Nov. 29, 1932. G. P. EDMONDS 1,889,545

POTHEAD AND CONDUCTOR PROTECTING MEANS

Filed July 10, 1925

Fig. 1

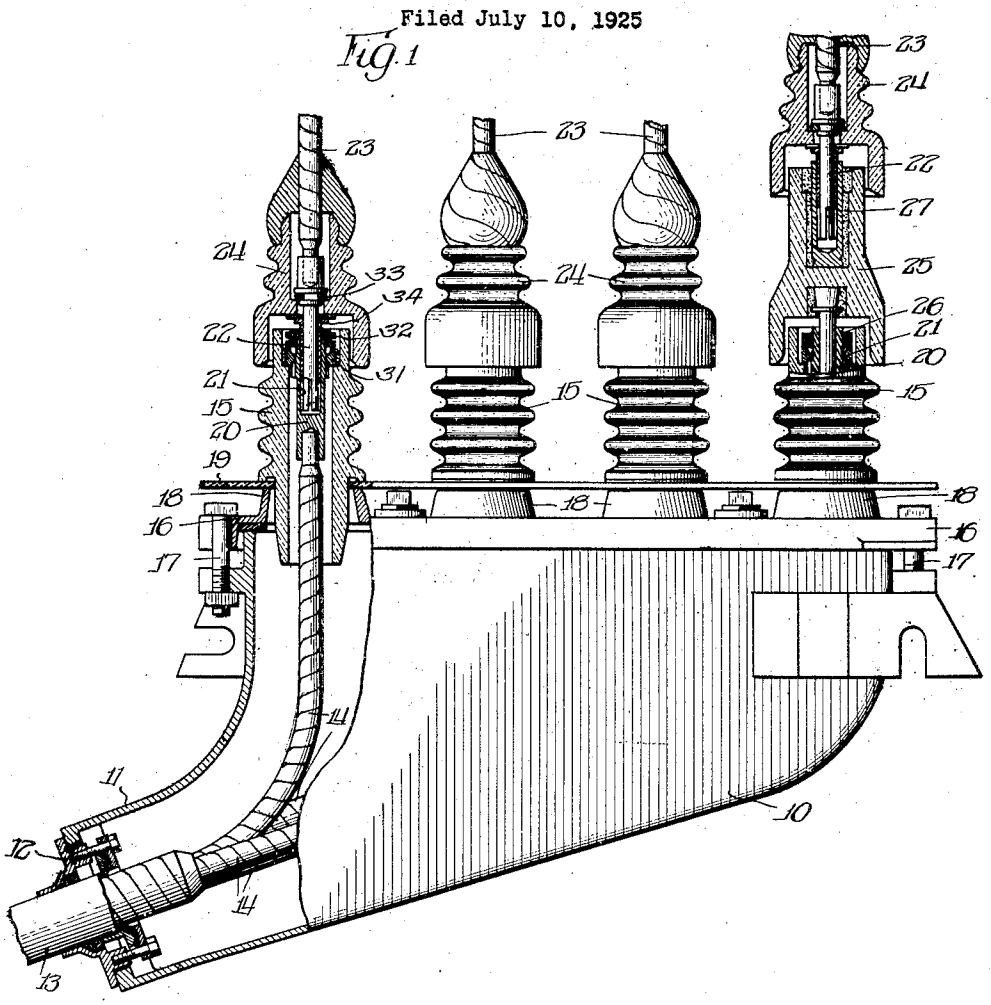
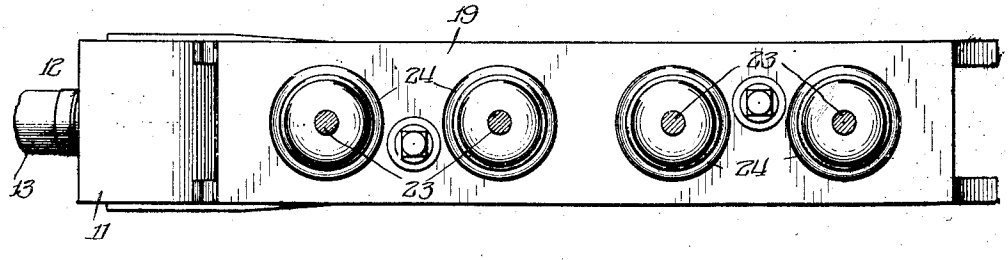


Fig. 2



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UNITED STATES PATENT OFFICE

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POTHEAD AND CONDUCTOR PROTECTING MEANS

Application filed July 10, 1925. Serial No. 42,675.

This invention relates to pothead and conductor protecting means.

One object of the invention is to prevent arcing from one conductor terminal to the metal body of the pothead when said terminal is disconnected from its associated electrical conductor.

Another object is to safeguard electrical conductor terminals and the operator handling same when said terminals are disconnected, and at the same time prevent said terminals from being corroded when not in active use.

Another object is to provide a pothead in which the parts thereof and the operator are protected against injury.

These and other objects are accomplished by means of the arrangement shown on the accompanying sheet of drawings, in which—

Figure 1 is a front elevation, parts being in section, of a pothead embodying my invention; and

Figure 2 is a top plan view of the same arrangement.

The various novel features of the invention will be apparent from the following description and drawing, and will be particularly pointed out in the appended claims.

Referring to the figures of the drawing, it will be noted that my invention is illustrated in connection with a pothead arrangement, including a relatively large metal body 10, one end of which terminates in a drawnout tube portion 11. Entering said tube portion and suitably supported in the entrance member 12 thereof, is a cable 13, including four conductors 14, each of said conductors 14 extending upwardly into its separate insulating or porcelain bushing 15. In this particular instance accordingly, there are four such porcelain bushings 15, which are suitably carried by the metal cover 16 of the pothead, which is removably secured to the body 10 of the pothead by any suitable means, such as bolts 17. Interposed between collar portions 18 of the cover 16 and a portion of each of the porcelain tubes 15, is an insulating sheet 19, which extends entirely over the top of the cover 16 to prevent arcing between the cover 16 and the removable terminal to be referred to later, which terminal may be electrically connected to and disconnected from an associated electrical conductor 14.

Each conductor 14 at its upper end is electrically connected and secured to an electrical connector 20, having a socket 21 for the reception of a plug terminal 22, which, in turn, is electrically connected to an associated aerial conductor 23. The terminal end of each aerial conductor 23 and the terminal plug are carried by an insulating top 24, which is removably mounted upon the associated porcelain tube 15. It will be understood that the electrical connector 20 is properly anchored within a portion of the tube 15 by means of the anchor ring 31 and the nuts 32 and that the electrical terminal plug 22 is properly supported or anchored in the removable top 24 through means of a gasket 33 and a clamping nut 34 which is securely fitted over the terminal plug. The electrical connection between each conductor 14 and its associated conductor 23 is made at the electrical connector 20 and terminal plug 22. As shown at the left hand side of Figure 1, the terminal plug 22 is mounted within the socket of the electrical connector 20 for forming the electrical connection between the associated conductors 14 and 23. If it is desired to electrically disconnect such conductors, the same is done by withdrawing the porcelain top 24 vertically, whereupon the terminal plug 22 is withdrawn from the electrical connector 20. Under such circumstances, the terminal plug 22 is exposed and not only is a menace to the operator handling the terminal plug, but also is apt to cause material damage if such plug is placed upon the metal cover of the pothead body 10. Accordingly, the insulating member 19 is provided for preventing arcing between the withdrawn terminal plug 22 and said pothead body or cover in the event that the operator accidently should attempt to place said withdrawn plug on the top of the pothead.

To protect the operator fully and also to cover and protect the electrical connector 20 and terminal plug 22 when they are electrically disconnected, I have provided a dummy center, taking the form of a porcelain body 25, which as shown at the right hand

side of Figure 1, is interposed between the porcelain tube 15 and the top 24. More specifically, anchored in the porcelain body 25 is a plug 26, which is a duplicate of the terminal plug 22 and is adapted to be received within the socket 21 of the electrical connector 20 to prevent any moisture or other foreign matter from entering said socket and thereby prevent corrosion of same. The porcelain body or dummy center is also provided with a socket member 27 for the reception of the terminal plug 22, as shown at the right hand side of Figure 1, to prevent said terminal plug from becoming corroded when not in active use, and also for protecting the operator.

It will be understood that a dummy center may be placed over any one or all of the porcelain tubes 15 when their associated electrical conductors are electrically disconnected. Preferably the dummy center should be of a color different from that of the porcelain tube 15 and top 24 so that an inspector would readily appreciate the fact that the conductors covered by the dummy center are electrically disconnected. By means of this arrangement, arcing between the pothead cover and the removable terminal plugs is prevented and also the terminals of the associated electrical conductors are prevented from corroding and the operator is protected when said conductors are electrically disconnected. Favorable results are obvious, among which are, that with the use of the dummy centers when any number of the terminals or cables 23 are disconnected at one time, the use of the centers will prevent these cables from being mixed and will insure that they may be always connected to their corresponding cables 14.

I do not wish to be limited by the embodiment of the device shown as other and obvious modifications will occur to those skilled in the art.

I claim:

1. In a pothead arrangement, the combination of a pothead body, an insulating tube extending therefrom, an electrical conductor extending from said body into said tube, an electrical connector connected to said conductor, a removable top carried by said tube, an electrical terminal carried by said top, whereby it may be electrically connected to and disconnected from said connector, and a dummy member having portions adapted to receive said terminal and connector to thereby protect said members in insulated connection.

2. In a pothead arrangement, the combination of a metal pothead body, an insulating tube extending therefrom, an electrical conductor extending from the said body into said tube, an electrical connector connected to said conductor, a removable top carried by said tube, an electrical terminal carried by said top whereby it may be electrically connected to and disconnected from said connector, and a dummy member which may be interposed between said connector and terminal for protecting them when they are electrically disconnected.

Signed at Chicago, Illinois, this 30th day of June, 1925.

GEORGE P. EDMONDS.