R. W. SENCENBAUGH.

CIGAR LIGHTER AND IGNITION SYSTEM.

APPLICATION FILED MAY 4, 1918.

1,326,215. Patented Dec. 30, 1919.

FIG. 1.

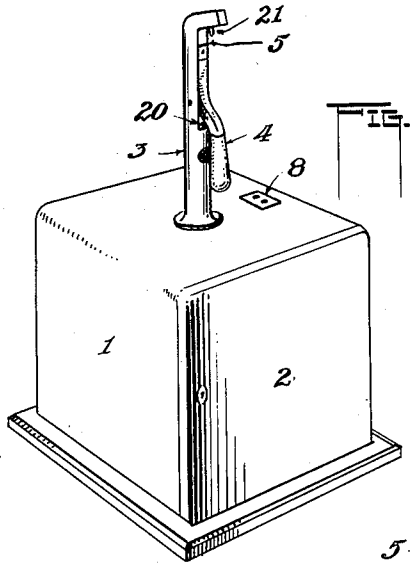


FIG. 2.

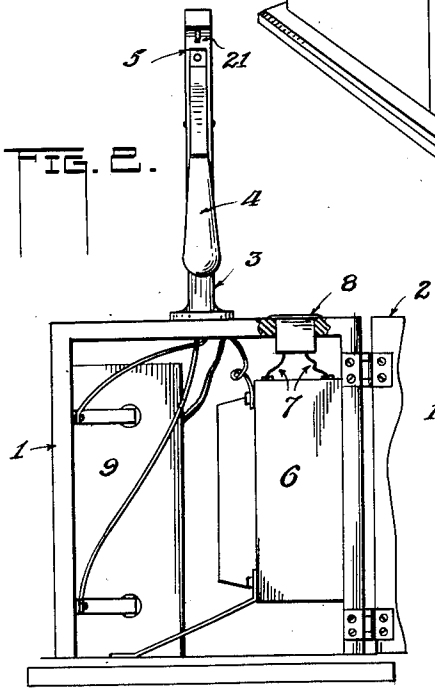
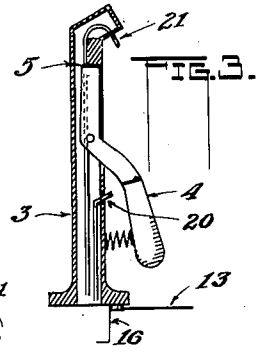


FIG. 3.



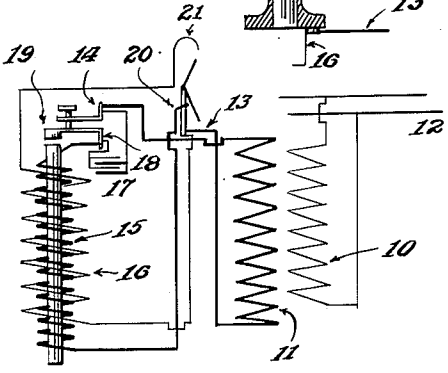


FIG. 4.

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UNITED STATES PATENT OFFICE.

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CIGAR-LIGHTER AND IGNITION SYSTEM.

1,326,215. Specification of Letters Patent. Patented Dec. 30, 1919.

Application filed May 4, 1918. Serial No. 232,557.

To all whom it may concern:

Be it known that I, REX W. SENCENBAUGH, a citizen of the United States, residing at Washington, in the county of Tazewell and State of Illinois, have invented certain new and useful Improvements in Cigar-Lighter and Ignition Systems; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to a new and novel form and arrangement of cigar lighter.

The object of the invention is the provision of a cigar lighter using a vapor to be ignited, with which is included an ignition system for attachment to an electric lighting circuit.

To the end that the invention may be understood, I have provided the accompanying drawing, wherein,

Figure 1 shows my improved cigar lighter in perspective;

Fig. 2 is a front elevation of the same showing its interior, a transformer and a spark coil being shown therein;

Fig. 3 is a sectional elevation of the lighter, being constructed somewhat after the present-day forms; and,

Fig. 4 is a diagram indicative of one of the circuits that may be used in the cigar lighter.

1 indicates a cabinet preferably provided with a door or closure 2. Mounted upon the cabinet is a standard 3 nickeled or otherwise nicely finished so as to present a neat and attractive appearance, within which is pivoted a lever-arm or contact piece 4 furnished with the usual wick 5, depending into the handle which is usually hollow (not shown) and furnished with the desired combustible fluid, such, for example, as benzin, or gasolene.

6 is indicative of a transformer connected by wires 7 to a suitable socket 8 in the wall of the cabinet for connection with any convenient lighting fixture through a plug and cord, not shown.

9 is indicative of a spark coil of any usual type having connection with the transformer and parts of the standard 3 which are represented diagrammatically in Fig. 4. That is to say, the windings of the transformer in the figure last named are indicated at 10 and 11 in which 10 is the primary winding connected with the lighting circuit 12, and 11 is the secondary winding, one end 13 having electrical connection with the standard 3, Fig. 3, the other end being electrically connected with one of the terminals 14 for the so called "buzzer" or vibrating armature 19 of the spark coil whose primary coil is indicated by 15, the secondary coil by 16.

17 is indicative of any usual condenser for the spark coil, one terminal having connection with the described terminal 14, the other with the terminal 18 of the said armature.

One end of the primary coil 15 terminates in a contact 20 which, as shown in Fig. 3, lies adjacent the arm 4, to be engaged by it, and insulated from the standard and normally out of contact with said lever-arm. The other end of the primary coil 15 is electrically connected with the described armature. One end of the said secondary coil 16 is connected with the standard 3, Fig. 3, its other end terminating in a wire 21 spaced at its end from the lever-arm and forming a spark-gap for ignition purposes.

In use the lever-arm 4 and standard 3 are grasped by the hand whereby the former is made to contact with the terminal 20, the end of the lever-arm carrying the wick being moved outward, when a spark of high frequency will jump across the gap from the terminal 21 to said lever-arm and ignite the vapor at the wick.

As usually furnished, a cigar lighter includes a form of battery such as a "dry-cell", together with a spark coil, both placed at some distant point, the current being led through a cord to the lighter suspended from said cord. Since a battery is uncertain because its output of energy varies, gradually becoming weaker, and often out of use entirely, at unexpected times, a lighter of this type cannot be relied upon, and it is, therefore, my purpose to substitute a transformer for the battery for producing the required lower voltage suitable for a spark coil which, of course, is raised to a high tension for the purposes of ignition. By this means a complete portable lighter may be contained in a single portable article always ready to be attached to a socket or other lighting fixture, and always in full duty when so attached.

To my knowledge a transformer has not been used in connection with a spark coil,

especially with a cigar lighter, with the attendant advantages described herein, it being apparent, however, that the use of a current from a lighting circuit reduced in pressure by the transformer and then raised to high tension by the spark coil is adaptable for other purposes wherever required.

A cigar lighter has not heretofore been furnished in a cabinet that may be moved from place to place in the store, or about the counter or showcase, in which a transformer and spark coil are parts, together with the wick-carrying structure mounted upon the cabinet at a convenient height.

Evidently, changes may be made throughout the structure of the device with regard to the arrangement of the connections of the various circuits so long as the desired result is produced, and it is likewise evident that the structure of the lighter may likewise be changed without departing from the spirit and intent of the invention.

Having thus described my invention, I claim:

1. In a cigar lighter, the combination with a manually operated device carrying a vapor or gas, and a transformer arranged for connection with a current of high voltage, adapted for producing a current of a lower voltage, and windings connected with the low voltage side of the transformer including a spark gap for producing a current of high frequency across said spark-gap.

2. In a cigar lighter, a cabinet, a standard mounted thereon, including a movable manually operated portion carrying a vapor or gas, a transformer contained in said cabinet arranged for connection with a current of high voltage, adapted for producing a current of a lower voltage, a spark coil also in said cabinet having its primary coil connected at one end to the low voltage side of the transformer, its other end terminating in spaced relation to the said movable portion, the secondary coil of said spark coil being connected at one end electrically with the standard and at its other end to a terminal spaced from said movable portion.

3. In a portable cigar lighter, the combination of a cabinet, a standard mounted thereon, a manually movable portion mounted on the standard for carrying a vapor or gas and including a wick, a voltage reducing transformer in said cabinet, a spark coil and its circuit breaker, said spark coil having its primary coil connected at one end to one end of the secondary coil of the transformer through the standard and said manually movable portion, the other end of the primary coil connected with the other end of the said secondary coil through the circuit breaker, the secondary coil of the spark coil being connected at one end with said standard and at its other end to a terminal spaced from the said movable portion.

4. A cigar lighter comprising units construction, a portable cabinet, a standard mounted thereon including a manually operated part for carrying a vapor to be ignited, a spark coil, a transformer, and a receptacle in the wall of the cabinet connected with said transformer for attachment thereto of a plug.

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

REX W. SENCENBAUGH.

Witnesses:
ROSCOE HERGET,
L. M. THURLOW.