

June 22, 1926.

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A. M. KNAUBER

TRAFFIC SIGNAL LIGHT DEVICE

Filed May 17, 1924

Fig. 1.

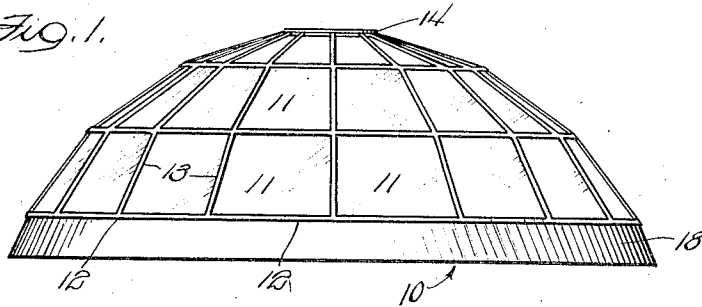


Fig. 2.

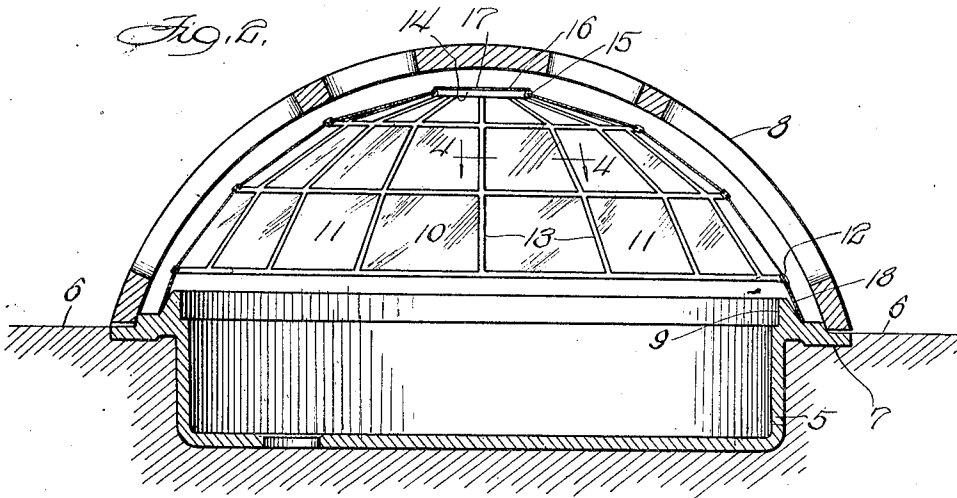


Fig. 3.

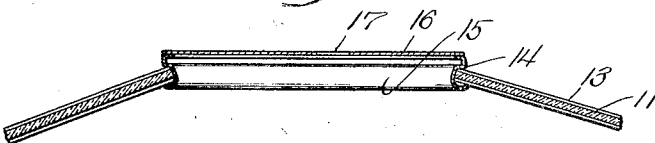


Fig. 4.



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TRAFFIC-SIGNAL-LIGHT DEVICE.

Application filed May 17, 1924. Serial No. 713,962.

The invention relates to improvements in traffic signal light devices.

One of the objects of the invention is to provide an improved dome, to overlie the lamps therebelow, which is translucent and preferably colored to give distinction to the beams of light which are projected therebeyond.

Another object is to provide a translucent, colored dome, especially adapted for protecting roadway surface lights used to direct traffic, and which is located usually at the surface and in the middle of the roadway at street crossings.

A further object is to provide a dome of fragile translucent and preferably colored material, such as colored glass, divided into a plurality of separate panels to prevent destructive fundamental vibration as a whole attendant upon unitary structures, and as a matter of economy in maintenance to reduce cost of repairs and replacement.

In the event of breakage, when the dome is made in one unitary structure, it is necessary to replace it with an entirely new and complete dome. Furthermore, domes made of one single piece of glass have an inherent fundamental period of vibration, usually transverse to its axis which, when excessive, is destructive to its preservation.

Vibration of such domes is in a direction perpendicular to the direction of propagation, and since heavy traffic produce vibration by vehicle movements over adjacent roadways, in a vertical field, the direction of vibration thru the dome is therefore across its larger diameter. When the edge of the dome rests upon a heavy metal flange, as it must in such road surface lighting devices, and when that edge is frozen to the flange, destruction by excessive vibration alone frequently ensues.

These one piece domes are many times found to be broken without any visible reason for their destruction.

This undesirable result does not obtain when the domes are made of a plurality of separated panels and when such a dome is supported by a relatively thin ring which is sufficiently resilient within itself to take up the harmful vibration and which supports the dome so that the glass portions thereof do not have contact with a relatively stationary metal surface.

In the drawings:—

Fig. 1 is an elevation of the improved

polyfacet dome made of a plurality of panels.

Fig. 2 is a section thru a surface lighting device used on highways showing the translucent dome in section.

Fig. 3 is an enlarged diametric section thru a top part of the dome.

Fig. 4 is an enlarged section thru line 4—4 of Fig. 2.

In all the views the same reference characters are employed to indicate similar parts.

The traffic signal device, as a whole, comprises an annular pan 5 usually sunk in the roadway surface 6 and containing the required number of electric lamps and fixtures, not shown.

The pan has a rim flange 7 upon which the outer latticed guard dome 8 rests. The flange 7 has an upstanding annular rib 9 rising above the flange to prevent entrance of surface water from the roadway into the pan 5.

Underlying the guard dome 8 is the polyhedral dome 10. The dome 10 is made of many panels 11, of translucent plates of glass, or other suitable material forming flat facets. Each panel is bounded by a metal bead or frame 12, preferably H-shape, as shown in Fig. 4 and the fabricated portion of the dome terminates in one continuous bead 12 at its largest diameter. The transverse beads 13 are radial and converge from the circumferential bead 12 to a small metal ring 14 which surrounds the edges of an opening 15 at the apex of the dome. A plate 16, perforated in its center at 17, overlies the ring 14 and is secured thereto. The perforation is used for convenience of moving the dome. This may be done by inserting a finger thru the opening.

Should one panel 11 be broken by impact of an object, a new panel may easily be inserted in its place and thus the dome may be restored to its original condition without destroying its usefulness.

To the metal border 12 a thin ring 18 is attached. This ring is sufficiently resilient and yielding to fully safeguard the dome. The ring overlies the annular rib 9, when the dome is in place, and raises the dome above the rib. This ring contributes largely to the durability and usefulness of the dome.

The dome has many facets which may be of any desired color or colors, thru which the light rays pass to serve as a cautionary signal to passing traffic.

Having described my invention what I claim as new and desire to secure by Letters Patent, is:— metal edge and a relatively thin wide ring secured to said metal edge and outwardly flared. 10

In a road surface signal device, a dome composed of a plurality of translucent panels, each panel in a metal frame and the dome terminating at its larger end in a hand. In testimony whereof I hereunto set my

ALEXANDER M. KNAUBER.