Nov. 3, 1925.

1,560,512

L. HIRSCH

SPARK PLUG

Filed July 26, 1924

Fig. 1.

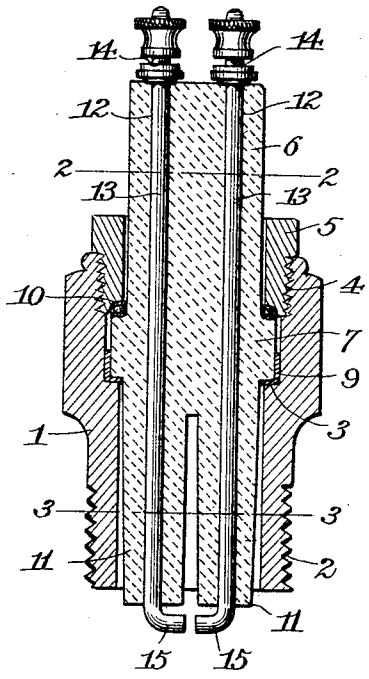


Fig. 2.

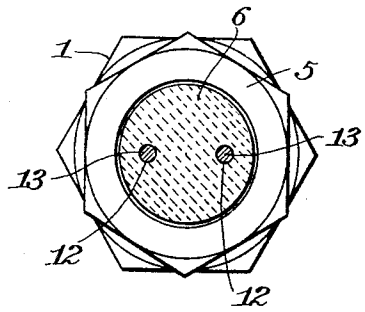


Fig. 3

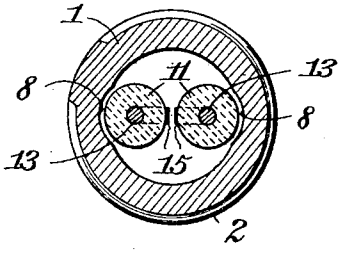


Fig. 4.

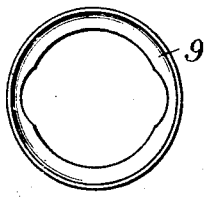
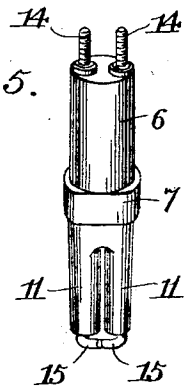


Fig. 5.



WITNESSES:

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UNITED STATES PATENT OFFICE.

LOUIS HIRSCH, OF MESILLA PARK, NEW MEXICO.

SPARK PLUG.

Application filed July 26, 1924. Serial No. 728,411.

To all whom it may concern:

Be it known that I, LOUIS HIRSCH, a citizen of the United States, and a resident of Mesilla Park, in the county of Dona Ana and State of New Mexico, have invented a new and Improved Spark Plug, of which the following is a full, clear, and exact description.

This invention relates to improvements in spark plugs, the object of the invention being to provide a spark plug having an improved construction of core in which a pair of electrodes are mounted and spaced apart, the terminals of the electrodes at the inner end of the core forming a spark gap in line with a space between two projections of the core.

A further object is to provide a plug of the character described in which two electrodes insulated from each other are supported in the plug and may be connected in any desired electric circuit either in multiple arc or series in accordance with the desire of the trade.

With these and other objects in view, the invention consists in certain novel features of construction and combinations and arrangements of parts which will be more fully hereinafter described and pointed out in the claim.

In the accompanying drawings—

Figure 1 is a view in longitudinal section of my improved spark plug;

Figure 2 is a view in transverse section on the line 2—2 of Figure 1;

Figure 3 is a view in transverse section along the line 3—3 of Figure 1;

Figure 4 is a plan view of the gasket or washer 9;

Figure 5 is a perspective view of the core removed.

1 represents the casing of my improved plug having external screw threads 2 at its inner end for screwing the same into the engine cylinder. This casing 1 has an internal annular shoulder 3 and is internally screw-threaded at its upper end, as shown at 4, to receive a lock nut 5 to clamp the core 6 in the casing. The core 6 has an annular somewhat transversely elongated enlargement 7 intermediate its ends, and the inner surface of the casing at opposite sides is recessed, as shown at 8, said recesses curving transversely from the casing and corresponding in shape to the shape of the enlargement 7 to receive the same. A gasket or washer 9, as shown most clearly in Figure 4, is interposed between the shoulder 3 and the enlargement 7 and has an internal shape corresponding to the shape of the core. A second gasket or washer 10 is interposed between the nut 5 and the enlargement 7 so that the core is secured gas tight within the casing. The core 6 throughout its upper portion is preferably of general cylindrical form while its lower portion is of appreciably greater thickness in one dimension than in the other transversely and is bifurcated whereby a pair of parallel integral projections 11 are formed at the inner end of the core. These projections 11 and the body of the core are made with openings or bores 12 in which electrodes 13 are located and secured in any approved manner. The outer ends of these electrodes are provided with binding posts 14 and the inner ends are bent toward each other, constituting terminals 15 which are spaced apart, providing a spark gap which is in alinement with the space between the projections 11. Thus it will be noted that ample space is provided for the accumulation of carbon to interfere with the spark.

Various slight changes and alterations might be made in the general form of the parts described without departing from my invention, and hence I do not limit myself to the precise details set forth but consider myself at liberty to make such slight changes and alterations as fairly fall within the spirit and scope of the appended claim.

I claim:

A spark plug including a casing, a core in the casing, a pair of electrodes projecting through the core and parallel to each other, said core at its inner portion comprising a pair of separate electrode carrying members, said separate members being circular in cross section, and the inner face of the casing being recessed concentrically with the members whereby an annular space is provided in the casing around each electrode carrying member.

LOUIS HIRSCH.