

Feb. 15, 1927.

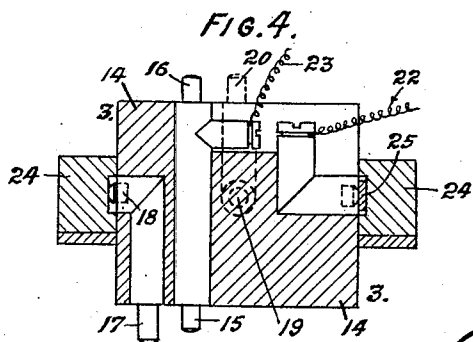
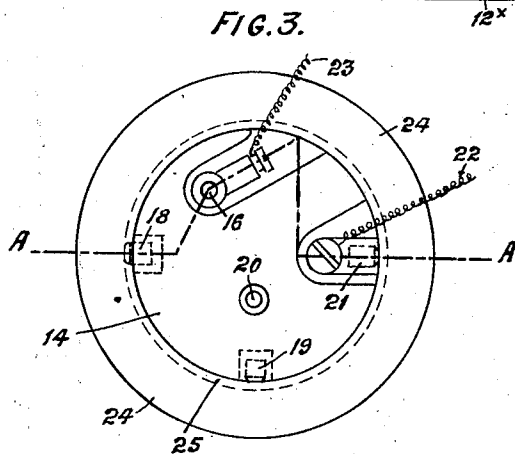
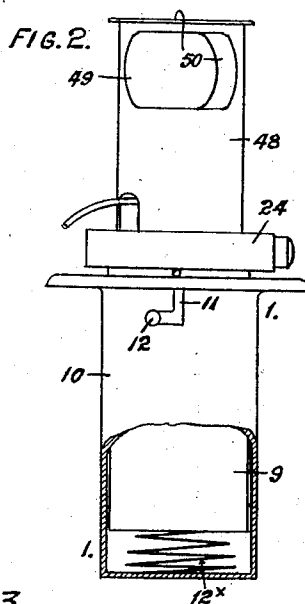
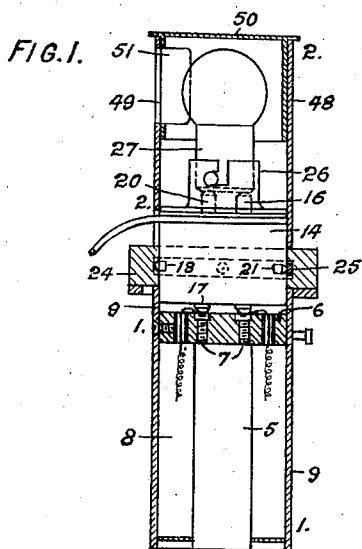
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1,617,892

DASH LAMP

Filed Jan. 26, 1925

2 Sheets-Sheet 1



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2 Sheets-Sheet 2

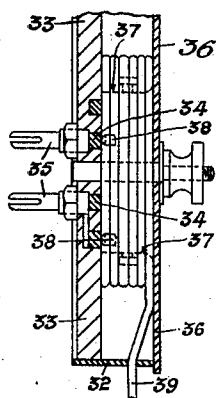


FIG. 5.

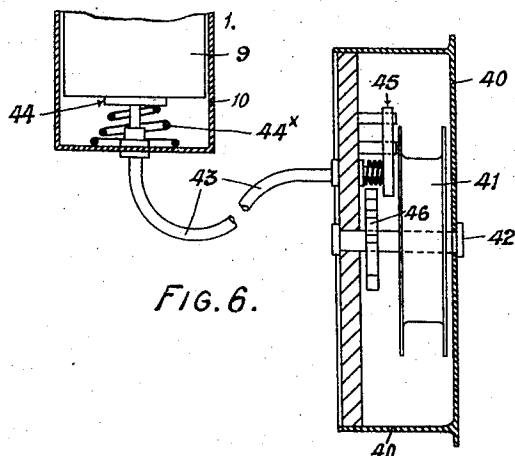
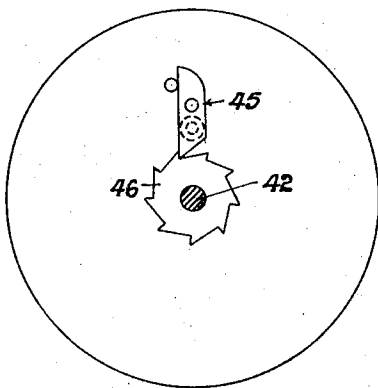


FIG. 6.

FIG. 7.



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UNITED STATES PATENT OFFICE.

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DASH LAMP.

Application filed January 26, 1925, Serial No. 4,828, and in Great Britain May 5, 1924.

This invention has reference to the operation and control of electric lamps, used on the dashboard or suitable part of self propelled vehicles, the object and purpose of which is, generally, to illuminate instruments or apparatus on or adjacent to the dashboard, or in sight of the driver.

Under this invention the lamp is adapted to serve both as a dashboard or like fixed light, or alternatively as a portable electric torch or the like, for inspecting the propelling machinery or other parts of the vehicle at any time.

The lamp has inserted in its base or other part, an electromagnet operated or controlled by a switch device, so arranged and adapted that either the lamp, or the coil of the magnet, can be operated, or both operated together; so that the switch enables the lamp to be used without taking current from the accumulator used for energizing the coil of the electro-magnet contained in the lamp.

To enable the lamp to be used conveniently in relation to the engine or propelling machinery of the vehicle, so as to illuminate it, additional sockets may be used, say, inside the engine cover on the dashboard, or in other suitable positions or on the chassis, adapted to receive the plugs or the like on the flexible conductor reel. Thus the necessity of having to use a long trail or length of flexible wire is obviated, and the lamp thus serves for the two purposes stated; and the lamp and reel being placed in position, the hands are left free to be used on any part or object required to be operated upon. On other portions of the car, the lamp is held by the magnetic base, thus leaving the hands free.

The pole pieces of the electro-magnet of the lamp enable it to be placed and held against any magnetic material, such as steel or iron parts of the vehicle frame.

In connection with lamps of the kind referred to, a shade is usually employed so as to limit the light for illuminating the operation of, or the instruments or mechanisms on or the dashboard or the like; the lamp being usually clipped or otherwise fastened to the board or its support.

The lamp shade under this invention, which say is cylindrical, is provided with a slot or opening for illuminating the instruments as usual, but it is constructed with a removable part, say, beyond the part in which the lamp is enclosed, so that when it is desired

to use the lamp for inspection or other purpose as stated by sliding off or removing this part, a clear area of the bulb for illuminating can be obtained. The slot may be in the removable portion of the shade.

In one arrangement, the lamp switch may be attached to the side of its casing containing the electro-magnet coil; and the switch may contain three contacts with a movable arm carrying a contact member at its end sufficiently wide to connect two of the contacts, so that the arm may be moved to one position in which it will both light the lamp and energize the coil; while in another position the lamp only is lighted and in a third only the coil is energized.

In one arrangement the coil and switch may be arranged below the lamp socket, the poles of the electro-magnet being at the bottom, and the switch between the magnet cores.

In some cases the flexible wire which is connected to the lamp, may have a spring reel connected with it so arranged and adapted as to take up slack between the socket and the lamp on the dashboard.

The invention will be further described with reference to the accompanying drawings, which illustrate it, and in which Figure 1 is a sectional elevation, and Figure 2 is an outside elevation of the apparatus; and Figures 3 and 4 are elevation and cross sections through the switch portion of the apparatus.

Referring to the drawings, 1 designates generally the magnetic base; 2 is the lamp portion; and 3 the switch.

With regard to the magnetic base or electro-magnet portion 1, this consists of a pole piece 5, having a head 6, within which are terminal contact pins 7 for the wires of the winding 8, and with which corresponding or complementary contacts on the lower part of the switch portion of the apparatus operate as hereafter explained.

The other pole of the magnet 1 consists of a tube 9, enclosing the winding, in contact with and attached to the other pole head or piece 6. It extends up above this head 6, as shown, and forms a socket for receiving an insulating body or carrier of the switch parts, as hereafter described.

The socket or carrier 10 shown in Figure 2, consists of a metal tube, with a flange for securing it to the dashboard fitting or other part; and it has a bayonet joint or angle

slot 11 in it, adapted to receive a locking or engaging pin 12, which projects out from the side of the pole 9; and when the apparatus is placed in position in the socket or hole, it is so passed down same that the pin 12 enters into the slot 11, and then by turning the two parts of the apparatus relatively to each other the pin passes into the horizontal portion of the slot. On being released, the apparatus is pressed upwards, and held in engagement with the slot, by a spring 12, in the bottom of the socket 10, which is put under compression by the magnet when moved down into position.

With regard to the switch portion, the contacts are carried in an ebonite or like insulation block 14; and in the arrangement of block shown, there is one common contact part extending through it, consisting of a lower spring pressed nipple 15, and an upper spring pressed nipple 16, the lower one being adapted to operate in connection with one of the contacts 7 of the magnet, and the upper one 16, to operate in connection with one of the contacts of the electric lamp.

Then in the lower part of the block there is a spring nipple contact device 17, for operating in connection with the other terminal 7 of the magnet pole 6; while on the upper end is another spring contact nipple 20 for operating in connection with the other contact of the lamp; and in connection with these two contacts 17 and 20 there are radial spring pressed nipple contacts 18 and 19, respectively, which are switch contacts proper.

The spring nipples 18 and 19 are 90° from one another; and at 90° from the latter, there is another spring nipple contact 21, with which a circuit conductor, say the return current conductor 22 is connected, whilst the supply conductor 23 is connected to the contacts 15, 16.

In connection with the three nipple contacts 18, 19, 21, there is employed a ring switch part 24, which is channelled on its inside, within which, for a little over half of its inner circumference, a copper contact strip 25 is provided, which works in connection with the various radial nipple contacts.

The lamp socket 26 is fixed on the top of the switch insulation body 14; and terminals of the usual kind on the bottom of the lamp 27, when in position, will rest on the contact nipples 16, 20.

The operation of the switch is as follows:—

When the switch ring 24 is worked so that the strip 25 is in contact with the nipples 18 and 21 only, then the current will only be supplied to the magnet 1, which will thereby be energized, and the lamp will be out of illumination; but when the ring is turned half a circle, so that the strip 25 is in contact with all three nipples 18, 19, 21, then both the magnet will be in circuit and energized, and the lamp will be put in illumination; or again, if the ring 24 be turned, so that the strip 25 is in contact with only the nipples 19 and 21, then the lamp will be in illumination, but the magnet circuit will be open and the magnet cut out.

Furthermore, if the strip 25 be in contact with neither the nipple 18, nor the nipple 19, and only with 21, then both lamp and magnet circuit will be opened and they will be cut out.

What is claimed is:—

1. An electric lamp apparatus, comprising an electromagnet constituting the base, a lamp portion and a switch disposed between same having a stationary body having contacts connected with the lamp contacts, and contacts connected with terminals of the electromagnet, and another set of radial contacts connected with the lamp and magnet circuits, and the current supply conductor, and a rotatory contact ring operating in connection with the latter set of contacts, and so adapted that by turning same current may be supplied to both the lamp and the magnet or current to the magnet may be cut off while the lamp circuit is closed or current is cut off to the lamp while the magnet circuit is closed.

2. An electric lamp apparatus for purposes as specified, comprising an electromagnet base portion, a lamp portion, a switch disposed between same having a stationary body with contacts adapted to be connected with the lamp contacts and with the coil terminals of the electromagnet, and another set of peripheral or radial contacts connected with the lamp and magnet circuits and the current supply conductor, and a rotatory contact ring operating in connection with the latter set of contacts.

In testimony whereof I have signed my name to this specification.

S. C. BELFIELD.