Oct. 26, 1926. 1,604,349

W. S. HARLEY

DISTRIBUTOR CAP

Filed April 13, 1922

Fig. 1.

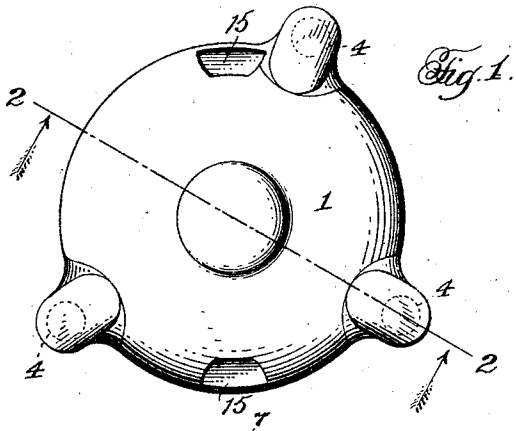


Fig. 2.

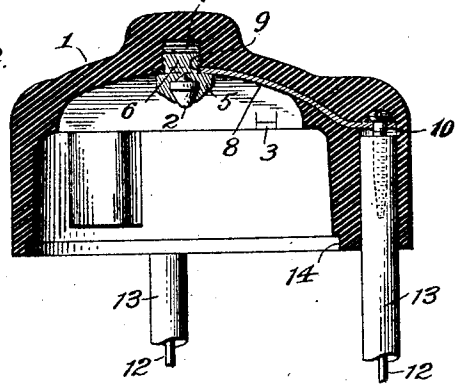


Fig. 4.

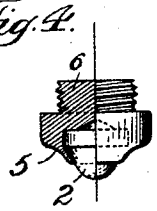


Fig. 3.

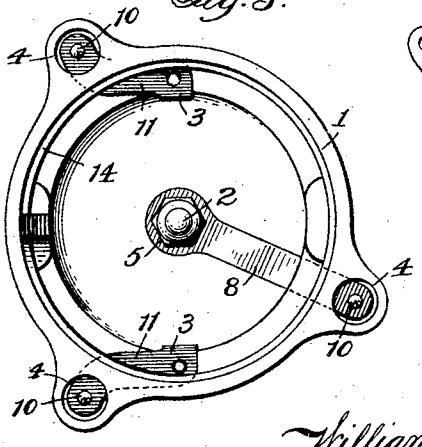
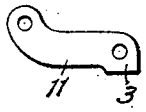


Fig. 5.



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UNITED STATES PATENT OFFICE.

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DISTRIBUTOR CAP.

Application filed April 13, 1922. Serial No. 552,408.

This invention relates to a distributor cap.

An object of the invention is to provide a weatherproof distributor cap.

Another object is to provide a distributor cap wherein the electrical conducting members are firmly embedded in the material of the cap.

Another object is to provide a simple rugged distributor cap so constructed that any water falling thereon will drain away from the terminal connections for the contacts thereof.

Another object is to provide a distributor cap having a removable contact.

Other objects and advantages will hereinafter appear.

The invention will be explained as applied to a distributor cap for a two cylinder internal combustion engine, although it may be applied to a distributor cap for an internal combustion engine having a different number of cylinders.

The views of the drawings are:

Fig. 1 is a top plan of the distributor cap.

Fig. 2 is a vertical section on line 2—2 of Fig. 1.

Fig. 3 is a bottom plan of the distributor cap.

Fig. 4 is a side elevation, partly in section of the removable central contact.

Fig. 5 is a plan of one of the contact plates.

The distributor cap comprises an inverted imperforate cup-shaped member 1 of insulating material containing a central contact 2 and a plurality of peripheral contacts 3.

The cap has a plurality of cable receiving sockets 4 spaced around the periphery of the inverted cup-shaped member 1 and formed integrally therewith.

The sockets 4 are open at the bottom only and extend upwardly from the base of the cup-shaped member, in a direction parallel to the axis thereof. There are no openings between the sockets and the interior of the member.

The central contact 2 made of carbon or other suitable material is fixed in a holder 5 of brass or other material.

The contact holder 5 has a threaded shank 6 adapted to be received in a threaded opening 7 in the member 1, and an alined opening 9 in one end of a conducting strip 8. Thus the contact holder is held in clamping engagement with the conducting strip.

The strip 8 of conducting material, such as brass, extending from the threaded opening 7 to one of the sockets 4 is embedded in the material of which the member 1 is made.

The conducting strip 8 at the other end thereof is provided with an opening through which passes the shank of a screw 10, which extends into one of the sockets 4.

The head of the screw 10 rests against the strip 8 and is embedded in the material of which the member 1 is made, so as to rigidly fasten the screw in place.

Each peripheral distributor contact 3 is formed by the inner end of a conducting strip 11 of Monel metal or other suitable material. Each conducting strip 11 extends from the interior of the member 1 to the closed end of one of the sockets 4. These strips are embedded in the material of which the member 1 is made so that there are no openings between the sockets and the interior of the cap.

The outer end of each conducting strip 11 is provided with an opening through which extends a screw 10 rigidly held in place in the manner previously described.

The inner end of each conducting strip 11 is provided with an opening so as to assist in holding the strips in a mold when the cap is formed.

The sockets 4 are adapted to receive conducting cables 12 made up of a plurality of wires and provided with water proof insulation 13.

The screws 10 extend into and expand the stranded cables 12 to wedge them firmly in the sockets. A rigid connection between the screws and the cables is thereby insured.

The distributor cap illustrated is for use with ignition apparatus, associated with a two cylinder internal combustion engine, and therefore has but two peripheral contacts 3.

The central contact 2 is adapted to be electrically connected to the rotatable distributor arm (not shown) from which during the rotation thereof by its shaft (not shown) ignition current passes to the peripheral contacts 3 spaced 180 degrees apart.

The cap may be provided with an inner annular shoulder 14 to fit the distributor case (not shown).

The cap may also be provided with recesses 15 to receive latches (not shown) for holding the cap in place on the distributor case.

The invention contained herein is, of course, susceptible of other embodiments and adaptations.

The invention claimed is:

1. A distributor cap comprising an inverted imperforate cup-shaped member having formed integrally therewith a plurality of tubular sockets each open at its lower end and closed at its upper end, a conducting member embedded in the material of which the cap is made and extending from the closed end of one socket to a centrally disposed point in the top of the cup-shaped member, and a removable contact member clamped against the inner end of the conducting member.

2. A distributor cap comprising an inverted imperforate cup-shaped member having formed integrally therewith a plurality of tubular sockets each open at its lower end and closed at its upper end, a conducting member embedded in the material of which the cap is made and extending from the closed end of one socket to a centrally disposed point in the top of the cup-shaped member, a contact, and a holder therefor having a threaded shank adapted to be received in a threaded opening in the conducting member.

3. A distributor cap comprising an inverted imperforate cup-shaped member having formed integrally therewith a plurality of tubular sockets each open at its lower end and closed at its upper end, the top of the cap having a centrally disposed threaded socket opening into the interior thereof, a conducting member embedded in the material of which the cap is made extending from the closed end of one of the tubular sockets to the centrally disposed socket, said conducting member having an opening in alinement with the threaded socket, a contact, and a holder therefor having a threaded shank for extending through the conducting member opening and engaging the threaded socket so as to clamp the contact holder against the conducting member.

In witness whereof, I have hereunto subscribed my name.

WILLIAM S. HARLEY.