

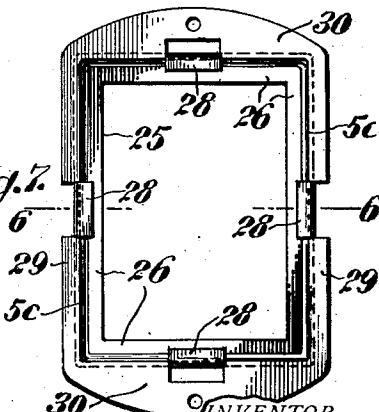
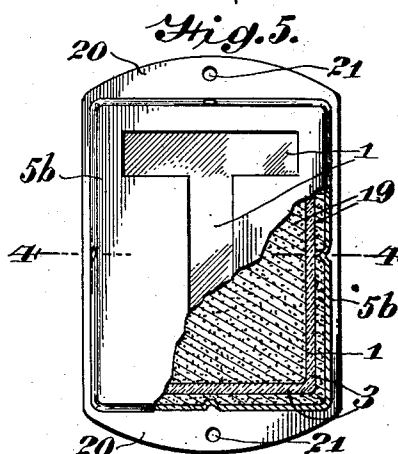
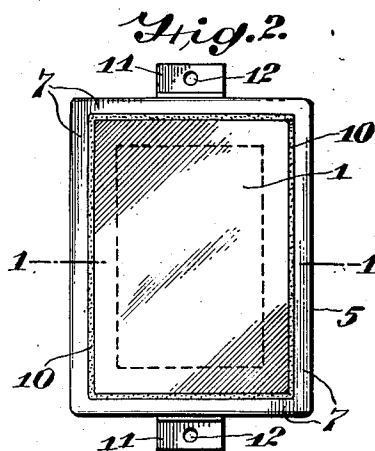
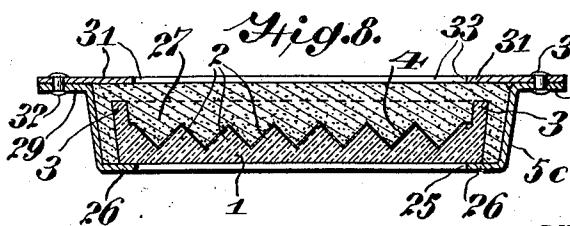
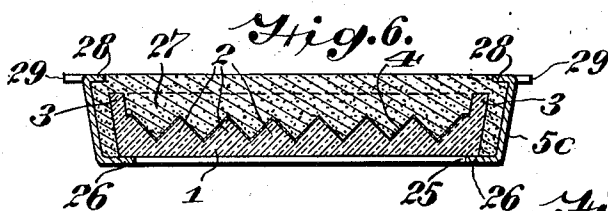
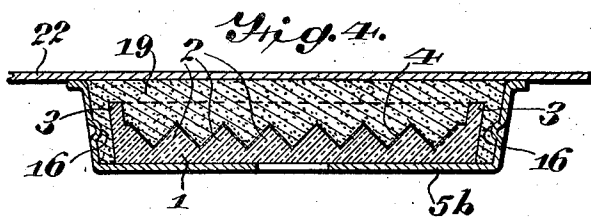
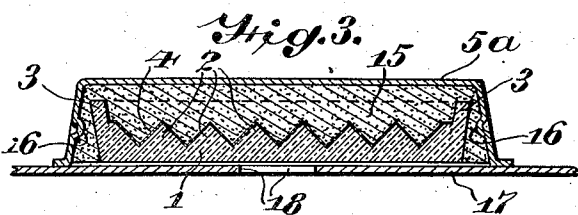
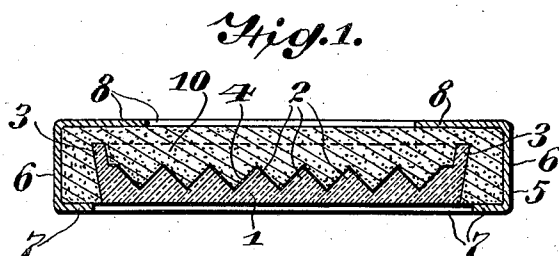
Dec. 30, 1930.

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1,786,958

TRAFFIC SIGNAL REFLECTOR

Filed June 11, 1927



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TRAFFIC-SIGNAL REFLECTOR

Application filed June 11, 1927. Serial No. 198,072.

My invention relates to reflectors which are adapted for signalling or other like purposes.

The invention is designed particularly for use in connection with reflectors consisting of sheets of glass or other like material, provided upon their rear surface with trihedral projections.

The general object of the invention is to provide supporting and protecting means for the said sheets of glass or other like material of a character such that the said sheets are protected and guarded against breakage and also of a character such that even though a sheet should be broken, its effectiveness as a reflector is not destroyed.

It also is an object of the invention to provide a reflector structure of a character such that information giving means may conveniently and economically be associated therewith.

Another object of the invention is to provide sheets of glass or the like, having projections as stated, with cushioning means which operates as a protection against breakage during transit of the said reflectors from one place to another and also during the use of the reflector for signalling or other purposes.

To these and other ends the invention comprehends the construction hereinafter described, particularly pointed out in the claims and as illustrated in the accompanying drawing in which I have shown some convenient forms of embodiment of the invention.

In the drawing:

Fig. 1 is a view in transverse section taken on the line 1—1 of Fig. 2;

Fig. 2 is a view in front elevation of the reflector structure shown in Fig. 1;

Fig. 3 is a view in transverse section of a reflector showing a slight modification of the structure;

Fig. 4 is a view in transverse section of a modified construction of the reflector taken on the line 4—4 of Fig. 5;

Fig. 5 is a view in front elevation;

Fig. 6 is a view in transverse section of a modified construction of the reflector taken on the line 6—6 of Fig. 7;

Fig. 7 is a view in rear elevation of the casing or supporting frame of Fig. 6;

Fig. 8 is a view in transverse section of another modified construction of reflector embodying the invention.

In the several forms of construction embodying the invention, I have provided a sheet of glass or other transparent material 1, the front face of which is smooth and plane, while the rear face is provided with trihedral projections 2. The sheet of glass is provided at its outer edge with a rearwardly extending flange 3. The sheet of glass 1, is of old construction and shape and will not be described further or in detail.

The sheets of glass 1 are provided upon their rear surfaces with coatings or platings of metal 4 deposited thereon in any suitable manner or by any suitable method. The plating may consist of silver or other like metal.

For the purpose of supporting the glass sheet with its reflecting coating or plate of metal, I have shown in Figs. 1 and 2 of the drawing, a metal frame 5 of rectangular shape, the opposite sides and ends of which in cross section are of the shape shown in Fig. 1 and consist of side portions 6 with inwardly extending flanges 7 and 8, the latter being upon the rear side of the structure and being of a width considerably greater than that of the flange 7.

The rear side and the edges of the glass sheet 1 are surrounded by a cushioning mass of material 10 which is inserted in position while in a plastic condition, the sheet of glass being held in position in proper relation to the frame 5 while the cushioning material is placed in position as shown in Fig. 1.

The opening between the edges of the flange 7 is of a dimension to permit the insertion of the glass sheet 1 therethrough and into position within the frame 5.

For the purpose of fastening the reflecting structure of Figs. 1 and 2 upon a support, I have provided the frame 5 at its upper and lower ends with projections or tabs 11, having holes 12 therethrough through which means may be inserted for attaching the re-

flector to and supporting it upon a suitable support.

In Fig. 3 of the drawing I have shown a construction in which the frame 5a may be of rectangular or other suitable shape. In transverse section the said frame is of trough shape, the bottom thereof being continuous. The glass sheet 1 is adapted to be supported and held within the frame or support 5a by means of cushioning material 15 which surrounds the edge and rear portions of the sheet 1 as shown in said Fig. 3. In order that the retention of the cushioning material 15 within the frame or casing 5a may be assured, the said frame or casing is provided upon its side with indentations 16 which extend inwardly and project into the cushioning material 15. The cushioning material 15 while in a plastic condition or state is placed around the glass sheet 1 to imbed the same as shown.

The frame or casing 5a is mounted upon a support 17 consisting of suitable sheet material, such as sheet metal, which may be provided with openings therein, one of which is indicated at 18. These openings may be in the form of letters located in successive relation to each other to form or spell words. It will be understood that in actual practice, a number of the reflecting devices consisting of the frame or casing 5a, glass sheet 1 and the reflecting plate or coating thereon, are located and supported in side by side relation to each other upon the support 17.

In Figs. 4 and 5 I have shown a construction similar to that shown in Fig. 3, except that the casing or frame 5b is provided with an opening in the bottom thereof, which opening may be in the form of a letter. In the said figures the opening is in the form of the letter T. Also in the construction shown in Figs. 4 and 5, the sheet 1 with the reflecting plating or coating of metal upon the rear surface thereof is located or supported with its front plane face in contact with the inner side of the bottom of the said frame or casing 5b, so that the flanges 3 of the sheet 1 project away from the bottom of the said frame or casing. Cushioning material 19 is provided within the casing for retaining the sheet of glass or other like material therein and for cushioning the latter to thereby constitute a protecting means therefor. The frame or casing 5b is provided at its opposite ends with outwardly extending or projecting flanges 20 having openings 21 therein through which means may be inserted for securing the reflector to a support such as a sheet 22 of suitable material.

For securing the cushioning material 19 in the frame when the latter is not secured to the support 22, I have provided projections or indentations 16 identical with those shown in Fig. 3.

In Figs. 6 and 7 I have shown a construction in which the greater portion of the bot-

tom of the frame 5c is removed to form or leave a rectangular opening 25, the area of which is slightly less than the area of the front plane surface of the sheet 1. The presence of the opening 25 leaves or provides flanges 26 upon which the outer edge portions of the front face of the sheet 1 rest. Cushioning material 27 fills the portion of the casing surrounding the sides and ends of the sheet 1 and also the rear portion thereof as is shown. The cushioning material as well as the sheet 1 is retained in place within the casing by means of tongues 28 formed by slitting the edges of the side and end flanges 29 and 30 and bending the same over the edges of the cushioning material 27. The reflector as disclosed in Figs. 6 and 7 is adapted to be mounted upon a support by fastening means, inserted through openings in the end flanges 30.

In Fig. 8 of the drawing I have shown a construction similar to that shown in Figs. 6 and 7, except that the tongues 28 are omitted. In said Fig. 8 the cushioning material 27 and the glass sheet are retained in position within the casing 5c by means of a plate 31 secured to the flanges of the casing 5c by means of rivets 32. The central portion of the plate 31 is cut out as indicated at 33.

The reflectors of the several forms of construction are adapted to be used separately or individually, but usually a plurality of reflectors are supported in side by side relation to each other upon a support and if desired the front side or facing of each casing may be provided with a letter and the said reflectors may be arranged so that the letters provided thereby may be caused to spell a word or words for the purpose of furnishing such information as it may be desired to furnish by the said reflectors.

The trihedral projections of the sheets 1 have the reflecting plating of metal thereon to provide central triple reflectors, which are located, as is apparent, in contiguous relation to each other.

The cushioning material preferably possesses adhesive qualities so that it adheres tightly to the portions of the surface of the reflector with which it is in contact, in consequence of which if the glass sheet should be broken, it will be retained in position and will or may continue to give service until a new and perfect reflector is substituted therefor. In other words if in a construction such as is illustrated in Figs. 1 and 2, 6 and 7 and 8 the glass sheet 1 should be fractured, the broken sheet would be retained in place, whereas if the cushioning material associated therewith were not present, the sheet would or might fall from the casing, leaving no reflector of any kind for warning traffic, in case the reflector signal were located at some dangerous point upon a highway or street.

Furthermore, the presence of the cushion-

ing material reduces to a minimum the possibility of the breaking of the glass sheets during transportation of the reflectors from one point to another.

5 It will be seen, therefore, that my invention provides a reflector structure possessing substantial and important features of practical advantage.

10 Having thus described by invention, what I claim and desire to secure by Letters Patent is:

1. A reflector structure comprising a casing, a sheet of transparent material located within said casing, the front surface of which is plane and exposed to receive incident rays of light and the rear surface of which is provided with projections having thereon a plating of material for reflecting light and cushioning material located within said casing and surrounding the side and end edges and the rear surface of said sheet of transparent material, and means provided within said casing for engaging said cushioning material to retain the same together with said sheet of transparent material within said casing.

2. A reflector structure adapted for use as a highway signal comprising a supporting casing having an opening in the front face thereof, a reflector mounted within said casing, the front face thereof being exposed, adhesive cushioning material located within the said casing and surrounding the side end and rear surfaces of the said reflector, and means for retaining the said cushioning material and reflector within said casing.

3. A reflector structure adapted for use as a signal, comprising a supporting casing, the front side of which is open, a sheet of glass mounted within said casing, the front surface of which is plane and the rear surface of which is provided with contiguously related trihedral projections, a plating of light reflecting material upon the said projections, the said glass sheet being located in the said casing with its front plane surface exposed and adhesive cushioning material located within the said casing and surrounding and in contact with the sides and ends of the said glass sheet and overlying and being in contact with the light reflecting plating material upon the rear side of the said sheet.

4. A reflector structure adapted for use as a signal, comprising a supporting casing the front side of which is provided with an opening having the desired configuration, a sheet of glass mounted within said casing the front surface of which is plane and the rear surface of which is provided with contiguously related trihedral projections, a plating of light reflecting material upon the said projections, the said glass sheet being located in the said casing with a portion of its front plane surface exposed by said opening, and adhesive cushioning material located within said casing and surrounding and in con-

tact with the sides and ends of the said glass sheet and overlying and being in contact with the light reflecting plating material upon the rear side of the said sheet.

In testimony that I claim the foregoing as my invention I have hereunto signed my name this 9th day of June A. D. 1927.

VICTOR L. OESTNAES.

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