

L. G. SHEPARD.
ELECTRIC SIGN.
APPLICATION FILED MAR. 7, 1912.

1,052,182.

Patented Feb. 4, 1913.

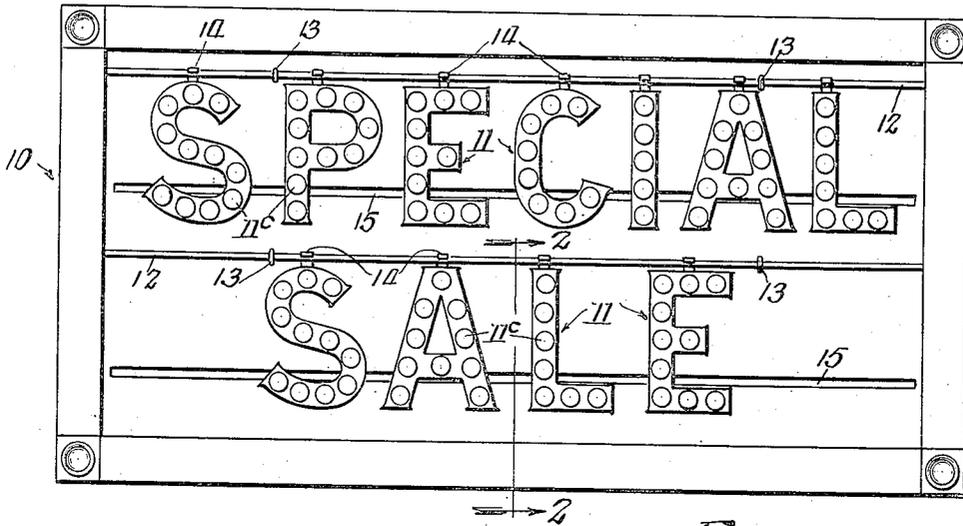


Fig. 1.

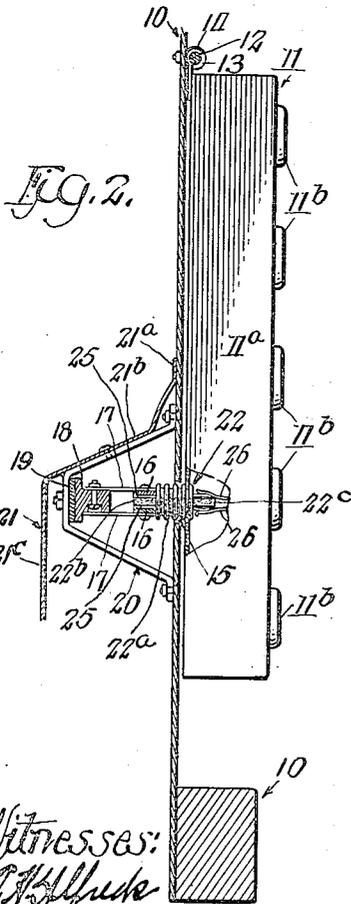


Fig. 2.

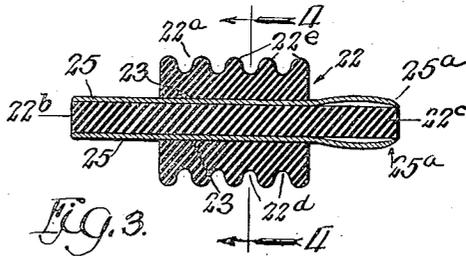


Fig. 3.

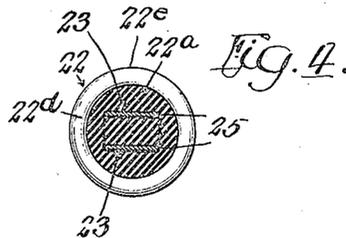


Fig. 4.

Witnesses:
P. H. Lynde
H. Q. Wilkins

Inventor
Leonard G. Shepard
by Conroy & Phillips, Attys

UNITED STATES PATENT OFFICE.

LEONARD G. SHEPARD, OF EVANSTON, ILLINOIS, ASSIGNOR TO FEDERAL SIGN SYSTEM ELECTRIC, A CORPORATION OF NEW YORK.

ELECTRIC SIGN.

1,052,182.

Specification of Letters Patent.

Patented Feb. 4, 1913.

Application filed March 7, 1912. Serial No. 682,248.

To all whom it may concern:

Be it known that I, LEONARD G. SHEPARD, a citizen of the United States, and a resident of Evanston, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Electric Signs; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in electric signs of the kind which comprise a board and a plurality of interchangeable sign letters carrying electric lamps which outline them, each letter being separable from the board and being adapted to be attached to the face of the board to form words that may be changed at will, and including electric connections by means of which the lamp circuits of the letters may be detachably connected to a main circuit carried by the sign board.

The invention consists of the matters hereinafter described and more particularly pointed out in the appended claims.

In the drawings—Figure 1 is a view in front elevation of an electric sign provided with my improvements; Fig. 2 is a view representing on an enlarged scale a vertical section through the sign in a plane indicated by the line 2—2 of Fig. 1; Fig. 3 is a view representing a longitudinal, central section through a detachable plug device by means of which the electric circuit of the lamps on a sign letter are connected with the main circuit carried by the sign; and Fig. 4 is a view representing a transverse section through said plug in a plane indicated by the line 4—4 of Fig. 3.

Referring now to that embodiment of my invention illustrated in the drawings, 10 indicates the supporting board which forms the main body of the sign and which is adapted for the support of the sign letters.

11 indicates a plurality of letters, in this case arranged to spell the words "Special sale". Each letter, as shown, comprises a hollow body 11^a which carries on its front face, in a familiar manner, a plurality of sockets 11^b in which are secured electric lamps or bulbs 11^c.

For each line of lettering that is intended to appear on the sign, there is provided a

horizontally extending rod 12 which is spaced a short distance from and is supported by the sign board. As shown herein, said rod is supported by eye-bolts 13, 13, which are screwed into the sign-board. Each letter 11 is provided at its upper end with a hook 14 so located as to suspend the letter in proper vertical position with its back against the front face of the sign-board and adapted to be engaged upon the rod 12. Each letter may thus be attached to or detached from the sign-board.

For each line of letters and spaced vertically below each supporting rod 12, a horizontally extending slot 15 is formed in the sign board. Back of the sign-board and in horizontal alinement with each slot are supported a pair of vertically spaced, longitudinally extending, horizontal bus-bars 16, 16, which comprise the terminals of the main electric circuit which is carried by the sign-board and is intended to supply current to the lamps on the sign letters. Said bus-bars are carried by vertically spaced, horizontal arms 17, 17, extending rearwardly from the sign-board and secured to insulating blocks 18. Said insulating blocks are in turn carried by a horizontal bar 19 which extends parallel to and longitudinally of the sign-board and is supported by open brackets 20 that straddle said bar and are rigidly secured to the rear face of the sign board.

21 indicates a shield or apron adapted for protecting the bus-bars 16 from rain, snow and the like. Said apron has an upper marginal part 21^a which engages closely against the rear face of the sign-board 10 along a line spaced above the level of the said bus-bars; a downwardly and rearwardly inclined part 21^b which is secured to and rests upon the upper arms of the brackets 20 and a vertical part 21^c which depends at the rear of the bus-bars and projects considerably below the level thereof. The bus-bars are thus protected from rain, snow and the like which descends vertically or which is driven in an inclined or horizontal direction against the back of the sign. The line wires of the circuit intended to supply the lamps of the letters are connected in a familiar manner with the bus-bars 16, 16.

22 indicates a plug attachment for making the connection between the main circuit carried by the sign-board and the circuit connected to the lamps carried by a letter. Said

plug is made of fiber or other insulating material and as shown herein, consists of an intermediate annular part 22^a and reduced end parts 22^b, 22^c. Said end parts are preferably rectangular in cross-section and are in axial alinement with their upper and lower faces respectively in the same plane. Parallel slots 23, 23 extend through the intermediate part 22^a of the plug in the respective planes of the upper and lower faces of the said reduced end parts 22^b, 22^c.

25, 25 indicate flat contact bars which extend the full length of the plug with their intermediate parts extending through the slots 23, 23 and their end parts in engagement with the opposite faces of the reduced ends of the plug. The bars 25, 25 have sharpened front ends 25^a, 25^a, and are slightly bent or bowed adjacent said ends away from the reduced forward end part 22^c, so as to provide for spring engagement of the said plug end within a spring socket 26 comprising the two contacts of the circuit of a letter. The rear wall of the sign letter has an aperture in line with said socket through which the plug may be inserted in order to engage it within said socket. The rear ends of the bars 25 are flat and the reduced end 22^b of the plug is so proportioned in thickness that when the plug is inserted between the bus-bars 16, 16, the rear ends of the contact bars 23, 23 will engage between the said bus-bars and make good electric contact.

The annular body of the plug is provided with rounded grooves 22^d and rounded ribs 22^e separating said grooves so that any moisture or rain which falls or trickles between the back of the associated letter and front face of the sign-board and falls upon the plug will be directed into said grooves and running around the plug will drip from the lower side thereof.

In the use of my improved attraction sign, a number of plugs 22 are provided and also a plurality of sign letters. In placing the letters on the sign-board the forward end of the plug is first inserted through the aperture in the rear wall of the sign letter into the socket carried thereby. The letter is, by its hook, then hung in the intended position on one of the supporting rods 12, and is swung backwardly so as to bring its rear face against the sign-board by which movement the rear end of the plug 22 is caused to engage between the bus-bars 16, thus providing electrical connection between said bus-bars constituting the terminals of the main electric circuit and the terminals

in the socket 26 of the lamp circuit of the letter. In my improved construction the letter may be placed at any point on the face of the sign in one or the other of the lines they are intended to occupy without the necessity of paying any attention whatever to the proper connection between the main electric circuit and the lamp circuit of the letter. The words or letters on a sign may thus be removed and replaced to form a new combination with great rapidity and ease.

I claim as my invention:—

1. In an electric sign, in combination with a board and a plurality of electrically illuminated letters supported thereon at the front, parallel spaced contact bars constituting terminals of a main circuit located back of said board and extending parallel to a line along which the letters are to be arranged, said board being provided with a slot or opening in front of said contact bars, an electric socket provided in each letter, and a plurality of contact plugs extending through the slot or opening in the board, one for each letter, said plugs being engaged at one end between said contact bars and at the other end being adapted for detachable engagement with the socket of one of said letters.

2. In an electric sign, in combination with a board and a plurality of electrically illuminated letters supported thereon at the front, said board being provided with a slot defining a line in which said letters may be arranged, parallel spaced contact bars constituting terminals of a main circuit, said contact bars being located back of said board and extending parallel to and directly behind said slot, an electric socket provided in each letter, a plurality of contact plugs extending through the slot in the board, one for each letter, said plugs being engaged at one end between said contact bars and at the other end being adapted for detachable engagement with the socket of one of said letters, and an apron having a marginal part secured in close contact with the rear face of said board and extending over and depending at the rear of said contact bars.

In testimony, that I claim the foregoing as my invention I affix my signature in the presence of two witnesses, this 20th day of February A. D. 1912.

LEONARD G. SHEPARD.

Witnesses:

CLARENCE E. MEHLHOPE,
GEORGE R. WILKINS.