

PATENT SPECIFICATION

418,304

Application Date: April 10, 1933. No. 10,642/33.

" " April 10, 1933. No. 10,643/33.

One Complete Left: April 5, 1934.

Complete Accepted: Oct. 10, 1934.

PROVISIONAL SPECIFICATION.

No. 10,642, A.D. 1933.

Improvements in or relating to Electric Cigarette Lighters.

I, ERIC WILLIAM FAKES, a British Subject, of "Hemsby," Haynes Road, Hornchurch, Essex, do hereby declare the nature of this invention to be as follows:—

This invention relates to improvements in electric cigarette lighters and has for its object the provision of an electrically heated cigarette lighter for use by customers in tobacconist shops, clubs or like places.

According to this invention I provide an electrically heated lighter element adapted to be controlled by a push or other switch which is also adapted to control an electrically illuminated sign so that upon the switch being closed the sign lamp is also energised and displays any desired advertising matter and at the same time serves as a tell tale that the lighter is functioning.

In a preferred embodiment of my invention taking for an example its application to a mains alternating current energised lighter, the lighter heating element is adapted to be energised from the mains through a transformer. The heating element is connected to the secondary circuit of the transformer while the control switch is provided in the primary circuit in which is also included the sign lamp or lamps.

The transformer is preferably mounted in a base of a hollow standard member from which the current leads are carried up the inside of the standard to the sign

lamp or lamps and heating element mounted thereon.

The heating element may be permanently attached to the standard and rigidly fixed at a convenient position on the outside or it may be suspended therefrom by a short length of the flexible leads. Alternatively if desired the conductors for the heating element may be wound on a spring reel or weighted so that the element may be pulled out at a limited distance from the standard when in use and will return when released.

It will be understood that instead of ordinary incandescent lamps, neon or other gaseous discharge lamps may be used and a common transformer employed for both the lighting and lighter element for which separate secondary windings are employed.

The advertising sign may consist of an opal or other diffusing glass front which is backed by a sheet of clear glass and has interposed between a stencil or the like bearing the advertising matter which will not be visible from the front of the sign until illuminated by the lamp behind when the cigarette lighter is energized.

It will be understood other methods of displaying advertising matter and forms of sign devices may be employed without departing from the spirit or scope of the invention.

Dated this 10th day of April, 1933.
E. W. FAKES.

PROVISIONAL SPECIFICATION.

No. 10,643, A.D. 1933.

A New or Improved Combination Electric Cigarette Lighter and Smokers' Stand, Table Lamp or Floor Lamp.

I, ERIC WILLIAM FAKES, a British Subject, of "Hemsby," Haynes Road, Hornchurch, Essex, do hereby declare the nature of this invention to be as follows:—

[Price 1/-]

Price 4s 6d

This invention relates to a new or im-

proved combination mains energized electric cigarette lighter and smokers' stand, table lamp or floor lamp, the object being to provide a useful combination appliance that will be simple and safe to use in the hands of non technical persons.

According to this invention a combination electrical appliance comprises a mains energized cigarette lighter and an ash tray, smokers' stand, table or floor lamp characterised by the lighter heating element being energized at a voltage lower than the mains voltage, the voltage reducing means such as a transformer being mounted in the base of the combined appliance.

In a preferred embodiment of this invention taking for example its application to a combination floor lamp and cigarette lighter, I provide a standard member on which is mounted the lighter element and lamp. At the foot of the standard is provided a hollow base which is adapted to house a suitable transformer or resistance element for supplying the low voltage current to the lighter element. For energizing the lamp on the standard leads are taken direct from the terminals of the input side of the lighter voltage reducing means up through the interior of the standard to the lampholder which may be provided with a suitable control switch, while leads from the output side of the transformer or other voltage reducing means are carried up the standard to the lighter element.

In the case of a transformer energized lighter the primary of the transformer may be permanently connected to the supply mains, as being an inductive resistance, little or no current will be consumed while the secondary circuit is open. By having the control switch for the lighter in the low voltage circuit the same may be of quite simple design and

only two flexible leads would be needed in the case where the lighter proper is required to be of the kind which while being portable is permanently connected. Further, even if the apparatus is un-earthed, as the portion of the apparatus handled by the user is only at low voltage, there will be no danger from shocks even though the cigarette tobacco may be unduly damp.

In order to prevent transformer hum by vibration of the laminations as a result of having the primary connected to the mains current while the secondary circuit is open, the laminations may be coated or dipped after assembly in a varnish or cellulose solution.

In the case of a smokers' stand comprising a standard carrying an ash tray mounted on the top, the lighter element may be of the plug in type for which sockets are provided on a central boss provided in the ash tray and a control switch is provided on the lighter element in the secondary circuit of the transformer which is located in the base of the standard.

If desired other electrical appliances such as an electric clock may be embodied in the construction of the standard and energized from the mains terminals provided in the base of the combined appliance.

In the case of floor and table lamps employing gaseous discharge lamps which require to be fed through a transformer the same transformer may be utilized to supply the special low voltage required for the lighter element. For this purpose separate windings may be provided on the common transformer for the lighter and lamp or lamps.

Dated this 10th day of April, 1933.
E. W. FAKES.

COMPLETE SPECIFICATION.

Improvements in or relating to Electric Cigarette Lighters.

I, ERIC WILLIAM FAKES, a British Subject, of "Hemsby," Haynes Road, Hornchurch, Essex, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to a mains energised cigarette lighter comprising a heating coil or other element adapted to be operated through a transformer. The object being to provide a convenient portable appliance for standing on the

floor or a table, counter or like.

According to this invention a mains energised cigarette lighter adapted to be operated through a transformer is characterised by the transformer being housed in a hollow base arranged at the foot of a vertical standard, while the lighter heating element is carried on said standard.

In some cases the aforementioned standard is also arranged to carry a sign or illuminating lamp and, if desired other electrical appliance such as an electric

clock connected to common mains terminals in the base of the standard. It will be appreciated owing to the weight of the transformer in the base of the standard such a construction will be very stable and cannot easily be knocked over and forms a very convenient portable appliance for use on the floor or a table or counter.

In order that the invention may be more readily understood and carried into effect reference is hereby made to the accompanying drawings which illustrate examples of electric cigarette lighters constructed and arranged in accordance with the invention.

In these drawings Figure 1 is a side elevation of a smokers' stand embodying an electric cigarette lighter constructed according to the invention. Figure 2 is a wiring diagram illustrating the electrical circuit used, while Figure 3 is a detail side view partly in section illustrating the lighter element and control switch. Figure 4 is a side elevation of a floor lamp embodying a modified cigarette lighter and Figure 5 is again a wiring diagram of the electrical circuit employed, and Figure 6 a detail side view partly in section of the modified form of lighter element and switch. Figures 7 and 8 illustrate respectively a front elevation and sectional side view of the application of the invention to an advertising sign device and Figures 9 and 10 illustrate respectively alternate electrical circuits that may be used therefore.

Referring to the drawings and Figures 1 to 3, the numeral 1 designates a suitable standard construction having a base 2 which is adapted to house a transformer 3. The current leads from the secondary winding of the transformer are taken up a hollow ornamental moulding 4 on the side of the standard 1 to the platform 5 and thence to the lighter 6.

The lighter consists of an element 7 which is detachably mounted on a sleeve 8 and has a contact 9 which is adapted to engage a further contact inside the sleeve but which is normally held out of engagement with the same by a spring. A detachable ash tray 10 is provided on the platform 5.

Referring to Figures 4 to 6 the lighter 11 is here shown used in combination with a floor lamp consisting of a standard 12 having an electric lamp 13 and shade 14. The transformer 15 is again housed in the base of the standard and the lighter 11 is permanently connected and suspended by its flexible leads 16 from a convenient height from the standard for use when sitting in an armchair.

The standard 12 is preferably con-

structed from a flat wooden member having a hollow vertical ornamental moulding 18 on each of its flat faces and the flexible leads for the lighter may be carried up the moulding 18 while the leads for the lamp 13 are carried up the similar moulding on its opposite face.

The lighter 11 is provided with a handle 19 and operating knob 20 which on being depressed causes the spring contact member 21 to engage with the centre contact 22 on the lighter element 23.

In order to prevent transformer hum by vibration of the laminations as a result of having the primary connected to the mains current while the secondary circuit is open, the transformer may be coated or dipped after assembly in a varnish or cellulose solution.

If desired other electrical appliances such as an electric clock may be carried on the standard and energized from the mains terminals provided in the base of the combined appliance.

In the case of floor and table lamps employing gaseous discharge lamps which require to be fed through a transformer the same transformer may be utilized to supply the special low voltage required for the lighter element. For this purpose separate secondary windings may be provided on the common transformer for the lighter and lamp or lamps.

Referring to Figures 8 to 10, the lighter 24 is here shown applied to an advertising device consisting of a tubular member 25 made to represent a cigarette. This member is mounted on a base 26 which contains the transformer 27 and carries the operating press switch 28. The lighter element 24 is carried on a standard 29 which also carries on the top the sign lamp 30.

The tubular member 25 is provided with a window 31 which is covered by a layer of paper on the inside of which is printed the advertising matter it is desired to display. This will not be visible until the sign lamp 30 lights up, which is caused by the operation of the press switch 28 which also causes the lighter element through the secondary winding of the transformer to be energized at the same time.

In order to prevent any risk of the lighter element being burnt out through maintaining it incandescent for too long a period a thermal cut-out may be provided as indicated at 32 in Figure 10.

The heating element may be permanently attached to the standard and rigidly fixed at a convenient position so as to project through to the outside of the tubular member 25 or it may be suspended from the standard by a short

length of the flexible leads. Alternatively if desired the conductors for the heating element may be wound on a spring reel or weighted so that the element may be
 5 pulled out at a limited distance from the standard when in use and will return when released.

It will be understood that instead of ordinary incandescent lamps, neon or
 10 other gaseous discharge lamps may be used and a common transformer employed for both the sign lamp and lighter element for which separate secondary windings are employed.

15 Having now particularly described and ascertained the nature of my said invention, and in what manner the same is to be performed, I declare that what I claim is:—

20 1. A mains energised cigarette lighter adapted to be operated through a transformer characterised by the transformer being housed in a hollow base arranged
 25 at the foot of a vertical standard, while the lighter heating element is carried on said standard.

2. A mains energised cigarette lighter as claimed in claim 1 in which the
 30 standard supporting the lighter heating element also carries an illuminating lamp connected to common mains terminals in the hollow base.

3. A mains energised cigarette lighter as claimed in claim 1, in which the

standard supporting the lighter heating
 35 element also carries a sign lamp, said lamp being included in the primary circuit of the transformer and controlled by a switch which also controls the lighter heating element in the secondary circuit
 40 of the transformer.

4. A mains energised cigarette lighter as claimed in claim 2 in which the
 45 standard also carries an electric clock or other electrical appliance connected to common mains terminals in the base.

5. A mains energised cigarette lighter as claimed in claims 2 or 3 in which the
 50 sign or illuminating lamp is of the gaseous type and operated through a common transformer in the base.

6. A mains energised cigarette lighter as claimed in claims 1 or 2 in which the
 55 laminations of the operating transformer are sealed to prevent hum by the transformer being dipped in a varnish or cellulose solution.

7. A mains energised cigarette lighter substantially as described with reference
 60 to Figs. 1—3, Figs. 4—6 or Figs. 7—10 of the accompanying drawings.

Dated this 5th day of April, 1934.

E. W. FAKES.

Reference has been directed in pursuance of Section 7, Sub-section (4), of the Patents and Designs Acts, 1907 to 1932 to Specification No. 1310 of 1896.

[This Drawing is a reproduction of the Original on a reduced scale.]

Fig. 2.

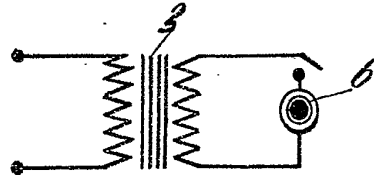


Fig. 1.

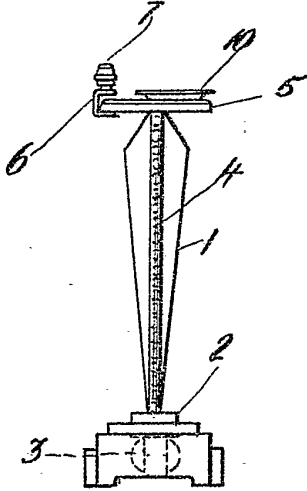


Fig. 3.

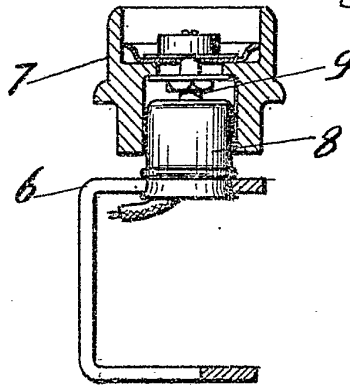


Fig. 4.

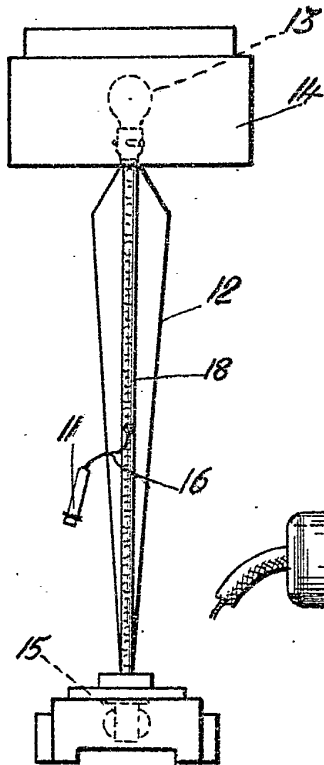


Fig. 5.

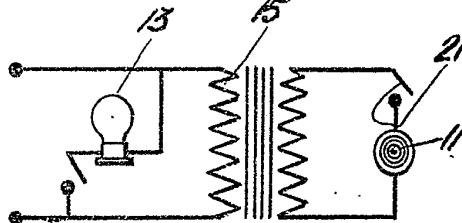


Fig. 6.

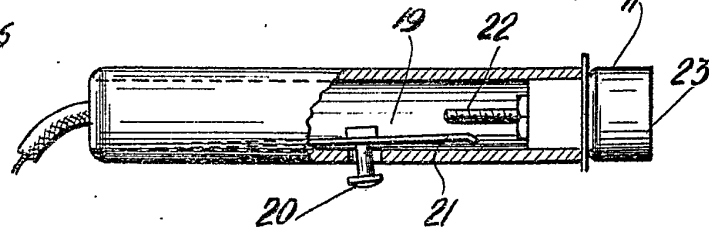


Fig. 8.

Fig. 7.

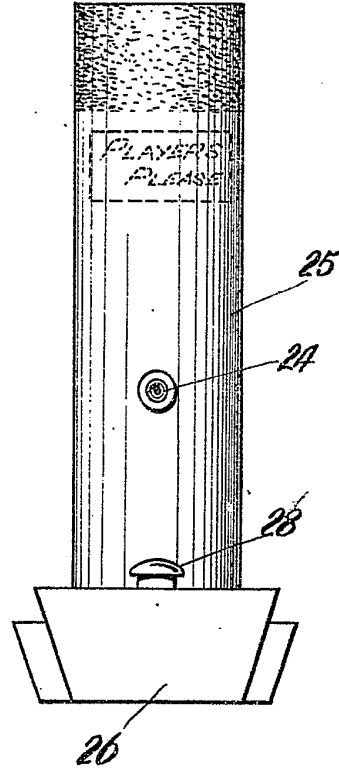
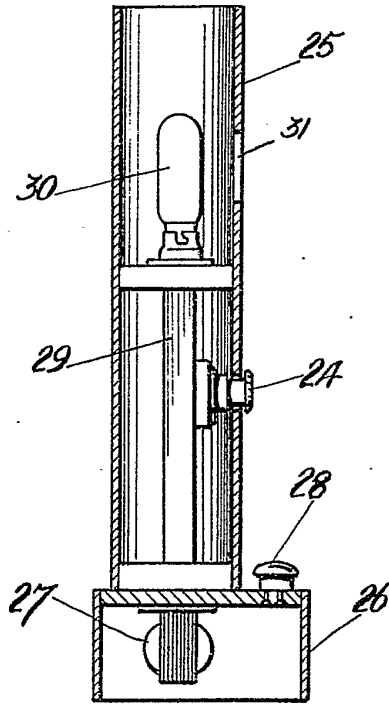


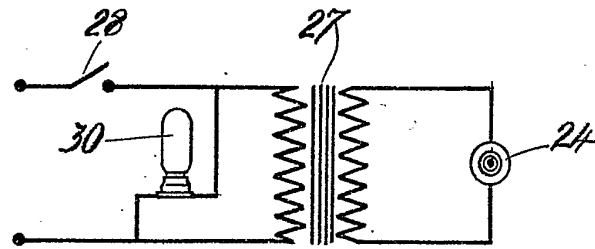
Fig. 3.

5.

21

11

Fig. 9.



6

Fig. 10.

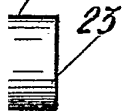
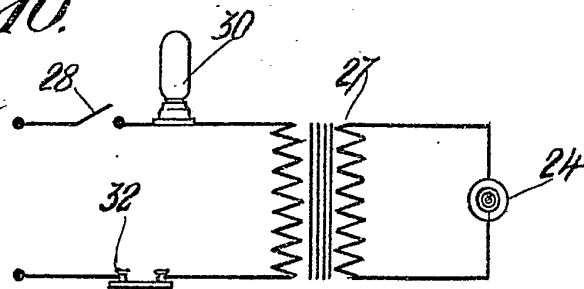


Fig. 1.

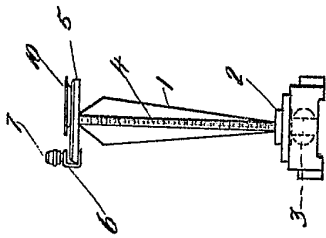


Fig. 2.

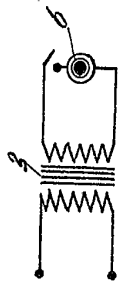


Fig. 3.

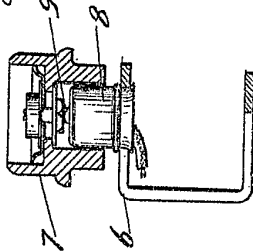


Fig. 4.

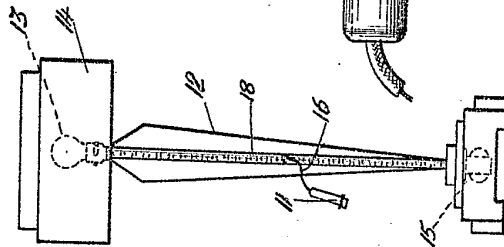


Fig. 5.

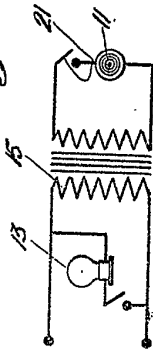


Fig. 6.

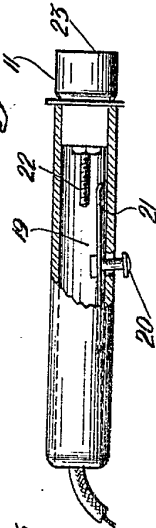


Fig. 8.

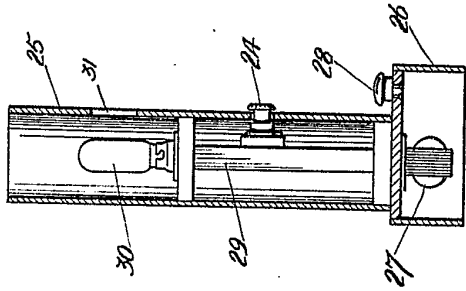


Fig. 7.

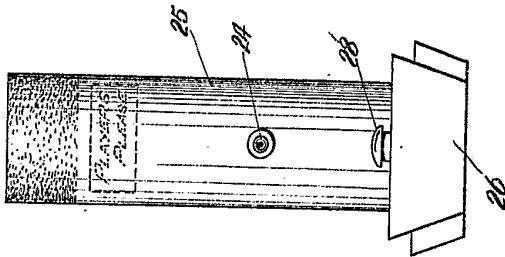


Fig. 9.

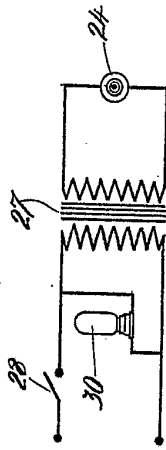
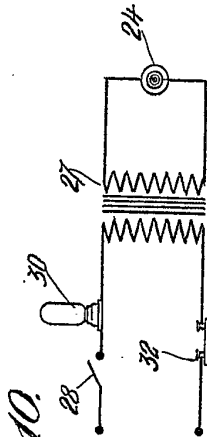


Fig. 10.



[This Drawing is a reproduction of the Original on a reduced scale]