M. NORDEN.

ELECTRIC SIGN.

APPLICATION FILED SEPT. 5, 1917.

1,274,580. Patented Aug. 6, 1918.

Fig. 1

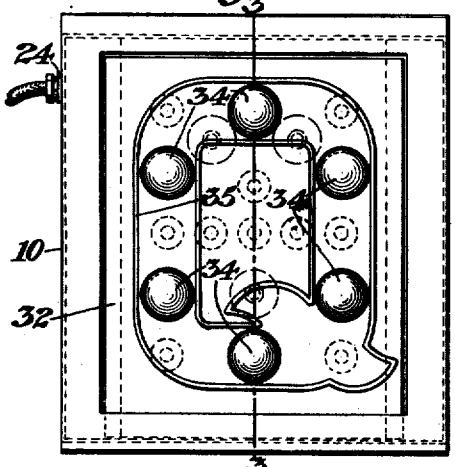


Fig. 2

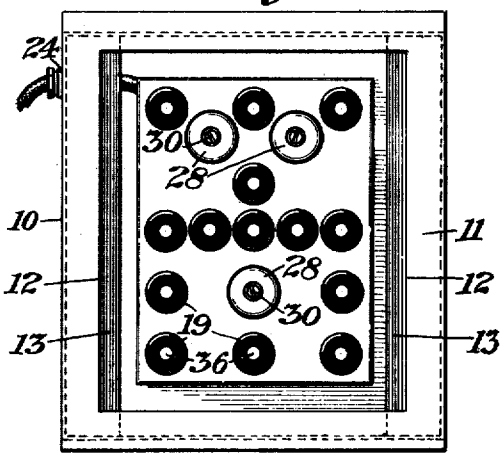


Fig. 3

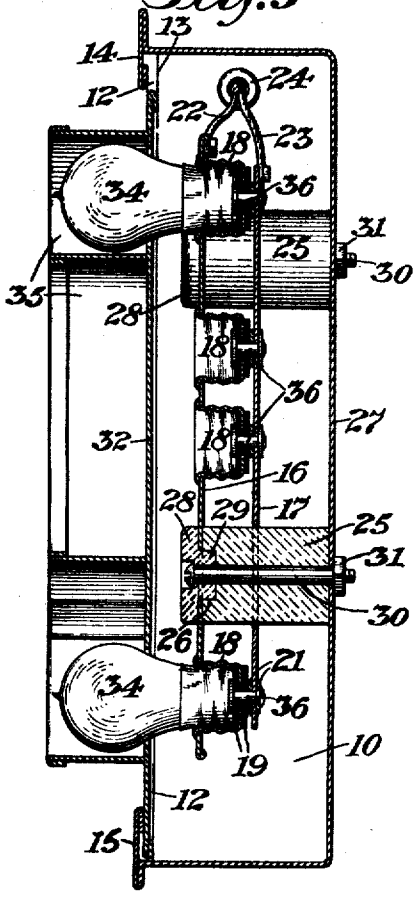
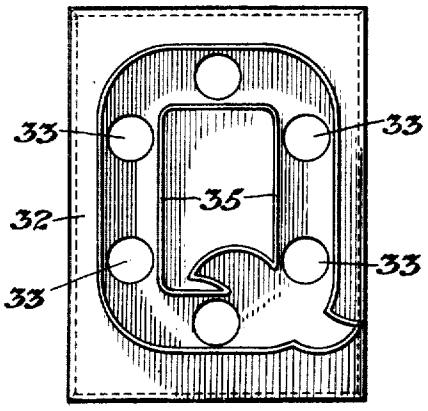


Fig. 4



Inventor

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UNITED STATES PATENT OFFICE.

MORTIMER NORDEN, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO JOSEPH NORDEN, OF NEW YORK, N. Y.

ELECTRIC SIGN.

1,274,580. Specification of Letters Patent. Patented Aug. 6, 1918.

Application filed September 5, 1917. Serial No. 189,895.

To all whom it may concern:

Be it known that I, MORTIMER NORDEN, a citizen of the United States, residing at the borough of Manhattan, in the city, county, and State of New York, have invented an Improvement in Electric Signs, of which the following is a specification.

My invention relates to signs of the character in which incandescent electric lamps are illuminated in groups to indicate letters, numerals or characters, the lamp sockets being arranged within a frame or box, with pattern plates provided with circular perforations adapted to fit the lamps and register with the sockets required to form the desired letter or character. My invention particularly relates to supporting the sockets between two contact plates, and in the manner of supporting such plates and insulating the same from the box or frame, and furthermore facilitating the insertion or withdrawal of the pattern plates.

The details of the invention are hereinafter particularly described.

In the accompanying drawing:

Figure 1 is a front view of a single character or letter box.

Fig. 2 is a similar view with the front letter or character plate, and the lamps removed.

Fig. 3 is a sectional view taken on the broken line 3—3 of Fig. 1, and

Fig. 4 is a face view of one of the interchangeable letter or character plates removed from the box.

Similar reference characters indicate like parts throughout the several figures.

10, indicates a box-like frame, preferably provided with a solid back, ends and side walls, and front opening.

The side walls of the box are bent over toward each other at right angles as at 11, then inwardly as at 12, and again at right angles providing the longitudinal strips 13, within the box, one at each side thereof.

A transverse strip 14, extends across the front of the box at its top, which strip extends over the upper ends of the strips 13, for a predetermined distance, and at the bottom of the box there is another transverse strip 15, which extends over the lower ends of the strips 13, for a greater distance than the strip 14, at the top.

Within the frame or box 10, there are two spaced contact plates 16 and 17, parallel with each other and between which the sockets 18 are arranged in such manner that any desired letter or numeral may be formed. The plate 16 is provided with holes into which the upper part of the socket shell extends, and is overturned upon the plate surrounding such holes. The bottom of the sockets are insulated from the plate 17, by insulating disks 19, and the plate 17 is provided with small openings back of said disks, there being copper rivets 36 passing through holes in the bottom of the sockets, through holes in said disks and through the small openings in the plate 17, the heads of the rivets being within the sockets and insulated therefrom, and washers 21, upon their lower ends back of the plate 17, and contacting therewith. The conductor wires 22 and 23, lead into the box 10, through a bushing 24.

The wire 22 is connected to the plate 16 and the wire 23 is connected to the plate 17.

25, indicates posts of porcelain or other non-conducting material, each provided with a central longitudinal opening and central recess 26 in its forward end. The plate 17, is provided with openings through which these posts pass and fit.

The rear ends of these posts rest upon the back 27 of the box through which are holes registering with the longitudinal openings in the posts. The forward ends of the posts bear against the rear surface of the plate 16, through which there are openings registering with the recesses 26, in the forward ends of the posts.

These posts are each provided with a cap 28 provided with a central opening registering with the longitudinal openings in the posts. These caps are undercut, forming projections 29, which extend into and fit the recesses in the forward ends of the posts, the heads of the caps bearing against the forward surface of the plate 16.

Bolts 30 pass through the openings in the caps and posts and the openings in the back plate of the box, their projecting ends being threaded upon which are screwed nuts 31. It will thus be seen that the contact plates 16 and 17, with the sockets 18, are supported within the box 10 and insulated from each other and from the frame or box in a substantial and effective manner.

32, indicates one of the interchangeable plates provided with openings 33 adapted to

fit the lamps 34 and so arranged as to exactly register with the sockets required to form the desired letter, numeral or character, and I preferably provide these plates with an outline of walls 35 forming the contour of the letter, numeral or character, these outline walls being attached to and projecting forward from the plates.

These interchangeable plates 32 are made of a width to fit between the vertical bends 12, in the sides of the box 10, and rest against the longitudinal strips 13, the lower end of the plate 32 being first inserted between the strips 13 and the lower transverse strip 15, the lower edge of the plate resting upon the inner surface of the lower end of the box. The plate is thus held in position, and any tendency to pitch forward at the top is prevented by the lamps after they are screwed into the sockets. By this construction the insertion or removal of the pattern plates is greatly facilitated.

The transverse top and bottom strips 14 and 15, may be integral with the box and formed by bending over the ends of the box as illustrated in Fig. 2, or they may be separate pieces and secured to the front of the box by solder or in any suitable manner.

I claim as my invention:

1. In an electric sign, the combination with an inclosing frame, of two spaced parallel contact plates within the same, a monogram of lamp sockets supported by and between said plates, posts of insulating material secured at one end to the back of the frame and passing through openings in the rear plate with their forward ends bearing against the inner surface of the front contact plate, said posts having a recess in their forward ends, and said front plate having openings registering therewith, an end cap upon each of said posts bearing against the outer surface of the front plate and provided with a projection fitting into said recesses in the posts and bolts securing said cap to said posts and the posts to the frame whereby said contact plates are supported out of contact with the frame.

2. In an electric sign, the combination of a box open at the front and having two flat strips extending vertically at either side within said opening below the outer edge of the box formed by bending over the side walls toward each other at right angles, then inwardly, and again at right angles, a transverse strip extending across the front of the box at its top and over said vertical strip for a predetermined distance, another transverse strip extending over and above said vertical strips for a greater distance than the top transverse strip, two spaced parallel contact plates within the box, a monogram of lamp sockets supported by and between said plates, a plurality of posts of insulating material secured at one end to the back of the box and connected at their forward ends to one of said plates and passing through openings in the other plate, a plurality of substitutable pattern plates of a size to fit into the front opening of the box and rest against said vertical flat strips with their lower ends inserted between said strips and said bottom transverse strip, each of said pattern plates being perforated with one character of said monogram of sockets, and lamps attachable to said sockets through said perforations.

Signed by me this 29th day of August, 1917.

MORTIMER NORDEN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."