J. K. BURLEIGH.

SIGN.

APPLICATION FILED NOV. 18, 1912.

1,050,917. Patented Jan. 21, 1913.

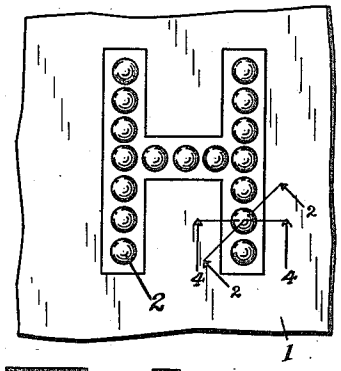

Fig. I.

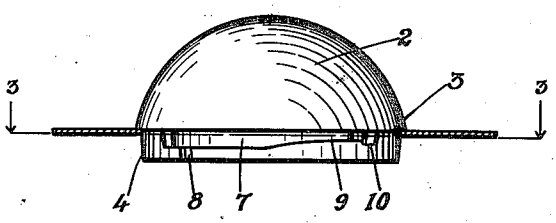

Fig. II.

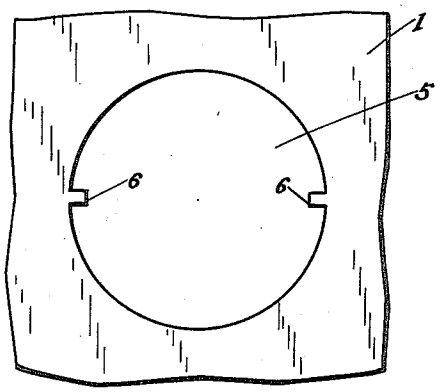

Fig. VI.

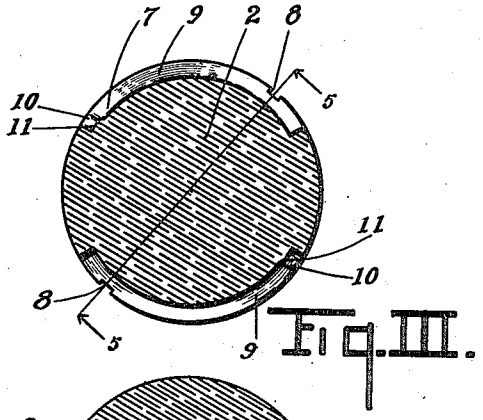

Fig. III.

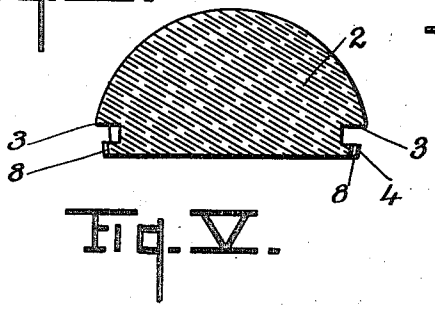

Fig. V.

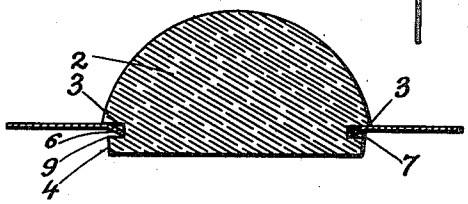

Fig. IV.

Witnesses

Margaret L. Glasgow.

M. P. Woodruff.

Inventor

James K. Burleigh

By Chappell & Earl

Attorneys

UNITED STATES PATENT OFFICE.

JAMES K. BURLEIGH, OF KALAMAZOO, MICHIGAN, ASSIGNOR TO AMERICAN SIGN COMPANY, OF KALAMAZOO, MICHIGAN.

SIGN.

1,050,917. Specification of Letters Patent. Patented Jan. 21, 1913.

Application filed November 18, 1912. Serial No. 732,118.

To all whom it may concern:

Be it known that I, JAMES K. BURLEIGH, a citizen of the United States, residing at 508 Clinton avenue, Kalamazoo, Michigan, 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, first, to provide in a sign in which the sign indicia or characters are formed of lenses, an improved means for securing the lenses.

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 front detail view of a sign structure embodying the features of my invention, a single letter only being illustrated, the parts being shown mainly in conventional form. Fig. II is a detail section through the face plate on a line corresponding to line 2—2 of Fig. 1, the lens being shown in full lines. Fig. III is a transverse section through the shank of the lens on a line corresponding to line 3—3 of Fig. II. Fig. IV is a detail section on a line corresponding to line 5—5 of Fig. III. Fig. V is a section through the lens on a line corresponding to line 5—5 of Fig. III. Fig. VI is a detail front view of the face plate showing one of the lens openings therein.

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 represents the sheet metal face plate of a sign. The face plate 1 is in practice the wall of a casing in which suitable illuminating lamps are inclosed.

As the details of the casing form no part of my present invention, I do not illustrate or describe the same herein. A satisfactory casing structure is shown in the patent to Bambeck, #1,030,449, of June 25, 1912, and I preferably embody my improvements in a sign of the character there indicated.

The lenses 2 are arranged in the face plate in groups to form the sign indicia or characters or to produce a suitable design or outline. The lens 2 is preferably convex and provided with a shoulder 3 arranged against the face plate when the lens is seated and with an inwardly projecting short tapered shank 4.

The diameter of the shank at the base of the shoulder is such that it fits closely in the openings 5 in the face plate it being a turning fit therein. The opening 5 is circular and is formed with inwardly projecting rearwardly deflected lugs 6 on its edges.

The lens shank 4 is provided with peripheral grooves 7 with notches 8 at one end through which the lugs may be introduced into the grooves. The grooves are provided with inclined or cam portions 9 which coact with the lugs to draw the shoulder against the face plate when the lens is turned. The grooves are of such depth that the inner ends of the lugs engage the lower inner corners of the groove as shown in Fig. IV.

At the ends of the grooves are locking notches 10 into which the lugs 6 are forced by the inclined walls 11 above the notches.

Besides positively forcing the lugs into the locking notches, these inclined walls 11 support lugs so that the clamping tension is not loosened by the dropping of the lugs into the locking notches.

With the parts thus arranged, the shoulders of the lenses are clamped firmly against the face plate making a very tight joint and further, the lenses cannot rattle or drop out. The lenses are readily molded and the face plates with the openings easily formed and the parts may be very rapidly and easily assembled. Further there is little danger of the lenses being broken in assembling.

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 having a substantially circular opening and provided with a plurality of rearwardly deflected lugs projecting from the

edge of the opening; and a lens provided with a shoulder arranged to contact with a side of said face plate and with a shank, the shank at the base of the shoulder being a turning fit in said opening and being provided with peripheral lug engaging grooves and notches through which lugs may be entered, the grooves being provided with cam portions coacting with said lugs to draw the shoulder against the face plate, there being lug locking notches at the inner ends of said cam portions, the inner walls of the groove being inclined at said locking notches whereby the lugs are forced into the notches as the lens is turned to seat the same.

2. A sign comprising a face plate of sheet metal having a substantially circular opening and provided with a plurality of rearwardly deflected lugs projecting from the edge of the opening; and a lens provided with a shoulder arranged to contact with a side of said face plate and with a shank, the shank at the base of the shoulder being a turning fit in said opening and being provided with peripheral lug engaging grooves and notches through which lugs may be entered, the grooves being provided with cam portions coacting with said lugs to draw the shoulder against the face plate, there being lug locking notches at the inner ends of said cam portions.

3. A sign comprising a face plate of sheet metal having a substantially circular opening and provided with a plurality of rearwardly deflected lugs projecting from the edge of the opening; and a lens provided with a shoulder arranged to contact with a side of said face plate and with a shank, the shank at the base of the shoulder being a turning fit in said opening and being provided with peripheral lug engaging grooves and notches through which lugs may be entered, the grooves being provided with cam portions coacting with said lugs to draw the shoulder against the face plate, the inner walls of the groove being inclined at said locking notches whereby the lugs are forced into the notches as the lens is turned to seat the same.

4. A sign comprising a face plate of sheet metal having a substantially circular opening and provided with a plurality of rearwardly deflected lugs projecting from the edge of the opening; and a lens provided with a shoulder arranged to contact with a side of said face plate and with a shank, the shank being provided with peripheral lug engaging members having cam portions coacting with said lugs to draw the shoulder against the face plate, there being lug locking notches at the inner ends of said cam portions and inclined walls over said notches whereby the lugs are forced into the notches as the lens is turned to seat the same.

5. A sign comprising a face plate of sheet metal having a substantially circular opening and provided with a plurality of rearwardly deflected lugs projecting from the edge of the opening; and a lens provided with a shoulder arranged to contact with a side of said face plate and with a shank, the shank being provided with peripheral lug engaging members having cam portions coacting with said lugs to draw the shoulder against the face plate, there being lug locking notches at the inner ends of said cam portions.

6. A sign comprising a face plate of sheet metal having a substantially circular opening and provided with a plurality of rearwardly deflected lugs projecting from the edge of the opening, and a lens provided with a shoulder arranged to contact with the side of said face plate and with a shank, the shank being provided with lug engaging notches having inclined inner walls whereby the lugs are caused to seat in the bottoms of the notches.

7. A sign comprising a face plate of sheet metal having a substantially circular opening and provided with a plurality of rearwardly deflected lugs projecting from the edge of the opening; and a lens provided with a shoulder arranged to contact with a side of said face plate and with a shank, the shank at the base of the shoulder being a turning fit in said opening and being provided with peripheral lug engaging grooves and notches through which lugs may be entered, the grooves being provided with cam portions coacting with said lugs to draw the shoulder against the face plate.

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

JAMES K. BURLEIGH. [L. S.]

Witnesses:
M. PHINA WOODRUFF,
MARY SEVISON.