

May 29, 1951

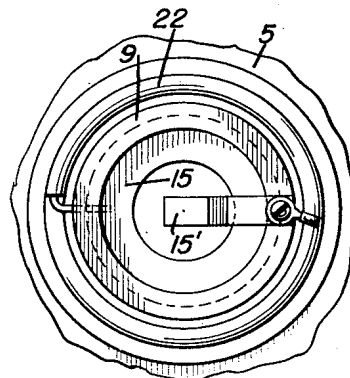
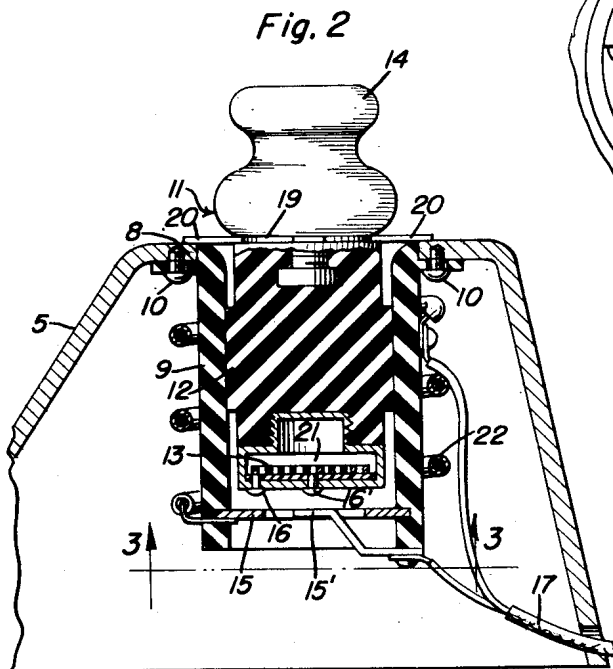
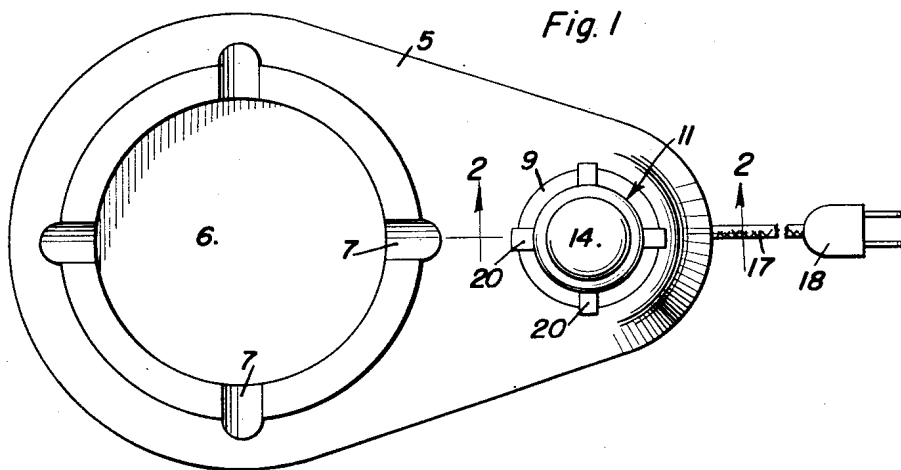
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2,554,743

ELECTRICAL CIGAR OR CIGARETTE LIGHTER

Filed March 13, 1950

2 Sheets-Sheet 1



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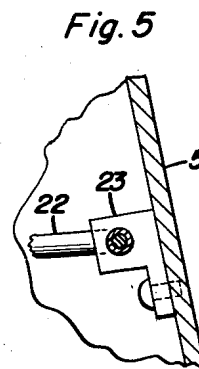
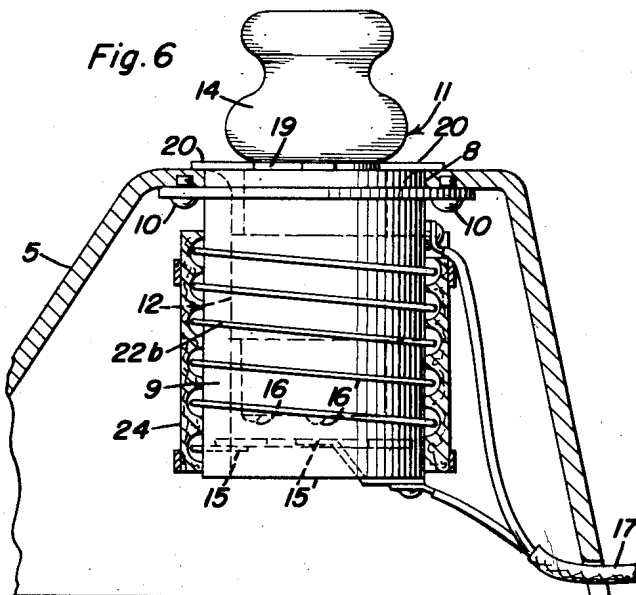
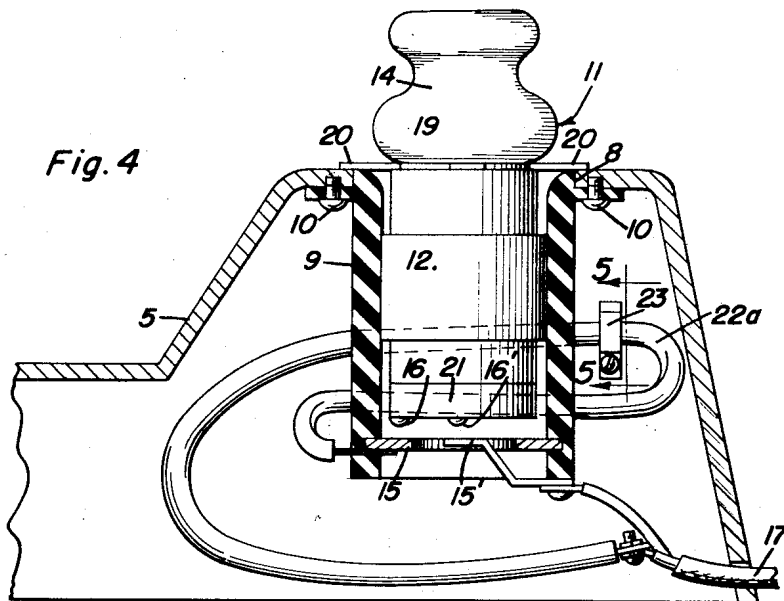
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ELECTRICAL CIGAR OR CIGARETTE LIGHTER

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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

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ELECTRICAL CIGAR OR CIGARETTE LIGHTER

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Application March 13, 1950, Serial No. 149,328

1 Claim. (Cl. 219—32)

This invention relates to electrical cigar or cigarette lighters of the type including a housing having spaced contacts therein, and a lighter member removably positioned in the housing and having an incandescent wire at its inner end provided with space terminals adapted to be engaged with said contacts for causing said incandescent wire to be heated upon pressing said lighter member inwardly of the housing.

The primary object of the present invention is to provide a lighter of the above type which is adapted to use the relatively high voltage current of a house wiring system without danger of readily "burning out" the incandescent wire, and which may be made relatively small and manufactured at a relatively low cost.

In accordance with the present invention, a resistance element is included in the lighter circuit in series with the incandescent wire by being interposed between one contact of the housing and one wire of an attachment cord whose other wire is connected to the other contact of the housing, said resistance element being such that the voltage drop across the same is considerably greater than that across the incandescent wire. The resistance element may be arranged and mounted in a support which carries the lighter housing, and is suitably housed and insulated.

Other objects and features of the invention will be apparent from the following description when considered with the accompanying drawings, in which:

Figure 1 is a top plan view of an ash receptacle equipped with a lighter embodying the present invention.

Figure 2 is an enlarged fragmentary vertical section taken on the line 2—2 of Figure 1.

Figure 3 is a section taken on the line 3—3 of Figure 2.

Figure 4 is a view somewhat similar to Figure 2, showing a modification.

Figure 5 is a fragmentary section taken on the line 5—5 of Figure 4.

Figure 6 is a view somewhat similar to Figure 4, showing a further modification.

Referring in detail to the drawings, 5 indicates a support which is shown as a hollow base or stand provided with an ash receiver 6 having spaced marginal recesses 7 forming cigar or cigarette rests. The support has an opening 8 in which is fitted the outer or upper end of the insulating housing 9 of the present cigar or cigarette lighter, said housing being suitably secured to the support as at 10.

The present lighter also includes a lighter member 11 comprising an insulating body 12 having an incandescent wire 13 at its inner end and a knob 14 at its outer end. The housing 9 carries within its inner end spaced contacts 15 and 15' into engagement with which spaced terminals 16 and 16' of the wire 13 may be moved, by pressing the lighter member 11 inwardly of the housing 9, to heat said wire 13. After the wire 13 is heated, pressure on the member 11 is released, and then said member 11 may be removed from the housing 9 to light a cigar or cigarette in a manner generally well known in the art. Current for the lighter is derived from a house wiring system by means of an attachment cord 17 having wires connected at one end of said cord to the contacts 15 and 15' and at the other end of said cord to a plug connector 18 adapted for reception in an outlet receptacle of the wiring system.

Spring means is provided to normally yieldingly hold the lighter member in a partially withdrawn position within the housing 9 with the terminals 16 and 16' disengaged from the contacts 15 and 15' so that the lighter circuit is open. This means may consist of a disk 19 secured between the body 12 and knob 14 and having radial resilient fingers 20 engaging the outer end of housing 9. The wire element 13 may be embedded in the inner end of body 12 in the usual way, but is shown as disposed within a metallic casing 21 attached to the inner end of body 12, as well as disposed adjacent but insulated from the flat bottom wall of said casing 21 to heat and render said bottom wall incandescent.

A resistance element is included in the lighter circuit in series with the wire 13, said resistance element being such that the voltage drop across the same is much greater than that across the wire 13, so that the latter will not readily "burn out" when the lighter is operated on the relatively high voltage current of a house wiring system. In Figure 2, the resistance element, indicated at 22, is of the type sold on the market under the name "Calrod," wherein a resistance wire is enclosed in and insulated from a tubular casing. This resistance element is coiled about the housing 9 and connected at one end to contact 15 and at the other end to one wire of the cord 17 whose other wire is connected to contact 15'. In Figure 4, the same type of resistance element 22a is similarly connected and arranged within the support 5, being attached to the latter intermediate its ends as at 23 so as to be held within said support. In Figure 6, the resistance

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element 22b is similarly connected and consists of a helical wire coiled about the housing 9 and having an asbestos covering 24. However, this resistance element might be embedded in the housing 9. Otherwise the several forms of the invention are alike.

By using the resistance element as disclosed, the lighter may be made relatively small and at a low cost, and no troublesome and costly voltage regulator or step-down transformer is required. The lighter requires no separate switch, because the lighter circuit is normally open and controlled by movement of the lighter member.

What is claimed as new is:

An electrical cigar or cigarette lighter comprising an insulating housing having spaced contacts within the inner end thereof, a lighter member removable from said housing and having an incandescent wire at its inner end provided with spaced terminals engageable with said spaced contacts for causing the incandescent wire to be heated when the lighter member is pressed inwardly of the housing, yieldable means normally holding the lighter member in a position within the housing with the terminals of the incandescent wire spaced from said contacts, an attachment cord adapted to supply current to said contacts from a house wiring system and having one wire connected to one of said contacts, a resist-

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ance element connecting the other wire of said attachment cord to the other contact, said resistance element being of greater electrical resistance than said incandescent wire so that the voltage drop across the same is much greater than that across the incandescent wire, said resistance element being helically coiled and disposed about said housing, and a protective covering on the housing and over said resistance element.

BENJAMIN T. JONES.

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