

# UNITED STATES PATENT OFFICE.

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## ILLUMINATED SIGN.

SPECIFICATION forming part of Letters Patent No. 698,256, dated April 22, 1902.

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*To all whom it may concern:*

Be it known that we, GUY D. CHAPMAN and CLOYD R. QUINE, citizens of the United States, residing at Akron, in the county of Summit and State of Ohio, have invented a certain new and useful Improvement in Illuminated Signs, of which the following is a specification.

Our invention has relation to the manufacture of what are known as "illuminated electrical signs," and has especial relation to those signs in which the body portion of the letter of which the sign is composed is made from some non-conducting material, such as porcelain, and in which the electrical lamp is partially buried.

The objects of our invention are to produce a new and improved letter in which the means for attaching electric lamps shall be made integral with the main body portion, and it also is one of our objects to so attach the letter to the supporting-frame that it shall at all times be convenient to reach all the wires leading to the various portions of the sign, and a further object is to render the sign as nearly impervious to the effects of the weather as possible.

To the aforesaid objects our invention consists in the peculiar and novel construction, arrangement, and combination of parts hereinafter described and then specifically claimed, reference being had to the accompanying drawings, forming a portion of this specification, and in which drawings similar reference-numerals indicate like parts in the different figures.

Figure 1 is a front elevation of the letter "C" with the electric lamps in position. Fig. 2 is a section at the line  $x x$  of Fig. 1, and Fig. 3 an inverted plan of the socket portion of the letter.

In the drawings, 1 is the board frame on which the various letters constituting the sign are mounted. The main body portion 2 of the letter consists of an integral piece of earthenware, preferably glazed and formed in any desired style. This letter has in its front exposed face a deep groove, preferably in the form of a parabola in cross-section. In the bottom of this groove at desired intervals are holes 3, extending through the main body portion of the letter and nearly to the

bottom of sockets 4, which extend from the rear face of the body portion of the letter. These holes 3 are of such a diameter as will admit the socket end of an electric incandescent lamp. In the bottoms of the holes 3 is a central orifice provided with a shoulder and into which is placed a screw 5, provided with a shoulder to encounter the shoulder in the orifice. The upper end of this screw 5 projects into the opening 3 and is designed to mesh with the female threads in the lamp-sockets and form one of the electric connections of the lamps. Around and substantially concentric with the opening 3 at its bottom is placed a bent ring 6, fastened by two screws 7, which pass through the earthenware bottom of the letter and fasten to a semicircular plate 8 on the bottom of the socket. The lower end of the screw 5 is threaded and meshes into a contact-plate 9, also on the bottom of the socket 4. On the plates 8 and 9 are screws 10, to which are fastened the wires for the lighting of the lamps, the current passing up from plate 8 by screws 7 to the ring 6 and thence to the lamp and returning by the screw 5 and contact-plate 9. These sockets 4 are made integral with the main body portion of the letter, and the diameter of the base portion of these sockets is larger than where the socket joins the letter and are substantially in a dovetailed form. The letters are attached to the board 1 by making openings in the board large enough to admit the sockets, and the body portion 2 of the letter is brought accurately down on the surface of the board, and the space around the narrow portion of the socket is filled with some cement, preferably plaster-of-paris, by which means the letter is accurately attached and firmly held in position when the cement dries.

We are aware that advertising-signs made by attaching rows of incandescent lamps to a board are not new, and this we do not claim.

What we do claim, and desire to secure by Letters Patent, is—

1. The combination in a letter for signs, of a body portion, and depending sockets for the reception of incandescent electric lights made integral with said body portion.

2. The combination in a letter for signs of a non-conducting body portion provided on its outer face with a groove and depending