

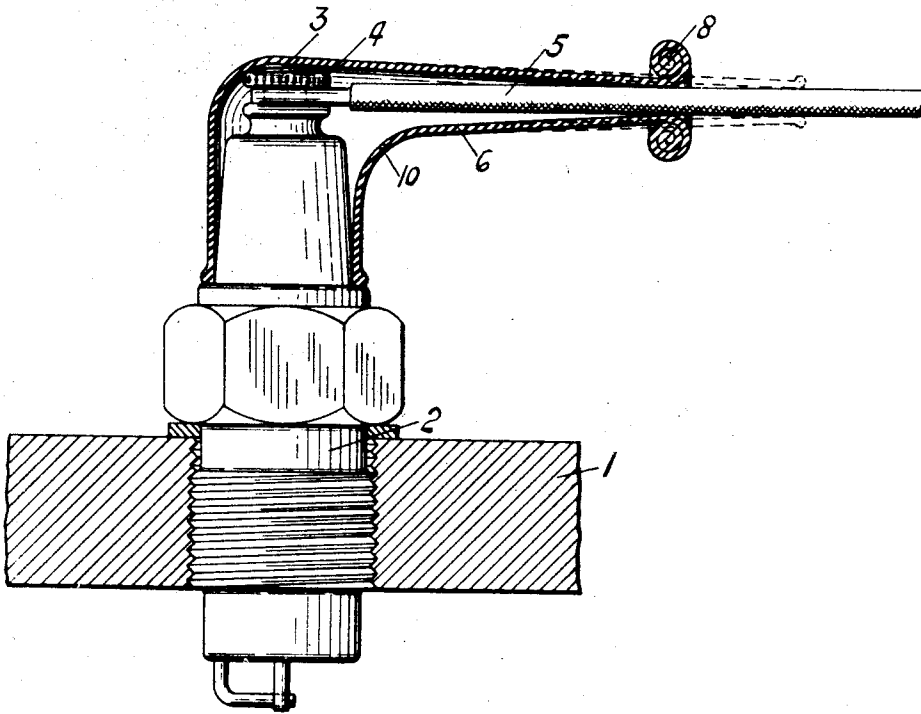
Feb. 21, 1933.

W. F. RIDGE

1,898,064

INSULATOR FOR SPARK PLUGS

Filed Dec. 28, 1927



BY

INVENTOR
WILLIAM F. RIDGE.
Ely & Barrow
ATTORNEYS.

UNITED STATES PATENT OFFICE

WILLIAM F. RIDGE, OF AKRON, OHIO

INSULATOR FOR SPARK PLUGS

Application filed December 28, 1927. Serial No. 243,090.

The present invention relates to an insulating sleeve or protector especially adapted and intended for spark plug connections, being designed for the protection of the plug connections from water and to prevent the escape of the electrical sparks from the exposed metal parts of the spark plug.

The device as shown and described herein is simple and easily applied. It can be fitted to any standard spark plug and does not interfere in any way with making the usual connections between the plug and the conductor. The advantages of the insulator will be more fully and completely understood from the detailed description contained herein.

In the single figure of the drawing is shown a standard spark plug with the insulator in place thereon, it being understood that changes and modifications may be made without departing from the essential features of the invention.

In the drawing, 1 represents the wall of an engine in which is mounted the spark plug 2 of usual construction, having a post 3 on which is threaded the nut 4 securing the usual electrical conductor 5 in position thereon.

The insulator comprises a sleeve of rubber 6 which is somewhat larger and flaring at its inner end which is adapted to fit and grip over the upper portion or body of the spark plug and preferably having a beaded lower edge. The elongated, tapering smaller end of the sleeve fits over the leading-in wire or conductor 5, being rolled up at its outer end as shown at 8, the rolling of the sleeve causing the end thereof to grip the conductor tightly. The sleeve, of course, is composed of flexible, resilient rubber in order to perform these functions.

In applying the insulator, the smaller end is passed over the conductor and the connection made between the conductor and the spark plug. The larger end may then be drawn over the plug which it will normally grip tightly enough to hold the insulator in place. The small end of the insulator is then rolled on itself to form the tight fit about the conductor. If desired, a small vent

10 may be provided in the insulator to prevent "sweating".

The device has advantages of simplicity and utility over prior attempts at similar constructions as it is applicable to the standard form of spark plug and does not interfere with making the electrical connections at the plug. It is also inexpensive and will operate satisfactorily for the purposes set forth. The insulator may be molded in curved form, if desired, although a straight sleeve will operate satisfactorily as well.

What is claimed is:

1. In combination an insulator and a spark plug having an electrical conductor leading thereto, said insulator comprising a flexible, resilient, rubber sleeve tapering from a diameter at its larger end adapted to fit snugly about the spark plug body gripping the same due to the inherent resilience of the rubber to a diameter at its smaller end to fit snugly about the electrical conductor, the smaller end of the insulator being rolled upon itself and thereby gripping the conductor.

2. In combination an insulator and a spark plug having an electrical conductor leading thereto at right angles, said insulator comprising a flexible, resilient, rubber sleeve formed at substantially a right angle, said sleeve tapering from a diameter at its larger end, adapted to fit snugly about the spark plug body, to a diameter at its smaller end to fit snugly about the electrical conductor, the smaller end of the insulator being rolled upon itself to thereby grip the conductor, the intermediate portion of the sleeve loosely enclosing the connection between the spark plug and the conductor.

WILLIAM F. RIDGE.