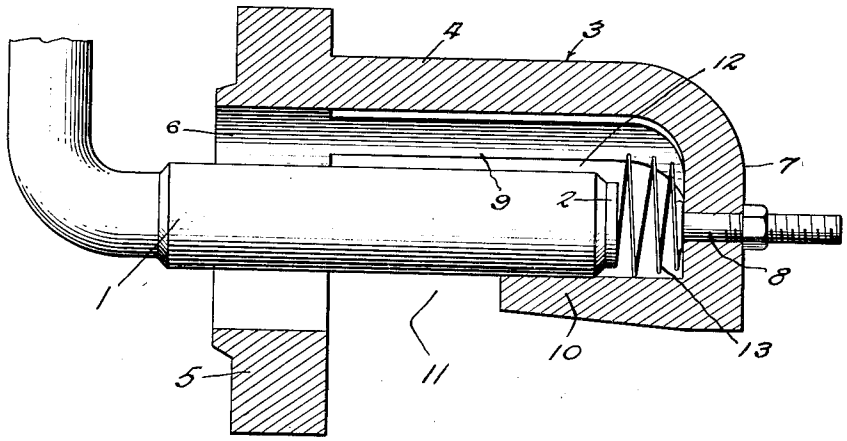
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ELECTRODE HOUSING

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ELECTRODE HOUSING

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2 Claims. (Cl. 173—328)

This invention relates to electrode housing, and the present application is a division of our pending application Serial Number 173,892, filed November 10, 1937, which has eventuated into Patent No. 2,165,211, dated July 11, 1939.

The beacon described and claimed in said patent comprises a tower supporting an upwardly directed parabolic reflector combined with a source of illumination of the neon tube type, and surrounded by facets constituted by a group of long concave reflectors preferably arranged in an upwardly convergent direction, combined with neon type tubes of the bar type in front of each reflector, and arranged in groups so that failure of one tube will not extinguish the illumination of the associated facet.

The principal object of the present invention is to provide a protecting and ventilating housing for the horizontal limbs of neon tubes generally, and particularly those employed in the beacon, to prevent breakdown at the electrodes due to the accumulation of moisture over the insulating bushings of the tubes.

Other objects of the invention will appear as the following description of a preferred and practical embodiment thereof proceeds.

In the drawing which accompanies and forms a part of the following specification,

The sole figure is a vertical side section through a housing embodying the principles of the invention.

Referring now in detail to the drawing, the numeral 1 represents the horizontal limb of a neon tube having the electrode 2 exposed at the end thereof. A housing 3 is provided comprising an integral body including the top wall 4 which overlies the horizontal limb 1 of the tube, and a front wall 5 which depends from the top wall and is provided with an aperture 6 having a diameter materially greater than that of the horizontal limb 1, providing an annular space completely surrounding said horizontal limb in the plane of said front wall. A rear wall 7 depends from the top wall 4, spaced from the front wall 5 and having an electrode 8 passing therethrough and suitably secured, said electrode being coaxial with the aperture 6 of the front wall. The rear wall 7 terminates in a forwardly extending shelf 10, the top surface of which is arranged in supporting relation to the horizontal limb 1, so as to maintain said limb coaxial with the terminal post 8 and the aperture 6. When the horizontal limb 1 is in this position, the electrode 2 confronts the terminal post 8 in slightly spaced relation thereto. A spring 13 is intercolated between said electrode and said post, making good electrical contact between these elements.

The top wall 4 extends downwardly at both sides, the lower edges 9 of the downwardly extending portion terminating above the horizontal limb 1 of the neon tube so as to provide ventilating openings 12 on opposite sides of said limb. The forward end of the shelf 10 is spaced from the front wall, providing a lower ventilating aperture 11 which communicates both with the aperture 6 and with the ventilating openings 12.

It will be obvious that the housing 3 protects the horizontal limb 1 of the neon tube from being wet by falling moisture, and also protects it from the accumulation of dust, while the ventilating system constituted by the lower aperture 11, the aperture 5 and the side openings 12, prevents the condensation of moisture upon the protected portion of the neon tube.

The annular space 6 forms a complete air gap about the horizontal limb 1 at the front of the housing, upon which rain or snow may beat, and completely protects the neon tube from the formation of any conductive leakage path which might otherwise bridge from the tube to the housing.

While I have in the above description defined what I believe to be a preferred and practical embodiment of the invention, it will be understood to those skilled in the art that the specific details of construction as shown are by way of illustration, and not to be construed as necessarily limiting the scope of the appended claims.

What I claim as my invention is:

1. A protecting and ventilating housing for the horizontal limb of a neon tube having a terminal, comprising a body having a top wall to overlie said limb of the tube, a front wall depending from said top wall and having an aperture, said aperture being of a diameter materially greater than that of the limb, a rear wall depending from the top wall parallel with the front wall and in spaced relation thereto, a terminal post supported by the rear wall coaxially with the aperture in the front wall, said top wall having its longitudinal side edges disposed above the level of the terminal post and axis of the aperture to provide ventilating openings at the sides of the housing, and a shelf extending forwardly from the rear wall and arranged to form a seat for the end of the limb provided with the terminal and to support said limb in spaced relation to and uniformly spaced at all points

from the walls of the aperture, said shelf terminating in rear of the front wall to provide therebetween a ventilation opening at the bottom of the housing in open communication with said aperture and the ventilation openings at the sides of the housing.

2. A protecting and supporting housing for the horizontal limb of a neon tube having an end terminal, comprising a unitary body having a transversely arched top wall to overlie said limb of the tube, a front wall depending from said top wall and having an aperture of uniform diameter therein for passage of the limb, the diameter of the aperture being materially greater than that of the limb, a rear wall depending from the top wall parallel with the front wall and in spaced relation thereto, a terminal post supported by the rear wall coaxially with the aperture in the front wall, said top wall having its side edges extending downwardly at opposite sides of the housing and terminating above the level of the terminal post and axis of the aperture to provide ventilating openings at the sides of the housing, and a shelf extending forwardly from the rear wall and arranged to form a seat for the end of the limb provided with the terminal and to support said limb in spaced relation to the top wall and centered with relation to and uniformly spaced at all points from the walls of the aperture, said shelf terminating in rear of the front wall to provide therebetween a ventilation opening at the bottom of the housing in open communication with said aperture and the ventilation openings at the sides of the housing.

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