

H. MULHOLLAND & C. G. WEST.
ILLUMINATED SIGN.
APPLICATION FILED AUG. 15, 1910.

1,004,585.

Patented Oct. 3, 1911.

FIG. 1.

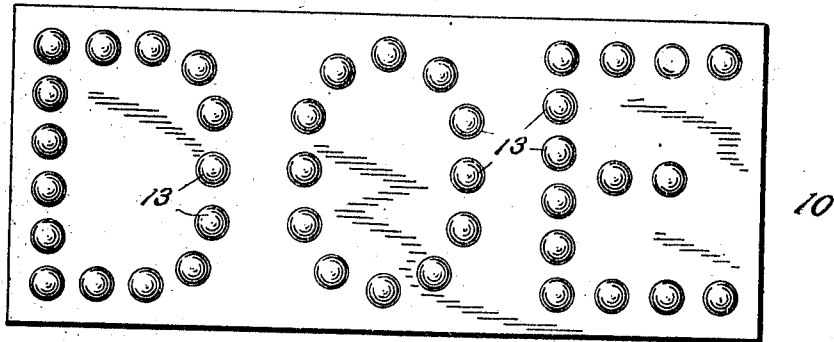


FIG. 2.

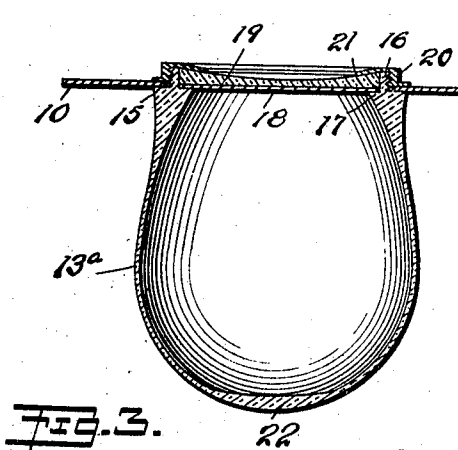
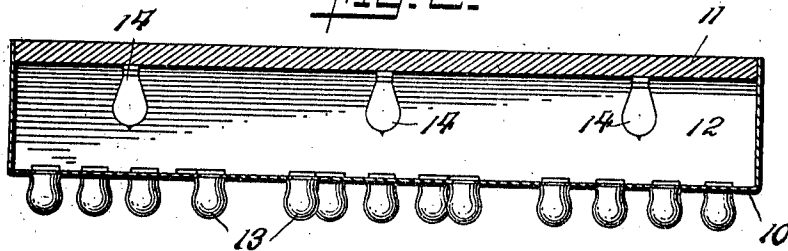


FIG. 3.

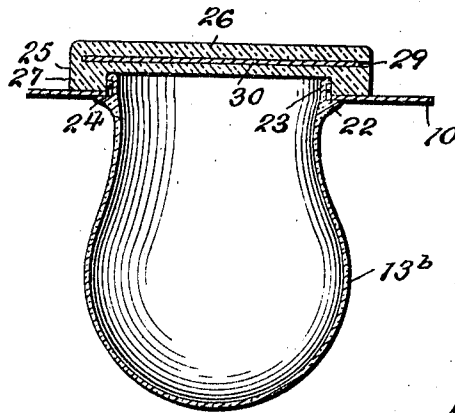


FIG. 4.

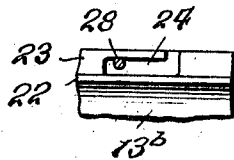


FIG. 5.

Witnesses:
G. Robert Thomas
Deputy Clerk
Peter Smith

Hugh Mulholland
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Inventors
By
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UNITED STATES PATENT OFFICE.

HUGH MULHOLLAND, OF NEW YORK, N. Y., AND CHARLES G. WEST, OF GREENWICH, CONNECTICUT, ASSIGNORS, BY MESNE ASSIGNMENTS, TO MULTICOLOR ELECTRIC SIGN CO., OF NEW YORK, N. Y.

ILLUMINATED SIGN.

1,004,585

Specification of Letters Patent.

Patented Oct. 3, 1911.

Application filed August 15, 1910. Serial No. 577,236.

To all whom it may concern:

Be it known that we, HUGH MULHOLLAND, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, and CHARLES G. WEST, a citizen of the United States, and a resident of Greenwich, in the county of Fairfield and State of Connecticut, have invented a new and Improved Illuminated Sign, of which the following is a full, clear, and exact description.

This invention relates to certain improvements in illuminating signs, and more particularly to that type of sign in which the letters, figures, designs, or other advertising matter, is displayed in the form of an arrangement of bulbs secured to the front wall of a casing, said bulbs being transparent, and the casing being interiorly illuminated. In signs of this character, the bulbs may resemble incandescent electric-light bulbs, and the interior of the casing may be illuminated by electricity, gas, or in any other suitable manner. The light shining through the bulbs from the interior of the casing gives the impression that each of the bulbs is an electric light.

Our invention relates particularly to the construction of these bulbs, and the object of the invention is to so construct the bulbs that they may appear of any desired color, and the color of any bulb may be readily and quickly changed in changing the sign.

In carrying out our invention, we employ a colored transparent disk or plate in connection with each bulb, and so support these disks or plates that the light must shine through them to the bulbs. These color disks may be easily removed and replaced by disks of other colors.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views, and in which—

Figure 1 is a front view of a simple form of sign, constructed in accordance with our invention; Fig. 2 is a longitudinal section therethrough; Fig. 3 is a longitudinal section through one form of bulb; Fig. 4 is a longitudinal section through a second form

of bulb; and Fig. 5 is a detail of the fastening means of the bulb shown in Fig. 4.

Our improved construction may be used in connection with various forms of electric signs, and the bulbs may be arranged to form letters, numerals, figures, or any suitable designs. As a simple form of sign, we have illustrated in the accompanying drawings a casing having a front wall 10 spaced from a rear wall 11, to leave an interior chamber or compartment 12. The front wall 10 is provided with a series of apertures, and within each aperture, there is secured a bulb 13, which in the particular form illustrated somewhat resembles in shape and size an incandescent electric light bulb. Within the casing is any suitable form of illuminating means, which in the form illustrated comprises electric lights 14, although it is, of course, understood that we do not wish to be limited in any way to this form of illumination.

In Fig. 3, there is illustrated a form of bulb embodying our invention and on a larger scale than Figs. 1 and 2. This bulb 13 is formed of glass, and at its rear end presents a shoulder 15 for engagement with the front surface of the wall 10 on the side. The bulb has a threaded neck 16, adapted to extend through an aperture in the wall 10, and opposite to the exterior shoulder 15 is an interior shoulder 17 within the neck. Seated upon this interior shoulder 17 is a disk 18 of gelatin or any other suitable transparent material which is capable of carrying a color, so that the light which shines from the interior of the casing through the bulb will assume the color of the disk. For holding the disk in place, and also for modifying the light rays, we employ a lens 19, seating against the surface of the disk 18 and fitting within the neck 16. It is not at all essential that this member 19 be a lens, although, by forming it as a lens, the brilliancy of the bulb may be increased. As shown, the surface of the member 19 toward the interior of the casing is concave. The member serves not only to retain the disk in place and to transmit the light rays, but it serves also as a non-conducting protector to protect the disk 18 from being injuriously affected by heat in the chamber 12.

For holding this member 19 in position and at the same time holding the bulb in position, there is employed a collar 20, threaded to the exterior of the neck and engaging with the surface of the wall 10 opposite to the shoulder 15. This collar has an inwardly-directed flange 21 for engaging with the surface of the member 19 to press the latter toward the shoulder 17.

The specific form of the bulb may be varied without in any way departing from the spirit of our invention. As illustrated in Fig. 3, the outer end of the bulb is formed of increased thickness so as to constitute a bull's-eye 22, and the bulb is formed somewhat elliptical. The bulb may be of any form desired.

In Fig. 4, there is illustrated a second form which our invention may assume. In this form, the bulb 13^b is of slightly different shape, but presents an outwardly extending shoulder 22 for engagement with the surface of the wall 10. Extending from this shoulder is a neck 23, which instead of being threaded, may have a plurality of bayonet slots 24, as illustrated in detail in Fig. 5. This neck 23 extends through the opening in the wall 10 of the sign, and at its inner end it is attached to a member 25, which serves to retain the bulb in place, and also serves to support a color disk. As shown, this member 25 is of glass, and includes a transverse wall 26 and an annular flange 27. The flange is adapted to receive the neck 23 of the bulb and engage with the surface of the wall 10, and presents inwardly-extending projections 28 for entry within the bayonet slots. The wall 26 is formed of two layers or plates spaced apart to leave a thin pocket or chamber 29 therebetween. This pocket may be closed on three sides and open on the fourth, and is adapted to receive a color disk 30 of transparent gelatin, celluloid or other suitable material.

Various other forms within the scope of the appended claims might be devised for carrying out our invention without in any way departing from the spirit thereof.

Having thus described our invention, we

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

1. A sign having an apertured wall, a bulb closing the aperture therein, a transparent color-disk extending across the bulb, and a transparent retainer for said disk.

2. A sign having an apertured wall, a bulb closing the aperture therein, a transparent color-disk extending across the bulb, and a transparent wall closing the end of the bulb and retaining said color-disk in position.

3. A sign having an apertured wall, a bulb closing the aperture therein, and having a cylindrical, exteriorly-threaded neck, a transparent colored disk extending across the bulb at the threaded neck, and a collar encircling said neck and having engagement with said disk and with said wall to hold said disk to said bulb, and to hold said bulb in position in said wall.

4. A sign having an apertured wall, a bulb closing the aperture therein, and having an exteriorly-threaded neck, a transparent colored disk extending across the bulb at the threaded neck, a transparent non-heat-conducting sheet covering said disk and serving to protect and support the latter, and a collar threaded to said neck and having a flange for engagement with one surface of the wall to retain the bulb in position and a flange for engagement with said transparent sheet for retaining the latter in position.

5. A sign having an apertured wall, a bulb closing the aperture therein, and having a threaded neck and a collar encircling said threaded neck, and in engagement with the wall, a transparent closure for the inner end of said bulb, and a flange on said collar for retaining said closure in position.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

HUGH MULHOLLAND.
CHARLES G. WEST.

Witnesses:

JAMES LESLIE PINKS,
ALFRED STEEKLER, Jr.