

Dec. 17, 1929.

C. A. PERSONS
REFLECTING SIGNAL
Filed Oct. 12, 1927

1,739,733

2 Sheets-Sheet 1

FIG. 1

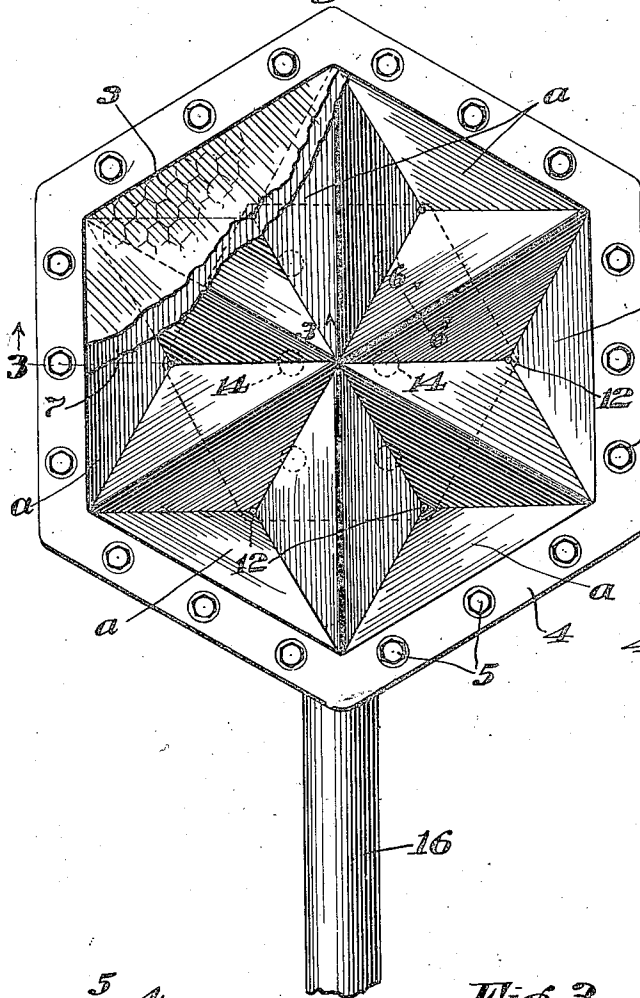


FIG. 2

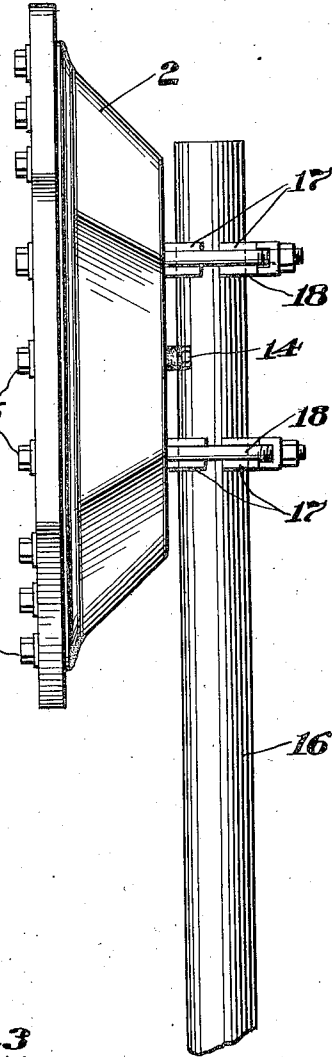
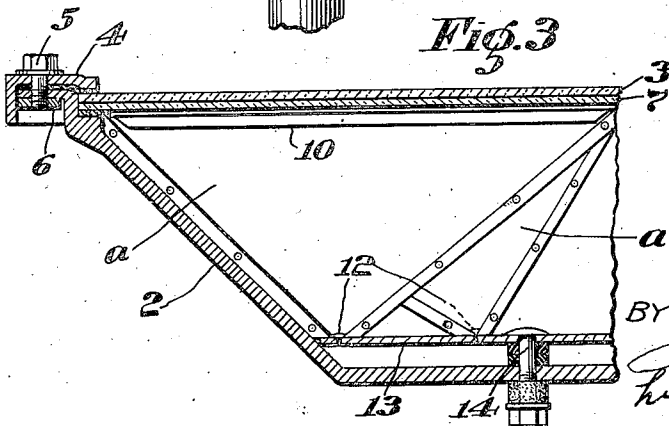


FIG. 3



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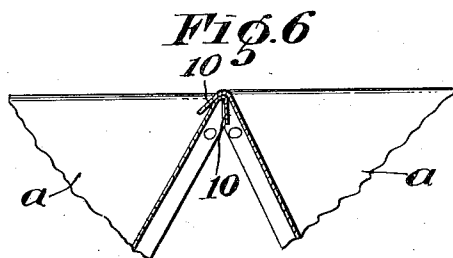
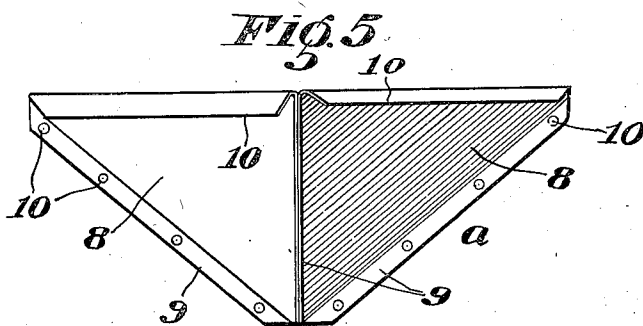
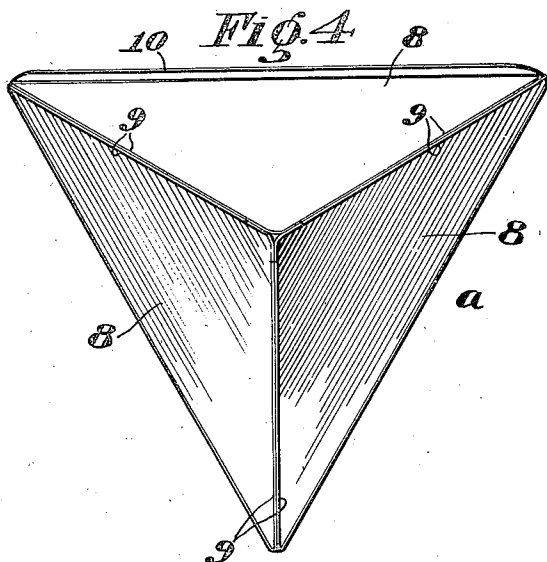
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2 Sheets-Sheet 2



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REFLECTING SIGNAL

Application filed October 12, 1927. Serial No. 225,768.

This invention relates to reflecting signals of the general type used on highways to mark curves, dangerous intersections, and the like.

It is the chief object of the invention to improve the construction of signals of this character with a view to reducing the manufacturing cost and increasing the efficiency, length of life, and reliability of such signals.

The nature of the invention will be readily understood from the following description when read in connection with the accompanying drawings, and the novel features will be particularly pointed out in the appended claims.

In the drawings,

Figure 1 is a front elevation of a signal constructed in accordance with this invention, certain of the parts being broken away in order better to illustrate the internal construction;

Fig. 2 is a side elevation of the signal shown in Fig. 1;

Fig. 3 is a cross-sectional view on the line 3—3, Fig. 1;

Fig. 4 is a plan view of the outer surface of one of the reflector units;

Fig. 5 is a side view of said unit; and

Fig. 6 is a cross-sectional view on the line 6—6, Fig. 1.

The signal shown includes a casing 2 which preferably, although not necessarily, is of approximately hexagonal outline and is deeply dished. Closing the mouth or open end of this casing is a glass plate 3 which is secured in place by a bezel or rim 4, the bezel being fastened to the casing 2 by bolts 5 which are threaded into bars 6, Fig. 3, lying immediately behind the margin of the casing 2. The casing 2 and bezel 4 may conveniently consist of castings or pressed parts of aluminum or any other suitable metal. In some cases a single glass plate or pane is used, while in other cases it is preferable to use two panes, the outer pane consisting of a wire reinforced glass which will resist shattering, while the inner pane or plate 7 is of red, yellow, or other suitably colored glass.

Signals of this type do not, as a rule, contain any source of light, but give their warning solely by reflected light. Consequently,

the effectiveness, efficiency, and the distance which the signal can be seen depend very largely on the character of the reflector used. An important feature of this invention, therefore, resides in the construction and mounting of the reflector.

As best shown in Fig. 1, the reflector consists of six reflector units *a*, each of triangular outline and each consisting of a sheet metal shell having the form of a pyramid with a triangular base. The reflecting surfaces are on the inside of this shell so that the surface of each reflector unit is of an inverted pyramidal form.

Referring more particularly to Figs. 3, 4 and 5 it will be observed that each reflector unit consists of three sheet metal plates 8, each plate being flat throughout the greater part of its area but having flanges 9—9 formed at its opposite margins, the flanges of adjoining plates being secured together by rivets 10. By making the units *a* in this manner, the silvering and polishing operations can be performed on flat surfaces before the plates are assembled so that the manufacturing operations are expedited and the expense of manufacture is materially reduced.

As shown in Fig. 1, six of these reflector units are located in the casing 2 and they are held in contiguous relationship to each other partly by the inclined walls of the casing and partly by split fasteners 12, Fig. 3, which secure the apices of the six units *a* to a metal plate 13. Two bolts 14—14, Figs. 1 and 3, fasten this plate to the back of the casing 2. The edges of the reflector unit which are not secured to each other either bear against the glass plate or lie immediately behind it, and each of these edges has a backwardly directed flange as shown at 10, the flange of one unit overlying that of the next adjacent unit, as clearly shown in Fig. 6. Preferably these flanges are silvered and polished so that they assist in reflecting the light.

When the parts are assembled in the manner shown in Figs. 1, 2 and 3, the units *a* cooperate to form a composite reflector of hexagonal outline, and provide a large number

of faces from which the light is reflected through the glass plate, giving the appearance of a gigantic jewel cut to form a multitude of facets. Usually the glass plate used in the device is of a ruby or amber shade so that it instantly attracts attention when the rays of a headlight are directed upon it in the night time.

The casing may be supported in any convenient manner, but usually it is mounted on an upright rod or tube 16, Figs. 1 and 2, to which it is secured by clamping members 17 and bolts 18, the bolts projecting through the back of the casing 2.

Signals of the construction here shown have proved uncommonly satisfactory in actual use. It will be evident from the foregoing description and an inspection of the drawings that the construction is very sturdy and substantial and that it can be manufactured economically. By using rubber washers around the bolts 14 and 18 and suitable gaskets at one or both sides of the glass plate, the entrance of any substantial amount of moisture to the casing is prevented and the reflecting surfaces thus will remain bright for an indefinite period.

While I have herein shown and described the preferred embodiment of my invention, it will be understood that the invention may be embodied in other forms without departing from the spirit or scope thereof.

Having thus described my invention, what I desire to claim as new is:

1. A hollow reflector unit for reflecting signals comprising three plates, each of triangular form, two of the margins of each plate being flanged and secured to similarly shaped margins of the other two plates whereby said plates form a shell of pyramidal shape having an interior reflecting surface.

2. A hollow reflector unit for reflecting signals comprising three plates, each of isosceles triangular form, two edges of each plate being flanged and riveted to like edges of the other two plates, whereby said plates form a shell of pyramidal shape having an interior reflecting surface.

3. A hollow reflector unit for reflecting signals comprising three plates, each of triangular form, two of the margins of each plate being flanged and secured to similarly shaped margins of the other two plates whereby said plates form a shell of pyramidal shape having an interior reflecting surface, the unconnected edges of said plates being provided with backwardly directed flanges.

4. A reflecting signal of the character described, comprising a casing, a glass plate mounted therein, a reflector located in said casing behind said plate and consisting of six triangular reflecting units held in contiguous relationship and together forming a composite reflector of hexagonal outline, each of said units having a reflecting surface of in-

verted pyramidal shape, the open ends of said units being located close to said glass plate, a supporting plate in said casing, additional to said reflector, and means for securing the apices of said units to said supporting plate.

5. A reflecting signal of the character described, comprising a dished casing, a glass plate substantially closing the open end of said casing, a reflector in said casing behind said plate and consisting of a plurality of independent sheet metal reflecting units, each having an open end of approximately equilateral triangular outline, each unit having a reflecting surface of inverted pyramidal form, a support additional to said reflector, means to secure the apices of said units to said support, and means for fastening said support to the rear wall of the casing.

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