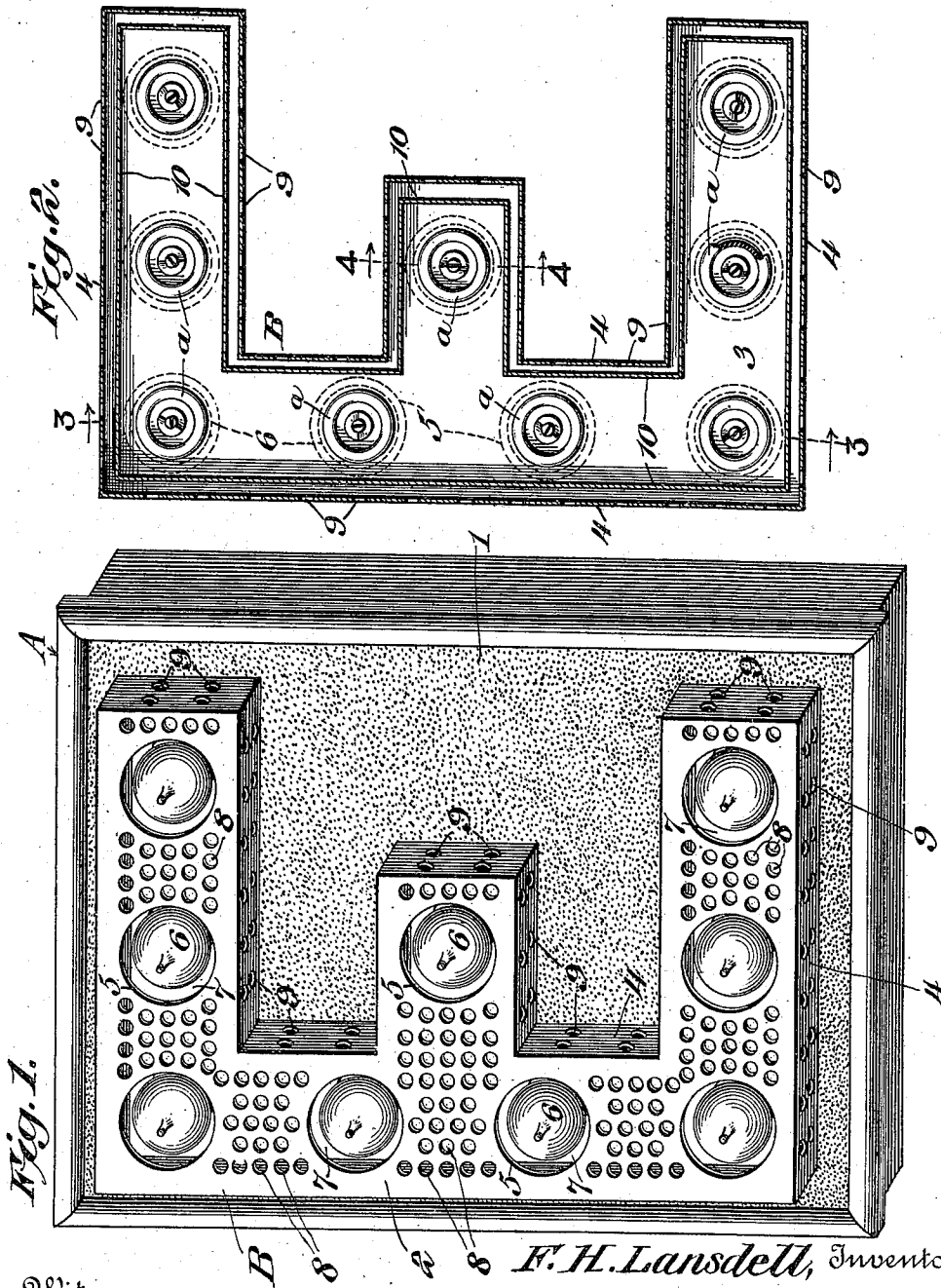


F. H. LANSDELL.
ELECTRIC SIGN LETTER.
APPLICATION FILED NOV. 20, 1909.

972,877.

Patented Oct. 18, 1910.

2 SHEETS—SHEET 1.



Witnesses
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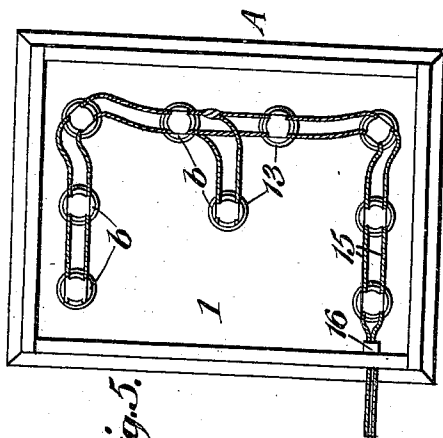


Fig. 5.

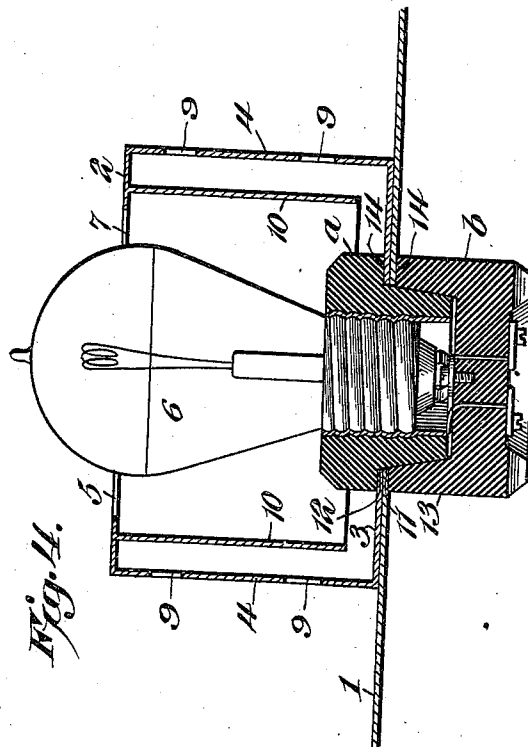


Fig. 4.

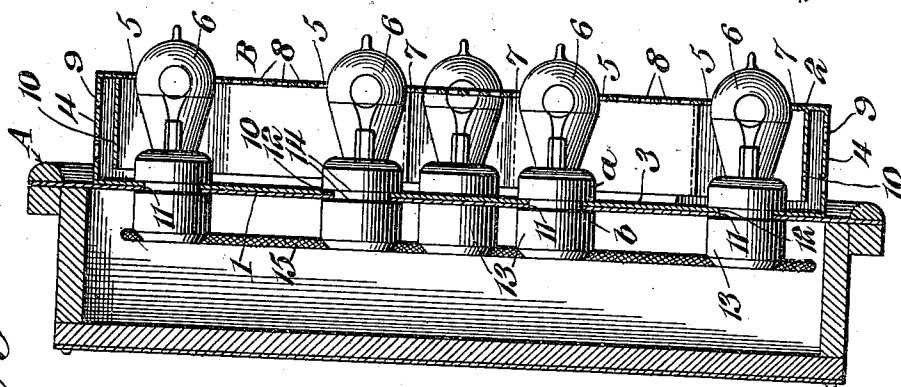


Fig. 3.

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UNITED STATES PATENT OFFICE.

FREDERICK HURST LANSDELL, OF ATLANTA, GEORGIA.

ELECTRIC-SIGN LETTER.

972,877.

Specification of Letters Patent.

Patented Oct. 18, 1910.

Application filed November 20, 1909. Serial No. 529,146.

To all whom it may concern:

Be it known that I, FREDERICK HURST LANSDELL, a citizen of the United States, residing at Atlanta, in the county of Fulton and State of Georgia, have invented a new and useful Electric-Sign Letter, of which the following is a specification.

This invention relates to an electric sign letter and has for its principal object to provide an embossed letter which has its face studded with electric lamp bulbs, the letter being so designed and the bulbs so arranged that a sign composed of such letters can be clearly read from a great distance and at a comparatively great angle, and, in fact, almost parallel with the sign without blurring or running the letters together, due to an excessive emission of light rays, since the glare of the lamps is subdued in order to prevent blurring.

Another object of the invention is to provide a novel construction of letter and panel on which the letter is mounted by means of the lamp sockets which form the sole connecting means between the letter and its panel, the wiring for the lamps being arranged in the panel which is chambered so that a practically weatherproof housing for the lamp connections is provided and one which can be readily opened for the purpose of repairing or changing the letter.

With these and other objects in view, as will appear as the description proceeds, the invention comprises the various novel features of construction and arrangement of parts which will be more fully described hereinafter and set forth with particularity in the claims appended hereto.

In the accompanying drawings, which illustrate one embodiment of the invention, Figure 1 is a perspective view of a character unit of a sign. Fig. 2 is a sectional view taken through the character in a plane parallel with the face of the sign, the lamps being removed to show the lamp-receiving sockets or receptacles therefor. Fig. 3 is a vertical section on line 3—3, Fig. 2. Fig. 4 is a sectional view on line 4—4, Fig. 2, drawn on an enlarged scale. Fig. 5 is a rear view of the panel of the character unit, the back plate being removed.

Similar reference characters are employed to designate corresponding parts throughout the views.

Referring to the drawings, A designates

the panel or base of the character unit, and B the letter, figure or other character which is secured to and stands outwardly from the front plate 1 of the panel, the character in the present instance representing the letter E. A sign composed of a number of character units of this form can be read distinctly from a great distance by day since the letters are of the embossed type; that is to say, raised from the face of the sign or front plates of the panels. Each character is made of sheet metal of suitable gage and composed of a face 2, back 3, and side walls 4, whereby a chambered or box-like structure is produced. The front plate or face 2 of the character has spaced openings 5 through which protrude the outer portions of lamp bulbs 6 which have their outer ends preferably frosted so that the rays of light will be diffused and glare prevented. The openings are somewhat larger than the diameters of the bulbs so that annular light-emitting spaces 7 are provided around the lamps which assist materially in preserving the continuity of the letter should any lamp burn out, it being understood that the rays of light emitted from the portions of the lamps within the letter will be transmitted by reflection from the metal interior surfaces of the character.

The face of the character between adjacent openings is provided with small perforations 8 through which light is transmitted from the interior of the letter to assist in giving outline to the letter without direct rays of light being emitted, it being understood that direct rays are objectionable since they cause blurring, especially when the sign is observed at a great angle from a distant point. The side walls of the letter, meaning thereby the top and bottom walls as well, are provided with ventilating perforations 9, and extending around the interior of the letter in proximity to the perforated side walls is a continuous baffle 10 that follows the outline of the character, as clearly shown in Fig. 2. This baffle is made of a metal strip carried by the front plate or face 2 of the letter, as shown in Figs. 3 and 4, and extending into close proximity to the back of the letter, whereby a free circulation of air through the character is provided. This baffle or deflector 10 serves to reflect the laterally emitted rays from the lamps to cause light to be transmitted through the perfora-

tions in the front plate and the annular openings surrounding the lamp bulbs. It also serves to prevent light from being emitted through the perforations 9, allows for a
5 circulation of air, and deflects the heat so as to protect the paint or enamel on the letter.

The panel A is a box-like structure of any desired construction, the front of which is formed by the plate 1. This plate is provided with openings 11 with which register
10 openings 12 in the back plate 3 of the character, and through these registering openings extend the lamp sockets or receptacles 13 that form the sole connecting means be-
15 tween the character and panel. These sockets are made in two parts *a* and *b*, as clearly shown in Fig. 4, the part *a* being the plug and the part *b* a socket, and the plug passing through the openings in the front plate
20 of the panel and back plate of the character and fitting in the part *b* so that the plates will be clamped against the spaced shoulders 14 formed by the two parts. The lamps are screwed in the parts *a* of the receptacles 13
25 and the terminals of the sockets are connected with circuit wires 15 arranged as shown in Fig. 5, said wires leading into the panel through a bushing 16 at one side. It will thus be seen that the circuit connections are
30 arranged wholly within the box-like panel so that repair or inspection can be readily made from the rear of the sign without having to take the letter apart, and furthermore the parts of the sockets can be unfastened
35 when the letter is to be removed from the panel. The circuit connections are housed in a weatherproof case so that very little attention will be required, it being merely necessary to substitute new lamp bulbs as the
40 filaments burn out. Even if the filament of a lamp should burn out, it does not destroy the continuity of the letter because light can be emitted from the interior of the letter through the perforated face of the letter sur-
45 rounding that lamp which is burned out, the interior of the letter being illuminated by the side rays from the other lamps.

A studded letter electric sign of this character has the advantage of extreme simplicity and the individual letters can be distinctly discerned at a great angle and almost parallel with the sign and at a greater
50 distance therefrom than the other electric sign letters of the same size where the light is directly emitted, since the sign is blurred and the letters run together. The incandescent bulbs partially protrude through the surface of the raised flush face characters and the side rays from the lamps are
60 reflected through the perforations and openings in the face of the letters to carry out the complete outline of the letter. The lamps are sunken through the faces of the letters far enough to prevent the excess light
65 from causing the same to blur and at the

same time permit enough of each lamp to project through the face to provide a studded embossed effect.

From the foregoing description, taken in connection with the accompanying drawings, the advantages of the construction and of the method of operation will be readily
70 apparent to those skilled in the art to which the invention appertains, and while I have described the principle of operation of the
75 invention, together with the apparatus which I now consider to be the best embodiment thereof, I desire to have it understood that the apparatus shown is merely illustrative, and that such changes may be made
80 when desired as are within the scope of the claims appended hereto.

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

1. A sign character comprising a support, a hollow character mounted thereon and having its face provided with openings and closely arranged apertures between adjacent openings, and lamps secured in the
90 character with portions protruding out of the openings, said openings being larger in diameter than the protruding portions of the lamps to leave annular spaces around
95 the lamps.

2. A sign character comprising a supporting panel, a hollow character secured to the panel and arranged in outstanding relation therefrom, said character consisting of a
100 front plate and marginal or side walls, said front plate having lamp openings, lamps in the character partially projecting through the openings, said side walls having ventilating apertures, and a baffle arranged in
105 the character and extending along the side walls thereof in spaced relation to the ventilating apertures.

3. A sign character comprising a hollow structure consisting of front, back and side walls, said front wall having openings and
110 side walls having ventilating apertures, lamps in the character partially protruding through the openings, and a baffle carried by the front wall within the character and extending along the side walls in spaced
115 relation thereto and spaced from the back wall whereby a ventilating space is provided entirely around the character.

4. A sign character comprising a panel including a plate having openings, a hollow
120 character having a back plate provided with openings registering with those of the panel plate, lamp sockets each made in two parts comprising a plug having a tapered
125 portion which is passed through the openings of the panel plate and back plate and is provided with a shoulder to rest on the back plate, and a socket having a shoulder to bear against the panel plate and a recess
130 to receive the tapered portion of the plug,

the plug being hollow and the interior wall thereof being threaded to receive the lamp bulb, whereby the lamp sockets form the sole connecting means between the character and the panel, and lamp bulbs screwing into the hollow plug.

5 5. A sign character comprising a panel including a plate having openings, a hollow character applied to the panel and consisting of a front and side walls, said front
10 wall having its face provided with openings and closely arranged small apertures between adjacent openings, and said side walls

having ventilating openings, lamps arranged within the character at the openings 15 in the front wall, and a baffle arranged within the character and extending along the side walls in spaced relation thereto and also spaced from the panel.

In testimony, that I claim the foregoing 20 as my own, I have hereto affixed my signature in the presence of two witnesses.

FREDERICK HURST LANSDELL.

Witnesses:

C. E. CURRIER,
GEO. P. DONOVAN.