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ROAD SIGNAL

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1 Claim. (Cl. 116—63)

This invention relates to signal devices. More particularly, the invention has reference to a device of the character referred to which will be in the nature of a foldable, readily-portable sign, so designed as to be readily stored in the trunk of an automobile, and set up easily whenever its use becomes advisable.

By way of background, it may be noted that in many instances, the operator of a vehicle is compelled, under emergency conditions, to halt his vehicle for road repairs. Under these circumstances, the vehicle, though pulled to the side of the roadway will be so located as to cause the vehicle operator to be endangered by passing vehicles. Many accidents have resulted in these circumstances, and accordingly, the main object of the present invention is to provide a safety device which can be folded in a small area and readily carried in an automobile, which safety device can be erected easily when necessary, to warn approaching drivers of the stopped vehicle.

Obviously, a road signal device of the type stated should be formed as inexpensively as possible, and to this end, I propose to form the signal device as a pair of hingedly-connected frames, which ordinarily fold flat, but which can be spread to define a structure of inverted V-shape that will be readily supported upon the road surface. In accordance with the invention, each frame is provided with a plate portion, which portion can have lettering designed to warn the oncoming vehicles. Further, each plate is formed with a center opening, the openings of the respective frames being aligned horizontally so as to support the opposite ends of a conventional flashlight. In one of the openings, a concavo-convex lens is mounted, said lens being so disposed as to enlarge the size of the light at the head end of the flashlight, while at the same time coloring said light red or some other color signifying danger conditions.

Another object of importance is to provide a road signal device as stated which will be constructed relatively inexpensively, will be foldable into a minimum amount of space, and will be simply designed, so as to make use of a conventional flashlight or other illuminating device.

Other objects will appear from the following description, the claims appended thereto, and from the annexed drawing, in which like reference characters designate like parts throughout the several views, and wherein:

Figure 1 is a perspective view of a road signal device formed in accordance with the present invention, the device being shown as it appears when in use;

Figure 2 is a sectional view taken substantially on line 2—2 of Figure 1;

Figure 3 is an elevational view of the signal device, as it appears when viewed from the line 3—3 of Figure 2;

Figure 4 is a side elevational view of the device as it appears when folded;

Figure 5 is an enlarged fragmentary, vertical sectional view showing a modified form; and

Figure 6 is a view similar to Figure 5 showing a second modified form.

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The reference numeral 10 has been applied in the drawing to designate relatively elongated, parallel, transversely spaced legs of a frame designated generally by the reference numeral 11. The numeral 12 has been applied to the parallel, spaced legs of a frame 13, said frames being hingedly connected to one another at their upper ends, by a hinge pin 14 extending fully from side to side of the respective frames, said pin having its ends extended through registering openings formed in the upper ends of the legs 10, 12.

It will be seen that by reason of the construction illustrated and described, the frame can be normally collapsed or folded to the position shown in Figure 4. In this position of the parts, the frame can be stored in a relatively small area, as for example, on the floor of an ordinary automobile.

At the lower ends, the legs 10 and 12 are beveled as at 16, 18, respectively, thus to cause the device to be firmly supported when the frames 11, 13 are swung away from one another to the position shown in Figures 1 and 2.

As part of the frame 11, I provide a flat, approximately rectangular plate 20, said plate being adapted for the imprinting of a suitable legend thereon, such as the word "danger," intended to warn oncoming drivers of the stopped vehicle ahead. The plate 20 extends between the upper end portions of the legs 10, and is fixedly secured to said legs by means of nails 22 or equivalent fastening elements.

Fixed to the outer surface of plate 20 are reflectors 24, said reflectors being disposed in any desired arrangement and in any desired number.

A center opening 26 is formed in plate 20, and mounted in said opening is a concavo-convex lens 28 which, in a preferred embodiment of the invention, is tinted red or some other color intended to signify dangerous conditions. The lens 28 is integrally formed with an outwardly directed peripheral flange 30 secured to the edge portion of opening 26 by means of screws or nails 32.

As will be noted from Figure 2, the upper ends of the legs 12 of frame 13 are beveled so as to engage against the back surface of plate 20, when the frames are swung away from one another to an open position. In this way, the plate 20 limits movement of the frames away from one another.

The frame 13 includes a plate 36 analogous to the plate 20, said plate 36 extending between and being fixedly secured along its opposite side edges to the legs 12. Plate 36 has a center opening 40, and when the frames are swung to an open position, the openings 40, 26 will be horizontally aligned. As a result, a flashlight 42 can be positioned within said openings, with the head end of the flashlight being supported in the opening 26, and the other end of the flashlight being supported in the opening 40. The openings are substantially greater in diameter than the diameter of an ordinary flashlight, and as a result, the lens 28 will enlarge the light cast by the flashlight 42, while at the same time coloring said light red.

An effective signal device for oncoming motorists is thus provided, at a minimum of cost. The signal device can, of course, be used either in the day or night-time, and when used in the day-time will still provide a visual indication to an oncoming driver of the danger conditions ahead, this being so by reason of the legends printed upon or otherwise displayed upon the plates 20, 36. At night, substantially large, red light is displayed to oncoming vehicles, and it will be readily appreciated that by incorporation of a suitable flasher means, the light can be caused to blink on and off, thus to direct the attention of the driver approaching the scene even more forcibly to the presence of the stopped vehicle.

In Figure 5, there is illustrated a modified form where-

in a pair of large, dome-shaped lenses 44 are mounted in the hingedly-connected plates, with a two-way flashlight 46 being supported with its ends disposed in the respective lenses. The lenses would, of course, be preferably colored red, although they could be some other color or could be clear, if desired. In any event, the construction illustrated in Figure 5 would provide a clear red light, both in front and in back, that could be seen from a great distance in either direction.

In Figure 6 there is illustrated a construction wherein, instead of a two-way flashlight, there is used a trouble lamp 48. The lamp 48 may be supported between the lenses 44 in any suitable manner, as for example, on a bar 50.

The cord extending from the bulb socket of the trouble lamp would have, at its other end, a plug permitting said cord to be inserted in the cigarette lighter socket of the automobile. Trouble lights of this type are already known, per se. However, in accordance with the present invention, a flasher device would be placed in circuit with the bulb of the trouble light, to cause the light to blink on and off constantly, thus to provide a clearly visible blinker signal that could be seen in both directions.

It is believed apparent that the invention is not necessarily confined to the specific use or uses thereof described above, since it may be utilized for any purpose to which it may be suited. Nor is the invention to be necessarily limited to the specific construction illustrated and described, since such construction is only intended to be illustrative of the principles of operation and the means presently devised to carry out said principles, it being considered that the invention comprehends any minor change in construction that may be permitted within the scope of the appended claim.

What is claimed is:

A road signal device comprising a pair of flat frames hingedly connected to one another at one end to swing between folded and spread positions, each frame including a pair of parallel legs and a sign plate rigidly secured along its opposite side edges to and extending between said legs, each leg having at its upper end a single, obliquely cut end surface, the legs of one pair being disposed in the space between the legs of the other pair and being coplanar therewith in said folded position, each leg of one pair being in side-by-side contact with the adjacent leg of the other pair, the oblique end surfaces of contacting legs being faced in opposite directions, said end surfaces of the legs of one frame engaging against the sign plate of the other frame on swinging of the frames away from each other to spread positions, the sign plates having openings aligned horizontally with one another in the plate engaging positions of said end surfaces; and lens mounted in the opening of one of said sign plates for directions of flashlight beams there-through.

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