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R. J. L. DUTTERER

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IGNITION DISTRIBUTOR RADIO INTERFERENCE ELIMINATOR

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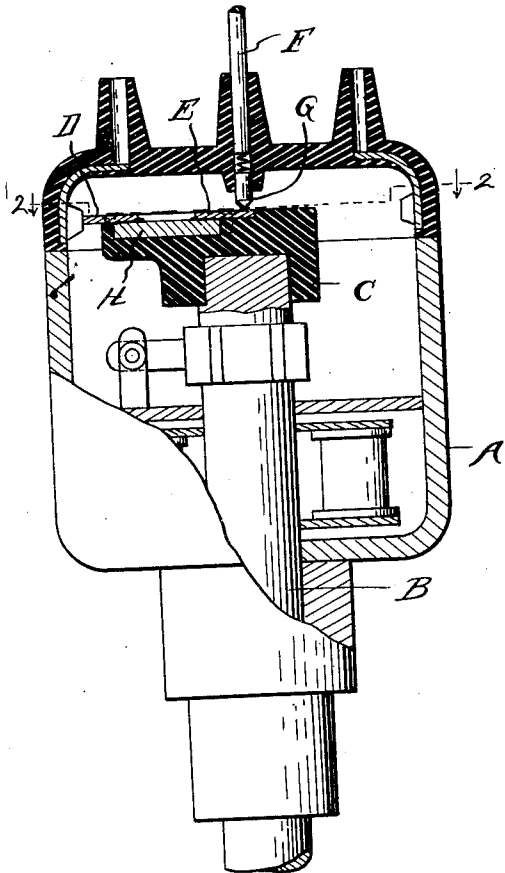


FIG. 1.

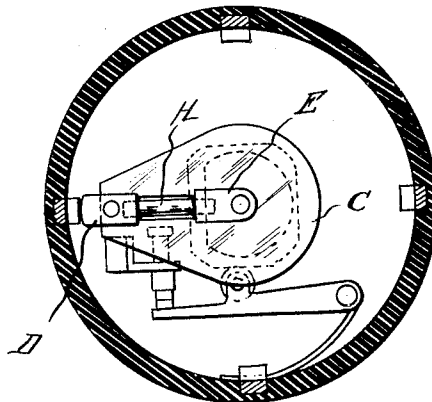


FIG. 2.

INVENTOR

*Rex J. L. Dutterer*

*Whittemore Hulbert*

*Whittemore & Belknap*

BY

ATTORNEYS

# UNITED STATES PATENT OFFICE

2,014,018

## IGNITION DISTRIBUTOR RADIO INTER- FERENCE ELIMINATOR

Rex J. L. Dutterer, Toledo, Ohio, assignor to  
Defiance Spark Plugs, Inc., Toledo, Ohio, a cor-  
poration of Ohio

Application October 9, 1933, Serial No. 692,913

1 Claim. (Cl. 123—148)

The invention relates to radio interference eliminators of that type particularly designed for use on motor cars and in the ignition circuits thereof. It is the object of the invention to effectively suppress radio interference in all of the ignition circuits of a multi-cylinder internal combustion engine, and to this end the invention consists, first, in the location of the suppressor resistor in the rotor of the ignition distributor so as to be included in the ignition circuit to each of the spark plugs; second, in the specific construction as hereinafter set forth.

In the drawing:

Fig. 1 is a longitudinal section through a portion of an ignition distributor showing my improvements applied thereto;

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

In the present state of the art, radio interference eliminators have been used in ignition circuits of motor vehicles and have been variously located. It is usual to place suppressors adjacent to each of the spark plugs and also to locate one at the distributor, which latter is generally placed in the distributor cap or in the high tension wire as near the distributor as possible. With my improved construction I have placed a distributor suppressor in the rotor element of the distributor where it is well protected and does not interfere with the functioning of any other part. It is also advantageous to place the suppressor as close as possible to the source of trouble which is accomplished in this location.

As illustrated in the drawing, A is the casing of the distributor, B is the rotary shaft therein and C is the rotor mounted on the shaft B formed of insulating material. It is usual with such rotors to mount a metallic plate on the insulator body to extend radially thereof, its outer end

forming the distributor contact and its inner end receiving the high tension current from the common conductor therefor. This construction I have changed by placing two separate plates on the insulator body, one plate D forming the distributor contact and the second plate E receiving the current from the common conductor F through the usual contact brush G. The plates D and E are sufficiently separated from each other to prevent jumping of spark from one to the other and a suppressor resistor H extends between these plates and is electrically connected thereto. Preferably this resistor is located in the groove in the insulator head C beneath the plates D and E, being connected to the latter by soldering or in any suitable way. The suppressor may be made of any suitable material, such as carbon, silicon carbide or a wire wound coil.

With the construction as described the suppressor unit is placed in the rotor during manufacture of the same and therefore is always in operative relation to the circuits when the distributor is assembled. It is exceedingly simple in construction, requiring no extra part other than the resistor.

What I claim as my invention is:

The combination with an ignition distributor, of a rotor therefor comprising an insulator body, spaced plates mounted on said body, one forming the distributor contact and the other the contact for receiving the current from the common conductor, and a resistor forming the suppressor unit located in a groove in said insulator body directly beneath said plates and having the opposite end portions overlapping the plates in engagement therewith to establish an electrical connection therebetween.

REX J. L. DUTTERER.