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AUTOMOBILE SIGNAL

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Fig. 1.

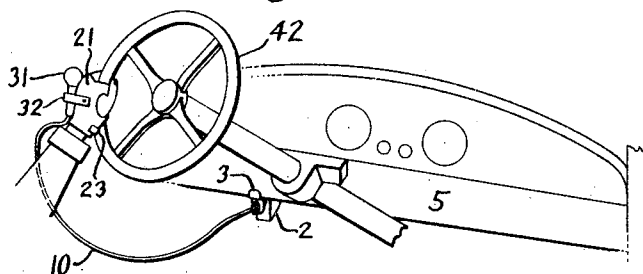


Fig. 2.

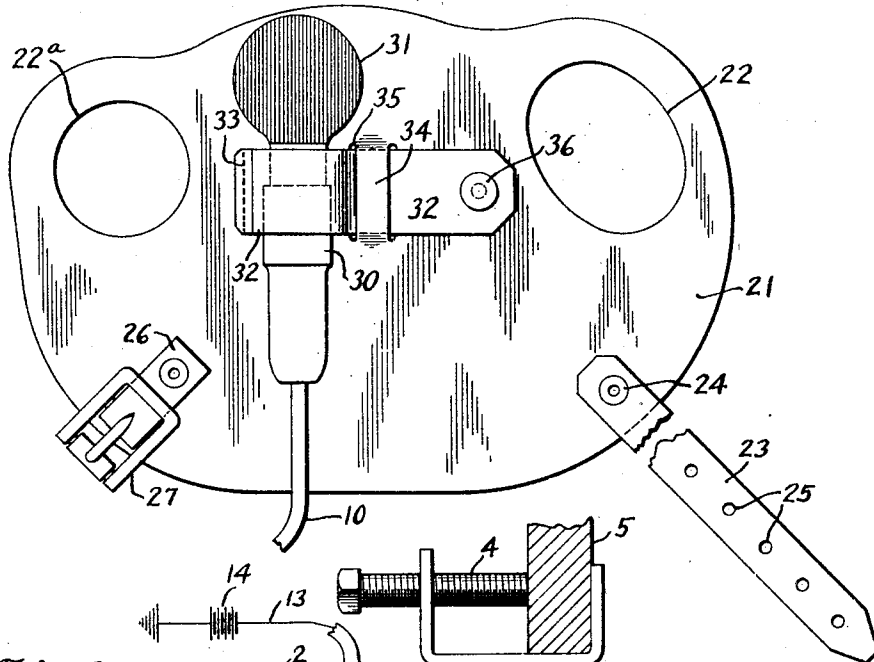
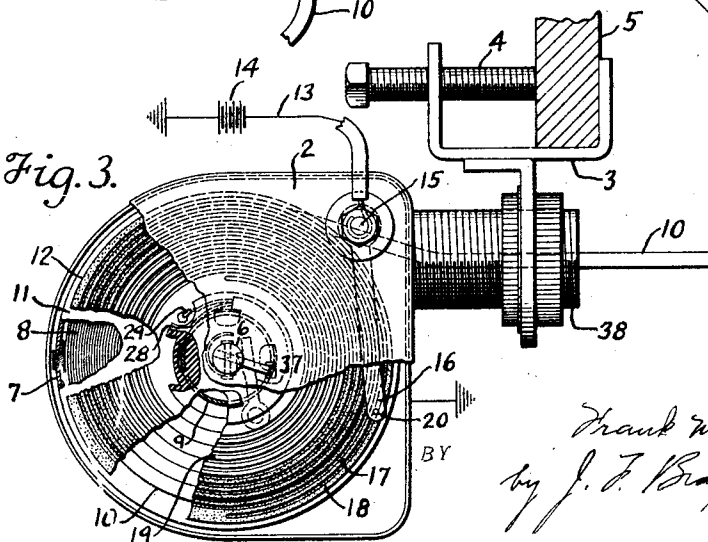


Fig. 3.



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AUTOMOBILE SIGNAL.

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This invention relates to automobile signals, and more particularly to that class of signals which are worn on or attached to the arm, wrist or hand of the driver in order to show a light to cars in the rear when the driver throws out his hand.

One of the objects of the invention is to provide a simple and effective device and apparatus of the said character, which is connected with a source of electric current on the automobile and has spring means for reeling in the electric cable, and wherein the driver's hand when on the steering-wheel is relieved of pull through the cable.

Another object is to provide a very simple, inexpensive, easily applicable and removable device, to be worn on the back of the hand, carrying the signal light.

A further object is to provide the simplest form of signal light with a very simple and convenient means for securing the same to a flexible device to be worn on the hand or arm.

Other objects, features, aspects and combinations of, and embraced within, the invention will become apparent.

In the accompanying drawings, forming part hereof:

Fig. 1 is a perspective view illustrating the invention installed in an automobile and connected with the driver's left hand;

Fig. 2 is a plan view of the hand part of the device spread out; and

Fig. 3 is a side sectional elevation of the part of the apparatus applied to the instrument board of the automobile, successive portions being broken away to show elements beneath.

The apparatus will be described in its preferred and complete embodiment.

A suitable casing 2 is applied by a bracket 3 and clamping screw 4 to the lower edge of the instrument board 5 of the automobile. Secured in the side walls of this casing is a shaft or stationary axle 6. A spring case 7 is rotatable on the axle, one end of the spiral reeling-in spring 8 being connected to the drum and the other end to the axle.

United with the rotatable spring case is a cable drum 9 on which the electric cable 10 is reeled and from which it is unreeled, the reeled cable being retained between the side of the spring case and a rotary disc 11, which is preferably of insulation, and which is united with the drum and with the spring case. Fixed to or formed with the disc 11,

and rotatable therewith, is a disc 12, though these details may be varied.

The apparatus is connected with a source of electric current on the automobile, that is to say, preferably with the starting and lighting system.

A conductor 13 is shown leading from the positive pole of battery 14 to a binding post 15 on the casing 2. This binding post may be understood to be insulated. A resilient contact arm 16 is pivoted on the axis of the binding post and is in electrical connection therewith.

The disc 12 may have a spiral groove 17, like the groove of a gramophone record, and such a groove serving conveniently for controlling an automatic means for closing and opening the signal circuit in accordance with the extent to which the cable is drawn out or reeled in. The circuit opening and closing means may be more special or mechanical than that shown, which is arranged in a simple manner by covering the outer part 18 of the grooved surface of the disc 12 with insulation, or by making this part of the disc entirely of insulation, while the inner part 19 is of metal, or of metal uncovered by insulation. When the contact point 20 of the arm 16 is in contact with the groove in the insulating, or insulated, part 18, the circuit is open, and when the point is in contact with the portion of the spiral groove in the part 19, the circuit is closed. The disc 12, or the metal part thereof, may be understood as in electrical connection with the casing 2, which may be suitably grounded as indicated.

The part worn by the driver comprises a flat piece 21 of flexible material, of leather or similar suitable sheet material, cut in such shape as to cover or to be worn on the back of the hand and to leave the palm and the fingers free and uncovered. This part can be put on the bare hand or over a glove with equal ease, and leave the hand free for steering on the wheel 42.

In the preferred form the part 21 is of general oblong form, greater in its transverse direction. It is cut or formed with a thumb hole 22 in one forward lateral region, or corner, and with a hole 22^a for the little finger in the other forward lateral portion.

A strap 23 is secured at 24 to one lateral rear portion of the part 21, this strap having a series of holes 25 for buckling; and a strap

end 26 is fixed to the other rear lateral corner region and has a buckle 27. This strap and buckle fastens the back hand cover and shield 21 about the base of the hand or the wrist. The palm and fingers are left entirely free for steering.

The cable 10 has one of its wires or conductors electrically connected at 28 with the drum 9, and through the drum 9 with the grounded casing 2. The end of the other wire of the cable is insulated from the grounded part of the device and is connected at 29 with the disc 12, or the metallic portion thereof.

The other end of the wires of the cable, which is of suitable length, say four or five feet, are electrically connected with an ordinary lamp socket 30. This lamp socket simply lies against the back or outer side of the flexible piece 21, in a general fore and aft direction, and is held thereto by simple means which will be described.

An incandescent lamp 31 is held in the socket by an ordinary detachable connection, the bulb of this lamp lying against the forward part of the back of the flexible shield 21.

The socket 30 and the lamp 31 are secured to the flexible part 21 by a strap 32, which is looped over the socket and detachably fastened, so as to clasp the socket and lamp to the flexible piece 21, and to permit the ready removal of the socket. As illustrated, this strap is secured at one end, at 33, to the piece 21, and at the opposite side of the socket 20 it is passed beneath a retainer 34, this retainer being formed by slitting or cutting the material of the piece at two regions 35, leaving the ends of the retainer united with the material of the main piece. The end of the strap is fastened to the back of the piece 21 at a point beyond the retainer 34 by a snap fastener 36.

A means is thus provided for holding the socket and its light snugly against the back of the part 21. No special or expensive fittings, attachments, boxes, holders, lenses or the like are required. The bare bulb serves admirably for signaling purposes, and lying against the piece 21, is sufficiently safe from shocks. This plan has also the advantage that the lamp is exposed and readily removable from and replaceable in the socket, and that the socket, with or without the lamp, can be easily removed from the part 21. With the parts assembled, the swell of the bulb 31 holds the lamp and the socket from being pulled out from beneath the strap 32. What has been sought is simplicity and economy, with the maximum of convenience and effectiveness in use.

If the spring 8 were constantly pulling on the cord 10, the result would be to impose a strain on the left hand of the driver when driving the car, which would be an annoy-

ance and interfere with steering. This is overcome by the inclusion of an automatic catch or clutch 37 adapted to restrain the spring reeling mechanism at substantially any point, and to permit itself to be disengaged by a pull on the cable so that the cable may be reeled in when desired. The catch is pivoted on the rotary spring case 7 and is adapted to engage a notch in the stationary axle.

The insulated or non-conducting portion 18 of the spirally grooved disc 12, and the un-insulated or conducting portion 19 thereof, are of such relative radial widths that when the cord is drawn to a distance and there held by the catch allowing the driver's left hand complete freedom in steering, the circuit is not closed and the lamp 31 is not lighted. When, however, the driver throws out his hand to signal to traffic in rear, the cable 10 is unreel further, rotating the cable drum and the disc 12, so that the contact point 20 passes into the conducting portion of the groove 17, causing the circuit to be completed and the lamp to flow. When the hand is returned to the steering-wheel, the cable is reeled in sufficiently to cause the lamp to be extinguished again, so that it does not shine in the driver's eyes. Another form of switch or circuit controlling device serving the same purpose may be employed.

When the device is not in use it is reeled in to the casing 2, where the rear end of the lamp socket 30 may be received within a tubular part 38 fixed to the casing, through which tubular part the cord emerges.

While the preferred embodiment of the invention has been described in detail, it will be understood that there may be various changes in form, detail and arrangement, and that parts of the invention may be used without others.

I claim:

1. An automobile signal comprising the combination of a signal light, means for attaching the said light to the driver's hand, an electrical cord in circuit with said light and with a source of current on the automobile, spring means for reeling up said cord, automatic circuit opening and closing means controlled by the reeling and unreeling operation for causing said light to be extinguished when the hand is on the wheel and to be lighted when the hand is used for signaling, and automatic means for restraining said reeling means so as to take strain off the driver's hand on the steering-wheel.

2. An automobile signal comprising a part of flexible sheet material adapted to be worn on the driver's hand, an electric light socket lying against the back of said part, an electrical cord connected with said socket, take-up means for said cord, a flexible strap connected to said part and looped tightly over said socket, and an electric light bulb in said

socket, said bulb being larger than the socket so that it can not be pulled rearwardly through the strap by the tension of the cord.

5 3. An automobile signal comprising a part of flexible sheet material adapted to be worn on the driver's hand, an electric light socket lying against the back of said part, an electrical cord connected with said socket, take-up means for said cord, a strap secured at one
10 end to said part and looped over said socket so as to clasp the same against the back of

said part, a retainer on said part beneath which said strap is passed at the opposite side of said socket from the secured end of the strap, a fastening for connection and disconnection of said strap with said part at a point
15 beyond said retainer, and an electric light bulb in said socket, said bulb being larger than the socket so that it cannot be pulled rearwardly through the strap by the tension
20 of the cord.

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