July 17, 1923. 1,462,351

W. J. MICHELSEN

ILLUMINATED DISPLAY SIGN

Filed Jan. 19, 1922

Fig. 1.

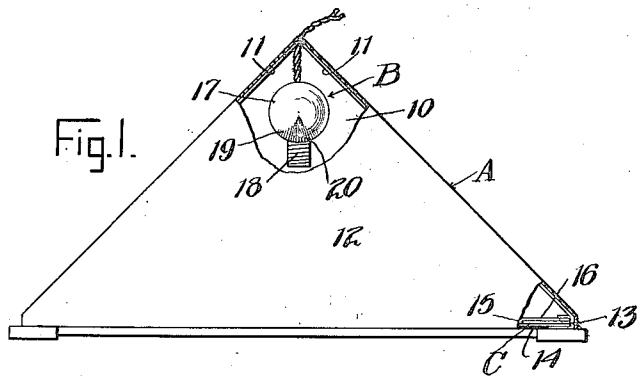


Fig. 2.

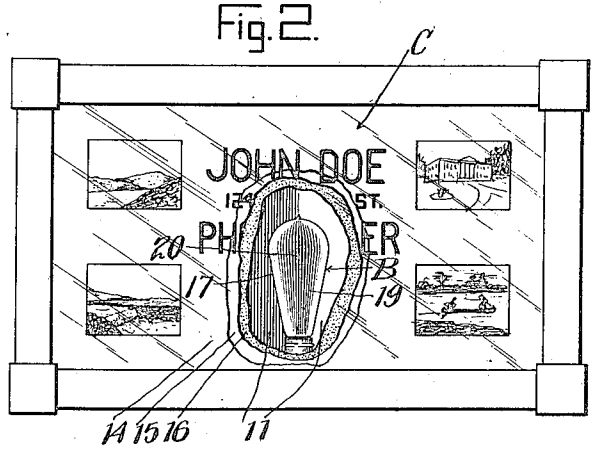


Fig. 3.

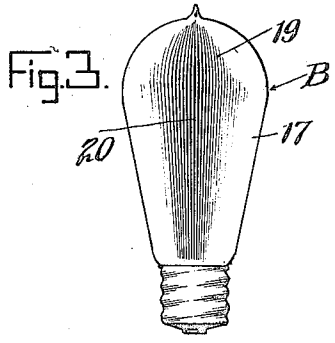
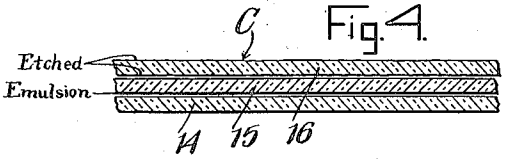


Fig. 4.



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UNITED STATES PATENT OFFICE.

WILLIAM J. MICHELSEN, OF CHICAGO, ILLINOIS.

ILLUMINATED DISPLAY SIGN.

Application filed January 19, 1922. Serial No. 530,281.

To all whom it may concern:

Be it known that I, WILLIAM J. MICHELSEN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Illuminated Display Signs, of which the following is a specification.

My said invention relates to illuminated display signs such as are used for advertising purposes in show-windows, and consists of a prism-shaped casing containing a source of light from which the rays are indirectly projected through a "screen" containing the advertising matter.

One object of my invention is to diffuse the light so as to prevent the appearance of a bright "spot" on that portion of the "screen" nearest the source of the light.

Another object is to construct a "screen" containing printed matter and transparencies of photographs and means for further diffusing the light rays so as to give depth and atmosphere to the transparencies.

With these and other objects in view, the invention consists of a combination and arrangement of parts fully described in the following specification and particularly pointed out in the appended claims, reference being had to the accompanying drawings forming a part thereof in which like numerals designate similar parts in the several views of which—

Figure 1 is a top plan view of a sign with a portion of the cover broken away to clearly illustrate the location of the source of light.

Fig. 2, a front elevation of the same with the various elements of the "screen" broken away for clearer illustration,

Fig. 3, an elevation of an electric bulb showing the light diffusing feature thereof, and

Fig. 4 an enlarged detail section through the elements forming the "screen."

In the drawing A represents a prism-shaped casing of suitable material in which is located a source of light B and a "screen" C. The casing consists of a bottom 10, diverging sides 11 enameled white inside to form a reflector and a removable top 12. The open portion or front of said casing is provided with vertical channels 13 in which the "screen C" is removably located. Said "screen" comprises a plate of clear glass 14, a photographic "positive" 15 having a sensitized emulsion on one side forming a transparency which contains the printed matter and various photographs and a light diffusing plate 16 having both sides uniformly etched by means of acid. The screen C is surrounded by an ornamental frame to hide the casing A. It has heretofore been the practice to employ glass with only one side "ground" by means of a sand blast which results in a coarse surface unsatisfactory for the purpose.

The plate 16 being etched on both sides causes a double refraction of the light rays thereby producing an effect of deep atmosphere and perspective on the transparencies.

The light element B used in my invention is preferably a frosted incandescent electric bulb 17 connected in an electric circuit in series with any suitable form of "flasher" 18 for the purpose of attracting attention of people passing. In order to evenly distribute the light on the screen, I coat that portion of the bulb 17 which is nearest the screen C with a semi-opaque substance 19 which is relatively thick in the central portion, as at 20 in Fig. 3, and graduated or faded out towards the sides, thereby compensating for the relative distances between the bulb 17 and the corresponding portion of the screen C.

It is to be understood that although the structure and proportions shown are preferable, I do not wish to be limited to the exact structure and materials shown as changes may be made in the form, proportions and minor details without departing from the spirit or sacrificing any of the advantages of the invention.

Having thus described my said invention, what I claim as new and desire to secure by Letters Patent is:

1. An illuminated display sign comprising a prism-shaped casing, a single source of light located well within the apex of said casing, a transparent screen forming the base of said prism, graduated means on said single source of light for diffusing the direct rays that pass through said screen, and means comprising a sheet of clear glass etched on both sides and forming a part of said screen for further diffusing said light rays, substantially as set forth.

2. An illuminated display sign having a source of light, comprising a single globe, a graduated translucent substance on one side of said globe, a transparent screen containing advertising matter and transparencies and a light diffusing screen forming a part of said transparent screen, substantially as set forth.

3. A source of light for illuminated display signs comprising a single globe, a graduated translucent substance on one side of said globe, said substance being applied relatively heavy in the central portion and gradually thinning out towards both sides, substantially as set forth.

4. In an illuminated display sign, a screen composed of a plain sheet of protecting glass, a photographic positive containing reproductions of printed matter and transparencies and a light diffusing element composed of a single sheet of glass having both surfaces "etched" by means of acid, substantially as set forth.

In testimony whereof I affix my signature.

WILLIAM J. MICHELSEN.