Nov. 4, 1941. H. C. SMITH 2,261,571

VEHICLE SIGNAL

Filed July 1, 1939

Fig. 1

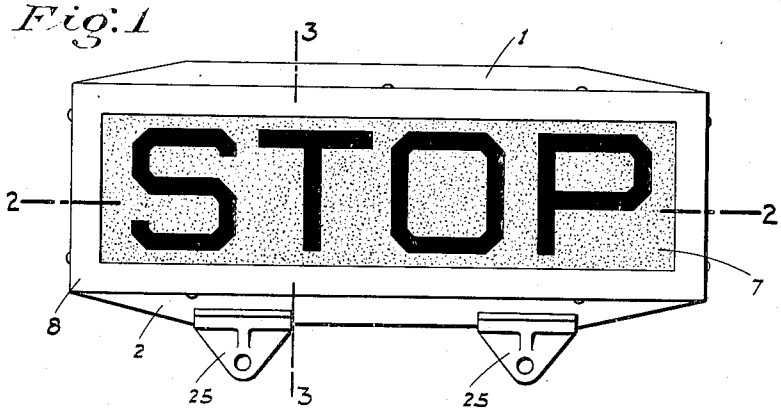


Fig. 2

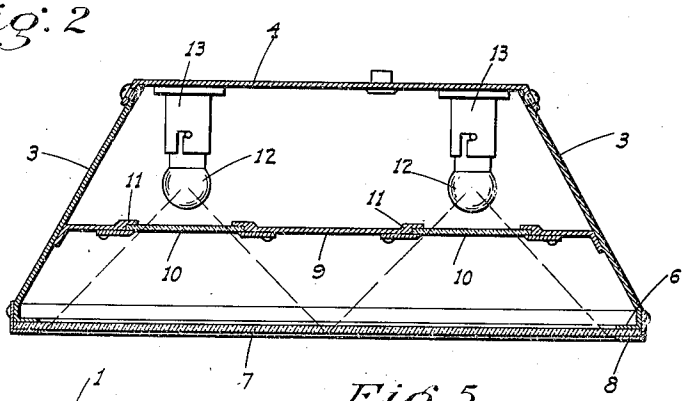


Fig. 3

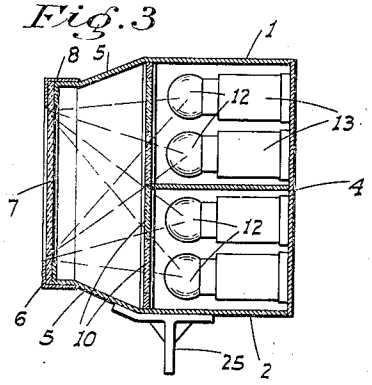


Fig. 5

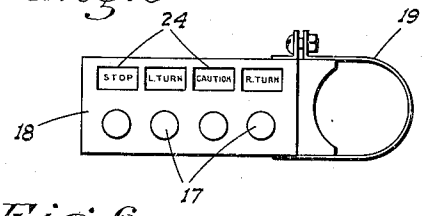


Fig. 6

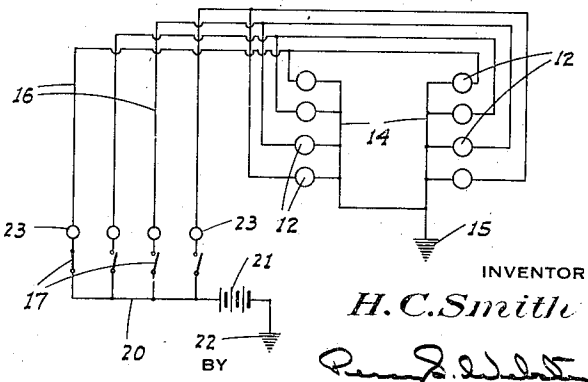
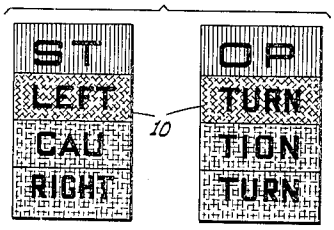


Fig. 4



INVENTOR

H. C. Smith

BY

ATTORNEY

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VEHICLE SIGNAL

Harold C. Smith, Tracy, Calif.

Application July 1, 1939, Serial No. 282,561

1 Claim. (Cl. 177—327)

This invention relates in general to an improved automotive vehicle signal of the type which may be mounted on the front or rear ends, or both ends, of a vehicle and controlled from a manually actuated unit in the driver's compartment.

In particular the invention is directed to, and it is my principal object to provide, a unique form of signal device which includes a housing having a translucent face or pane, and electrical means within the housing arranged to selectively effect the projection of any one of a number of warning or signal words on said face from within the housing and so that such words are readable from a substantial distance away from the device.

A further object of the invention is to produce a simple and inexpensive device and yet one which will be exceedingly effective for the purpose for which it is designed.

These objects I accomplish by means of such structure and relative arrangement of parts as will fully appear by a perusal of the following specification and claim.

In the drawing similar characters of reference indicate corresponding parts in the several views:

Figure 1 is a front elevation of the device.

Figure 2 is a sectional plan view on line 2—2 of Fig. 1.

Figure 3 is a cross section on line 3—3 of Fig. 1.

Figure 4 is an elevation of the transparent, lettered slides removed from the remainder of the device.

Figure 5 is a front elevation of the control unit.

Figure 6 is a diagram of the circuit employed.

Referring now more particularly to the characters of reference on the drawing, the device comprises an enclosed, horizontally elongated housing comprising a top plate 1, a bottom plate 2, end plates 3, and a back plate 4; the end plates 3 diverging forwardly, and the top and bottom plates converging somewhat as at 5. The top and bottom plates as well as the end plates are formed with inturned flanges 6 at their forward edges.

A pane of frosted or ground glass 7 forms the front of the housing; such pane being held in position against flanges 6 by means of a securing or border frame 8. The back plate 4 and pane 8 are disposed parallel to each other, and a vertical partition 9 extends between the end plates 3 intermediate of and parallel to said back plate and pane. This partition includes spaced vertical rows of removable glass slides 10; each such row of slides being carried at its side edges in channels 11 formed in said partition. These rows of slides are disposed in predetermined spaced relation for the purpose which will hereinafter appear, and each row in the present embodiment comprises four slides.

Corresponding slides in the spaced row are shaded the same color, and such corresponding sildes bear a warning or signal word applied with an opaque material; approximately one-half the word being on one slide in one row and the other half being on the corresponding slide in the other row. For example, the uppermost slides, as shown in Fig. 4, are both shaded red and one bears the letters ST and the other bears the letters OP.

Prefocused electric globes 12, carried in sockets 13 which are mounted on the back plate 4, are disposed back of the slides 10; there being a separate globe for each slide. Thus, there are two vertical rows of four globes each; the globes being positioned in the same symmetrical and relative arrangement as the slides.

Corresponding globes in the separate rows are illuminated simultaneously through the medium of a circuit which includes leads 14 connected to a common ground 15, and other separate leads 16 which extend to one terminal of separate snap switches 17 mounted on a control box 18 adapted to be secured on the steering post (not shown) of the vehicle by means of a clamp 19. The other terminals of the snap switches are connected by a common lead 20 to one side of the vehicle storage battery 21 whose other side is grounded as at 22. Indicator lights 23 are interposed in series in leads 16; such indicator lights being disposed in box 18 behind translucent windows 24 on which are imprinted warning or signal words corresponding to the words on the slides 10; the globes 12 and 23 in each separate circuit being disposed adjacent a slide 10 and window 24 respectively which bear like words. The driver is at all times apprised as to which, or if any, signal circuit is closed by such indicator lights 23 behind said windows 24.

In use the housing is mounted on a motor vehicle by suitable supporting brackets 25 and with pane 7 outermost; there being a separate device on both the front and rear of the vehicle if desired.

In order to give one of the several signals, the driver closes that one of switches 17 which corresponds to such signal. The pair of globes 12 behind the slides on which such signal word or words appears are illuminated and the signal is projected by the light of the prefocused globes onto the back of the ground glass pane 7; one-

half of the signal being projected from one slide, and the other half from the other slide. The projected word or words are clearly visible on the ground glass for some distance and are clearly legible as the same appear on a field the same color or shade as the slides. For example, the word Stop appears on a red field.

As the slides 10 are disposed relatively close to globes 12 and spaced a substantial distance from pane 7, the image of the letters on the slides when projected is relatively large, and their increase in size, plus proper positioning of the globes 12 results in the projected letters and words being properly disposed even though the slides, each of which bears only a portion of the signal indicia, are spaced apart. The lines of projection of the images are shown in Figs. 2 and 3, and as the globes are prefocused, each globe projects an image from the corresponding slide.

The device is practically foolproof, gives an easily read signal, and provides for a number of safety signals with a minimum of mechanism.

From the foregoing description it will be readily seen that I have produced such a device as substantially fulfills the objects of the invention as set forth herein.

While this specification sets forth in detail the present and preferred construction of the device, still in practice such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention, as defined by the appended claim.

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

In a signal device, a housing having a vertical translucent face plate, a pair of translucent relatively small slides behind the plate disposed in a common vertical plane and in longitudinal but spaced alinement with each other, an opaque partition surrounding the slides and in which the latter are mounted, the slides each bearing a partial signal indicia which together form a complete signal indicium and a prefocused electric light in the housing behind each slide; each such light being positioned relative to the corresponding slide, the spacing between the slides and the plate being such as to cause the indicia to be projected from said slide onto the corresponding portion of the plate for substantially one half the length thereof.

HAROLD C. SMITH.