

R. F. VENNER.
ILLUMINATED SIGN.
APPLICATION FILED OCT. 6, 1910.

1,048,008.

Patented Dec. 24, 1912.

Fig. 1.

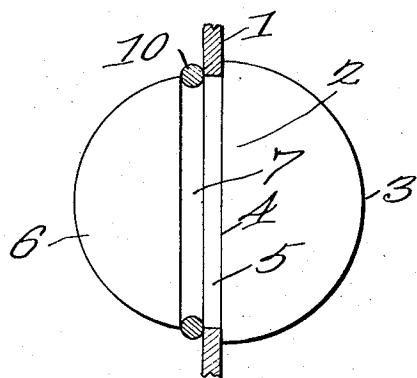


Fig. 2.

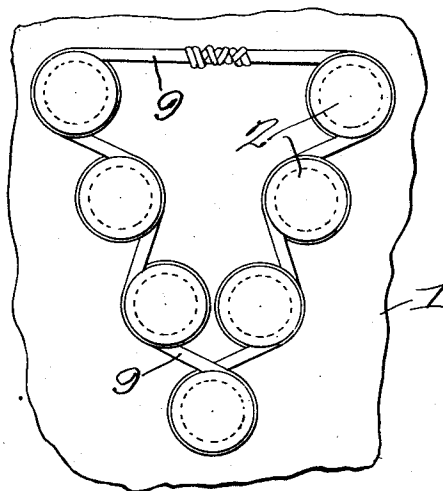


Fig. 3.

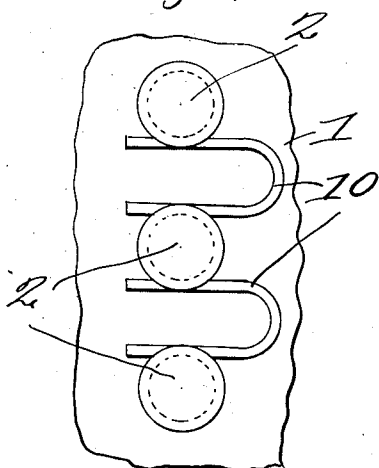
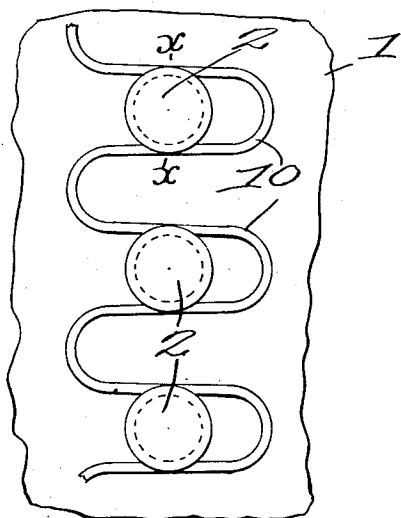


Fig. 4.



WITNESSES

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ILLUMINATED SIGN.

1,048,008.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ROBERT FRANCIS VENNER, electrical engineer, a subject of the King of Great Britain, residing at Croydon, Surrey, England, have invented new and useful Improvements in Illuminated Signs, of which the following is a specification.

This invention relates to illuminated signs of the kind comprising an opaque screen provided with perforations in which are located transparent or semi-transparent bodies such as glass balls or beads which are so arranged as to give the effect of luminous letters, pictures, devices or portions thereof when the said bodies are illuminated by a source of light placed behind the opaque screen, such source of light being either natural or artificial.

The invention has particular reference to the manner of attaching and securing the transparent or semi-transparent bodies in position in the screen in a sign of the above character and has for its object to devise improved arrangements of this kind that shall be cheaper and simpler to construct, assemble and repair than those at present known in the art.

The invention is illustrated in the accompanying drawings of which—

Figure 1 is a sectional view on the line $x-x$ of Fig. 4, showing a small portion of the opaque screen of an illuminated sign showing a single translucent body secured thereto in accordance with one form of the invention. Fig. 2 is a view of a portion of the back of the opaque screen showing one group of translucent bodies secured in accordance with a modified form of the invention. Figs. 3 and 4 are similar views illustrating further modifications.

Referring now to the drawing, wherein similar characters refer to similar parts, the opaque screen of the sign is designated by 1 and the transparent or semi-transparent body located within a circular perforation therein. The body 2, as shown in Fig. 1, is substantially spherical in form, and comprises a front portion 3 the maximum diameter of which is slightly greater than the diameter of the perforation in the screen, so that a shoulder or flange 4 is formed, the annular face of which engages with the front edge of the perforation when the body is inserted therein from the front of the screen. The portion of the body 2 actually

lying within the perforation is indicated at 5 and between this portion and the rear portion 6 of the body is located an annular groove or recess 7 which is parallel to the shoulder.

In assembling the sign, each of the translucent bodies 2 is inserted into the corresponding perforation in the opaque screen from the front thereof and a locking means is inserted into the groove or recess 7, as will be subsequently described.

Referring now to Fig. 2, a form of locking means is illustrated in which the translucent bodies are secured to the screen by means of a wire 9 which is wound around or engages in the recess 7 in each body successively, passing from one body to the next until a group of the bodies is secured. A U-shaped locking member 10 may also be employed to secure two adjacent bodies 2 as shown in Fig. 3, the two substantially straight legs of the locking member lying in the opposing sides of the recesses 7 in the said bodies.

Instead of utilizing a plurality of locking members 10 as shown in Fig. 3, a single wire or strip 11 of sinuous form may be employed as shown in Fig. 4.

Although in the arrangements above described the screen is referred to as being opaque and the bodies located therein as being transparent or semi-transparent, it will be understood that the invention is equally applicable to illuminated signs in which the screen is transparent or semi-transparent and the bodies located therein are opaque or to signs in which both the screen and bodies are of the same or different degrees of transparency or color. Furthermore, although the face of the screen through which the translucent bodies are inserted has been hereinbefore referred to as the front of the said screen, it is evident that the source of light may be located on this side of the screen if desired so that what has been termed the rear portions of the translucent bodies face the observer.

Owing to the readiness with which the translucent bodies may be removed from the screen in case of breakage or for the purpose of cleaning the said bodies or the screen, the invention possesses great advantages over those previously known in the art.

Other constructions and modifications may evidently be adopted and the invention

is not to be regarded as restricted to the precise arrangements herein described except as defined by the appended claims.

I claim—

- 5 1. In illuminated signs, the combination with a portion provided with a plurality of apertures, of a plurality of bodies adapted to be retained, one within each of the said apertures of said portion, each body including means engaging said portion at one face thereof, and a portion provided with a recess, disposed at the opposite face of said apertured portion from said engaging means, and a sinuous member provided with parallel portions adapted to engage in the said recesses of said bodies and engaging said apertured portion to retain said bodies in place, substantially as and for the purpose set forth.
- 15 2. In illuminated signs, the combination with a portion provided with a plurality of apertures, of a plurality of bodies each including means for engaging said portion at one face thereof, and a laterally recessed portion extending through the said aperture in said portion, and a retaining device including two substantially straight legs and a portion connecting said legs, the latter

being spaced apart from each other substantially the distance between the said recesses of two adjacent bodies, and entering the said recesses in contact with said apertured portion, substantially as and for the purpose set forth.

3. In illuminated signs, the combination with a portion provided with a plurality of apertures, of a plurality of bodies adapted to be retained, one within each of the said apertures of said portion, each body including means engaging said portion at one face thereof and a portion provided with a lateral recess disposed at the opposite face of said apertured portion from said engaging means, and a sinuous member adapted to engage in the said recess of each of said bodies and engaging said apertured portion to retain said bodies in place, substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ROBERT FRANCIS VENNER.

Witnesses:

H. AMBROSE COPE,
R. WESTACOTT.