terminal, said lever and latch being so disposed relative to the burner that the movement of the lever in one direction will first cause the latch to strike the contact device and move it into close proximity to the free end of the burner and then cause the latch to release the contact device and thus make a spark in close proximity to the burner, said latch being arranged to impinge on the contact device and thereby be swung on its pivot without causing said movement of the contact device toward the burner when the lever is returned to its former position.

2. In a device of the character described, the combination of a burner, a spring contact device arranged with its free end normally located a short distance from the free end of the burner, the spring being connected with an electric terminal, a lever connected with an electric terminal of opposite polarity to said terminal, a latch pivoted on the lever and having an angular portion extending normally toward the burner, said lever and latch being so arranged relative to the contact-spring that the movement of the lever in one direction will first cause one of the edges of the angular part of the latch to strike the contact-spring and move it into close proximity to the free end of the burner and then cause the latch to release the contact device thus causing a spark in close proximity to the burner,

said latch when the lever is returned to its former position having the other edge of said angular portion arranged to impinge on the contact-spring and thereby be swung on its pivot away from said spring.

3. In a device of the character described, the combination of a burner, a substantially U-shaped spring secured by its extremities and having its transverse portion located a short distance from the free end of the burner, the spring being connected with an electric terminal, the lever having a latch pivoted thereon, the lever being connected with an electric terminal of opposite polarity from said terminal, said lever and latch being so disposed relative to the burner that the movement of the lever in one direction will first cause the latch to strike the contact device and move it into close proximity to the free end of the burner and then cause the latch to release the contact device and thus make a spark in close proximity to the burner, said latch being arranged to impinge on the contact device and thereby be swung on its pivot without causing said movement of the contact device toward the burner when the lever is returned to its former position.

4. In a device of the character described, the combination of a burner, a substantially U-shaped spring secured by its extremities and having its transverse portion located a short distance from the free end of the burner, the spring being connected with an electric terminal, a lever connected with an electric terminal of opposite polarity to said terminal, a latch pivoted on the lever and having an angular portion extending normally toward the burner, said lever and latch being so arranged relative to the contact-spring that the movement of the lever in one direction will first cause one of the edges of the angular part of the latch to strike the contact-spring at its transverse part and move the latter into close proximity to the free end of the burner and then cause the latch to release the contact device thus causing a spark in close proximity to the burner, said latch when the lever is returned to its former position having the other edge of said angular portion arranged to impinge on the transverse part of the contact-spring and thereby be swung on its pivot away from said spring.

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