March 8, 1927. 1,620,386

H. C. OSBORN

ILLUMINATED SIGN

Filed Jan. 25, 1926

Fig. 1.

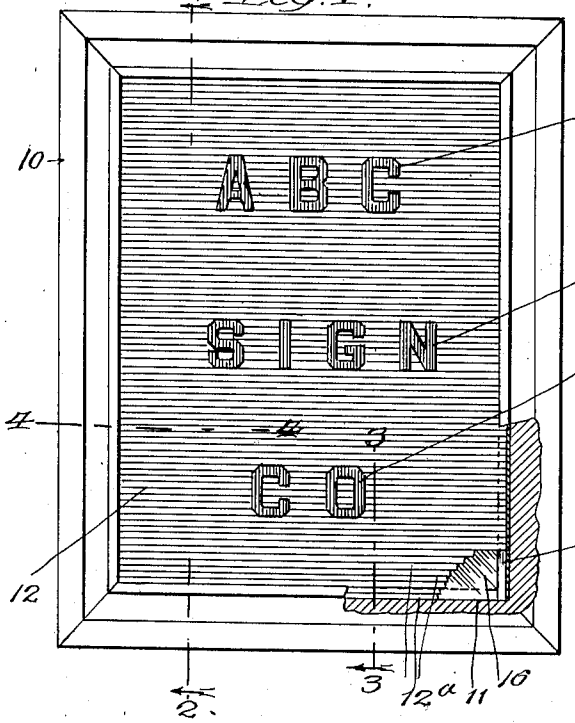


Fig. 2.

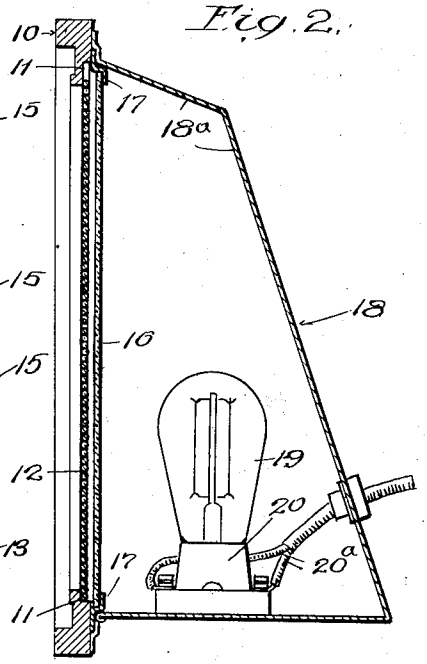


Fig. 3.

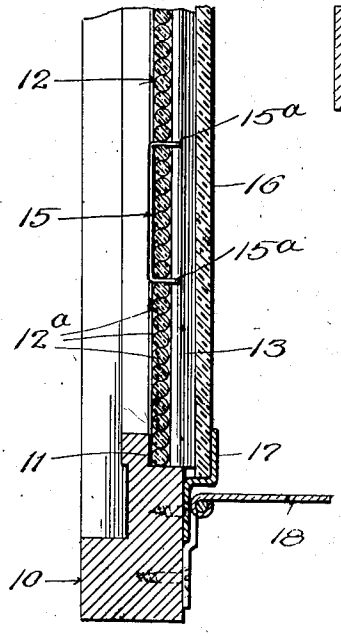


Fig. 4.

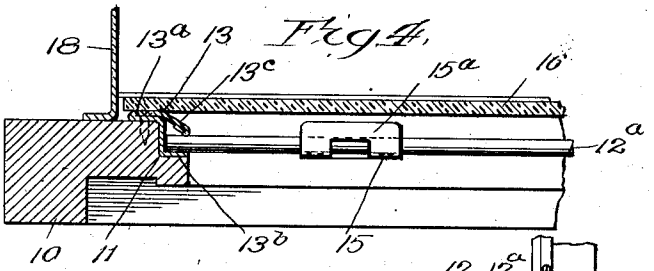


Fig. 6.

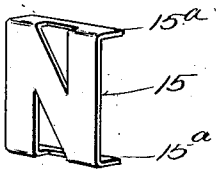


Fig. 5.

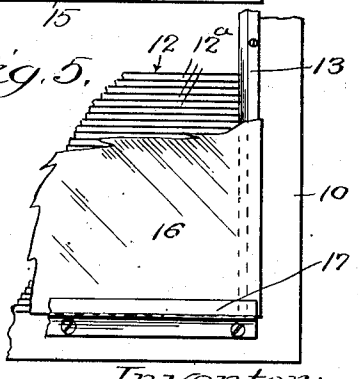
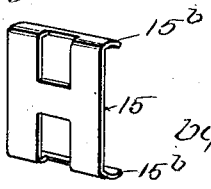


Fig. 7.



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UNITED STATES PATENT OFFICE.

HAROLD C. OSBORN, OF CHICAGO, ILLINOIS.

ILLUMINATED SIGN.

Application filed January 25, 1926. Serial No. 83,442.

This invention relates to illuminated signs and its principal object is to provide a sign, having an illuminated transparent, translucent or opalescent back ground in front of which the letters, characters, symbols are removably supported. Another object is to provide an illuminated sign having a transparent or opalescent plate through which light rays are diffused, and a transparent supporting element in front of said plate, on which letters, characters, symbols and the like may be removably secured to form words or display or other information. Another object is to provide an illuminated sign in which a transparent character supporting element is provided, which functions as an illuminated back ground for the letters or other characters, and also as means for holding the letters or characters in place.

The invention consists, therefore, in an illuminated sign, embodying a multiplicity of transparent or translucent, letter or character supporting members placed contiguous with and parallel with each other. It further consists in an illuminated sign as above set forth, and provided with a translucent or opalescent plate placed behind the letter or character supporting element. It further consists in an illuminated sign in which the source of illumination is placed behind the translucent or opalescent plate. It further consists in the several novel features, hereinafter fully set forth and claimed.

The invention is clearly illustrated in the accompanying drawing in which:

Fig. 1 is a front elevation, partly broken out, of an illuminated sign embodying a simple form of the present invention; Fig. 2 is a vertical cross section taken on the line 2—2 of Fig. 1; Fig. 3 is a detail vertical fragmental cross section through the lower part of the device, taken on the line 3—3 of Fig. 1; Fig. 4 is a detail horizontal fragmental section through one side of the device, taken on the line 4—4 of Fig. 1; Fig. 5 is a rear elevation of a fragment of the device; Fig. 6 is a perspective view of one of the character members used, and Fig. 7 is a perspective view of a slightly modified form of character member.

Referring to said drawing which illustrates a simple embodiment of the present invention, the reference character 10 designates a frame, which is preferably rectangular in form. In the present instance the frame is rabbeted around its inner rear edge to form grooves 11 for the reception of the character member supporting element 12. Said supporting element may comprise a multiplicity of contiguous, superimposed, parallel, transparent, translucent, or opalescent rods 12^a, which extend across the opening in the frame and enter the grooves at the edges thereof. The rods may be round, square, or of any other suitable cross section, as is desired. For the purpose of illustration they are shown as consisting of round transparent glass rods, each one resting on an adjacent one below it. In case the frame is made of wood, it is preferable to provide upright channel strips 13 in the rabbeted portions in which the end portions of the transparent rods are received. The channel strip 13 may be formed up from a light gauge strip of metal, bent upon itself to form a flange 13^a and other flanges 13^b, 13^c that form the trough or channel. The flanges 13^b, 13^c enter the rabbet or groove and the flange 13^a overlies the body of the frame and forms a nailing strip by which the channel strip is nailed or screwed to the back of the frame. The free edges of the channel flanges 13^b, 13^c are spaced apart a distance equal to the diameter of one of the transparent rods in order that the rods may fit fairly well in the slot or groove formed by the flanges 13^b, 13^c of the channel strips. The transparent rods rest one upon the other and form a transparent panel like screen, and each rod serves as a support for holding the character display members, as will presently appear.

The character display members 15 are preferably formed of translucent, opalescent, or opaque material, having a color contrasting with that of the back ground behind them, and as a preference they are made of celluloid suitably colored. They may be struck up from a sheet of celluloid, or cast or otherwise formed of any desirable material. Each character member 15 is formed with a tab or tongue 15^a, and preferably with top and bottom tabs or tongues 15^a spaced apart a distance equal to the distance between any two rods, and the tabs or tongues are adapted to be inserted between contiguous rods and held in place therebetween by friction caused by the downward pressure of the rods thereon. Any desired size of character display members may be used, but when provided with spaced sup-

porting tabs or tongues, the latter must be spaced apart a distance equal to the distance between any two rods whereby each tab or tongue may be inserted between two contiguous rods. To obtain the best effect the bodies of the character display members are cut or shaped to correspond with the characters that they represent.

Supported behind the panel 12 is a translucent or opalescent, clear or colored plate 16, preferably formed of frosted glass or the like. The plate 16 may be supported by metal strips 17 secured to the back of the frame 10. Secured to the frame 10 behind the plate 16 is a lamp casing 18 in which is supported a source of light, here shown in the form of an electric lamp 19, which is held in a lamp socket 20, secured to the casing. The conductor cords 20^a for the lamp socket lead out through one of the walls of the casing and have a plug (not shown) on their free end which may be plugged into an electric socket.

A reflector is provided for reflecting the light toward the front of the sign, and in the present instance the inner faces of the walls 18^a of the casing 18 are polished or formed of light metal. If desired the casing 18 may be hinged to the frame 10 and secured thereto in any suitable manner.

In the modified form of character display member illustrated in Fig. 7, the flanges 15^b are shown as curved in cross section whereby they may clasp two rods between them.

The sign may be made of any desirable size and shape. The character display members may comprise, letters of the alphabet, numerals, symbols, representations of objects, and so forth. The display sign is made up by inserting the tabs or tongues of the character display members in the spaces between the transparent rods. The weight of the rods upon the tabs or tongues tends to secure the character display members in place. When the electric current is turned on the lamp illuminates the translucent plate 16, which diffuses the rays of light and presents an illuminated surface visible through the transparent rods 12^a, except at the places where the character display members 15 cover the plate. By making the character display members of strikingly contrasting color with respect to the translucent plate an exceptionally clear and sharply defined display is obtained, and very attractive effects may be obtained with the use of semi-opaque character display members, of different colors.

By the expression "transparent" in connection with the elements mentioned, I desire it to be understood as including any non-opaque characteristic. In other words, such elements are not opaque, but light rays may pass through them.

More or less variation of the exact details of construction is possible without departing from the spirit of this invention; I desire, therefore, not to limit myself to the exact form of the construction shown and described, but intend, in the following claims, to point out all of the invention disclosed herein.

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

1. An illuminated sign, comprising a frame having oppositely disposed parallel grooves, a multiplicity of parallel, superimposed, transparent, round glass rods extending from side to side of the frame with their ends contained in said grooves, each rod supporting those above it, character displaying members, each having tabs that are insertible between contiguous rods, and frictionally held therebetween a translucent plate supported on said frame behind the glass rods, a lamp casing secured to the rear side of said frame, and a lamp in said lamp casing.

2. An illuminated sign, comprising a frame, oppositely disposed channel shaped metal strips secured to said frame, a multiplicity of parallel, superimposed, transparent, round rods extending from side to side of said frame with their ends contained in the slots of the channel strips, each rod supporting those above it, character displaying members, each having tabs insertible between contiguous rods, and frictionally held therebetween, a lamp and lamp casing supported by said frame behind the rods, and a light diffusing member interposed between the lamp and glass rods.

3. An illuminated sign, comprising a frame, oppositely disposed channel shaped metal strips secured to said frame, a multiplicity of parallel, superimposed, round glass rods extending from side to side of said frame with their ends contained in the slots of the channel strips, each rod supporting those above it, character displaying members, each having tabs insertible between contiguous rods, and frictionally held therebetween, a lamp and lamp casing supported by said frame behind the rods, and a translucent plate interposed between the lamp and glass rods.

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