

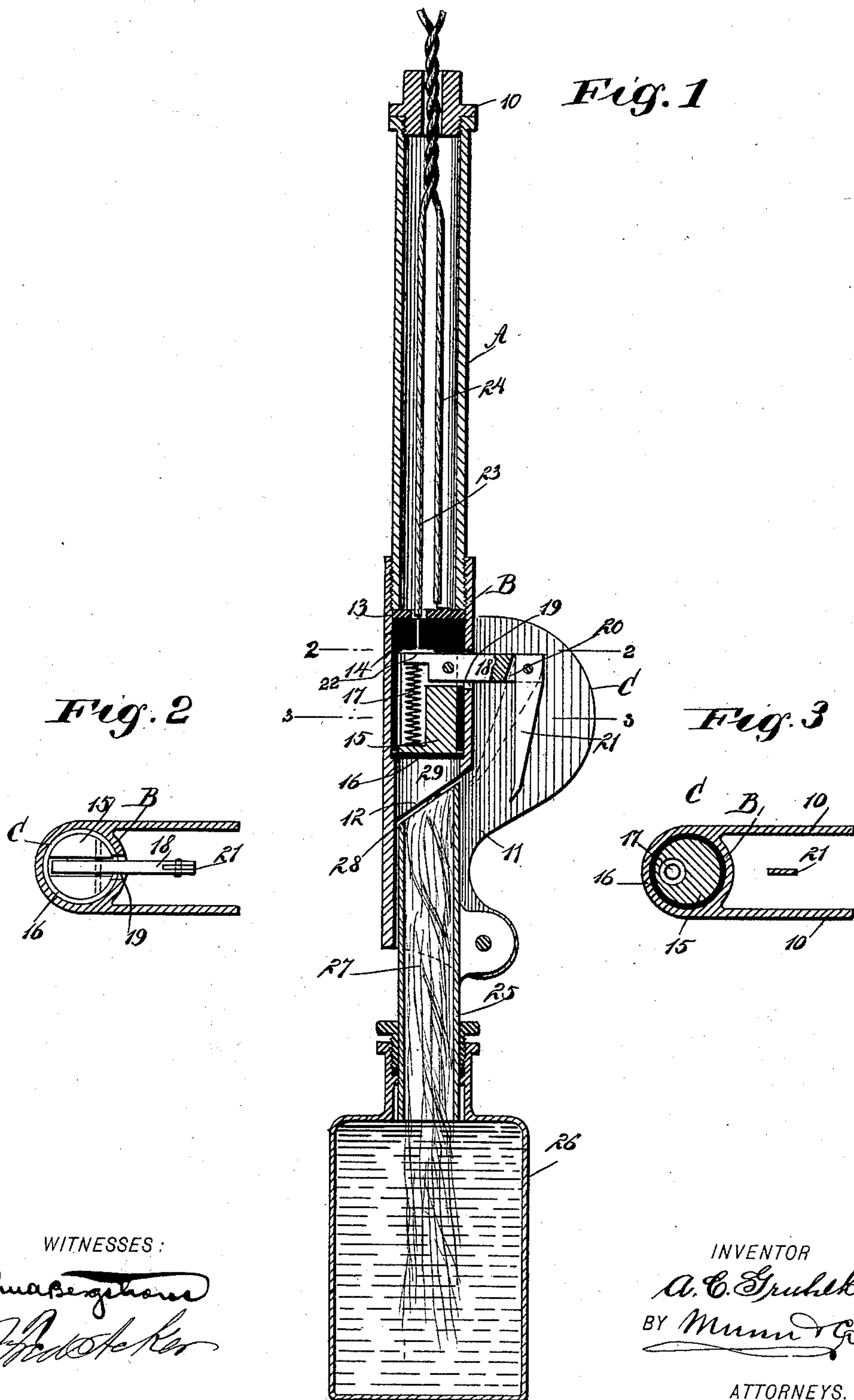
No. 613,140.

Patented Oct. 25, 1898.

A. C. GRUHLKE.
CIGAR LIGHTER.

(Application filed Jan. 19, 1898.)

(No Model.)



UNITED STATES PATENT OFFICE.

AUGUSTUS C. GRUHLKE, OF WATERLOO, INDIANA, ASSIGNOR TO HIMSELF,
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CIGAR-LIGHTER.

SPECIFICATION forming part of Letters Patent No. 613,140, dated October 25, 1898.

Application filed January 19, 1898. Serial No. 667,149. (No model.)

To all whom it may concern:

Be it known that I, AUGUSTUS C. GRUHLKE, of Waterloo, in the county of De Kalb and State of Indiana, have invented a new and Improved Cigar-Lighter, of which the following is a full, clear, and exact description.

My invention relates to an improvement in cigar-lighters adapted to be suspended from the ceiling or an equivalent support and to hang in proximity to a show-case, for example, the lighter being especially adapted for use in stores or in other places where cigars are retailed.

The object of the invention is to provide a lighter of the above-mentioned character which will be simple, durable, and economic and which may be automatically lighted by an electric spark when the lighter is drawn toward the person desiring the light and whereby when the lighter is released the flame will be instantly extinguished.

A further object of the invention is to so construct the lighter that the electric current cannot be short-circuited and whereby the lighter may be operated in a strong current of air as successfully as when removed from drafts of air.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a longitudinal vertical section through the improved lighter. Fig. 2 is a horizontal section taken substantially on the line 2 2 of Fig. 1, and Fig. 3 is a similar section taken practically on the line 3 3 of Fig. 1.

A represents a tube which may be of any desired length, the said tube having a tubular cap 10 applied in any suitable or approved manner to its upper end. The tube A is connected at its lower end with a second tube B, of less length than the tube A, the said shorter tube being attached to a shield C, which shield comprises two opposing wings suitably connected at one of their edges, the shield C being adapted to protect the flame of the lighter from drafts or currents of air.

The lower end of the shorter and lower tube B is beveled, as shown at 12 in Fig. 1, and the upper or main tube A bears at its lower end upon a metallic washer 13, which is snugly fitted in the lower tube B at a point near its upper end. Below the metallic washer 13 a washer or a block 14 of an insulated material is secured, and below the block of insulated material a metallic block 15 is located within the lower tube, the metallic or conducting block 15 stopping short of the lower end 12 of the said lower tube. The metallic block 15 is inclosed within a non-conducting packing 16, which may be, for example, of mica, and an angular slot is made in the said conducting-block 15, in the vertical portion of which slot a spring 17 is placed, having bearing upon the under surface of the inner end of a lever 18, pivoted in the horizontal section of the slot of the conducting-block 15, as shown in Figs. 1 and 2. The lever 18 extends outward between the wings or sides 11 of the shield C through a suitable opening 19, made in the lower tube B, as is also shown in Figs. 1 and 2. A longitudinal recess 20 is made in the outer end of the lever 18, the rear or back wall of the said recess being downwardly and inwardly inclined, as shown in Fig. 1.

A spark-point or tongue 21 is pivoted in the recess 20. The tongue 21 is operated by gravity and is made to approach the lower end 29 of the lower tube B, but cannot engage with the said tube, as indicated by dotted lines in Fig. 1, so that the electric current which is applied to the device, as will be hereinafter described, cannot be short-circuited.

A contact-plate 22 is located in the non-conducting-block 14, occupying such a position that it may engage with the heel of the lever 18 and be in electrical contact therewith, the said heel being held in engagement with the contact-point by the spring 17. The main function of the spring 17, however, is to maintain the lever 18 in a horizontal position, but permitting the lever to oscillate, and thus press the tongue 21 tightly against the top of the nozzle of the lighter when the lighter is opened, the lighter and its nozzle being hereinafter described. An insulated conducting-wire 23 is attached to the contact plate or point 22,

and a second insulated conducting-wire 24 is attached to the metallic washer 13, the two wires being carried up through the opening in the cap 10 to any generating device—as, for example, a battery. The wires after passing through the cap 10 are preferably twisted together and may be utilized as supports for the lighter. It is obvious, therefore, that the circuit will be through the tubes A and B to the shield and any style of conductor that may be attached to the shield and to the lever 18 and tongue 21. A receptacle 26 is provided to contain an illuminating fluid and supply it to the point. This receptacle is provided with a nozzle 25, which is pivotally connected with the front lower portion of the shield, and in the normal position of the receptacle or “lamp” 26, as it may be termed, the upper end of the nozzle 25, which is beveled, as shown in Fig. 3, will be in close contact with the lower beveled edge of the body-tube B, the two edges 12 and 28 coinciding. It will be observed that a chamber 29 is formed at the bottom portion of the body-tube B and that this chamber is immediately over the nozzle 25 of the lamp, which contains a suitable wick 27.

In the operation of the device the lighter is suspended from the ceiling or from any desired support and within reach of a person desiring a light. The reservoir or receptacle 26 is filled with gasolene or other burning liquid capable of saturating the wick 27, and more or less vapor will at all times be present in the chamber 29 and held therein by the engagement of the nozzle 25 with the bottom of the chamber. The person desiring the light will grasp the oil-receptacle 26 and draw the said receptacle toward him. In doing so the upper edge of the spout of the receptacle will be brought in engagement with the tongue 21, which will gravitate toward the said spout, and when the contact between the tongue and the spout has been effected the electric circuit will be closed, a spark will result, and the spark will ignite the gases in the chamber 29 and effect a quick ignition of the volatile fluid saturating the wick. The moment the receptacle 26 is released and the parts are returned to their normal position the circuit will be broken and the flame will be extinguished by reason of the nozzle being brought beneath the chamber 29 and the supply of air cut off.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. An electric cigar-lighter, comprising two principal parts, a lamp and a shield, which are pivoted together, the shield surrounding the upper end of the wick-holder and having a gas-chamber formed therein normally covering the exposed end of the lamp-wick, a contact-point supported from the shield and nor-

mally insulated from the lamp and in the path of the swing of the wick-holder, and means for connecting the lamp and contact-point with opposite sides of a battery or other source of electricity, substantially as described.

2. In a cigar-lighter, the combination, with a body, a pivoted tongue carried by the body, the body having a gas-chamber near its lower end, and a shield within which the said tongue is located, of a receptacle the spout of which is a conductor of electricity, the spout being pivotally connected with the said shield below the said chamber and in the path of the said tongue, and conducting-wires for connection with a generator of electricity, the wires forming a circuit within which the spout and the said tongue are included, for the purpose specified.

3. In a cigar-lighter, the combination, with a tube provided with a metal washer, an insulated block below the said washer, a lever which is a conductor of electricity pivoted in the said block, and a tongue carried by the said lever, the said tube being provided with a gas-chamber below the said plug, of a receptacle, a spout for the same, the said spout being a conductor of electricity and pivotally connected with the said body, a portion of the spout being adapted for engagement with the said tongue, conducting-wires one of which is connected with the said metallic washer, the other wire being connected with the said lever, and means for holding the said lever in engagement with the wires with which it is to contact, for the purpose set forth.

4. In a cigar-lighter, the combination, with a body, a lever carried by the said body, and a tongue pivotally connected with the said lever, being limited in its movement in direction of the said body, of a receptacle, a spout for the same, the spout being a conductor of electricity and being pivotally connected with the said body, the said body being provided with a gas-chamber above the said spout, and conducting-wires connecting with the body and with the said tongue, as described.

5. In a cigar-lighter, the combination, with a body, a lever carried by the said body, and a tongue pivotally connected with the said lever, being limited in its movement in direction of the said body, of a receptacle, a spout for the same, the said spout being a conductor of electricity and being pivotally connected with the said body, the said body being provided with a gas-chamber above the said spout, conducting-wires connecting with the body and with the said tongue, and a shield connected with the body, and within which the said pivoted tongue is located, as and for the purpose specified.

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Witnesses:

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