

A. R. MOSLER.
ELECTRIC IGNITION DEVICE.
APPLICATION FILED JULY 10, 1908.

Fig. 1.

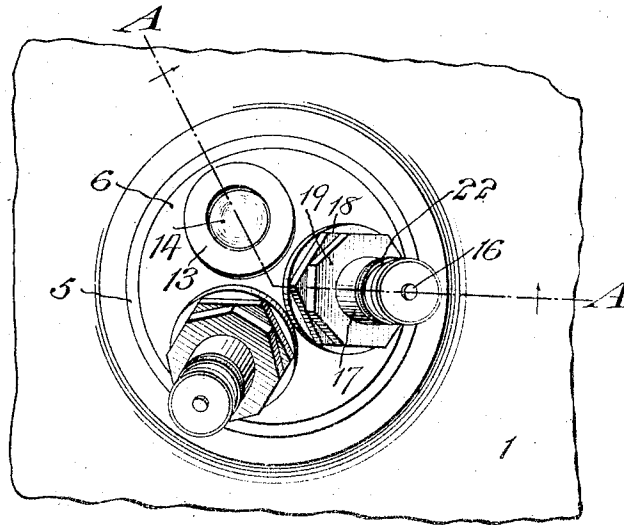


Fig. 3.

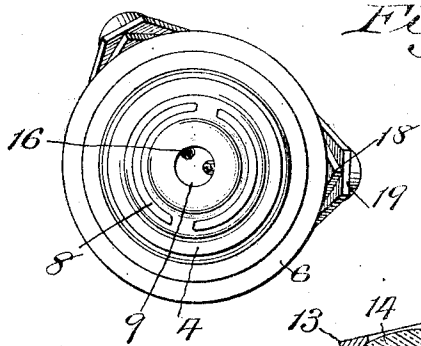


Fig. 2.

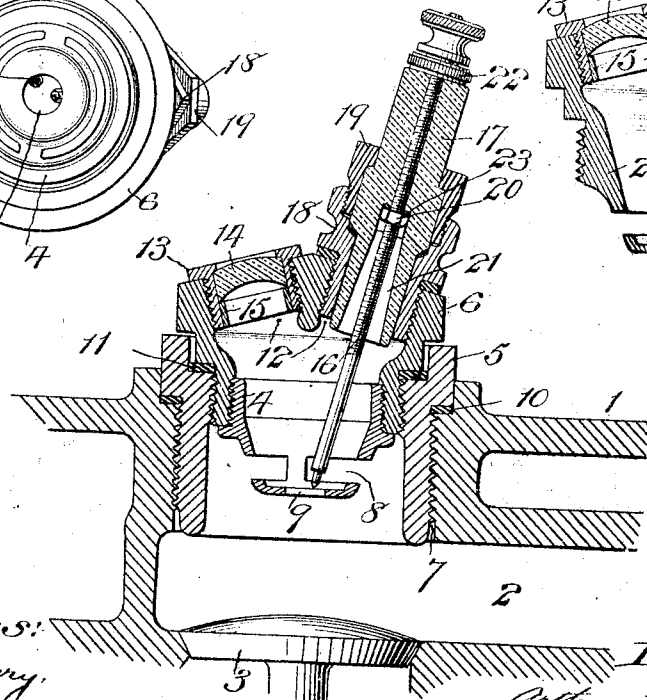
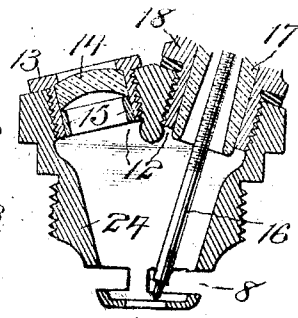


Fig. A.



Witnesses:
F. George Barry
Henry Thorne.

Inventor:
Arthur R Mosher
by attorneys
Brown & Howard

UNITED STATES PATENT OFFICE.

ARTHUR R. MOSLER, OF NEW YORK, N. Y., ASSIGNOR TO A. R. MOSLER & CO., OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

ELECTRIC IGNITION DEVICE.

991,226.

Specification of Letters Patent.

Patented May 2, 1911.

Application filed July 10, 1908. Serial No. 442,931.

To all whom it may concern:

Be it known that I, ARTHUR R. MOSLER, a citizen of the United States, and resident of the borough of Manhattan, in the city and State of New York, have invented a new and useful Improvement in Electric Ignition Devices, of which the following is a specification.

My invention consists in an improvement in electric ignition devices and has for its object to provide a multiple electric ignition device which is particularly well adapted for use in connection with double or multiple systems of ignition in connection with explosive hydrocarbon engines, the parts being so constructed and arranged that a cluster shell of novel construction forms one electrode and the conducting wires of the several plugs form the other electrodes, a glass sight being provided, which glass sight is trained upon the sparking points of the electrodes so that the character of the sparks may be observed from the exterior of the engine.

A practical embodiment of my invention is represented in the accompanying drawings, in which—

Figure 1 represents a top plan view of my multiple ignition device attached to the cylinder of an explosive hydrocarbon engine, Fig. 2 is a section taken in the plane of the line A—A of Fig. 1, looking in the direction of the arrows, Fig. 3 is an inverted plan view of the cluster shell, and Fig. 4 is a detail sectional view of a modified form.

The portion of the cylinder of an explosive hydrocarbon engine is denoted by 1, its explosive chamber by 2 and its inlet valve by 3.

In the form shown in Figs. 1 to 3, inclusive, the cluster shell which forms part of the plural electric ignition device comprises an inner member 4, an outer member 5, and an intermediate member 6. The outer member 5 has a screw threaded engagement with the hole 7, the intermediate member 6 has a screw threaded engagement with the outer member 5 and the inner member 4 has a screw threaded engagement with the intermediate member 6. This inner member 4 is provided with one or more openings 8 in its side walls beyond the end of the intermediate member 6 and a centrally arranged opening 9 in its end.

A packing ring 10 may be interposed between the outer member and the wall of the

engine cylinder and a packing ring 11 may be provided between the intermediate and outer members.

The intermediate member 6 is provided with a plurality of screw threaded holes 12. In the present instance, three of these holes are shown for receiving one or more spark plugs as the case may be. In the present instance, two of these holes are shown as receiving spark plugs and the other hole is shown as receiving a magnifying glass sight. This magnifying glass sight comprises a plug 13 having a screw threaded engagement with one of the holes 12 and a magnifying glass 14 held in position by a ring 15, which magnifying glass is trained upon the hole 9 in the end of the inner member 4 for indicating to the observer the character of the sparks of the electric ignition device.

The conducting wires 16 which form the central electrode of the two spark plugs extend diagonally inward so as to bring their points adjacent to the walls of the hole 9, the distance between the walls of the hole and the point of each of the conducting wires being less than the distance between said points, so as to absolutely insure the formation of the sparks between each of the points and the walls of the hole rather than between the points themselves. Each of these conducting wires 16 is provided with an insulating block 17 held in position between the screw plug 18 and cap 19.

The conducting wire 16 is held in position between a nut 20 in a recess 21 and a thumb nut 22 engaging the outer end of the block 17. A washer 23 is interposed between the nut 20 and the block 17 for forming a gas tight joint at this point. In the form shown in Fig. 4, a single member 24 is provided instead of the inner and intermediate members, and the openings 8 and hole 9 are formed therein.

It is evident that a multiple electric ignition device of this character may be made suitable for receiving any number of spark plugs; hence I do not wish to limit myself strictly to the structure herein shown and described, but

What I claim is:—

1. An electric ignition device comprising a cluster shell having a separable inner member provided with holes through its end and side walls and forming one electrode, a spark plug mounted in said cluster shell and

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having its conducting wire form the other electrode, and a magnifying glass sight mounted in said shell and trained upon the end of the said inner member.

5 2. A plural electric ignition device comprising a cluster shell having a separable inner member provided with holes through its end and side walls and forming one electrode, spark plugs mounted in said cluster
10 shell and having their conducting wires form other electrodes, and a magnifying glass sight mounted in said shell and trained upon the end of the said inner member.

15 3. An electric ignition device comprising a cluster shell having separable inner, outer and intermediate members, the said inner member being provided with holes through its end and side walls and forming one electrode, a spark plug mounted in the inter-
20 mediate member and having its conducting wire form the other electrode, and a magnifying glass sight also mounted in the inter-

mediate member and trained upon the end of the inner member.

4. A plural electric ignition device com- 25
prising a cluster shell having separable inner, outer and intermediate members, the said inner member being provided with
30 holes through its end and side walls and forming one electrode, spark plugs mounted in the intermediate member and having their conducting wires form other electrodes, and a magnifying glass sight also mounted in the intermediate member and trained upon
35 the end of the inner member.

In testimony, that I claim the foregoing as my invention, I have signed my name in presence of two witnesses, this twenty fourth day of June 1908.

ARTHUR R. MOSLER.

Witnesses:

F. GEORGE BARRY,
C. S. SUNDGREN.