Nov. 15, 1949 C. M. PETERSON 2,488,065

HIGH-TENSION TERMINAL HOUSING

Filed March 12, 1947

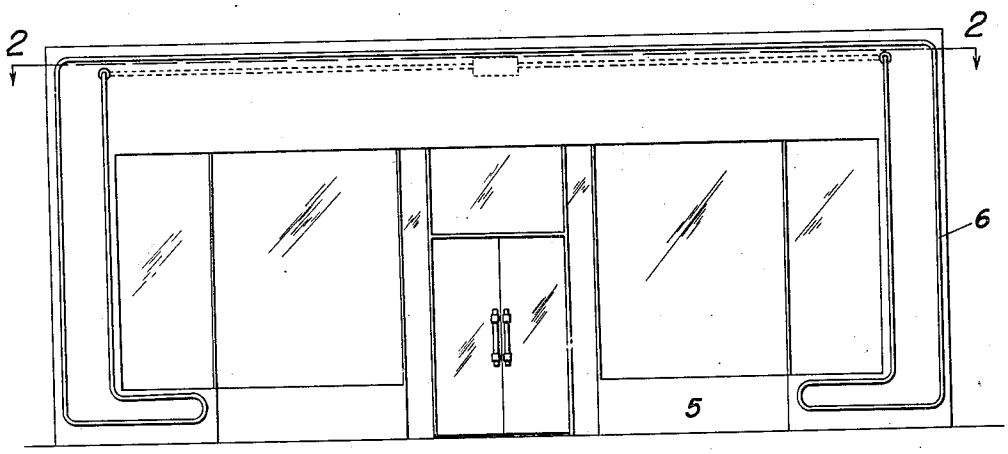


Fig 1

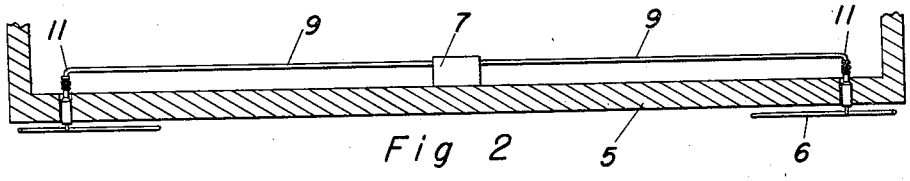


Fig 2

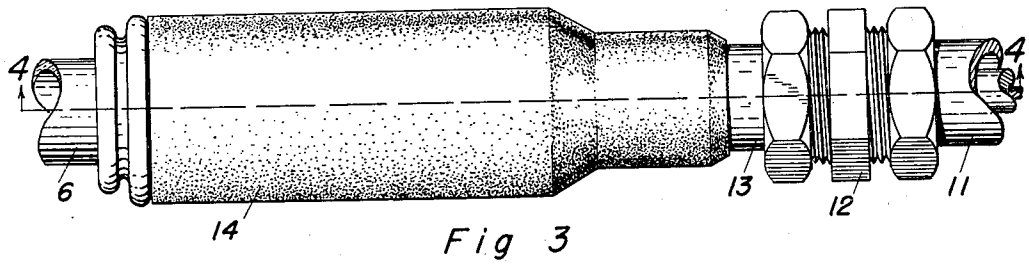


Fig 3

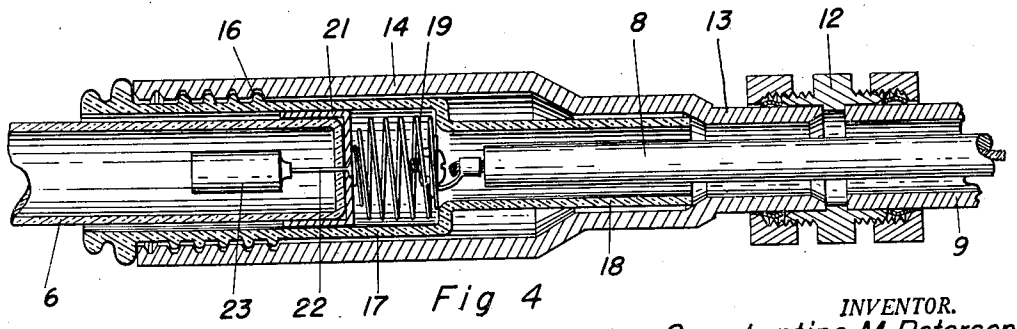


Fig 4

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HIGH-TENSION TERMINAL HOUSING

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1 Claim. (Cl. 173—328)

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This invention relates to high tension terminal housings and has particular reference to the insulator therefor.

The principal object of this invention is to produce a housing and an insulator for high tension use, which will prevent the corona effect between the high tension cable and its conduit at a point adjacent the terminal.

A further object is to produce a device which may be used with the ordinary equipment now in use without materially altering its construction.

A still further object is to produce a device which is economical to manufacture, easy to use and one which complies with all of the standard insulating requirements.

Other objects and advantages will be apparent during the course of the following description.

In the accompanying drawings forming a part of this specification and in which like numerals are employed to designate like parts throughout the same,

Fig.1 is a front elevation of a building having a neon tube outline which is attached to my device.

Fig. 2 is a cross sectional view taken on the line 2—2 of Fig. 1.

Fig. 3 is an enlarged side elevation of my terminal housing, and

Fig. 4 is a cross sectional view taken on the line 4—4 of Fig. 3.

In the installing of signs, particularly neon signs, it has been the general practice to employ a terminal to which the end of the neon tube is attached.

The terminal usually consists of an insulated housing attached to the end of the high tension line conduit, no provision being made to prevent dirt and moisture from entering the housing and being deposited on the terminal. This very soon causes a breakdown, due to the corona effect, which in turn punctures the insulation and causes a short circuit, thus extinguishing the sign.

Applicant has found that by providing an insulator which fits within the terminal housing, the insulator having a neck like extension surrounding the terminal end of the high tension cable, that the breakdown, due to the corona effect, is entirely eliminated. This effects a saving in the cost of repairs which, in some instances, amounts to large sums of money, due to the inaccessible location of the signs, as for example, those on very tall buildings.

It is, of course, understood that the size of the terminal may be varied to fit the cathode end

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of various sizes of neon tube diameters so that any desired effect may be secured.

In the accompanying drawings wherein for the purpose of illustration is shown a preferred embodiment of my invention, the numeral 5 designates a building which has an outline 6 of neon tubing, being illuminated through current from a transformer 7.

The current travels through a high tension cable 8, housed in a conduit 9, said conduit having its end 11 engaged by a compression fitting 12.

The compression fitting also engages the reduced end 13 of a metal housing 14, the housing being internally threaded, as shown at 16, and may be positioned within the wall of the building, as shown in Fig. 2, and having its outer end substantially flush with the face of the building.

Threadily secured within the housing 14 is an insulator 17, preferably made of approved glass and having a reduced extension 18 extending into the reduced end of the housing a substantial distance so as to entirely surround the terminal end of the cable 8.

To the end of the cable I attach a spring contact 19, which contact lies within the large bore of the insulator 17 and is adapted to be engaged by the metal cap 21 of the neon tube 6, to which it is electrically connected, as by a wire 22, to the cathode 23 of the tube.

The result of this construction is that when the housing is secured to the end of the conduit and one of my insulators is positioned therein so that the end of the high tension cable is completely surrounded by the reduced extension 18, there can be no corona effect between the end of the cable and the housing. It will then be a simple matter to insert the end of a neon tube into the insulator and into contact with the spring attached to the cable.

Thus, it will be seen that my device will accomplish all of the objects above set forth.

It is to be understood that the form of my invention herewith shown and described is to be taken as a preferred example of the same and that various changes relative to the material, size, shape and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claim.

Having thus described my invention, I claim:

In combination with an electrical conduit, a high tension terminal housing for attachment to said electrical conduit, said attachment comprising a housing member having a reduced end of the same diameter as the conduit, the enlarged

end of said tubular housing being internally threaded, a threaded insulator positioned in said housing, having an exterior diameter substantially the same as the interior diameter of said housing, and having an extension formed integral therewith of lesser diameter and in axial alignment therewith, said extension extending into the reduced portion of said housing member and surrounding the terminal end of a high tension cable extending from the conduit into said housing member, the threads on said insulator and said housing member serving to force the end of said extension into intimate contact with said housing member at a point adjacent the reduced end of said housing member.

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