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W. S. HOUGH

1,861,532

ELEVATION POST

Filed Jan. 14, 1932

Fig. 1

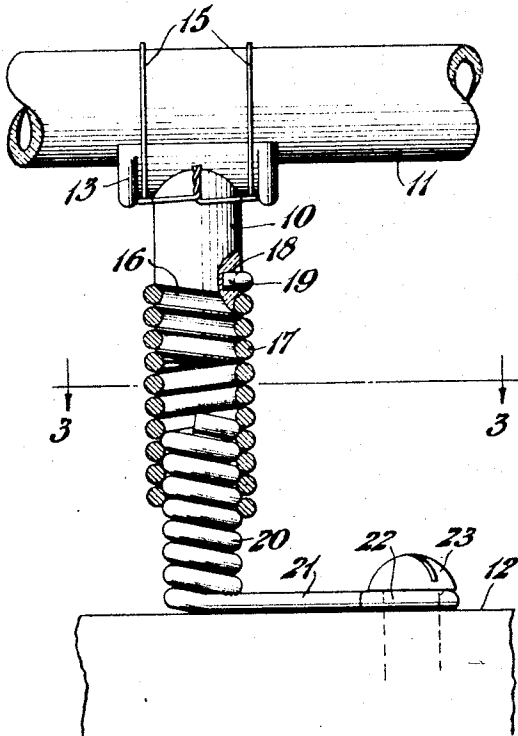


Fig. 2

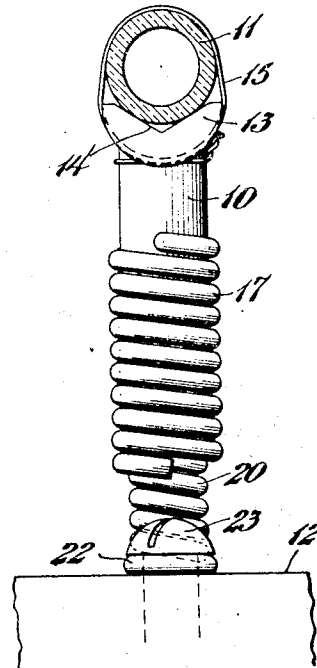


Fig. 3

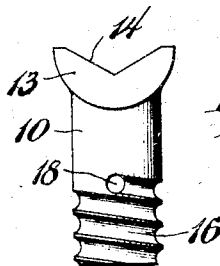
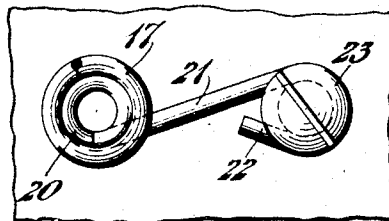


Fig. 4

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ELEVATION POST

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This invention relates to elevation posts of the kind especially adapted for use in connection with luminous tube signs and among other objects, aims to provide an improved post which is resiliently mounted and readily adjustable.

In the accompanying drawing, showing a preferred embodiment of the invention,

Fig. 1 is a side elevation, partly in section, of the elevation post with a portion of a luminous tube sign;

Fig. 2 is an elevation taken at right angles to Fig. 1, showing the tube in section;

Fig. 3 is a sectional view taken on the line 3-3 of Fig. 1; and

Fig. 4 is an elevation of the insulating body member.

Luminous signs, such as the well known neon tube signs, are composed of a length of glass tubing bent to the desired configuration and having electrodes at each end, the tubes containing various rarefied gases which glow when an electric current of high voltage is passed therethrough. Due to the high voltage employed, the tubes are held spaced from the face of the sign by insulator or elevation posts, the tubes being secured to the posts by small wires. As the distance between the tube and the face of the sign varies, it is necessary that the posts be adjustable. Also, the tube should be resiliently supported to prevent the tube from breaking, due to shocks and strains.

Referring particularly to the drawing, the preferred embodiment of the invention is there shown as comprising a body member or post 10 supporting a tube 11 and adjustably mounted, by means to be later described, on the face of a sign 12. The body member, which is preferably made of porcelain or glass, is shown as being cylindrical and provided at its outer or upper end with a head or saddle 13 having a V-shaped notch 14 to provide a seat for neon tubes of different sizes. The tube 11 is secured to the saddle by means of a wire 15 passing around the tube and under the saddle and having its ends twisted together around the upper end of the body member.

In order that the body member may be ad-

justably and resiliently mounted, the lower portion of the body member is provided with a helical groove 16 into which is screw-threaded the upper convolutions of an expansible coiled spring 17, whose inner diameter is substantially the same as the diameter of the body member at the bottom of the grooves. The upper end of the groove terminates at a radial recess 18 and the spring has its upper end bent inwardly to provide a projection 19 which engages in the recess to prevent relative rotation of the body member and the spring. The spring 17, which is relatively long and has its convolutions relatively close together, is adapted to be screw-threaded on the upper end of a smaller expansible coil spring 20, having similarly wound convolutions. Both springs are preferably of brass or other non-rusting material. The spring 20 is of such size that its convolutions fit snugly into the groove or threads formed by the convolutions on the inside of the larger spring, forming in effect a screw-threaded connection, which, however, is of the desired resiliency.

In order to secure the post to the sign face, the bottom convolution of the spring 20 is extended to provide a lateral arm 21 which lies flat against the sign and has its outer end bent to form an eye 22, which is secured to the sign face by a screw or bolt 23. The convolutions of each spring, being slightly spaced, give them the desired resiliency, permitting compression longitudinally, and at the same time permit relative rotation of the springs. By turning the body member in either direction, it may be adjusted upwardly or downwardly on the spring 20 and consequently relative to the sign face.

It is to be noted that the upper end of the spring 17 extends only partially up on the body member so that sufficient space is provided between the spring 17 and the wires 16 to provide the proper insulation.

From the foregoing description, it will be seen that an improved post has been provided which will resiliently support a neon tube and which is readily adjustable. It also provides sufficient insulation between the tube and the sign face and due to its simple con-

struction may be manufactured at extremely low cost.

Obviously, the present invention is not restricted to the particular embodiment thereof herein shown and described.

What I claim is:—

1. A unitary elevation post for Neon tubes comprising, in combination, an insulating post; a coil spring secured to said post and having a portion thereof projecting beyond one end of the post; and another coil spring whose convolutions are resiliently gripped by the convolutions of the first coil spring, so that when turned it is advanced or retracted, as by a screw-threaded connection.
2. An elevation post for luminous tubes comprising, in combination, a cylindrical body member of insulating material having a tube supporting saddle at the upper end thereof; an expansile coiled spring extending downwardly from the body member and having its upper end secured to the lower end of the body member; a second expansile coiled spring having its outside diameter slightly larger than the inside diameter of the first spring; the upper end of said second spring being threaded into the lower end of the first spring; and means on the lower end of the second spring to secure it to a sign face.
3. An elevation post for luminous tubes comprising, in combination, a cylindrical body member of insulating material having a tube supporting saddle at the upper end thereof; an expansile coiled spring extending downwardly from the body member and having its upper end secured to the lower end of the body member; and means secured to a sign face and threaded into the lower portion of said spring to permit adjustment of the body member.
4. An elevation post for luminous tubes comprising, in combination, a cylindrical body member of insulating material having a tube supporting saddle at the upper end thereof; an expansile coiled spring extending downwardly from the body member and having its upper end secured to the lower end of the body member; the convolutions of said spring being relatively close together; a smaller spring having similar convolutions and secured at its lower end to the face of a sign; the upper convolutions of said smaller spring being frictionally engaged in the grooves formed by the convolutions on the inside of the other spring, whereby the overall length of the post may be varied by relative rotation of the springs.
5. An elevation post for luminous tubes comprising, in combination, a cylindrical body member of insulating material having a tube supporting saddle at the upper end thereof; said body member having a helical groove formed therein at the lower end; said groove terminating at its upper end in a radial recess; an expansile coiled spring hav-

ing the convolutions at the upper end thereof engaged in said groove; a projection on the upper end of the spring engaging in said recess to prevent relative rotation of the spring and body member; a second smaller expansile coiled spring having its upper end threaded into the lower end of the first spring; and a lateral arm formed at the lower end of the second spring adapted to be secured to a sign face.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature.

WILLIAM S. HOUGH.