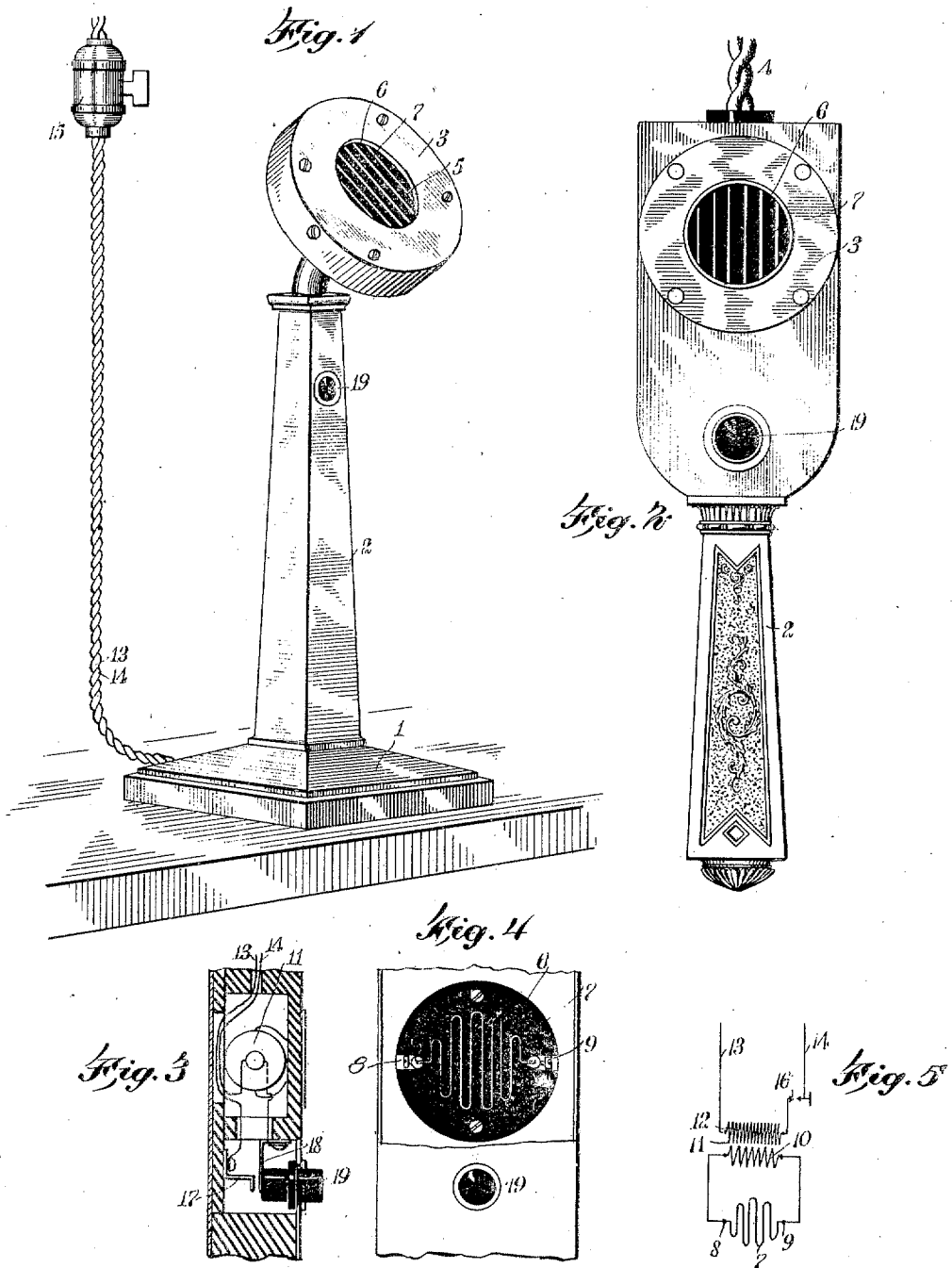


V. E. EXTROM & T. G. BOARDMAN.
ELECTRIC CIGAR LIGHTER.
APPLICATION FILED MAR. 25, 1910.

981,987.

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VICTOR EMMANUEL EXTROM AND THOMAS GRAHAM BOARDMAN, OF TOMAHAWK, WISCONSIN.

ELECTRIC CIGAR-LIGHTER.

981,987.

Specification of Letters Patent. Patented Jan. 17, 1911.

Application filed March 25, 1910. Serial No. 551,466.

To all whom it may concern:

Be it known that we, VICTOR E. EXTROM and THOMAS G. BOARDMAN, both citizens of the United States, and residents of Tomahawk, in the county of Lincoln and State of Wisconsin, have invented a new and Improved Electric Cigar-Lighter, of which the following is a full, clear, and exact description.

This invention relates to a new and improved cigar lighter, of a type in which the heat of ignition is obtained by passing a current through an exposed resistance wire bent so as to offer a plurality of juxtaposed lengths within a small compass. It has been found with such electric cigar lighters of this type which are now on the market, that a considerable quantity of expensive platinum wire, which is also readily breakable, is necessary in order to obtain the required heating surface when connected to the ordinary electric light circuit which runs at one-hundred and ten volts.

It is the object of this invention to so construct a cigar lighter that the current can be transformed or stepped down to a lower voltage and increased amperage, enabling the use of a much coarser and stronger wire, of entirely less expensive material, which will offer a greater heating surface, and will come to the glowing point in the shortest possible space of time.

A further object of this invention is to provide a device which will be simple in construction, inexpensive to manufacture, strong, durable, and readily accessible for the purpose of renewing the parts.

These and further objects, together with the construction and combination of parts, will be more fully described hereinafter and particularly set forth in the claim.

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 views, and in which—

Figure 1 is a perspective view showing the stand type of our device and its attachment to an electric light socket; Fig. 2 is a front view in elevation of a suspended type of our device; Fig. 3 is a fragmentary vertical section; Fig. 4 is an enlarged fragmentary front view; and Fig. 5 is a diagrammatic view illustrating the electrical circuits.

Referring more particularly to the separate parts, in Fig. 1 is illustrated the form which is adapted to be set on a shelf or cigar case, and consists of a base 1, a body 2 and a lighting head 3.

In the form illustrated in Fig. 2, the lighter is suspended from a suitable support, in juxtaposition to a cigar counter or the like, by means of electrical conducting wires, indicated at 4, and consists also of a body portion 2 and a lighting head 3. Arranged in front of the lighter, there is provided an opening 5, through which a cigar is to be inserted when it is desired to light the same. Arranged in back of this opening 5, there is provided a non-conducting block 6, secured to which is provided an exposed resistance wire 7 of any suitable material, such as a pliable alloy. This resistance wire 7 is bent back and forth along the face of the block 6, so as to offer a plurality of links thereof in close and yet spaced juxtaposition, so as to offer the greatest amount of glowing surface. The ends of the resistance wire 7 are connected to suitable terminal screws 8 and 9, which in turn extend to the secondary winding 10 of a transformer 11, which is preferably located within the cigar lighter.

It will be seen by reference to Fig. 5 that a secondary circuit is formed through the resistance 7, the secondary coil 10, and the wires connecting them together. The secondary winding 10 is arranged in close juxtaposition to a primary winding 12 of the transformer 11. This primary winding 12 is connected by wires 13 and 14 to a suitable source of electricity, indicated by the socket 15. This circuit through the wires 13 and 14 and the primary winding 12 is provided with a break at 16. The ends of the wires at the break 16 are provided with contacts 17 and 18, which are adapted to be brought into engagement by means of a push button 19. The latter extends out through the body of the lighter in any convenient position, where it will be readily accessible to the user. The contact 18 is preferably made of a springy material, so that when the pressure on the button 19 is released, it will automatically spring out of engagement with the contact 17.

The utility of the device will be readily understood from the above description. When it is desired to light a cigar, the butt end is inserted through the opening 5 and

juxtaposed to the resistance wire 7. The button 19 is then pressed, so that a circuit is completed through the primary coil 12, thereby causing a current to pass through the secondary coil 10 of the transformer 11. This transformer 11 may be controlled in any suitable manner to make and break the circuit, so as to have a constant impulse of current through the secondary winding 10. The current passing through the secondary circuit will cause the resistance wire 7 to glow, thereby enabling the user to light his cigar. Inasmuch as the voltage of the current can be reduced in amount by the character of the windings in the transformer 11, it will enable the use of a coarse and inexpensive resistance wire, which will last a long time, and which, when worn out, can be renewed at little or no expense. As soon as the pressure is relieved on the button 19, the primary circuit is disconnected, thus discontinuing the flow of current through the secondary circuit.

While we have shown two embodiments of our invention, we do not wish to be limited to the specific details thereof, but desire to be protected in various changes, modifications and alterations which we may make within the scope of the appended claim.

Having thus described our invention, we

claim as new and desire to secure by Letters Patent:—

In a cigar lighter, the combination with a body having a plurality of cavities therein, of a transformer located in one of said cavities, a lighting head located on the face of said body and being connected with said transformer, contacts in another of said cavities within said body, normally out of engagement with each other and connected with said transformer, and a push-button within said last-mentioned cavity and adapted to bring said contacts into engagement, and projecting above the surface of said body, whereby it may be readily operated, said lighting head comprising an insulating block, a resistance wire bent back and forth along the face of said block, terminal screws connected to said insulating wire, and a cover plate for said block, having an opening therein adapted to permit access to said resistance wire.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

VICTOR EMMANUEL EXTROM.
THOMAS GRAHAM BOARDMAN.

Witnesses:

K. VEITCH,
LEO F. CRANE.