

July 1, 1930.

W. A. BURNS

1,769,824

SIGN

Filed Jan. 16, 1929

Fig. 1.

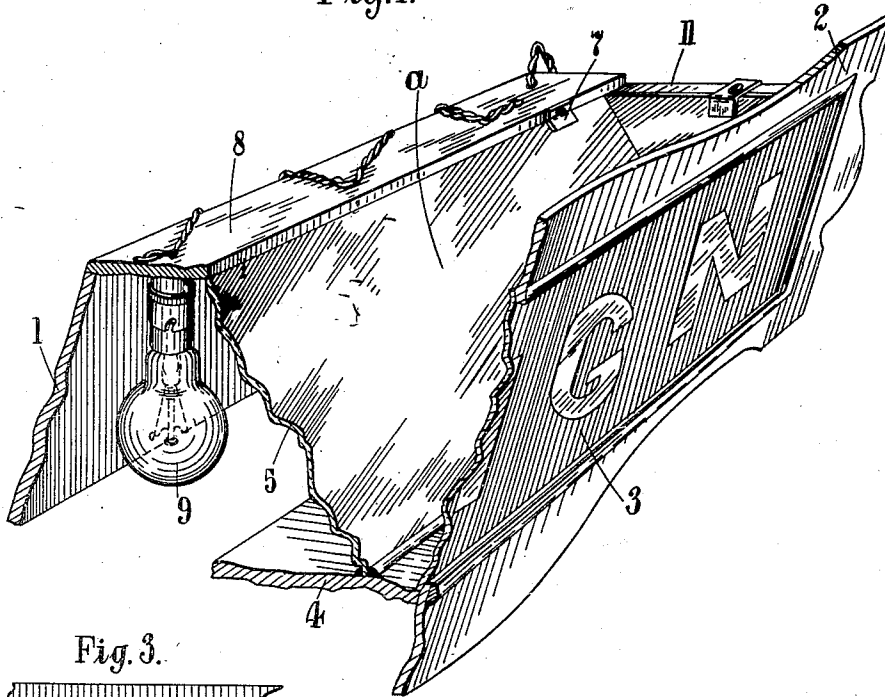


Fig. 3.

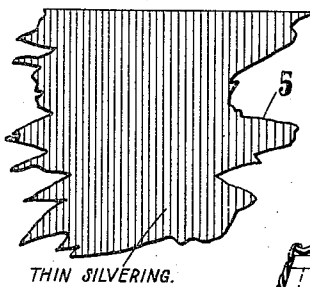
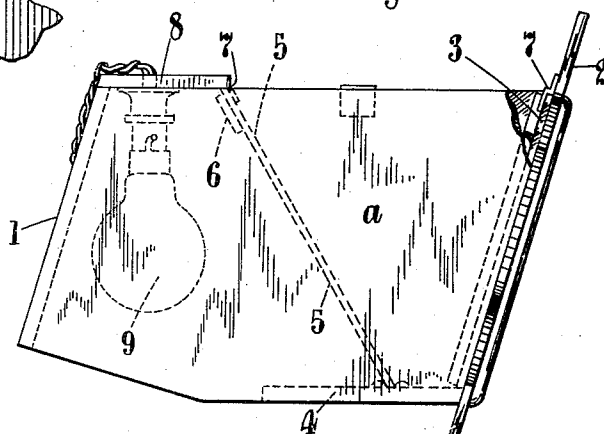


Fig. 2.



INVENTOR

W. A. BURNS

BY

W. A. Burns

ATTORNEY

UNITED STATES PATENT OFFICE

WILLIAM ALBERT BURNS, OF LONDON, ENGLAND

SIGN

Application filed January 16, 1929, Serial No. 332,939, and in Great Britain March 31, 1927.

This invention refers to box signs and has for its object to provide a sign adapted to be used either by day or by night, that is to say, either by means of its self-contained source of illumination or by means of illumination derived from the sky or when used in a shop window front from the normal lighting means of a shop front.

It is an object of the invention to provide a box sign having a forwardly-arranged display device such as a transparent stencil and a rearwardly-arranged translucent reflector, means for illumination being provided behind the said reflector. The space between the reflector and the stencil is left uncovered or may be covered by clear glass, and light entering this space is reflected by the reflector through the stencil which it renders visible. When no external light is available with access into this said space illumination is provided from the means arranged behind the translucent reflector which may comprise ordinary electric light bulbs, and the stencil is again rendered visible.

In the preferred form, the translucent reflector comprises a plate of glass having one surface silvered, the silvering being however thin so that it reflects some light falling on it from in front and also can transmit some light falling on it from behind.

The invention is illustrated in the accompanying drawing in which

Fig. 1 shows a perspective view partly broken away of the box sign according to the invention,

Fig. 2 being an end view of Fig. 1.

Fig. 3 is a detail view of a fragment of a reflector shown to an enlarged scale.

Turning now to the drawings, the form here illustrated comprises a frame 1 having a front framing 2 against which is placed a display device 3 here shown in the form of a stencil which is generally opaque and has clear letters. The display device 3 leans against the back of the framing 2 which is inclined forwardly from the baseplate 4 of the sign frame 1. The translucent reflector 5 is arranged behind the stencil 3 at an angle thereto. In the form shown it is inclined rearwardly from the baseplate 4 and the bot-

tom edges of the stencil 3 and reflector 5 are spaced some slight distance from each other. The reflector 5 leans against blocks 6 formed on the side walls of the sign frame 1 and the stencil and reflector are held down by copper clips 7 of usual form. Rearwardly of the reflector 5 the box sign frame comprises an upper horizontal batten 8 from which one or more electric lamp bulbs 9 are suspended to serve as a source of illumination behind the reflector 5.

The reflector 5 in the form shown comprises a glass plate which has been silvered over all its rearward surface, the silvering however, being sufficiently thin to make the mirror translucent.

The side walls of the sign frame 1 are fitted with internal plain mirrors 11 to conserve the light within the space *a*.

In the form shown, the reflector 5 is arranged at an angle of 30 degrees to the vertical.

It will be appreciated that the space *a* between the reflector 5 and the stencil 3 is uncovered at the top or is covered by clear glass or other light transmitting medium.

In use, light entering the top of space *a* and falling on the reflector 5 will be reflected forwardly thereof, and will illuminate the stencil 3 rendering it visible. Alternatively, when no such light is available, light derived from the electric lamp or lamps 9 will be transmitted through the reflector 5, being diffused or scattered by the thin silvering, and will equally render the stencil 3 visible. The internal rear wall of the frame 1 may be covered by a mirror or may be whitened to efficiently employ all the light emitted from the lamp 9.

The box sign illustrated is intended for use in shop fronts where the light entering the space *a* will be derived either from light entering the shop window or from the usual sources of illumination in the shop front. Such light will enter the space *a* from the front thereof and for this reason the reflector 5 is arranged comparatively steeply. Where, however, the box sign is intended to be used on facias or outside a building where the daylight illumination is derived from the

sky, the reflector 5 will preferably be arranged at an angle rather nearer 45 degrees, and the stencil 3 would in this case be arranged more nearly vertically. In the form shown, it is arranged to slope forwardly from the base 4 in order that its upper edge may give sufficient width to the space *a* for ample amount of light to enter the space for illumination of the stencil after reflection by the reflector, the lower edge of the stencil being arranged rearwardly of the forward edge to some extent to diminish the total bulk and weight of the sign.

It is to be understood, however, that the invention is capable of a wide variety of material embodiments and that the preferred form illustrated and the several modifications described are to be taken merely as preferred examples of the same, and that changes in arrangement and construction of parts may be made as required and found suitable so long as they remain within the spirit of the invention and scope of the following claims. For example, the translucent reflector may be of any known form.

Further the frame of the sign might hold only the front display device and the rearward translucent reflector arranged at an angle thereto, the sign then being suspended in front of a normal or usual illuminating lamp in a shop front for which purpose the rear of the reflector is left exposed.

I claim:

1. A box sign comprising a front display device, a rearward translucent reflector arranged at a backwardly sloping angle thereto and an illuminating means behind said reflector, the reflecting area of the translucent reflector being disposed next to the display device, the arrangement being such as to permit light entering from above between the reflector and display device to be deflected onto and through said display device, said illuminating means acting through the reflector for the illumination of the display device.

2. A box sign comprising a frame, means to hold a transparent display device in said frame, means for holding a translucent reflector in said frame behind said display device and at an angle thereto, the reflecting surface of said reflector being arranged next to the display device and open to light admitted between the reflector and display device, and means for holding an electric light bulb behind said reflector.

3. A box sign for use by day or night in shop fronts comprising a base, a stencil sloping forwardly from the front of said base, a translucent reflector behind said stencil sloping rearwardly from said base, and illuminating means behind said reflector.

4. A box sign including a front display device and a rearward translucent reflector

arranged at an angle thereto, the face or reflecting surface of said reflector being next the display device and open to the admission of light between said reflector and display device, the rear of said reflector being exposed to separate artificial illuminating means.

5. A sign comprising a translucent display panel, a plate arranged at a rearward inclination to said panel and adapted to reflect light reaching its front surface to said panel and to transmit light reaching its rear surface to said panel, a source of artificial light behind said plate, a casing carrying said display panel, plate and source of artificial light and formed with a top opening between said panel and said plate for admission of extraneous light to the front of said plate for reflection through said panel.

6. A sign comprising a translucent display panel, a thinly silvered glass plate arranged at a rearward inclination to said panel and adapted to reflect light reaching its front surface to said panel and to transmit light reaching its rear surface to said panel, a source of artificial light behind said plate, a casing carrying said display panel, plate and source of artificial light and formed with a top opening between said panel and said plate for admission of extraneous light to the front of said plate for reflection through said panel.

In testimony whereof I affix my signature.

WILLIAM ALBERT BURNS.