Sept. 1, 1931. H. C. MOHR 1,821,443

CABLE TERMINAL

Filed Oct. 28, 1927

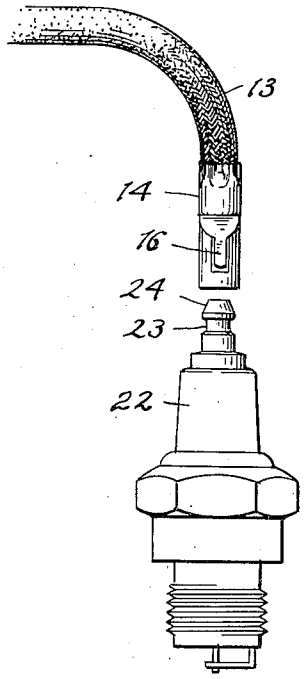


FIG. 2.

FIG. 1.

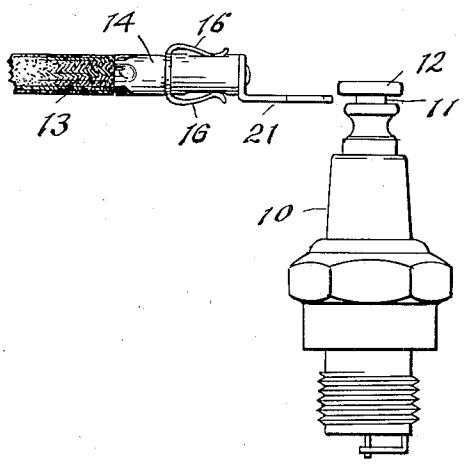


FIG. 3.

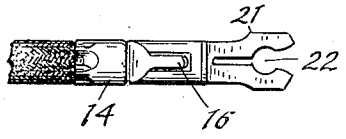
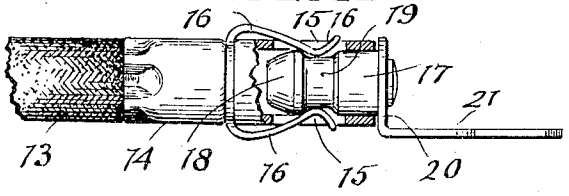


FIG. 4.



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UNITED STATES PATENT OFFICE

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CABLE TERMINAL

Application filed October 28, 1927. Serial No. 229,346.

This invention relates to cable terminals for conveniently connecting the high tension ignition cables, of an internal combustion engine, with the spark plugs.

The present commercial forms of spark plugs are generally provided with one or the other of two types of contact members, one of such contact members being in the form of a pin having a ball end, or its equivalent, adapted for connection with a tubular terminal on the cable and the other type being in the form of a cylindrical shank or screw which is adapted to receive a flat bifurcated terminal, arranged at right angles thereto and adapted for clamping engagement therewith.

The high tension cables of an internal combustion engine are subject to rapid deterioration, as to their insulating qualities and, in order to maintain the full efficiency of the engine, it is desirable to replace these cables occasionally. Different engines are initially equipped with one or the other of the above mentioned types of spark plugs and it frequently happens that when a spark plug becomes defective it will be replaced by one having a different type of contact member. Heretofore it has been necessary for a dealer, handling replacement cables, to be supplied with various types of terminals for the different makes of engines and different types of spark plugs, and it is the object of the present invention to provide a terminal which will be adapted for connection with either of said types of spark plugs, so that it will be possible for a dealer to carry in stock a supply of cables with factory-attached terminals that will be suitable for installation on different makes of automobiles and without regard to the particular type of spark plug with which the engines are equipped. The advantage of this, to the dealer, is that, with a relatively small stock of cables, he will be able to meet the requirements of any case of replacement that may arise.

Other objects of the invention and the features of novelty will be apparent from the following description taken in connection with the accompanying drawings, of which—

Fig. 1 is a side elevation of a spark plug and cable terminal embodying my invention;

Fig. 2 is a side elevation of a different type of spark plug than that shown in Fig. 1 and illustrating the manner of attaching the cable thereto;

Fig. 3 is a plan view of the cable terminal illustrated in Fig. 1; and

Fig. 4 is an enlarged view of the cable terminal, as shown in Fig. 1, but with certain parts shown in section.

Referring to the drawings, 10 indicates a common type of spark plug having a cylindrical contact member 11 on which there is a head 12. The cable is indicated at 13 and has secured on the end thereof a tubular terminal member 14 which is provided in opposite sides with slots 15 into which the spring fingers 16 extend. A removable extension is connected with the terminal member 14 and comprises a shank 17 having a head 18 on its end and a groove 19, the latter being adapted to receive the ends of the fingers 16 so as to hold the extension, as best shown in Fig. 4.

A clip 20 is riveted or otherwise secured to the outer end of the shank 17 and has a part 21 extending substantially parallel with the axis of the shank 17, the outer end of the part 21 being enlarged and slotted, as shown at 22, to form a spring grip adapted to receive the contact member 11.

The extension may be removed from the terminal member 14 by simply pulling the extension so as to draw the head 18 by the fingers 16.

Referring to Fig. 2 it will be noted that I have illustrated another type of spark plug 22 having a contact member 23 with an enlarged head or ball 24 on the upper end thereof, which is substantially of the same form as the shank 17 of the extension, just described. When this type of spark plug is encountered the extension is removed from the terminal member 14 and the latter is forced over the contact member 23 so that

the spring fingers 16 will engage the groove under the head 24.

The cable terminal, as illustrated in Figs. 1, 3 and 4, has the advantage that it is adapted for instant application to either of the types of spark plugs shown in Figs. 1 and 2. For this reason a dealer handling replacement cables for internal combustion engines may use any cable, on hand, that is of sufficient length, on any internal combustion engine regardless of which of the two types of spark plugs is used thereon and, in fact, some of the spark plugs may be of one type and some of the other. When the type of plug illustrated in Fig. 2 is encountered it is simply necessary to remove the terminal extension and apply the cable terminal, as illustrated in Fig. 2.

Having thus described my invention, what I claim is:

An interposed connector for a spark plug comprising a flat metal strip having a bifurcated end portion adapted to engage in a recess on a spark plug terminal, the other end of the strip being bent at substantially right angles to the first mentioned portion, and an annularly grooved contact stud attached to said last mentioned portion, said contact stud being adapted for releasable engagement in a tubular contact member.

In testimony whereof, I hereunto affix my signature.

HUBERT C. MOHR.