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ADJUSTABLE SOCKET FOR LUMINESCENT TUBE SIGNS

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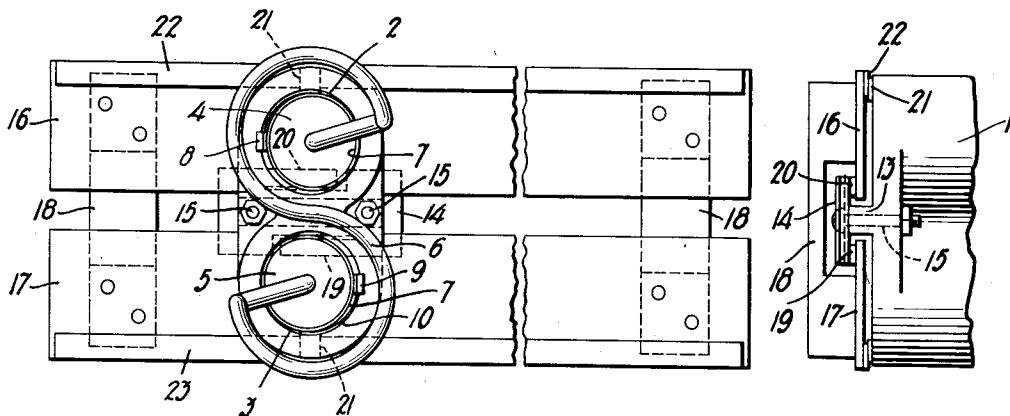
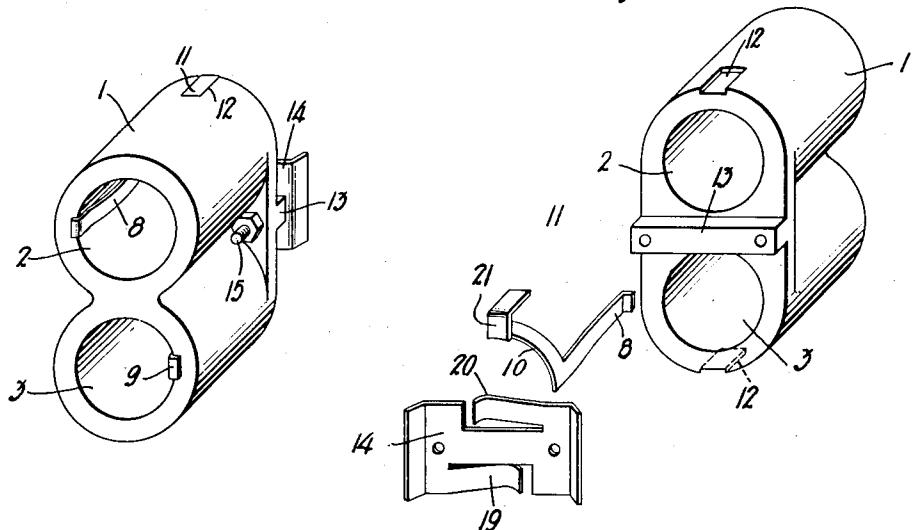


Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.



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UNITED STATES PATENT OFFICE.

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ADJUSTABLE SOCKET FOR LUMINESCENT-TUBE SIGNS.

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This invention relates to new and useful improvements in adjustable sockets for luminescent tube signs, and particularly to sockets adapted for use with interchangeable neon sign letters and the like.

The object of the invention is to provide an inexpensive socket through which the sign letters may be connected with the current supply circuit and which may be rotated or horizontally displaced for the purpose of insuring proper alignment and spacing of the letters.

In order more clearly to describe a preferred embodiment of the invention, reference should be made to the following detailed description and claims and the drawings in which Fig. 1 is a front view of the socket and its mounting structure; Fig. 2 a side elevation; and Figs. 3 and 4 perspective front and rear views of a socket in various stages of its assembly.

The body of socket 1 is made of porcelain or other insulating material. It has two axial openings 2 and 3 extending throughout the length of the body and adapted to receive the bulging ends 4 and 5 of a neon tube letter 6. The bulging ends are provided with external electrodes such as 7 which contact with suitably bent leaf springs 8 and 9 within the openings 2 and 3. The springs are substantially L-shaped, with the longer leg lying within the opening of the socket and bulging outwardly at its middle to press the electrode against the wall of the perforation. The shorter leg of the L is curved, as indicated at 10, to fit against the inside wall of the perforation, and a tab 11 projecting at right angles from leg 10, fits into a notch 12 in the socket 1 at the rear end thereof. The tab grips the wall of the perforation and thus serves to hold the spring in place. Between the openings 2 and 3 the socket is provided with a shoulder 13 to which a spring clip 14 may be fastened by means of screws 15.

The socket is held between two plates 16 and 17 of insulating material which are mounted on brackets 18 so shaped as to permit movement of the shoulder 13 and clip 14. The socket is slid into place from the side of the mounting with the spring clip 14 behind the insulating panels 16 and 17 and the shoulder 13 between the two panels. Spring fingers 19 and 20 formed in the clip 14 press against the inside edges of these panels to hold the socket in place. The upright portion 21 of each tab 11 bridges the rear edge of the

socket and contacts therefore with the bus bars 22 and 23 fastened to the insulating panels 16 and 17. Connection with a source of current may be established in any well-known manner.

It will be seen, therefore, that adjacent sockets may be laterally displaced with respect to each other for obtaining any desired spacing of letters and that, within certain limits, each socket may be rotated around its axis so as to align adjacent letters. The springs 8 and 9 will be securely held in place, notwithstanding the fact that no screws or rivets are used in their assembly and that they are held in place solely by their own resiliency and by the spring clip 14.

What I claim is:

1. In a mounting for luminescent tubes, a socket having a body of insulating material with two perforations for receiving the electrodes, a leaf spring in each perforation bulging outwardly at its middle to press the electrode against the wall of the perforation, a tab formed on the end of each spring extending to the outside of said body, two stationary bus bars, means for supporting said socket so that it may be rotated and horizontally displaced with respect to said bus bars, and means for maintaining said tabs in contact with said bus bars in all positions of said socket.

2. In a mounting for luminescent tubes, a socket having a body of insulating material with two perforations for receiving the electrodes, a substantially L-shaped leaf spring for each perforation having its long leg lying adjacent the wall of a perforation and bulging outwardly at its middle to press the electrode against the wall of the perforation, the shorter leg of the L being curved to conform to the shape of the opening and lying against the wall at the rear of the opening, a tab formed on the free end of said shorter leg gripping the wall of the perforation, a shoulder projecting from the rear of the body between said perforations, a spring clip mounted on said shoulder, two bus bars, and means including said spring clip for pressing said tabs against said bus bars.

3. In a mounting for luminescent tubes, a socket having a body of insulating material with two perforations for receiving the electrodes, a leaf spring for each perforation bulging outwardly at its middle to press the electrode against the wall of the perforation,

- a tab formed on the end of each spring extending to the outside of said body, a spring clip mounted on said body between said perforations and spaced from the surface of said body, two insulating panels spaced from each other and arranged to be gripped between said socket body and spring clip, and a bus bar on each panel in alignment with one of said tabs.
10. 4. In a mounting for luminescent tubes, a socket having a body of insulating material having two perforations throughout its length for receiving the electrodes, a substantially L-shaped leaf spring for each perforation having its long leg lying against the wall of a perforation and bulging outwardly at its middle to press the electrode against the wall of the perforation, the shorter leg of the L being curved to conform to the shape of the opening and lying against the wall at the rear of the opening, a tab formed on the free end of said shorter leg gripping the wall of the perforation, a narrow shoulder projecting from the rear of the body between said perforations, a spring clip having projecting fingers mounted on said shoulder, two insulating panels spaced from each other wider than said shoulder, and a bus bar on each panel in alignment with one of said tabs.
20. 5. In a mounting for luminescent tubes, a socket having a body of insulating material with two perforations for receiving the ends of a tube, means cooperating with the wall of each of said perforations for holding and for conducting current to a tube in said socket, a pair of stationary bus bars, means for supporting said socket so that it may be rotated and horizontally displaced with respect to said bus bars and for maintaining a connection between said contact means and said bus bars in all positions of said socket.
25. 6. In a mounting for luminescent tubes, a socket having a body of insulating material with two perforations for receiving the ends of a tube, a spring contact cooperating with a wall of each of said perforations, a pair of stationary bus bars, a pair of contacts mounted on said socket for conducting current to said spring contacts, and means for supporting said socket so that it may be rotated and horizontally displaced with respect to said bus bars, and for maintaining a connection between said contacts and said bus bars in all positions of said socket.
30. 7. In a mounting for luminescent tubes, a socket comprising a body of insulating material with two perforations for receiving a tube having electrodes, contact means for conducting current to the electrodes of said tube, a pair of stationary bus bars, means for slidably mounting said socket on said bus bars and means for maintaining connection between said contact means and said bus bars.
35. 8. In a mounting for luminescent tubes, a socket comprising a body of insulating material having two perforations throughout its length for receiving the ends of a tube, a leaf spring for each perforation having a long leg lying against the wall of said perforations and bulging outwardly at its middle to press the tube against the wall of the perforation, means for conducting current to the said spring, a pair of bus bars, means for slidably mounting said socket on said bus bars and means for maintaining connection between said conducting means and said bus bar in any position of said socket.

In testimony whereof, I have signed my name to this specification this 26 day of October, 1926.

WILLIAM F. HENDRY.