

April 20, 1937.

E. T. CONDON
DIRECTIONAL SIGN FOR MOTOR VEHICLES

2,077,461

Filed Sept. 27, 1932

FIG. 1

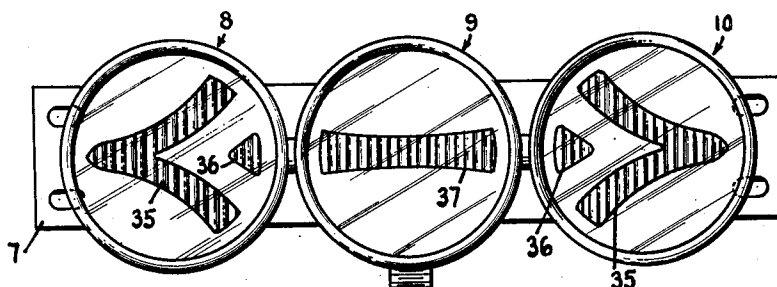


FIG. 2

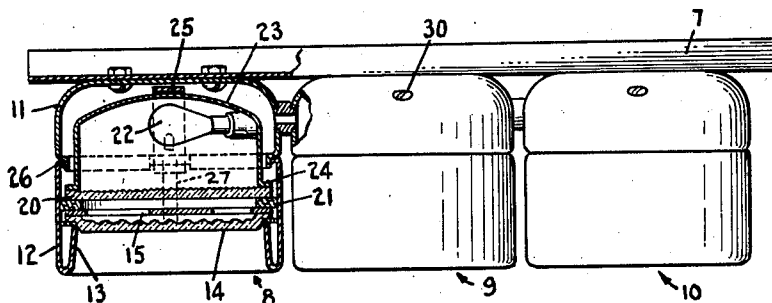


FIG. 3

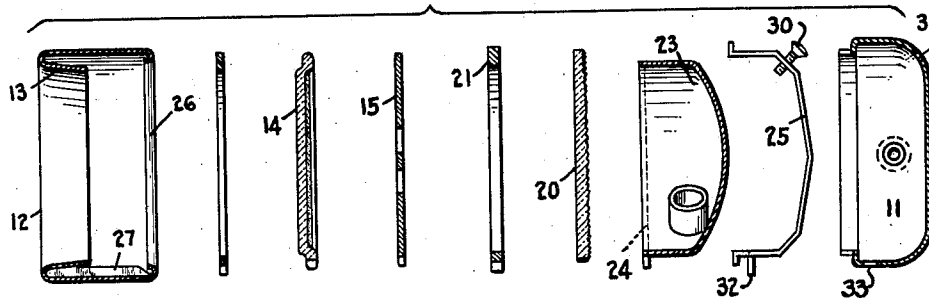


FIG. 4

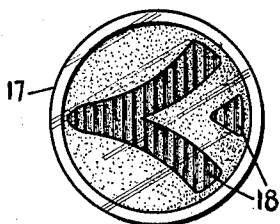
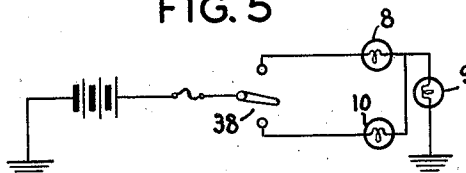


FIG. 5



INVENTOR
Edward T. Condon
BY *Frederick D. Shurt*
ATTORNEY

UNITED STATES PATENT OFFICE

2,077,461

DIRECTIONAL SIGN FOR MOTOR VEHICLES

Edward T. Condon, New York, N. Y.

Application September 27, 1932, Serial No. 635,006

2 Claims. (Cl. 177—329)

The invention relates to directional sign devices for motor vehicles, and more particularly to electrically operated devices whereby a right- or left-hand turn may be indicated at will to a succeeding or approaching vehicle, by the operator of the vehicle bearing such signal device.

It has for an object to provide in one device signal indicia for either direction and to reduce the width and general dimensions of such device to a minimum.

A further object of the invention is to reduce also the number of illuminating means to a minimum.

Still another object of the invention resides in the novel lamp assembly, and to the arrangement for preventing undesired illumination of the indicia through light from external sources.

In carrying out the invention, a plurality of signal compartments or lamps are mounted adjacent one another upon an elongated support member, two adjacent lamps bearing different portions of a complete signal design, and electric lights being provided behind the design-bearing lens of each lamp to illuminate their design portions simultaneously. Provision is made, furthermore, for a lamp intermediate two end lamps and whose design portion is adapted to cooperate then with the design portion of either of the adjacent lamps as selected.

The nature of the invention, however, will best be understood when described in connection with the accompanying drawing, in which:

Fig. 1 is a front elevation of the novel directional sign device.

Fig. 2 is a plan thereof with portion shown in horizontal section.

Fig. 3 is an exploded view of the lamp-housing assembly.

Fig. 4 is a front elevation of a modified form of the design-bearing lens.

Fig. 5 is a diagrammatic view illustrating the electrical circuit involved in the operation of the signal device.

Referring to the drawing, 7 designates a suitable channel support member adapted for attachment to the desired portion of the vehicle (not shown). To this support member is adapted to be rigidly secured one of the portions of each of a plurality of signal lamps 8, 9 and 10, the same being located adjacent to one another thereon. These lamps comprise housings, for example, of the acorn type and having an inner secured portion 11 in the nature of a bowl, while the outer portion 12 is separable and in the nature of a barrel or open cylinder, for example, with its outer

portion turned inwardly and backwardly upon itself as at 13 to afford a shoulder for a design-bearing lens 14. The turned-back portion 13, moreover, sets this design-bearing lens back an appreciable distance and affords a shadow box 5 therefor so that undesired illumination of the same from an external source will be materially reduced and no confusion as to signals results.

This lens may be of the vertically fluted type adapted to spread light rays more or less longitudinally of the support for the purpose hereinafter set forth, and the fluted portion is provided only on the rear or inner surface, as shown.

The particular design of the signal to be displayed may be afforded by means of a stencil plate 15 located immediately behind the lens 14 which is preferably sand-blasted over its inner face, and the surface of the stencil plate adjacent the lens being preferably blackened while its opposite surface which faces the inner portion of the bowl 11 is preferably polished to reflect back any light into the interior.

Or, as indicated in Fig. 4, the back of the lens 17 may be sand-blasted or etched and also rendered opaque except for the design portion 18, and which alone is fluted. By the term "design-bearing" lens as used hereinafter and in the claims, either form hereinbefore described is to be understood.

In the provision of a sand-blasted or etched rear surface of the design, any external illumination will be prevented from passing through with any degree of intensity.

The desired color in which the signal is to be displayed may conveniently be obtained from a transparent or translucent colored disk 20 located behind the design-bearing lens, said disk being preferably of so-called stipple glass with the stippled surface facing inwardly toward the interior of the housing. This disk, furthermore, is preferably displaced an appreciable distance from the lens by a gasket 21 or the like to afford an intermediate air chamber to further tend to dissipate any external light which might enter through the design and thus be reflected back to illuminate the lens.

The desired illumination for a signal is obtained from electric light 22 carried by a parabolic reflector 23 and mounted with its filament substantially in the focus of the reflector, the light and reflector being positioned behind the colored disk 20. Reflector 23 is provided with a flange 24 bearing upon the disk 20 at its circumference; and all of the members are retained in position by means of this flange through the action of a

resilient strap member 25 which is adapted to fit over the bottom of the reflector and is removably secured at its opposite ends beneath the intumed inner edge 26 of member 12. A suitable longitudinal key 27 in the inner wall of the housing member 12 serves to properly locate the various elements of this assembly which may be slotted to fit the said key.

The hereinbefore-described assembly, moreover, makes for a compact unit which is readily joined to the bowl portion 11 of the housing, for example, by means of a screw 30 adapted to pass through an opening 31 in the wall of the bowl and threaded into the strap 25 holding the unit together. Furthermore, in uniting the two housing portions, a prong 32 at the end of the strap opposite the screw-receiving end, and projecting radially over the adjacent edge of the housing portion 12, is adapted to enter a hole 33 in the wall of the bowl portion 11 of the housing and thus further insure the union of the two members.

As shown, more particularly in Fig. 1 of the drawing, the designs of the two end lamps are similar but are arranged in reverse order, the design representing, for example, an arrowhead 35 and a separated radially positioned tail portion 36. The intermediate lamp, however, merely sets forth a design in the nature of a diameter 37 but which is arranged to align substantially with the position of either of the separated portions 36 of an outer lamp. Thus, when the intermediate lamp and one of the outer lamps are illuminated by their respective electric lights, for example through the operation of a multipoint switch 38 included in a grounded circuit with the lamps, the signal will have the appearance of a substantially continuous arrow. The length of the tail portion of the design may be lengthened, of course, by providing additional lamps between

the end lamps and bearing the tail design similar to that of the said intermediate lamp 9. By making use of the vertical fluting, at least over the actual design portion, the light shining there-through is spread more or less longitudinally, tending to give the effect at a distance of a continuous arrow, and a maximum illumination also is attained.

I claim:

1. A directional sign device for motor vehicles, comprising a lamp housing open at one end, a light-transmitting element bearing an arrow indicia fluted transversely to its length to expand laterally light rays therefrom, said element closing the opening of the housing, a colored light-transmitting member located in the housing behind said light-transmitting arrow-bearing element, a lamp in the housing for transmitting light through the colored light-transmitting member, and means separating the latter from the light-transmitting arrow-bearing element to an extent to provide a chamber for dissipating rays of light emanating externally of the housing.

2. A directional sign device for motor vehicles, comprising a lamp housing open at one end, a light-transmitting element etched over a surface and bearing an arrow indicia fluted transversely to its length to expand laterally light rays therefrom, said element closing the opening of the housing, a colored light-transmitting member located in the housing behind said light-transmitting arrow-bearing element, a lamp in the housing for transmitting light through the colored light-transmitting member, and means separating the latter from the light-transmitting arrow-bearing element to an extent to provide a chamber for dissipating rays of light emanating externally of the housing.

EDWARD T. CONDON.