March 27, 1928. 1,663,675

J. R. AYOTTE

ELECTRIC CIGAR LIGHTER

Filed April 24. 1926

Fig. 1

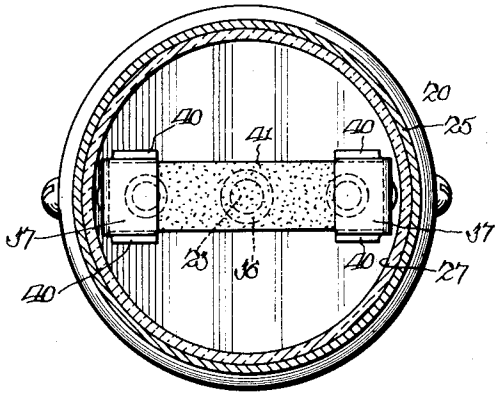


Fig. 2

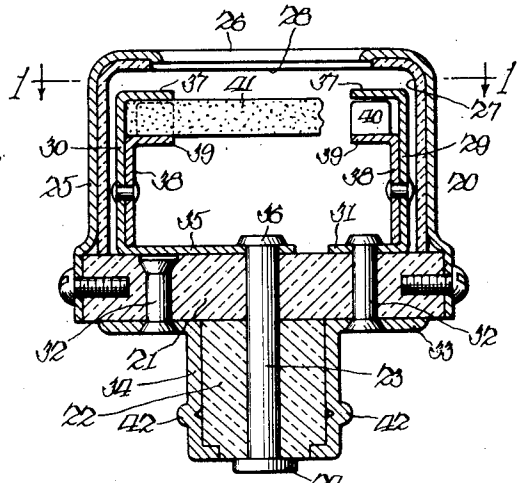
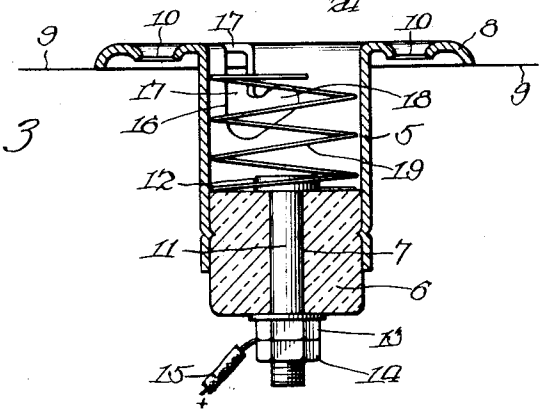


Fig. 3



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UNITED STATES PATENT OFFICE.

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ELECTRIC CIGAR LIGHTER.

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This invention relates, generally, to an electrically operated lighter for cigars, and while it is especially adapted for use in connection with the dash-board of an automobile, and will be more particularly hereinafter so described and shown in the drawing, yet I desire to be understood that it is not so limited in its application or use, but may be employed wherever it may be found applicable or desirable.

The invention has for one of its objects, to provide a cigar lighter capable of being electrically operated by a single wire current when used in connection with an automobile or an ordinary current when otherwise employed.

Another and important object of the invention is, to so construct and arrange the parts of the device, that the lighting head of the implement will be automatically and constantly in such a position that the electric circuit will be broken, except, when it is desired to light a cigar or a pipe of tobacco and the like, at which time the circuit may be closed until the heating element has received the proper temperature.

A still further object is, to provide in a cigar lighter of the class described, a removable lighting head for the socketed member of the device which shall be of such construction that it will not become excessively heated so as to burn the hand of the user, and so that it will normally be held in the socket out of electrical contact with the latter against vibrations, yet may be always instantly heated and removed for the purpose of lighting a cigar or the like.

Other objects and advantages of the invention will be disclosed in the following description and explanation, which will be more readily understood when read in conjunction with the accompanying drawing, in which an embodiment of my improvements is illustrated, it being understood that changes and modifications may be resorted to without a departure from the spirit of the invention, so long as they fall within the scope of the appended claims forming a part hereof.

In the drawing:—

Fig. 1, is a horizontal sectional view taken on line 1, 1, of Fig. 2, looking in the direction indicated by the arrows.

Fig. 2, is a central vertical sectional view of the removable head showing portions thereof in elevation and

Fig. 3, is a similar view of the electrically connected supporting socket showing said socket as being horizontally mounted on a portion of the dash-board of an automobile.

Referring now more particularly to Fig. 3, of the drawing, the reference numeral 5, designates a metallic socket which is preferably cylindrical in shape, and has fitted in one of its ends a plug or stopper 6, of any kind of suitable insulating material, which plug has a bore 7, located centrally and longitudinally therein, as well as with respect to the socket 5, which socket has at its end opposite that in which the plug is fitted, an outwardly extending face flange 8, to rest against one surface of the dash 9, through a suitable opening in which the socket 5, is extended. This face flange has a plurality of openings 10, for the insertion of screws or fastening devices (not shown) used for securing it to the dash, or any other suitable support. Fitted in the bore 7, of the isulation piece 6, is a metal bolt 11, which has at its inner end a contact head or member 12, and may be provided at its other end with nuts 13 and 14, for securely fastening the member 11 in place and also for holding one end of a conductor 15, leading from a battery (not shown) thereby providing a binding post for said conductor. That portion of the socket 5, adjacent the face flange 8, is provided with a pair of diametrically opposed bayonet slots 16, one of which only is shown in the drawing. As shown each of these slots has a portion 17, extended longitudinally with respect to the socket 5, through the inner edge of the face flange 8, which portions will have cooperation with members of the removable lighting head, which will be presently explained. Each of the longitudinally extended portions of each of the slots 16, terminates in a slightly enlarged and diagonally disposed portion 18, for the purpose to be presently explained. Located within the socket 5, and resting at one of its ends on the plug 6, is a spiral spring 19, which normally extends to a point near the face of the flange 8, and surrounds the contact head 12, but at a distance therefrom.

Now, this socket member 5, can be mount-

ed as shown in Fig. 3, on the dash-board of an automobile, or on any suitable support, but when it is used on the dash-board of an automobile it is evident that the screws extended through the openings 10, and engaging the dash will act as a portion of the grounded current of electricity while the conductor 15, will perform the duty of the positive current. When the face flange 8, of the socket 5, is secured to a support other than that of an automobile dash-board, it is evident that one of the screws or fastening devices which hold said flange on its support may be employed as a binding post for one of the wires of the electric circuit. Thus it will be understood that the device is operable by means of a single wire circuit, or by means of a circuit of the ordinary kind.

The lighting head is designated as a whole by the numeral 20, and comprises two pieces of insulating material 21 and 22, which are preferably circular or cylindrical in shape, and the main insulating piece or floor 21, is much larger in circumference than the piece 22, which is centrally joined to one side of the portion 21, by means of a metallic bolt or bar 23, which extends centrally through said pieces and is provided on its outer end with a contact head 24, to co-act with the contact head 12, in the operation of heating the elements of the lighting head. Secured around the larger piece of insulation 21, and extending from one of its faces, is a hollow inverted cup shaped metal piece 25, which has in its free portion a central opening 26, of considerable size. This hollow piece 25, is lined with non-heat conducting material 27, such as asbestos or the like, which preferably rests at one of its edges on the surface of the piece 21, opposite that on which the piece 22, is mounted. The material 27, is provided with an opening 28, of a little larger size than the opening 26, and registers with the latter.

Within the cup shaped piece 25, is mounted on the adjacent surface of the piece 21, a pair of diametrically opposed supporting members 29, and 30, which are by preference, made of metal and of U-shape as shown in Fig. 2, of the drawing. The portion 31, of the supporting member 29, is in-turned and is secured to the piece 21, by means of a rivet 32, which also serves for securing a flange 33, of a metal cap 34, which surrounds the piece 22, to the piece 21, of insulation. The portion 35, of the supporting member 30, is extended inwardly on the face of the piece 21, to about the center of said piece, where it is held in position by the head 36, on the metal rod 23. The free portion of each of the supports 29, and 30, is provided with an inturned jaw 37, and each of said supports has secured to its inner surface a strap 38, each of which straps has at its end adjacent the jaws 37, a jaw 39, which are spaced from the jaws 37, and each has a lateral flange 40, on each side of the jaws 37, thus providing a holding device for a piece of carbon 41, or other suitable heating element. The flange 33, on the cap 34, is secured at a point diametrically opposite the rivet 32, to the piece 21, by means of another rivet 32, the head of which adjacent the part 35, is countersunk in the piece 21, so as to be spaced from the part 35, of the supporting member 30, and thus prevent the cap 34, becoming energized.

From the foregoing and by reference to the drawing, it will be clearly understood and readily seen, that, the cap 34, can be placed in the open end of the socket 5, in which operation the projections 42, located diametrically on the sides of the cap 34, will pass into the longitudinal slots 17, of the socket, and will rest on the free portion of the spring 19, so that by further pressure into the socket of the cap, it can be turned so that its projections 42, will engage the upper portions of the walls of the diagonal slots 18, thus holding the contact member 24, out of operation with the contact member 12, of the socket. In this normal position of the lighting-head it is apparent that the spring 19, will exert itself against the cap 34, thus preventing contact between the members 12, and 24, until it is desired to light a cigar, when, by pressing the head further into the socket contact between the members 12, and 24, will be made and through conducting members 23, and 35, the temperature of the carbon or heating element 41, will be raised to a high degree or such an extent as to cause ignition in the cigar one end of which may be inserted through the openings 26 and 28, of the cup shaped member 25, it being understood that the lighting head may be removed as soon as the element 41 is heated, from the socket 5, by turning the head so that the projections 42, will operate in the longitudinal portions 17, of the bayonet slots on the socket.

It is apparent that the lining 27 will prevent the cup shaped member 25 becoming overheated or so as to burn the hand of the user.

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

1. The combination with a socket having a terminal therein and spring means for normally preventing contact with said terminal, of an electrical heating unit comprising an insulating base having a reduced portion and a terminal extending therethrough, an electrical conducting collar portion on said reduced portion for engaging said socket, a pair of supports having jaw members thereon mounted on said base, one of said supports being secured to said base by and having electrical conducting relation with said last mentioned terminal and the

other of said supports being secured to said base by and having electrical conducting relation with the securing means for said collar portion, and a heating element mounted between said jaw members and in electrical contact therewith.

2. The combination with a socket having a terminal therein and spring means for normally preventing contact with said terminal, of an electrical heating unit comprising an insulating base having a reduced portion and a terminal extending therethrough, an electrical conducting collar portion on said reduced portion for engaging said socket, a pair of supports having jaw members thereon mounted on said base, one of said supports being secured to said base by and having electrical conducting relation with said last mentioned terminal and the other of said supports being secured to said base by and having electrical conducting relation with the securing means for said collar portion, a heating element mounted between said jaw members and in electrical contact therewith, and a heat insulated casing surrounding said heating element and removably secured to said insulating base for use as a handle, said casing having an aperture in one end thereof for receiving a cigar to be lighted.

JOSEPH RENÉ AYOTTE.