

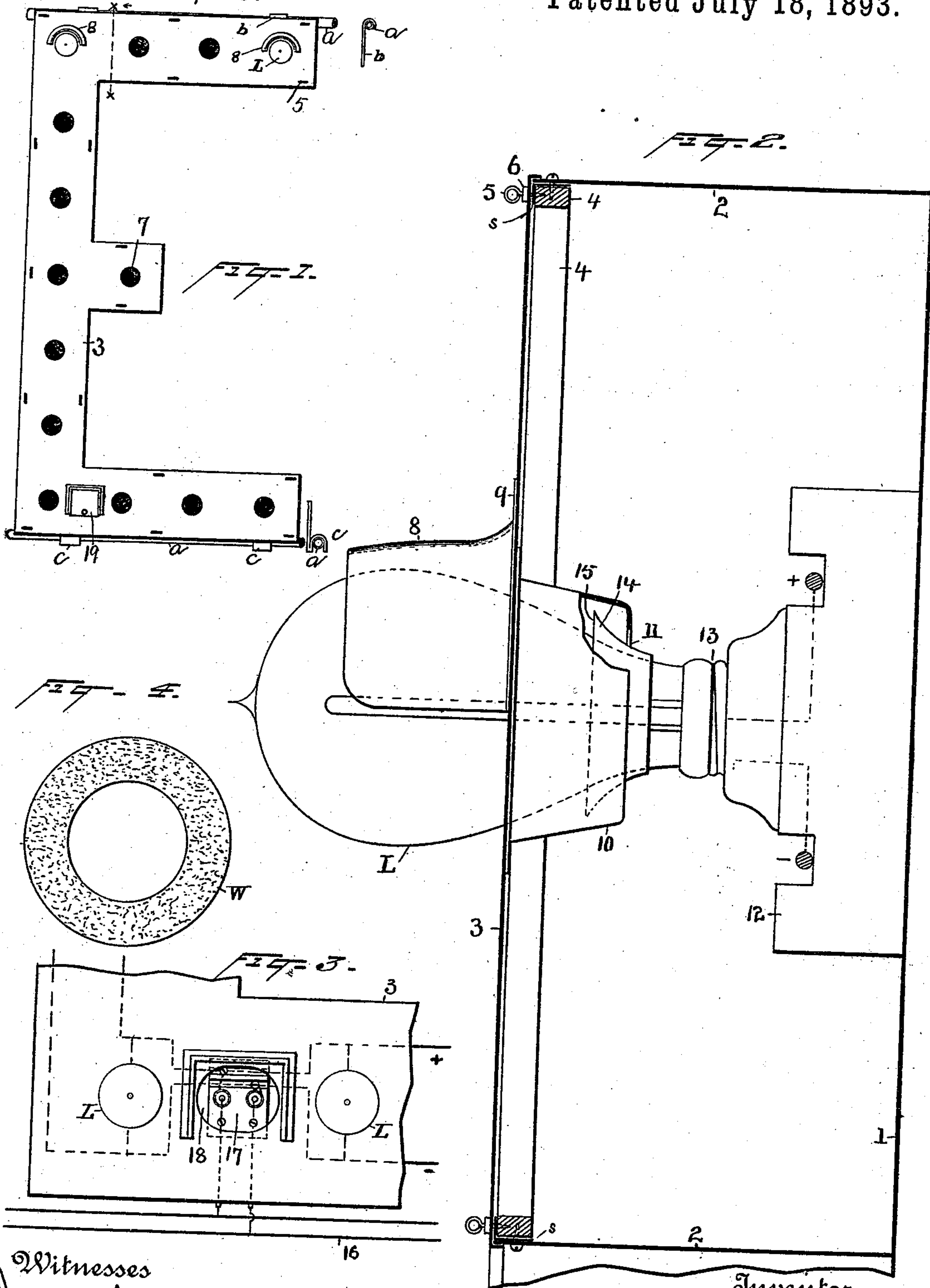
(No Model.)

A. D. PAGE.

ELECTRICALLY ILLUMINATED CHARACTER FOR ADVERTISING.

No. 501,533.

Patented July 18, 1893.



Witnesses
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UNITED STATES PATENT OFFICE.

ALMON D. PAGE, OF NEWARK, NEW JERSEY.

ELECTRICALLY-ILLUMINATED CHARACTER FOR ADVERTISING.

SPECIFICATION forming part of Letters Patent No. 501,533, dated July 18, 1893.

Application filed June 10, 1892. Serial No. 436,210. (No model.)

To all whom it may concern:

Be it known that I, ALMON D. PAGE, a citizen of the United States, residing at Newark, county of Essex, and State of New Jersey, have invented a certain new and useful Improvement in Electrically-Illuminated Characters for Advertising, &c., of which the following is a specification.

The present invention relates to means for supporting incandescent lamps, and especially lamps arranged in pre-determined order to form the outline of letters or other characters for making signs, for advertising or for similar purposes.

The main object of the invention is to provide means for thus supporting the lamps which shall thoroughly exclude water from the bases of the lamps, from the sockets and from the wires leading thereto, and to provide a strong and simple construction of box or casing for the sockets and other devices, each box being preferably in the form of a letter or character; and the invention consists in certain other features hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a face view of one letter made according to this invention, the lamps and shields being omitted except at the extremities of the upper bar of the letter, where lamps and shields are shown in place. Fig. 2 is a cross-section, on line $x-x$ of Fig. 1, looking in the direction indicated by the arrow, and on a larger scale. Fig. 3 is a view, on a larger scale than Fig. 1, of a section of a letter showing a hand hole therein; and Fig. 4 is a view of a washer to be described.

In carrying out this invention, I make sheet metal or other boxes or casings, in the form of the letters or characters desired, a letter E being shown in the drawings, this letter being taken merely as an illustration.

In practice complete alphabets with duplicate letters will be provided so that any desired words can be set up. Numerals and other characters will also be provided. These letters or characters can be supported side by side to form words, &c., by any suitable means, each letter being preferably separately removable. I prefer for this purpose to provide rods or pipes a , supported at a distance

apart about equal to the length of the letters, and to secure hooks b, c adapted to fit onto said rods or pipes, to the letters at the top and bottom as shown.

1, 2, 3 are the sides or walls of a sheet metal box or casing forming a character, 3 preferably being a removable cover.

Around the casing, on a line with the outer edges of the sides 2, are placed wooden strips 4, and to these strips the cover is secured by thumb-screws or other devices 5 and washers 6. The strips also serve to strengthen the box.

Between the cover and the strips 4 are placed rubber or other suitable packing strips 5 to make a tight joint, and, if desired, the cover may be bent so as to overlap the sides 2.

The cover is provided with as many holes 7 as there are to be lamps to form the outline of the character. The cover illustrated has fourteen such holes. If the character were a period, for example, a single hole only would be necessary. On the outside of the cover, over each of these holes, is placed a sheet metal shield 8, this being preferably semi-circular, as shown in Fig. 1, and having a flange 9 soldered or otherwise secured to the cover. The shield, preferably, is large enough so that a lamp L can be screwed into place without actually touching it, and projects forward over or beyond the largest diameter of the lamp globe. On the inside of the cover, around the holes 7, are placed tapering sleeves 10, preferably having inwardly curved ends in which are openings 11 for the passage of the bases of lamps. The lower part of each sleeve forms a channel below the lamp by which water which finds its way in thus far will be conducted to the outside of the box. It is evidently not necessary that this device should be a complete sleeve, although that form is preferred. In line with these openings 11 are an equal number of insulating blocks 12 carrying sockets and cut-outs of usual or suitable construction, the bases 13 of the lamps screwing or otherwise fitting into said sockets, being thereby connected to the wires $+ -$ of the supply circuit. On the lower part of the lamp globe but above the lamp base is or may be placed a tapering sheet metal sleeve 14, with a flaring end 15. This sleeve is secured in place on the lamp

by a suitable cement, such as litharge. Instead of the sleeve 14 a flexible asbestos or other washer W fitting onto the neck of the lamp may be used, and in some cases neither
5 of these devices may be necessary.

When the parts described are put together so that they occupy the relative positions shown in Fig. 2, the lower portions of the lamps, the sockets and all of the circuit con-
10 nections are tightly inclosed and protected within the water-tight boxes or casings comprising the letters or characters. Any water that falls onto the lamps will drop off without running into the casing, and if rain should
15 be driven under the shields 8 by the wind, it will not pass into the box far enough to do injury.

The covers or outer sides of the boxes or casings on which the lamps are arranged will,
20 preferably, be suitably colored, so that they can be utilized as ordinary signs during the daytime, and the lamps will, preferably, be of the same color as said covers or sides, for example, the covers may be painted red, and
25 the lamp globes tinted red. In this manner, the signs are made visible and of attractive appearance both during the day, and, when illuminated, at night. Since the shields 8
30 only cover the upper portions of the globes, they do not obstruct light in such manner as to detract from the brilliancy of the sign when seen from the front or from below as is usually the case, and if seen from above
35 enough of each lamp projects to be plainly visible. By inserting the lamp bases into the boxes and allowing the spherical part of the globes only to project, the appearance of the letters is much improved.

The circuit connections used may be of any
40 desired character, but when ordinary sixteen candle power lamps are used they will generally be used in simple multiple arc: when miniature lamps are used they may be connected in multiple series. The preferred circuit con-
45 nections are indicated in Fig. 3, in which 16 is a supply circuit connected to the wire in the letter through ordinary cut-out devices, as indicated at 17. 18 is a hand hole through which the cut-out block 17 can be reached.
50 The cover 19 is in place in Fig. 1 but is removed in Fig. 3.

It is evident that the details of construction and the shapes of the several parts may be varied considerably without departing from
55 the invention. While it is preferred to make an entire letter of one box, this is not essential. Some of the features described may be used without having the boxes in the form of letters or characters, as will be evident with-
60 out detailed description. Circuit changing apparatus such as described in my application, Serial No. 432,964, filed May 14, 1892, may be used to flash the lights forming the letters if desired.

65 What I claim is—

1. The combination of a box having an

opening or openings in a side thereof, an equal number of sockets on the opposite side of the box and in line with the opening or openings, said openings and sockets being adapted to
70 receive lamps, and means for preventing entrance of water through said opening or openings to the sockets and devices in the box, substantially as described.

2. The combination of a box in the form of
75 a letter or character, adapted to be used alone or with other letters or characters for advertising or similar purposes, the box having openings in a side thereof, an equal number of sockets on the opposite side of the box and
80 in line with the openings, the openings and sockets being adapted to receive lamps, substantially as described.

3. The combination of a box in the form of
85 a letter or character, adapted to be used alone or with other letters or characters for advertising or similar purposes, the box having openings in a side thereof, an equal number of sockets on the opposite side of the box
90 and in line with the openings, the openings and sockets being adapted to receive lamps, and means for preventing entrance of water through said openings to the sockets and devices in the box, substantially as described.

4. The combination of a box in the form of
95 a letter or character, adapted to be used alone or with other letters or characters for advertising or similar purposes, the box having openings in a side thereof, an equal number of sockets on the opposite side of the box and in
100 line with the openings, the openings and sockets being adapted to receive lamps, and sheet metal shields at one side of the openings for preventing entrance of water, substantially as described.

5. The combination of a box in the form of
105 a letter or character, adapted to be used alone or with other letters or characters for advertising or similar purposes, the box having openings in a side thereof, an equal number of sockets on the opposite side of the box and
110 in line with the openings, the openings and sockets being adapted to receive lamps, sheet metal shields at one side of the openings, and sleeves or channels on the inner face of the
115 side having openings and in a position to prevent water, finding its way under the shields, from reaching the circuit connections in the box, substantially as described.

6. The combination of a box having an open-
120 ing or openings in a side or cover thereof, a socket in line with each opening and adapted to receive a lamp and to connect the same to a circuit, sleeves on the inner face of said side or cover around each opening, and a lamp for
125 each opening having on it a ring adapted to stand within said sleeve, said lamps projecting through the openings into the sockets, substantially as described.

7. The combination, in a device for sup-
130 porting incandescent electric lamps, of a box or casing having one or more openings in a

side thereof, means for supporting incandescent electric lamps in said openings so that a portion of each lamp projects from the box, and shields over or at one side of the openings, substantially as described.

5 8. A letter or character adapted for use alone or with other characters, for advertising and similar purposes, consisting of a box or casing in the form of such letter or character, 10 lamps extending through openings in one side of said box or casing and so arranged as to form the outline of the letter or character, and lamp sockets or supports and circuit connections within the box or casing, substantially 15 as described.

9. The combination, in a letter or character of the nature indicated, of a sheet metal box in the form of such letter or character in one side of which are holes of suitable size for receiving incandescent lamps, shields partially 20 surrounding said holes and projecting from said side, lamps in said holes, and means for

supporting the lamps, substantially as described.

10. The combination, in a letter or character 25 of the nature indicated, of a sheet metal box or casing, strips of wood or similar material secured in the box along the edge, and a cover for the box having openings in suitable order for receiving the lamps, substantially 30 as described.

11. A box or casing in the form of a letter or character, having openings in a side or cover thereof, means for supporting lamps in said openings, and cut-out devices in the lamp 35 circuit in the box, there being a hand hole to give access to said cut-out devices, substantially as described.

This specification signed and witnessed this 9th day of June, 1892.

ALMON D. PAGE.

Witnesses:

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