Oct. 13, 1925. 1,556,636

R. SCHULZ

LUMINOUS SIGN CHARACTER

Filed Sept. 19, 1923

Fig. 1

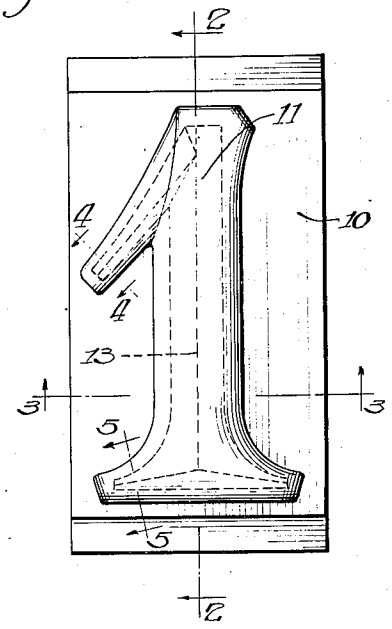


Fig. 2.

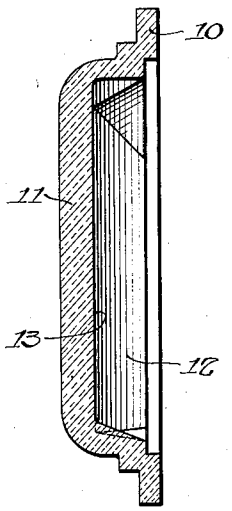


Fig 3

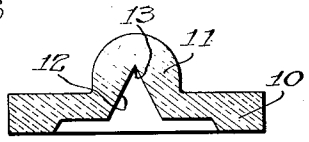


Fig 4

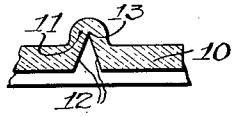


Fig. 6.

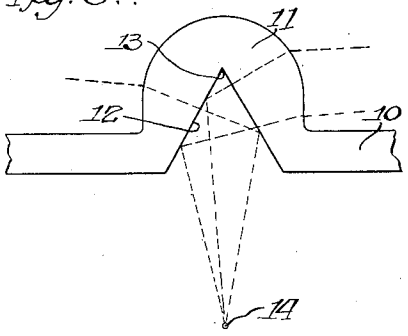


Fig. 5.

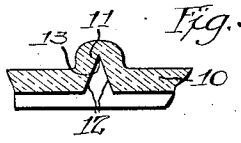
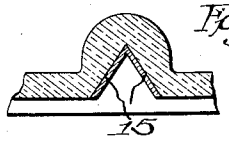


Fig. 7.



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UNITED STATES PATENT OFFICE.

RICHARD SCHULZ, OF DANVILLE, ILLINOIS.

LUMINOUS SIGN CHARACTER.

Application filed September 19, 1923. Serial No. 663,687.

To all whom it may concern:

Be it known that I, RICHARD SCHULZ, a citizen of the United States, residing at Danville, in the county of Vermilion and State of Illinois, have invented certain new and useful Improvements in Luminous Sign Characters, of which the following is a specification.

The invention relates to luminous signs or sign characters.

One of the objects of the invention is to provide a sign character which will disseminate or project by refraction a large portion of light emanating therefrom in planes substantially parallel with or at very small angles from its face, to render it conspicuously visible when viewed from either side.

Another object is to provide an improved one-piece figure, letter or character of diaphanous material, such as glass or the like, rendered more clearly visible in a plane parallel with its face, by virtue of its characteristic formation.

Other objects and advantages will hereinafter appear from a consideration of the following description when taken in conjunction with the drawings, wherein:—

Fig. 1 is a face view of a character made in accordance with my invention.

Fig. 2 is a central section on line 2—2 of Fig. 1.

Fig. 3 is a section on line 3—3 of Fig. 1.

Fig. 4 is a section on line 4—4 of Fig. 1.

Fig. 5 is a section on line 5—5 of Fig. 1.

Fig. 6 is an enlarged section showing diagrammatically the rays of light emanating therefrom by refraction when illuminated by a suitable source of light.

Fig. 7 is a similar view showing the inner surface of the letter coated with a light absorbing self luminating material.

In all the views the same reference characters indicate similar parts.

Each character is preferably made of a single piece of moldable, substantially transparent material in the form of a block or plate 10 and having a rounding rib in cross section and, the distinguishing integral character, as 11, projects from the face of the plate and is an integral part thereof.

The outstanding part of the character is preferably somewhat more than semi-circular in section, as shown to provide a rounding rib or bead at all of its parts to refract the light rays into planes substantially parallel with the face of the element or character. The rib is provided with an inner angular groove 12, the apex 13 of which is in a plane beyond the face of the character and which forms the point from which the circular portion of the rib is described to bring parts of the groove outwardly into planes beyond said face.

In Fig. 6, 14 is represented as a source of light and the dotted lines radiating therefrom show how the major portion of the rays of light will be reflected or refracted into planes substantially parallel with the face of the plate 10.

In Fig. 7 the coating 15 lining the groove 12 may be self luminous in character which will absorb light during the day and radiate it at night.

Electric light lamps may be placed behind the characters, and used with the coating 15 to stimulate its activity and to illuminate other portions of the character not covered with the coating.

The coating 15 may be omitted entirely, in which event it is desirable to coat the inner surface of the character, except the groove 12, with a substantially opaque or translucent colored material to block most of the light from this portion of the character and render the portion overlying the groove more conspicuous.

Having described my invention what I claim as new and desire to secure by Letters Patent, is:—

1. A one-piece sign character having a flat face and a transparent rounding rib having its longest axis located in a plane outwardly beyond said face to represent a sign element and an inner angular groove underlying said rib having its apex extending to said axis to bend the light rays into planes generally parallel with the face of the character.

2. A sign character presenting a semi-cylindrical surface to represent a transparent sign element and an inner angular groove underlying said surface, the apex thereof extending along the axis of said surface.

In testimony whereof I hereunto subscribe my name.

RICHARD SCHULZ.