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CIGARETTE LIGHTER

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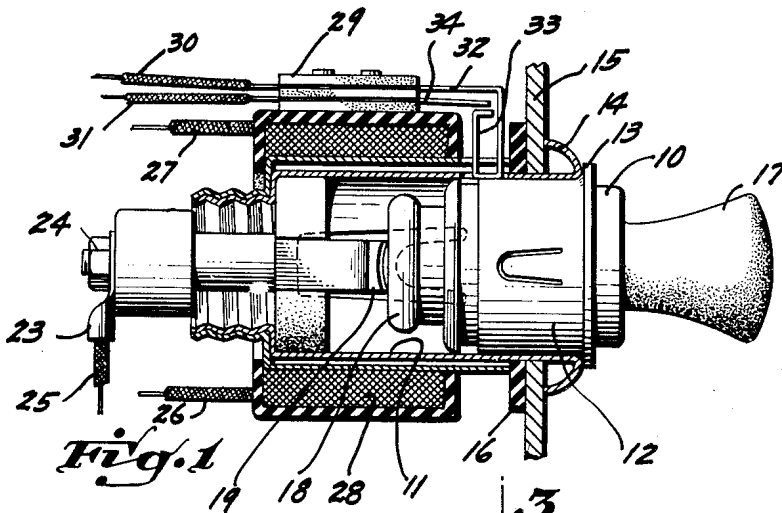


Fig. 1

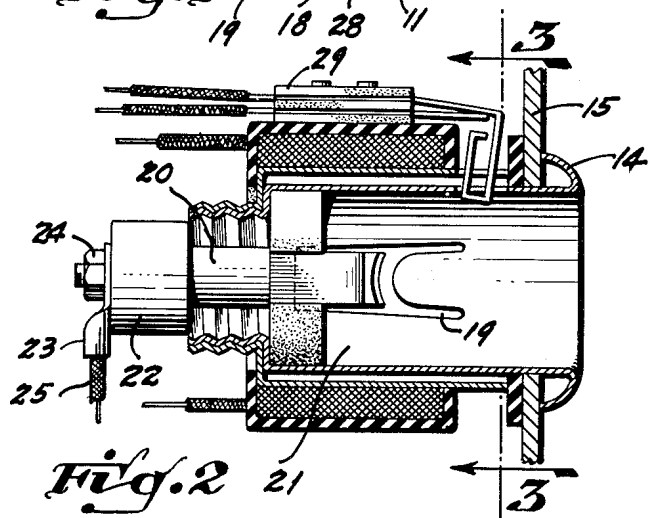


Fig. 2

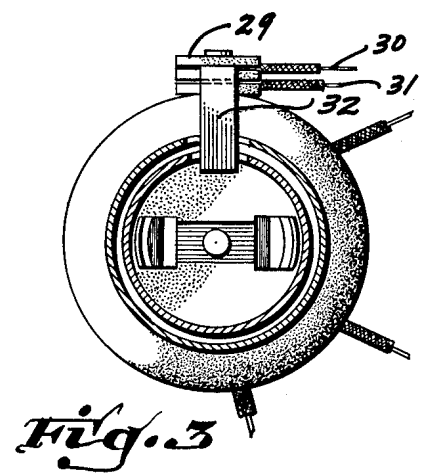


Fig. 3

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CIGARETTE LIGHTER

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1 Claim. (Cl. 219—32)

My invention relates to a device for lighting cigarettes and more particularly pertains to a magnetic unit for use in automobiles. There have been various arrangements with cigarette lighters in automobiles whereby the cigarette lighter may be returned to its original position after it has been used and among them are lights under the instrument panel of an automobile, direct illumination of the cigarette lighter, illumination of the handle of the cigarette lighter, but the majority of these require that the operator of the automobile shall interfere with his line of vision in order to replace the cigarette lighter. In my invention I provide a magnetic receptacle attached to the dashboard of the automobile and adapted to receive the cigarette lighter.

The principal object of my invention is to provide a cigarette lighter which has a magnetic socket arrangement whereby the lighter proper will be drawn within the aperture of the dashboard of the automobile without the necessity of the operator of the automobile interfering with his line of vision. Another object of my invention is to provide a lighter having unique switch means whereby the lighter aperture may be magnetized upon removal of the lighter proper from the socket and de-magnetized when the lighter proper is returned to its original position under the forces of the magnet.

Other objects and objects relating to details of construction will definitely appear from the detailed description to follow in which I have shown in:

Fig. 1. A cross section of the magnetic lighter showing the lighter proper.

Fig. 2. A sectional view of the lighter with the lighter proper removed.

Fig. 3. A sectional view taken along the line 3—3 of Fig. 2.

In the drawings the same reference numerals refer to the same parts throughout the several views and the sectional view is taken looking in the direction of the arrows at the end of the section line.

In general my invention comprises a magnetically surrounded aperture in the dashboard of an automobile into which is fitted a lighter suitable for lighting cigarettes and cigars. This lighter is operable in conjunction with several means secured to said lighter and to said dashboard.

Referring to the numbered parts of the drawing I provide in Figure 1 a tubular metal member 10 adapted to be mounted in aperture 11 by means of a flange 12 on member 10. A shoulder 13 on member 10 abuts a flanged member 14 formed at the end portions of aperture 11. Flange member 14 abuts the dashboard 15. Immediately adjacent to the underside of the dashboard 15, I provide insulating material 16. The tubular member 10 is provided with a handle 17 at one end at which it may be grasped in order to remove the lighter proper or igniting unit and otherwise manipulate the same. A heating element is provided at 18 at the other end of the igniting unit which cooperates with a base contact 19. The igniting unit 10 is moved inwardly to

close the circuit to the heating element 18 until the heating element has attained the desired heat at which time the base contact 19 is caused to flex and open the circuit. These base contacts are delicately adjusted so that they will operate accurately to release the heating element immediately upon its attaining the desired usable heat. The base contacts are secured to a stud 20 which is insulated. The end of the stud projects beyond the holder 21 and provides a means for mounting a fuse 22 on the device. A connector 23 is secured to the fuse device by means of a bolt 24 connecting the stud and fuse device in one unit and has a source of energy 25. The source of energy 25 may be connected to the fuse unit through the ignition switch or other control means if desired. Additional sources of electrical energy are supplied by means of conductors 26 and 27 which are secured to an electro-magnet 28 which surrounds the actual position of the holder 21. The electro-magnet has secured to one side thereof a switch mechanism 29 which has sources of energy through conductor 30 and conductor 31. This switch has a flat wire member 32 having a hook thereon 33 which is adapted in certain positions to engage flat member 34 connected to a conductor opposite to conductor 30. This switch is interconnected with the electro-magnet 28 and is the means whereby the electro-magnet is energized or de-energized. The igniting unit 10 may be pushed inwardly in the holder 21 and when the igniting unit is pulled from the holder the arm 33 is pushed downwardly to close the contact between the elements of switch 34 and 32 to cause the electro-magnet 28 to be energized, said electro-magnet remaining energized until the lighter is returned within the socket and the hook 33 is returned to its normal position as shown in Figure 1 to break the contact and de-energize the electro-magnet. The switch arm 33 normally tends to be into contact with member 34 as shown in Figure 2. The arm 33 is raised only when the igniting unit is inserted into the aperture 11 of holder 21.

It will be seen in this invention that the igniting unit of the holder is magnetized when the lighter is removed from aperture 11 and tends to draw to it the lighter 10 to its proper replaced position. With my invention it is unnecessary to search on the dashboard of the automobile, and thereby to interfere with the line of vision of the operator of the automobile by attempting to insert in its proper place the igniting unit of a cigarette lighter.

In the broader aspects of my invention I have provided a simple and effective means of returning the igniting unit to its proper place and at the same time providing for the energization and de-energization of an electro-magnet surrounding the aperture 11. Variations and modifications of my invention may be made by retaining one or more of the features which constitute the central characteristic of this invention and therefore I claim my invention broadly as indicated by the appended claim.

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

A cigarette lighter, a holding device attached to the dashboard of an automobile, said holder device having an aperture therein, contacts in said aperture, a source of energy connected to said contacts, an electromagnet surrounding said holding device, a switch connected to said electromagnet, a removable igniting unit adapted to fit into said aperture in said holding device, a tubular shoulder on said igniting device, a source of energy connected to said switch, said switch having an arm contacting said tubular shoulder to maintain said electromagnet deenergized and to energize said magnet when

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said igniting device is removed from the aperture in
said holding device.

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