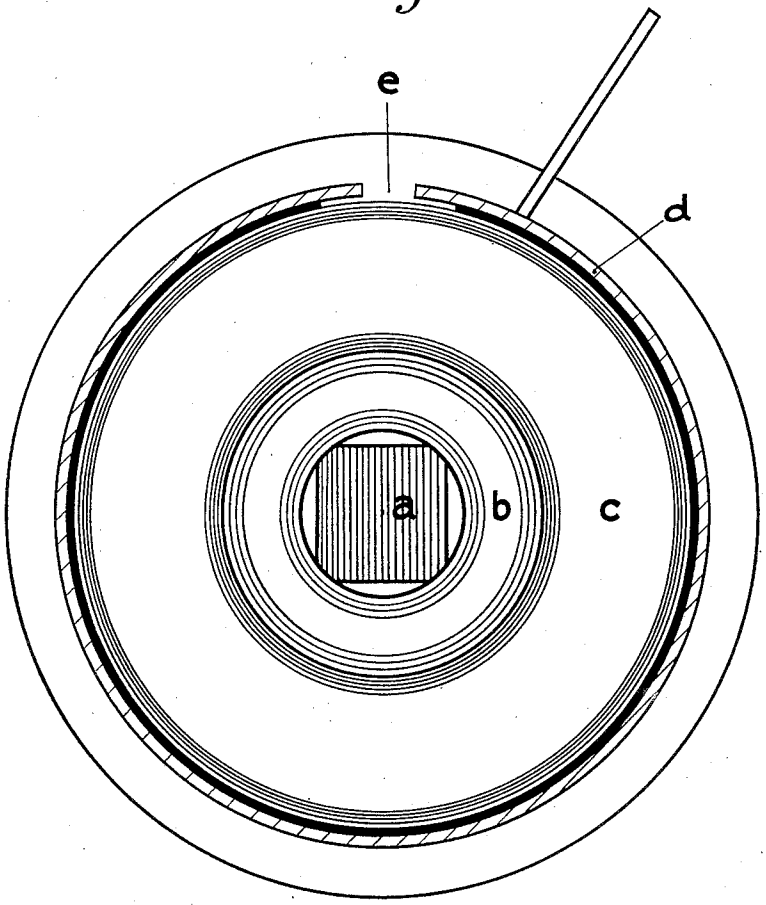
Sept. 22, 1925. 1,554,705

J. BOHLI

PROTECTING MEANS FOR IGNITION COILS USED IN CONNECTION WITH EXPLOSION MOTORS

Filed Oct. 18, 1919

Fig. 1.



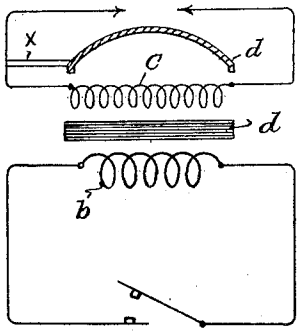


Fig. 2.

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UNITED STATES PATENT OFFICE.

JACQUES BOHLI, OF SOLOTHURN, SWITZERLAND, ASSIGNOR TO THE FIRM "SCINTILLA," OF SOLOTHURN, SWITZERLAND.

PROTECTING MEANS FOR IGNITION COILS USED IN CONNECTION WITH EXPLOSION MOTORS.

Application filed October 12, 1919. Serial No. 331,724.

To all whom it may concern:

Be it known that I, JACQUES BOHLI, a citizen of the Swiss Republic, residing at Solothurn, Obach, Switzerland, have invented certain new and useful Improvements in and Relating to Protecting Means for Ignition Coils used in Connection with Explosion Motors, of which the following is a specification.

This invention relates to protecting means for ignition coils used in connection with explosion motors.

The sparking voltage of sparking plugs of explosion motors is nowadays generally produced in a high tension coil constituting the secondary coil of a transformer, which voltage is induced or excited by current impulses flowing in a primary coil provided with an interrupter and condenser.

It is well known that the operations of connection and disconnection, and more particularly also the jumping over of the sparks at the sparking plugs, greatly endanger the end windings of the high tension coils since the self-induction prevents the penetration of steep voltage waves into the winding, so that the insulation of the first windings is broken down.

According to the invention the coil is provided for protection purposes with a metal coating which possesses sufficient capacity to absorb the occurring sudden increases in the voltage in the form of charges, and to pass it gradually over to the winding to be protected. The condensance of the metal coating must in any case be substantially larger than that of the outer layers of the coil windings. By constructing this metal coating as a casing capable of withstanding mechanical stresses, the coil can at the same time be protected against mechanical damage.

One mode of construction according to the invention is illustrated by way of example in the accompanying drawings in Fig. 1 of which: *a* is the iron core, *b* the primary, and *c* the secondary winding of the coil. The protecting ring *d* is electrically connected with the last secondary winding, and is provided with a slit at *e* in order to prevent the formation of short-circuit windings.

Fig. 2 shows a diagrammatic sketch of the connections with lettering corresponding to Fig. 1.

What I claim is:—

1. In combination, a high tension coil and a metallic coating connected in series in the circuit of said coil, the condensance of said coating being substantially higher than that of the highest voltage layer of the high tension coil.

2. A combination according to claim 1, wherein the said metallic coating is slit in a direction parallel to the axis of the coil.

3. The combination according to claim 1, wherein the metallic coating is provided externally to the high tension coil.

4. The combination according to claim 1, wherein the metallic coating is connected to the highest voltage end of the said coil.

In testimony whereof I have signed my name to this specification.

JACQUES BOHLI.