E. BAMBECK.

SIGN.

APPLICATION FILED JUNE 15, 1914.

1,179,392. Patented Apr. 18, 1916.

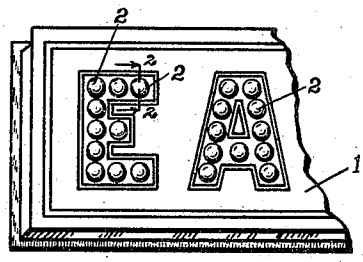


Fig. I.



Fig. IV.

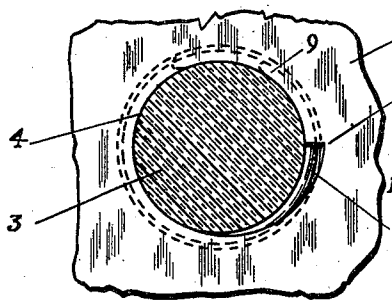


Fig. III.

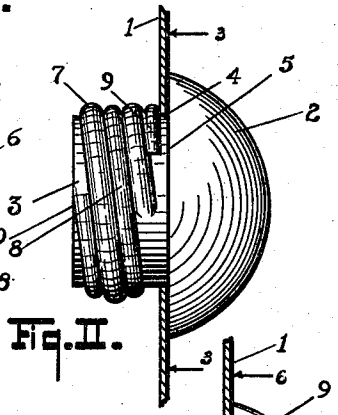


Fig. II.

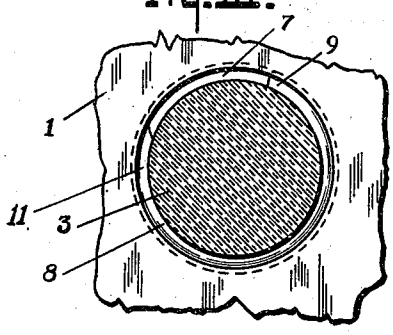


Fig. VI.

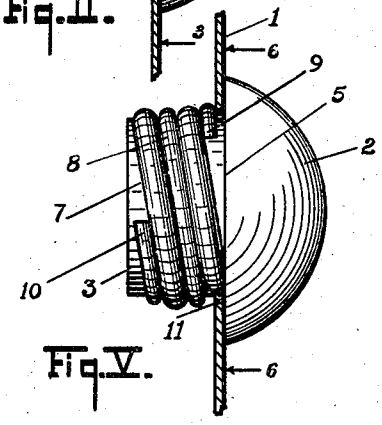


Fig. V.

Witnesses

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SIGN.

1,179,392. Specification of Letters Patent. Patented Apr. 18, 1916.

Application filed June 15, 1914. Serial No. 845,165.

To all whom it may concern:

Be it known that I, EDWARD BAMBECK, a citizen of the United States, residing at 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 object of this invention is to provide in a sign in which the sign indicia or characters are formed of lenses an improved means for securing the lenses so that they are securely retained and will not loosen or rattle and one in which the parts are economically produced and easily and quickly assembled.

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 perspective view of a sign structure embodying the features of my invention, shown mainly in conventional form. Fig. II is an enlarged detail section on a line corresponding to line 2—2 of Fig. I, the lens and the retaining member 8 being shown in full lines. Fig. III is a detail section on a line corresponding to line 3—3 of Fig. II. Fig. IV is a perspective view of the retaining member 8. Fig. V is a detail section corresponding to that of Fig. II of a slightly modified embodiment of my invention. Fig. VI is a detail section on a line corresponding to line 6—6 of Fig. V.

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 a sheet metal face plate of a sign of the type shown in Letters Patent No. 1,039,449, issued to me June 25, 1912, in which a sheet metal casing is provided for the illuminating lamps and the letters or characters or other sign indicia are formed or outlined by lenses 2. As the details of the casing or the arrangement of the lamp therein form no part of my present invention they are not further described herein.

The lenses 2 are provided with shanks 3 adapted to be inserted through suitable openings 4 in the face plate and with shoulders 5 adapted to contact with the front side of the face plate, as shown. The openings 4 are preferably substantially circular and of such diameter that the lens shanks are a turning fit therein in the preferred embodiment of my invention, as shown in detail in Figs. II and III. The plate openings 4 are provided with notches 6 adapted to receive the threads 7 on the shanks. The inner end of the thread 7 is preferably spaced from the shoulder, as shown in Fig. II, so that when the lens is seated the shoulder may lie flat against the face plate.

The retaining member 8 is in the form of a spirally coiled spring and is threaded upon and embraces the shank of the lens between its threads, see Fig. II. The inner end 9 of the retaining member is disposed between the thread and the rear side of the face plate and engages the rear side of the face plate with a clamping action. The outer end 10 of the retaining member engages the side of the shank and, owing to the clutch action of the retaining member on the shank, it remains in its adjusted position and, indeed it is difficult to remove the same without the aid of tools.

In the production of lenses, even when great care is exercised, it is found that there is a substantial waste and loss owing to variations in the shanks and the threads and imperfections of the same. This is particularly true of the smaller sizes. With my improved retainers these imperfect lenses may be used and are satisfactorily held. Further, these retainers are of decided advantage when used with perfect lenses or lenses having perfect shanks on account of the security with which the same are held, even when there is a large variation in the shank openings in the face plate.

In the modification shown in Figs. V and VI the shank opening 11 in the face plate 1 is of such diameter that the lens may be inserted without threading the shank through the same and the inner end of the thread 7 extends to and merges into the shoulder 5 of the lens. The retainer 8 em-

braces the shank the same as described for the preferred construction and its inner end 9 engages the rear side of the face plate, effectively clamping the lens in place. The outer end of the retainer engages the side of the shank, as clearly shown in Fig. V.

As stated, great care in producing the lenses is not required as the coiled spring retainers accommodate and adjust themselves to the irregularities and may be arranged on the shanks so as to engage the rear side of the face plate with a clamping action and the lenses are not only effectively retained but are supported so that they do not rattle in the face plate, although the shank openings therein may be substantially larger than the shanks. This avoids the necessity for great care in forming the lens openings and also, as stated, in forming the lenses and further, the parts are economical to produce and very easily assembled.

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 containing a substantially circular opening having a notch at one side adapted to receive the thread of a lens shank, a lens provided with a shoulder adapted to contact with the front side of the plate and with a shank having a screw thread, there being a space between the inner end of the thread and the shoulder, and a spirally coiled spring retaining member threaded upon said shank with its inner end disposed between the thread and the plate and engaging the rear side of the plate and its outer end on the side of the shank.

2. A sign comprising a face plate containing a substantially circular opening having a notch at one side adapted to receive the thread of a lens shank, a lens provided with a shoulder adapted to contact with the front side of the plate and with a shank having a screw thread, and a spirally coiled spring retaining member threaded upon said shank with its inner end disposed between the thread and the plate and engaging the rear side of the plate and its outer end on the side of the shank.

3. A sign comprising a face plate containing an opening adapted to receive a lens shank, a lens provided with a plate engaging shoulder and with a shank having a screw thread, there being a space between the inner end of the thread and the shoulder, and a coiled spring retaining member threaded upon said shank with its inner end disposed between the thread and the plate and engaging the rear side of the plate.

4. A sign comprising a face plate containing an opening adapted to receive a lens shank, a lens provided with a plate engaging shoulder and with a shank having a screw thread, and a coiled spring retaining member threaded upon said shank with its inner end disposed between the thread and the plate and engaging the rear side of the plate.

5. A sign comprising a face plate containing an opening adapted to receive a lens shank, a lens provided with a plate engaging shoulder and with a shank having a screw thread, and a spring retaining member embracing said shank and engaging the thread thereof and the rear side of the plate.

6. A sign comprising a face plate containing an opening adapted to receive a lens shank, a lens provided with a shank having a retainer engaging member thereon disposed through said opening, and a spirally coiled spring retaining member embracing said shank, said retainer engaging member having screw engagement with the coils of said spring, the inner end of said retaining member engaging the rear side of the plate, its outer end engaging the side of the shank, all coacting for the purpose specified.

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

EDWARD BAMBECK. [L. S.]

Witnesses:
CLYDE M. DAVIS,
AGNES V. FINLEY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."