June 17, 1924. 1,498,478

G. OPPENLANDER

DIRECTION INDICATOR FOR AUTOMOBILES

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Fig. 1.

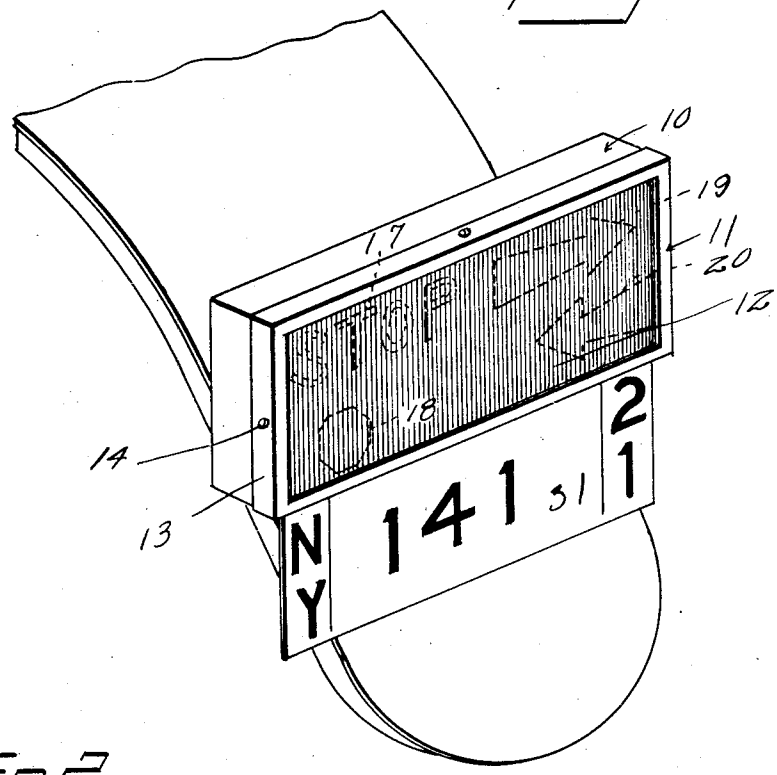


Fig. 2.

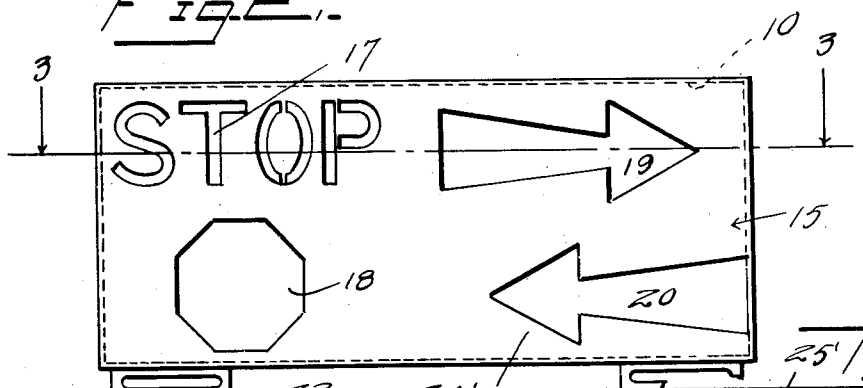
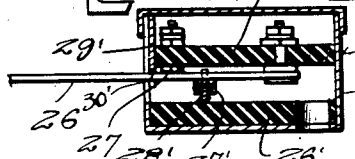


Fig. 8.



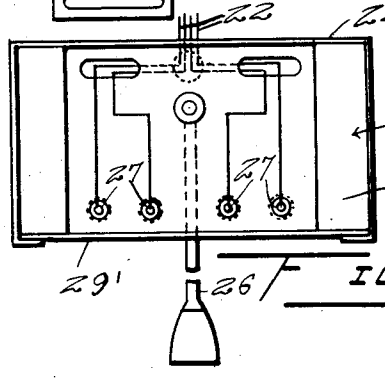


Fig. 7.

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Fig. 4.

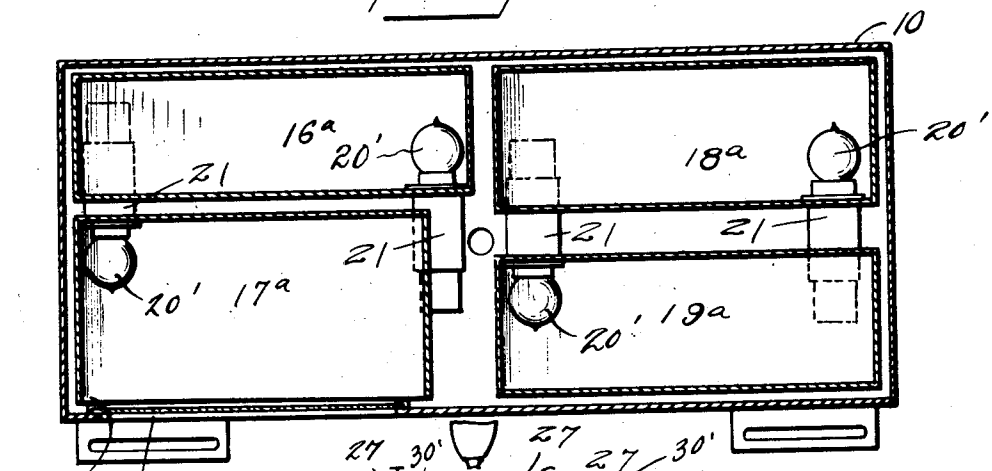


Fig. 3.

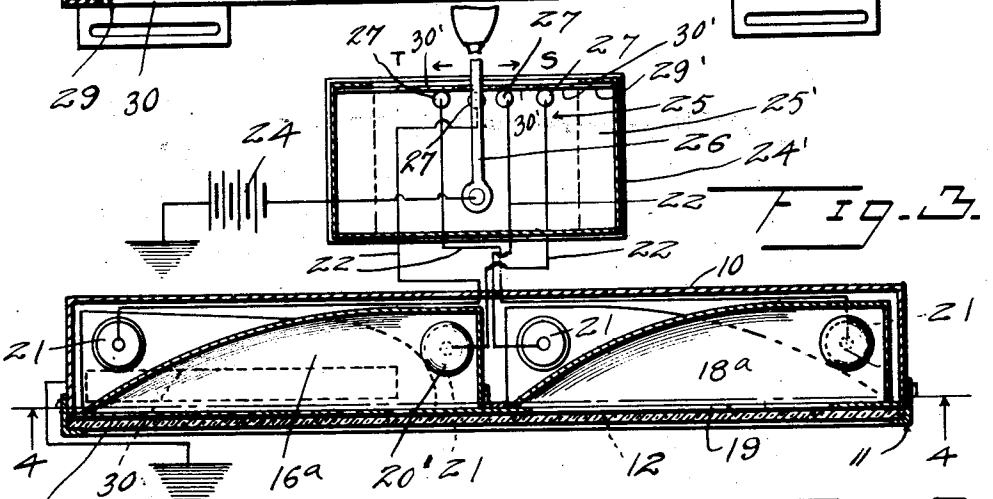


Fig. 5.

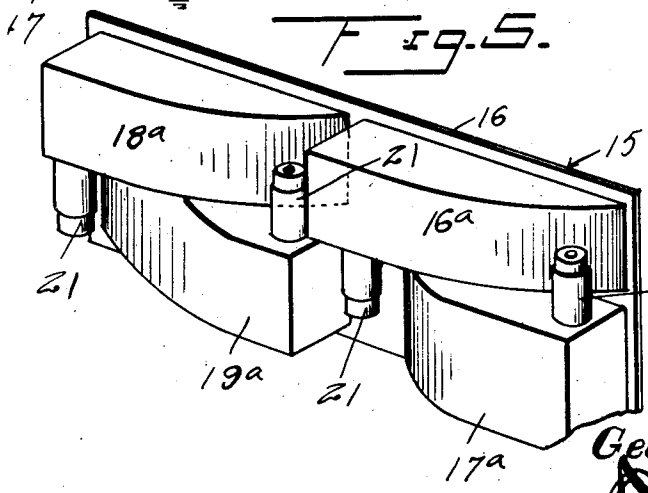
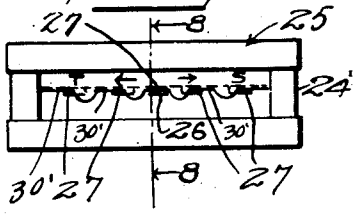


Fig. 6.



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UNITED STATES PATENT OFFICE.

GEORGE OPPENLANDER, OF PORTLAND, OREGON.

DIRECTION INDICATOR FOR AUTOMOBILES.

Application filed April 12, 1921. Serial No. 460,664.

To all whom it may concern:

Be it known that I, GEORGE OPPENLANDER, a citizen of the United States, residing at Portland, in the county of Multnomah and State of Oregon, have invented certain new and useful Improvements in Direction Indicators for Automobiles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The object of the invention is to provide a simple and comparatively inexpensive apparatus for indicating by light signals the intention of the driver of the car with reference to turning to the right or left or checking forward movement or stopping, and in that connection to provide an efficient stationary tail light required by the majority of the municipal ordinances in regard to traffic and a means of clearly displaying the license number on the car; and more particularly to provide an apparatus of this type involving the minimum of expense in construction, installation and maintenance and adapted to be controlled to indicate the intention of the driver with the least possible effort and without loss of time or requiring the distraction of the attention of the driver from the more important work of controlling his vehicle; and with these objects in view the invention consists in a construction, combination and relation of parts of which a preferred embodiment is shown in the drawing, wherein:

Figure 1 is a general view in perspective of the device applied in the operative position to the rear end of a vehicle of the automobile type.

Figure 2 is a face view with the colored lens or panel removed.

Figures 3 and 4 are longitudinal sectional views respectively on the planes indicated by the lines 3—3 and 4—4 of Figure 2 and Figure 3 respectively.

Figure 5 is a perspective view taken from the rear of the filler or inner casing which is of compartmental construction to separate the signalling means and showing the sockets for the several lighting units with which the compartments are provided.

Figure 6 is a front elevation illustrating the switch.

Figure 7 is a plan view illustrating the same with the cover of the switch removed,

Figure 8 is a transverse sectional view taken on the line 8—8 of Figure 6.

The apparatus consists essentially of an outer casing 10 having a removable cover 11 carrying a colored, preferably red glass, lens or panel 12 and flanged as at 13 to fit over the edges of the walls of the casing to which attachment may be made by means of screws 14 or the equivalent thereof. Within this outer casing is an inner casing or filler 15 of which the front wall 16, arranged for example, and as shown, flush with the edges of the walls of the outer casing, forms a plate in which are formed openings respectively representing a stop signal 17, a tail light 18, which may be permanently displayed, and right and left direction indicators such as the darts 19 and 20. The filler is of compartmental construction embodying a plurality of compartments respectively adapted to contain lighting units 20′, each of said compartments, as shown in Figures 3 and 4, having in communication therewith one of the signal openings above referred to as being designated respectively 17, 18 19, and 20, said compartments respectively being represented at 16^a, 17^a, 18^a, and 19^a and each having an arcuate rear reflecting wall which is overhung at its points of greatest depth by the front wall of the filler represented by the plate 16, to serve as a shield for the lighting unit arranged in that compartment, to thereby prevent the direct rays of light from the units penetrating or passing through the opening in the plate 16 to the rear of the vehicle. It is in other words the purpose in the arrangement indicated to provide a diffused or reflected light incident to the curvature of the reflecting surface formed by the wall of the compartment to penetrate the signal opening in the plate 16, and for this reason the direct rays of light from the units are intercepted by the overhanging portions of the plate 16 constituting the wall of each signal compartment. In a suitable position in one of the side walls of each of the compartments there is arranged a socket 21 for the corresponding lighting unit consisting in the construction illustrated of an incandescent light bulb or globe, and connection is made with the socket by electric wire leads 22 adapted to be arranged in circuit with the lighting system of the car or vehicle, and having any suitable source of

energy represented by the battery 24, the several circuits including a four point switch 25 that includes a casing 24′ in which is positioned relatively spaced insulating plates 25′ and 26′ and the plate 25′ carries contacts 27 that are connected to the wires 22 and also said plate has pivoted thereto a switch arm 26 adapted to be moved to bridge any one of the contacts to the casing 24′ so as to complete the circuit to the respective lamp. A movably mounted support 27′ is carried by the plate 26′ and engages the switch arm 26. The support is urged in the direction of the plate 25′ by spring 28′ for normally urging the switch arm into a position to engage the contacts when swung laterally on its pivot in either direction. The front wall of the casing 24′ is provided with an opening to permit the switch arm to extend exteriorly of the casing and said opening is partially closed by a plate 29′ provided with a series of notches 30′ disposed in alinement with the contacts, so that when the switch arm is positioned into a notch, it will engage the contact in alinement with the respective notch. The intermediate notch is adapted to receive the switch arm when in a neutral position. The switch arm on being moved out of the notches is depressed and held in a depressed position by the lower edge of the plate 29′. Characters corresponding to the characters of the signals are applied to the plate 29′ to guide the operator when operating the switch arm. The switch may be arranged at any convenient point within reach of the operator of the car so that it may be shifted from time to time to indicate the intention of the driver, the normal position of the switch arm being such as to maintain an exposed tail light through the signal opening 18. Moreover, the lower wall of the compartment 17ª is preferably cut away or provided with an opening 29 in communication or registration with a corresponding opening 30 in the wall of the outer casing so as to permit of projecting a shaft of light upon the license tag 31 suspended below the casing as indicated in Figure 1. Said opening 30 may be glazed as indicated to protect the interior of the casing.

Having thus described the invention, what I claim is:—

A direction indicator for vehicles, the same comprising an exterior casing having an open side, a frame carrying a light penetrable colored panel adapted to close said side, a perforate plate abutting the edges at the open side of the casing and disposed between the casing and said panel, the perforations in said plate representing signal indications, a series of housings carried by said perforated plate on a side remote from the panel and one of said housings disposed to cover each of the signal indications, each of said housings comprising top and bottom walls, an end wall and an arcuate front wall connecting the forward edge of the end wall with a remote portion of the perforated plate, and an independently controllable lighting unit arranged in each of said casings adjacent the end walls thereof.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE OPPENLANDER.

Witnesses:
W. R. Beardslee,
Wm. H. Weber.