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H. C. WELTER ET AL

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CABLE SUPPORT.

Filed Dec. 11, 1930

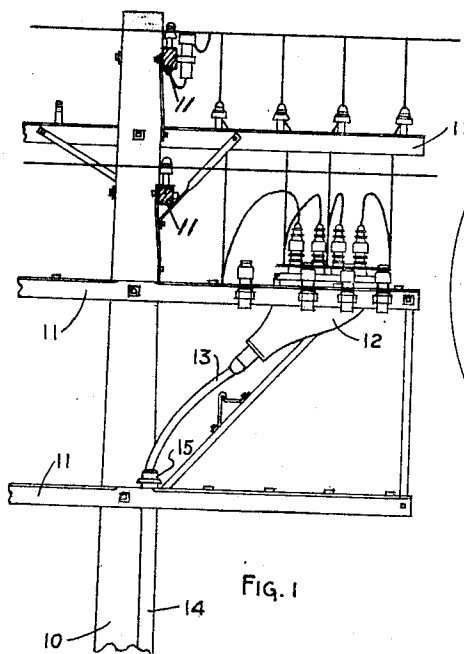


Fig. 1

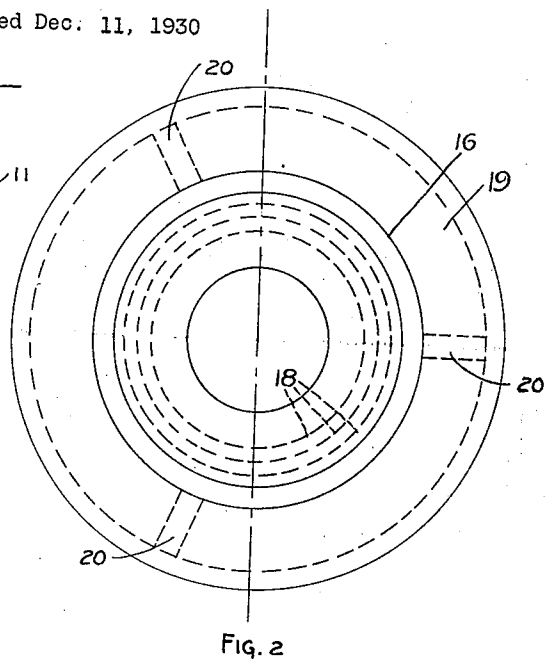


Fig. 2

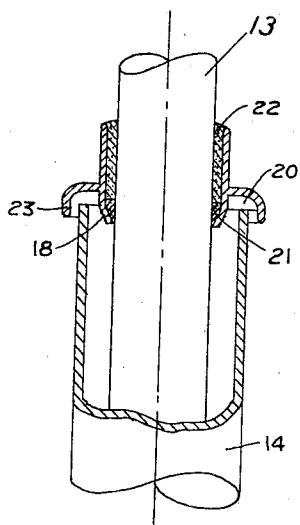


Fig. 4

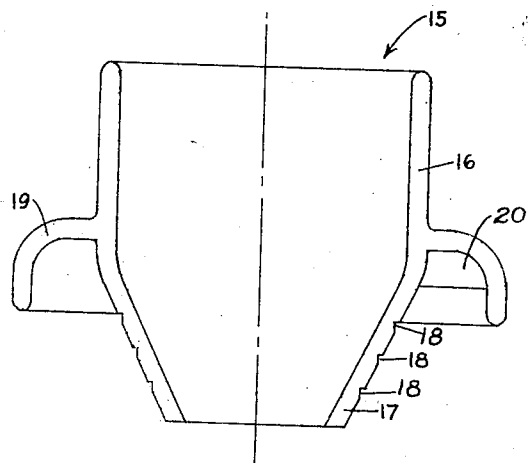


Fig. 3

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CABLE SUPPORT

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This invention relates to a novel pipe bell particularly adapted for use with an exposed riser pipe housing a cable extending from a nearby manhole to an overhead conductor system.

Other and further objects, uses and advantages will become apparent as the disclosure proceeds and the description is read in conjunction with the accompanying drawings in which

Fig. 1 is an elevational view of the upper portion of a service pole showing the main cable supported in the riser pipe by the pipe bell of this invention;

Fig. 2 is a plan view of the pipe bell;

Fig. 3 is a side elevation of one element of a composite pipe bell, made in two matched pieces in order that the bell can be conveniently applied to existing set-ups.

Fig. 4 is an elevational view partly in section showing the pipe bell in place.

When an underground power cable is to be continued by an overhead conductor system, it is customary to lead the cable through a lateral to a riser pipe secured to a service pole and secure the free end to a pothead carried by a cross arm on the pole. The weight of the cable must be supported in an appropriate manner and usually this is done by terminating the riser pipe some distance below the lowest cross arm and strapping the cable to the pole. The cable fits loosely within the riser pipe and in present installations, a sleeve packed with concrete seals the upper end of the riser pipe against rain and snow.

In the present invention, a combination cable support and ventilating pipe bell is substituted for the weather-protecting sleeve referred to above which eliminates the awkward and inefficient strapping of the cable to the pole and provides ventilation in the riser pipe.

Referring now to Fig. 1, there is shown a service pole 10 having cross arms 11, one of which carries a pothead 12 which receives the terminals of the cable 13 leading from a nearby manhole to the pole through a lateral, not shown, and a riser pipe 14.

The improved pipe bell generally designated 15 is soldered to the cable 13 and rests upon the top of the riser pipe. It comprises

a cylindrical sleeve 16 having a gradually tapered constricted portion 17 which is scored at 18 to indicate inside diameters. A bell-shaped flange 19 is cast integral with the sleeve and has a plurality of lugs or spacers 20 on the inner side of the bell. Preferably the combined cable support and bell is cast from brass.

There are certain standard sizes of power cables, the diameters of which correspond to the internal diameters of the bell 15 at the scorings indicated on the drawings. Adjacent each scoring an appropriate marking can be stamped indicating the internal diameter of the pipe bell at that particular scoring, but this is usually not necessary because there are only three common standard sizes of power cables.

To install the bell, the size of the cable is first determined and the base of the bell is cut off at the scoring corresponding to the diameter of the cable. The cable 13, which is lead sheathed, is then cleaned at the proper place, the bell slipped into place over the end of the cable, a little packing 21 such as waste forced between the sleeve and the cable, and solder poured into the remaining space at 22 to securely hold the cable on the bell.

The bell 15 is of such size that the depending rim 23 of the annular flange 19 extends beyond the riser pipe and since the lugs 20 hold the inner face of the bell flange away from the riser pipe, an indirect circulation of air is effected.

This construction, in one sense serves as a chimney for the manhole and prevents the accumulation of gases which may be injurious to the men working in the manhole. In addition, the circulation of air through the riser pipe helps to keep the cable cool, thereby increasing the efficiency of the cable.

The new type of pipe bell makes it possible to run the riser pipe to within a short distance from the pothead thereby exposing less cable and reducing the necessary taping and fireproofing of the exposed section to a minimum. In addition, the bell is easy to install, does not require special materials or equipment and makes a much neater appear-

ing job than the present day installations. Very important also is the fact that it is only necessary to carry one size in stock since the scoring on the tapered end of the sleeve permits the bell to be quickly cut off to the correct size.

If it is desired to use the improved bell on an existing set-up, it will be convenient to make the bell in two sections so that the two parts can be slipped into place over the cable and then soldered without disturbing the pothead.

The improved pipe bell has found some use as a support and terminal for underground cables. In such adaptations, it is customary to reverse the bell so that the upper side of the bell flange abuts the cable duct. In some cases, the flange is pierced to provide ventilation.

It will be understood that this specific illustration and the corresponding specific description of the combined cable support and ventilating pipe bell is for the purpose of disclosure only, for it is realized that various changes and modifications can be made without departing from the spirit of this invention.

What we claim, therefore, is:

1. In a cable support, a cylindrical sleeve tapered at its lower end, an integrally cast bell flange encircling the sleeve, and lugs in the hollow of the bell.
2. In a cable support, a cylindrical sleeve tapered at its lower end, an integrally cast bell flange encircling the sleeve, lugs in the hollow of the bell, and scoring on the tapered portion of the sleeve indicating internal diameters.
3. In a cable support, a cylindrical sleeve, an integrally cast annular flange on its outer periphery, and lugs on the underside of the flange.
4. In a cable support, a sleeve, a laterally extending annular flange having a depending rim and lugs on the underside of the flange.
5. In a cable support, a riser pipe, a cable housed within the pipe, and means for supporting the cable comprising a sleeve enveloping the cable and soldered thereto, an annular flange adapted to seat upon the top of the riser pipe, and lugs on the underside of the flange allowing for a circulation of air through the pipe.
6. In a device of the class described, a riser pipe, a cable housed therein, and means for supporting the cable comprising a sleeve soldered to the cable and having a bell flange adapted to seat upon the riser pipe, and means for allowing a circulation of air between the flange and the pipe.
7. In a cable support, a cylindrical sleeve, an integrally cast annular flange on its outer periphery, and lugs on the underside of the flange, said sleeve being made in two parts

to allow installation on an intermediate portion of cable.

In testimony whereof we affix our signatures.

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