

# UNITED STATES PATENT OFFICE.

CHARLES L. CARTER, OF MARION, INDIANA, ASSIGNOR TO AMERICAN SIGN COMPANY,  
OF KALAMAZOO, MICHIGAN.

SIGN.

1,044,442.

Specification of Letters Patent.

Patented Nov. 12, 1912.

Application filed July 25, 1911. Serial No. 640,384.

*To all whom it may concern:*

Be it known that I, CHARLES L. CARTER, a citizen of the United States, residing at Marion, Indiana, have invented certain new and useful Improvements in Signs, of which the following is a specification.

This invention relates to improvements in signs.

The main objects of this invention are to provide, in a sign in which the sign indicia or characters are formed of lenses, an improved means for securing the lens, and one in which the parts are economically produced and easily and quickly assembled, and when assembled are secure, and the joints between the parts are substantially water tight.

Further objects, and objects relating to structural details, will definitely appear from the detailed description to follow.

I accomplish the objects of my invention by the devices and means described in the following specification. The invention is clearly defined and pointed out in the claims.

A structure which is a preferred embodiment of my invention is clearly illustrated in the accompanying drawing, forming a part of this specification, in which:

Figure I is a detail front view of a sign embodying the features of my invention, a single letter or character only being shown, the parts being shown mainly in conventional form. Fig. II is an enlarged detail section taken on a line corresponding to line 2-2 of Figs. I and III, the lenses being shown in full lines. Fig. III is an enlarged detail section taken on a line corresponding to line 3-3 of Fig. II.

In the drawing, similar reference characters refer to similar parts throughout the several views, and the sectional views are taken looking in the direction of the little arrows at the ends of the section lines.

Referring to the drawing, 1 is the sheet metal face plate of a sign. The face plate is in practice the wall of a casing in which the illuminating lamps, preferably electric, are placed. As the details of the casing and the arrangement of the lamps therein form no part of my present invention, I do not illustrate or describe the same herein.

The lenses 2 are arranged in the face plate in groups to form the sign indicia or characters or to produce any other suitable de-

sign or outline. These lenses 2 are preferably convex and provided with cylindrical shanks 3, the inner sides of the lenses being flat to provide shoulders 4. The face plate is provided with circular openings 5 having notches 6 at one side. These notches are relatively long and narrow and are preferably substantially rectangular, as is clearly illustrated in Fig. III. The lens shank 3 is provided with a single complete screw thread 7. The ends 9 of the notch 6 form thread engaging members. The screw thread 7 preferably extends to the shoulder 4 (see Fig. II), so that when the lens is secured into place, the shoulder is drawn tight against the plate 1. When in this position, the notch 6 embraces the inner end 8 of the thread where it meets the shoulder 4 (see Fig. III). When the lens is screwed completely into the plate, the shoulder 4 rests against the face of the plate and overlaps the notch 6, so that a practically water tight joint is formed between the lens and the face plate without the use of gaskets or the like. Each opening 5 in the face plate, with its notch 6, can be readily formed by a single action of the punch and the lenses are very easily inserted with practically no liability of breaking the same while they are being inserted and little or no strain is brought on the thread. On account of the shape of the notch 6, it very effectively engages the threads and the thread engaging portions 9 at the ends of the opening are not likely to slip over the threads. As no gaskets or other means for making tight joints is necessary, there is nothing to detract from the appearance of the lenses or the passage of the light therethrough. This is of decided advantage in practice as the object is to produce the effect of a sign having lenses formed of electric lamps, and as a matter of fact, the characters of applicant's sign when viewed from a distance, are more distinct than a sign in which the letters are formed of lamps on account of the diffusion of light of such lamps.

The parts are, as stated, very economically produced and are easily assembled without liability of breaking, and when assembled are very secure and at the same time, the lenses may be quite readily removed, and there is nothing in the securing means to detract from the appearance of the sign.

Having thus described my invention, what

I claim as new and desire to secure by Letters Patent is:

1. A sign comprising a face plate of sheet metal containing a substantially circular opening having a rectangular notch at one side, and a lens provided with a shoulder arranged to contact with the side of the plate and with a shank having a complete screw thread thereon, the thread being abruptly merged into the shoulder, said notch being adapted to span the thread and being of such length that its ends coact with and engage opposite sides of the thread when the shank is turned in the opening without substantial distortion of the plate, the width of the notch being substantially the depth of the thread, the notch being adapted to span the inner end of the thread where it merges into the shoulder when the shoulder contacts with the plate.

2. A sign comprising a face plate of sheet metal containing a substantially circular opening having a notch at one side, and a lens provided with a shoulder and a shank having a single screw thread, the inner end of the thread merging into the shoulder, said shank being a turning fit in said opening, the notch of said opening being of such length that its ends engage opposite sides of the thread without distorting the plate, the width of the notch being substantially the depth of the screw thread, the notch being

adapted to span the inner end of the thread where it merges into the shoulder when the shoulder contacts with the face plate. 35

3. A sign comprising a face plate of sheet metal containing a substantially circular opening, there being a notch in the edge of the opening at one side, and a lens provided with a shoulder and with a shank having a single screw thread, the said notch being of such length that its ends coact with the opposite sides of the thread without distorting the plate, its width being substantially the depth of the screw thread. 40 45

4. A sign comprising a face plate of sheet metal containing a substantially circular opening having a notch at one side, the edges of the notch being in substantially the plane of the edges of the opening, and a lens provided with a shoulder arranged to contact with the side of the plate and with a shank having a screw thread thereon, the shank being a turning fit in said opening, said notch being of such length that its ends engage opposite sides of the thread in substantially the plane of the plate. 50 55

In witness whereof, I have hereunto set my hand and seal in the presence of two witnesses.

CHARLES L. CARTER. [L. S.]

Witnesses:

L. A. BRUMFIELD,  
ACHILLE WILSON.

C. L. CARTER.  
SIGN.  
APPLICATION FILED JULY 25, 1911.

1,044,442.

Patented Nov. 12, 1912.

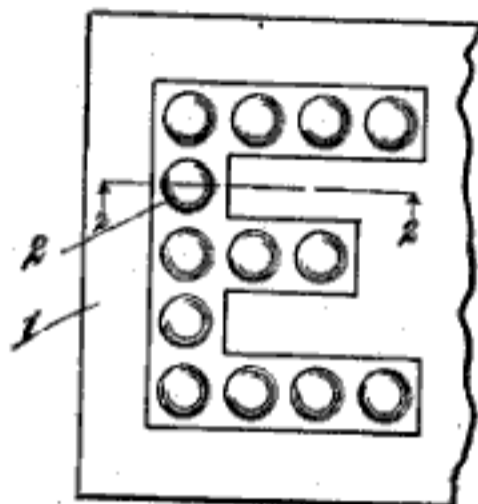


FIG. I.

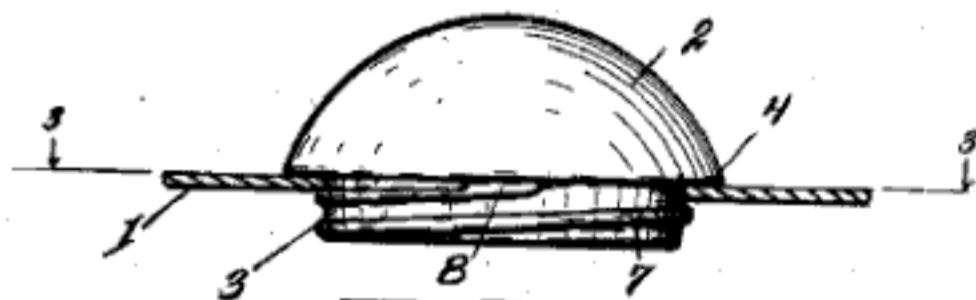


FIG. II.

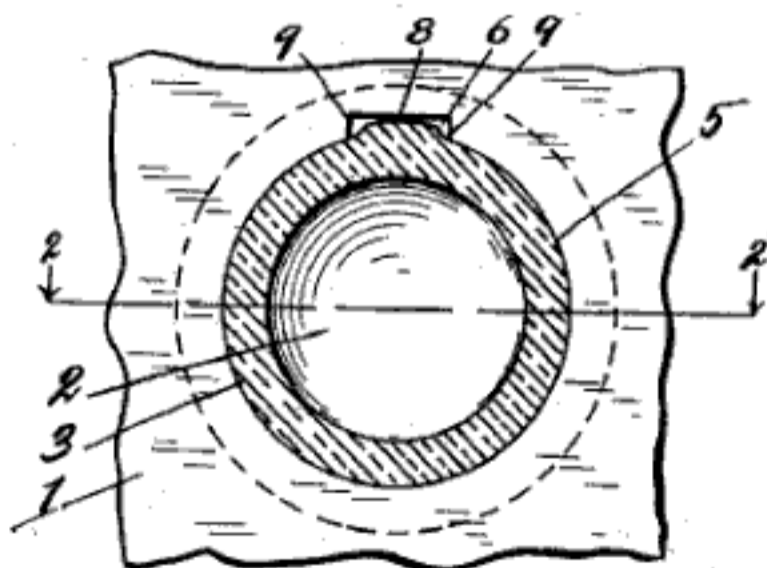


FIG. III.

Witnesses  
M. Phina Woodruff  
Lucia S. Greenfield

Inventor  
Charles L. Carter  
By  
Chappell & Co.  
Attorneys