Dec. 13, 1938. S. R. FRALICK 2,139,742

SERVICE ENTRANCE DEVICE

Filed March 15, 1937

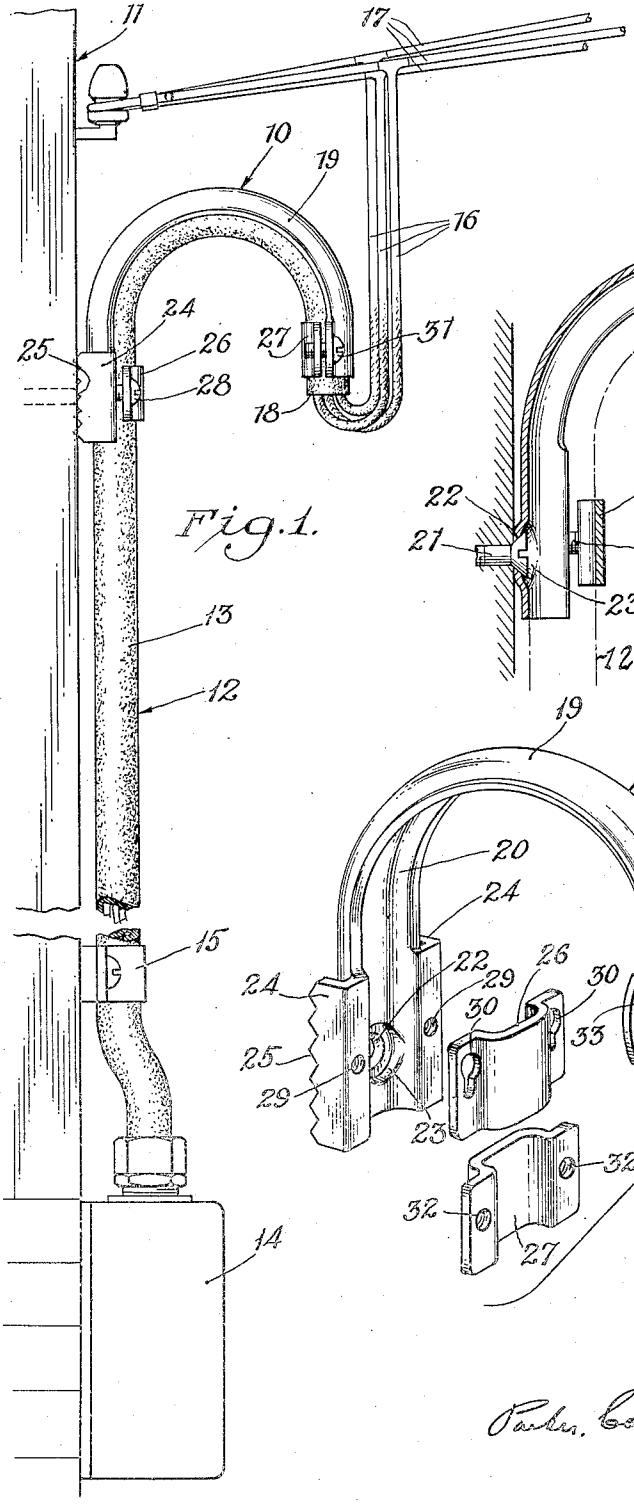



Fig. 1.

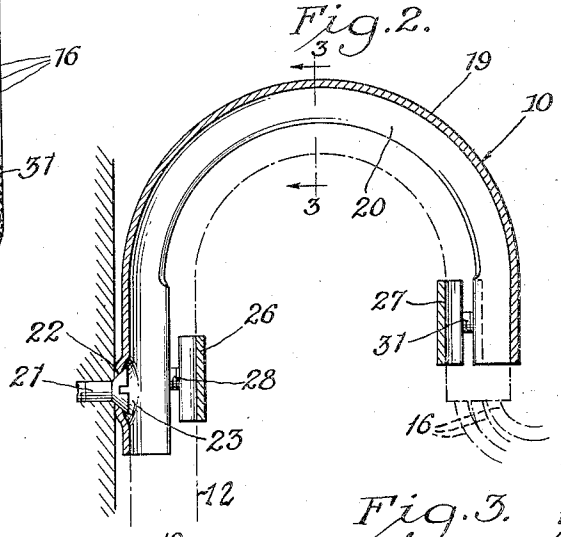



Fig. 2.

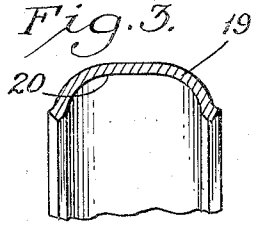



Fig. 3.




Fig. 4.

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# UNITED STATES PATENT OFFICE

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## SERVICE ENTRANCE DEVICE

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4 Claims. (Cl. 248—65)

This invention relates to an improved form of service entrance head or device for use in electrical wiring systems.

In many types of wiring systems both for dwellings and industrial installations, it has become common practice to provide a heavy sheathed cable extending from the meter box exteriorly of the building and having the conductors therein suitably spliced to service lines from the central station supply network. This practice is especially common in the more modern installations in which the meter box is located outside the house or other building in order to facilitate inspection of the meter and to expose any tampering with the associated wiring. The sheathed cable is ordinarily led up the side of the building for a substantial distance above the ground and the sheathing terminates in a device commonly known as a service entrance head. Difficulty has heretofore been encountered in the use of such devices, however, because despite various attempts to make the entrance head waterproof, moisture collects on the upper end of the cable sheath within the entrance head and seriously damages the insulation of the sheath. This difficulty is especially prevalent in northern sections of the country where snow frequently collects on the entrance head.

The general object of the present invention is to provide an improved form of service entrance head or device that will effectually prevent the collection of moisture on the end of the associated cable sheath irrespective of the severity of the weather conditions to which it may be subjected.

A more specific object of the invention is to provide a device of the character set forth which is adapted to maintain the associated end of the sheathed cable in an inverted arcuate configuration so that the end of the cable sheathing faces downwardly thus making it literally impossible for snow or moisture to be deposited thereon.

Another object of the invention is to provide a novel form of service entrance head or device that is extremely economical to manufacture, rugged in construction, and easy to install.

Further objects and advantages of the invention will become apparent as the following description proceeds and the features of novelty which characterize the invention are pointed out with particularity in the claims annexed to and forming a part of this specification.

For a better understanding of the invention reference may be had to the accompanying drawing in which

Figure 1 is a side elevation of a wiring installation on the side of a building and including a service entrance device embodying the present invention.

Fig. 2 is an enlarged longitudinal sectional view of the service entrance device shown in Fig. 1, the associated sheathed cable being indicated in dot-dash lines.

Fig. 3 is a fragmentary transverse sectional view along the line 3—3 in Fig. 2.

Fig. 4 is an exploded perspective view of the service entrance device shown in Figs. 1 and 2.

Referring more particularly to the drawing, the invention has been shown for purposes of illustration and explanation of its various novel aspects as embodied in a service entrance head or device 10 mounted on the exterior side wall of a house designated generally by the numeral 11. In this particular installation a multiconductor cable 12 having a heavy braid-covered insulating sheath 13 extends upwardly from an outdoor meter box 14 along the side wall of the house, being secured thereto by suitable straps 15. The sheathing of the cable 12 is terminated in the service entrance device 10 and the individual insulated conductors 16 are suitably connected to service lines 17.

In general, the device 10 is adapted to maintain the upper end of the sheathed cable 12 in a curved or arcuate configuration with the end face or terminus 18 of the cable sheathing facing downwardly so that moisture cannot collect on it. For this purpose, the device 10 includes a bracket 19 having a generally arcuate or U-shape and provided with a longitudinally extending recess or groove 20 on the inner side thereof adapted to receive the end portion of the cable 12. The bracket 19 is preferably fashioned as a stamping from sheet metal and covered with a corrosion resistant material as, for example, by galvanizing the same. The channel-shaped cross section of the bracket 19 is best shown in Fig. 3.

The bracket 19 is secured in position on the side wall of the structure 11 by a heavy screw or bolt 21 passing through a hole 22 in the inner end of the bracket. A recess 23 surrounding the hole 22 prevents contact between the head of the screw 21 and the adjacent cable so that the sheath will not be abraded. Tilting or lateral displacement of the bracket is prevented by a pair of laterally and rearwardly extending integral ears 24 terminating in serrated edges 25 which frictionally engage the adjacent side wall of the structure 11.

The upper end portion of the cable 12 is de-

tachably maintained in position in the bracket 19 by a pair of sheet metal straps 26 and 27 which extend respectively across the inner and outer ends of the recess 20. Screws 28 threaded in tapped holes 29 and passing through keyhole slots 30 in the strap 26 hold the same in position while similar screws 31 threaded in tapped holes 32 and passing through keyhole slots 33 hold the strap 27 in position. It will be noted that the positioning of the keyhole slots 30 and 33 in the strap 26 and outer end of the bracket 19, respectively, facilitates manipulation of the screws 28 and 31 from the front of the device.

From the foregoing, it will be apparent that a service entrance device has been provided which may be economically manufactured preferably from stamped metal parts. In addition, the device is highly effective in operation and gives positive protection to the insulating sheath of the associated cable by preventing the collection of moisture on the end face or terminus of the sheath.

Although a particular embodiment of the invention has been shown and described in some detail for purposes of illustration there is no intention to thereby limit the invention to such embodiment but, on the other hand, the appended claims are intended to cover all modifications within the spirit and scope of the invention.

I claim as my invention:

1. A service entrance device for use in an electrical wiring system comprising a generally arcuate bracket having a groove therein extending along the inner surface thereof adapted to receive the end portion of the sheath of a cable in correspondingly curved configuration, means for mounting said bracket in inverted position on the wall of a building or the like, whereby the terminus of the cable sheath will be disposed downwardly preventing the collection of moisture thereon, and means for detachably securing the curved portion of the cable in position in said bracket groove.

2. A service entrance device for use in an electrical wiring system comprising, means for maintaining the end portion of the sheath of a cable in generally arcuate configuration with the terminus thereof extending downwardly to prevent the penetration of moisture into the cable sheath, and means for securing said first-named means to the wall of a building or other supporting structure.

3. A service entrance device for use in an electrical wiring system comprising, a generally arcuate bracket having a groove therein extending along the inner surface thereof adapted to receive the end portion of the sheath of a cable in correspondingly curved configuration, means for mounting said bracket in inverted position on the wall of a building or the like, whereby the terminus of the cable sheath will be disposed downwardly preventing the collection of moisture thereon, and means including removable metal straps extending across the outer end portions of said groove for detachably securing the cable in position in said bracket groove.

4. A service entrance device for use in an electrical wiring system comprising, a generally arcuate bracket having a groove therein extending along the inner surface thereof adapted to receive the end portion of the sheath of a cable in correspondingly curved configuration, means for mounting said bracket in inverted position on the wall of a building or the like, whereby the terminus of the cable sheath will be disposed downwardly preventing the collection of moisture thereon, metal straps extending across the end portions of said groove for retaining the cable in position in said bracket, and screws for maintaining said straps in position on said bracket, the outer end of said bracket and the inner one of said straps being provided with keyhole slots adapted to receive said screws and thereby render the same readily manipulable from the front of said bracket.

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