Nov. 19, 1946. H. BOOGHER 2,411,187

HIGHWAY REFLECTOR SIGN

Filed May 20, 1942

Fig. 1.

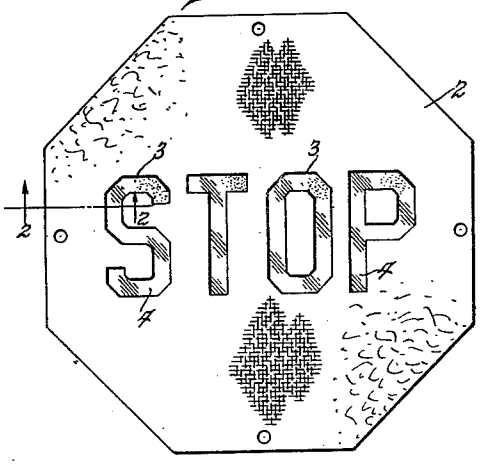


Fig. 2.

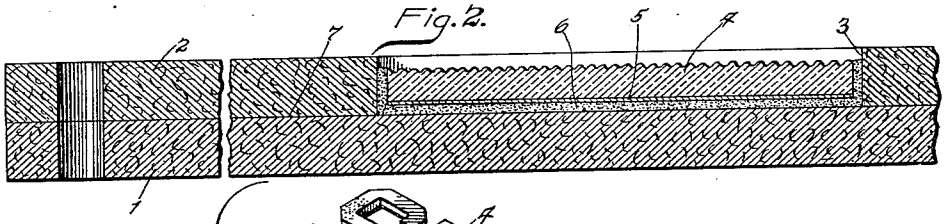
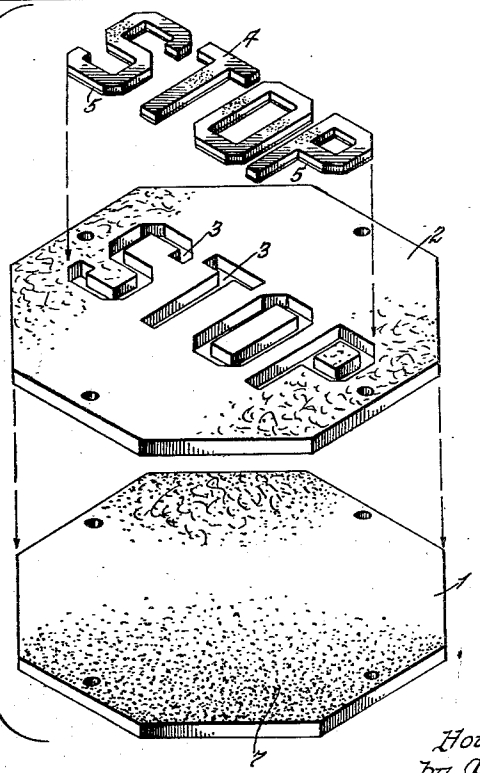


Fig. 3.



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Patented Nov. 19, 1946 2,411,187

UNITED STATES PATENT OFFICE

2,411,187

HIGHWAY REFLECTOR SIGN

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Application May 20, 1942, Serial No. 443,700

3 Claims. (Cl. 40—125)

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This invention relates to highway signs, either those intended for traffic regulation or those provided for advertising, and more particularly ones which include reflecting elements by which they are luminous under the influence of vehicular headlamps or neighboring lights.

An object of the invention is to provide such a highway sign of ply wood or its equivalent having incorporated therein reflecting units, which will be economical in construction, efficient in operation, neat in appearance, and durable in service.

Another object of the invention is to provide a highway sign having reflecting glass units set in a frame by means and with the frame material such that breakage of the glass in service will be reduced to a minimum.

While the invention is defined in the appended claims, the exact construction of a preferred embodiment is illustrated in the accompanying drawing and described below.

Fig. 1 is a face view of a traffic sign embodying this invention;

Fig. 2 is an enlarged sectional view on line 2—2, Fig. 1; and

Fig. 3 is an exploded view showing the different parts of the sign.

A sign as specifically illustrated and embodying this invention has a frame comprising two superimposed plies, one a continuous base 1 and the other a face 2. The face 2 has cut outs 3 corresponding to symbols. In the specific embodiments shown, these cut outs are in the form of the letters of the word "Stop." Reflecting elements 4 are of a form fitting the cut outs 3 and are secured against the base 1 within the cut outs.

The plies 1 and 2 are preferably of a material including ply wood and pressed board. By pressed board is meant a substance including fibrous material formed with a resin or other binder under pressure. Two examples of material which have been found satisfactory for this purpose are those known commercially as "masonite" and "hard board."

It will be understood that each of the plies 1 and 2 may consist of two or more plies, depending upon the material used and the thickness desired.

The reflecting plates may be of a wide variety of constructions. Preferably they are of glass, pitted on the front surface and mirrored on the bottom, as shown at 5. The mirroring material may be silver or aluminum. The plates may be cut from sheet stock which is obtainable on the market under the name "Diffusex," or they may

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be molded or pressed individually. It has been found that glass plates ⅛ inch in thickness are satisfactory.

In order to avoid breakage where glass reflecting elements are used the thickness of these elements, as shown in Fig. 2, should be less than the thickness of the ply 2. Thereby the outer surface of the elements are depressed below the outer surface of the sign. Allowance should also be made in the relative thickness of the plates 4 and the ply 2 for cement 6. The plates 4 should also be formed slightly smaller than the cut outs 3 so that the cement may be interposed between the edges of the plates and the inner walls of the cut outs. This cement should be waterproof and has preferably an asphaltic base. It serves to hold the reflector plates in position and also prevents moisture from gathering back of the plates.

The embodiment specifically illustrated in the drawing is a conventional "Stop" sign which is hexagonal, having its face surface painted yellow and with the letters S-T-O-P provided by the reflecting plates 4 secured within the cut outs 3 of the face ply 2.

In making and assembling the sign, the cut outs 3 are formed in the face ply 2 before it is secured to the base 1. These cut outs may be made readily by any one of several operations. They may be cut out with a jig saw, they may be punched, or they may be formed with a routing tool. Because they are cut out only from the ply 2, the flat surface of the ply 1 insures a plane surface as a backing for the reflecting elements. After the cut outs are formed in the face ply 2, the plies 1 and 2 may be secured together by an adhesive or cement 7. The reflector plates 4, which are formed corresponding to the cut outs 3, are then secured in position by cement 6 as previously described.

From the foregoing description it is obvious that the invention accomplishes its objects. The material for the plies 1 and 2 is inexpensive. The cut outs 3 may be formed readily and accurately before the plies are laminated together and the final assembly of the sign is a simple matter. The sockets for the reflectors, having the surface of the base 1 as their bottom and the internal edges of the cut outs 3 as their side walls, may be formed accurately and economically. In service the plates are relatively free from breakage, because their outer faces are depressed below the face of the sign. Furthermore the cement 6 prevents water from entering behind the plates where it might otherwise collect and freeze,

thereby breaking the plates. A cement, as indicated, which is somewhat yielding is used and the nature of the material in the plies 1 and 2 is such that the elements can be broken generally only by a direct blow. That is to say, if the sign is struck, as by gravel from the roadway, the vibrations will be dampened before they reach the glass. In brief, the invention produces a sign which is economical, and which lends itself to easy production methods. At the same time a sign is produced in which glass reflecting elements are well protected and in which breakage in service will be small.

I claim:

1. A highway sign comprising two superimposed plies, one a continuous base and the other a face, the face ply having cut outs with unbroken perpendicular walls extending from one side to the other of said face ply and corresponding in outline to symbols, and reflecting elements fitting and within the cut outs and secured against the base, the elements being of less thickness than the face ply whereby the outer surfaces of the elements are depressed below the outer surface of the face ply.

2. A highway sign comprising two superimposed plies, one a continuous base and the other a face, the face ply having cut outs with unbroken perpendicular walls extending from one side to the other of said face ply and corresponding in outline to symbols, and reflecting elements fitting and within the cutouts and secured against the base by waterproof cement between the elements and the base and between the edges of the elements and the walls of the cut outs.

3. A highway sign comprising two superimposed plies, one a continuous base and the other a face, the face ply having cut outs with unbroken perpendicular walls extending from one side to the other of said face ply and corresponding in outline to symbols, and reflecting elements fitting and within the cut outs and secured against the base, the plies being of a material selected from a class including ply wood and pressed board and the elements comprising glass plates having a mirroring coating.

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