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C. A. MEZGER.
SPARK PLUG CLIP.

APPLICATION FILED SEPT. 6, 1906

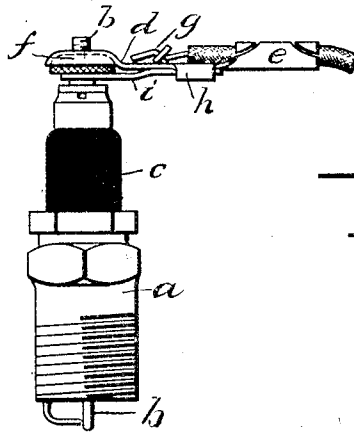


Fig. 1

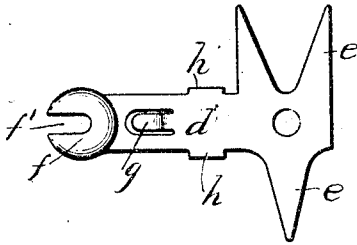


Fig. 2

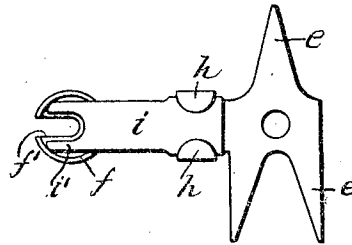


Fig. 3

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SPARK-PLUG CLIP.

No. 882,260.

Specification of Letters Patent.

Patented March 17, 1908.

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To all whom it may concern:

Be it known that I, CHARLES A. MEZGER, a citizen of the United States, and a resident of the borough of Brooklyn, city of New York, county of Kings, and State of New York, have invented certain new and useful Improvements in Spark-Plug Clips, of which the following is a full, clear, and exact specification, such as will enable others skilled in the art to make and use the same.

The object of my invention is to construct a device for connecting the terminal wire with the positive electrode of the spark plug or similar igniting device, in such a way that the wire may be permanently connected with the clip and the clip readily connected to and disconnected from the electrode of the plug, thus enabling the operator to quickly detach the wire preparatory to removing the plug or for any other purposes without in any way involving the danger of being shocked. To this end I provide a main or body portion which has a tongue or lip for electrically connecting the wire therewith and which has pliable fingers which may be bent down over the insulation of the wire to hold the same connected with the body. This body has a slotted cap, formed at its end, which is adapted to fit over the lock nut of the plug and suitably fastened under the body is a fork adapted to straddle the neck of the lock nut on the under side thereof or to engage an equivalent part of the plug. By this means the wire may be securely and permanently joined to the clip and the clip readily engaged with the plug in such a way, however, that it may be quickly disconnected at any time.

The invention involves various other features, of major or minor importance all of which will be fully set forth hereinafter and particularly specified in the claims.

Reference is now had to the accompanying drawings which illustrate as an example one manner in which my invention may be practically embodied, in which drawings

Figure 1 is a side elevation of the spark plug having my invention engaged therewith; Fig. 2 is a plan view of the clip with the pliable fingers extended and Fig. 3 is a bottom view also with the pliable fingers extended.

The plug shown in the drawings is of the jump spark type and comprises a shell *a* in connection with the engine frame, a central

electrode *b* and insulation *c* separating the parts *a* and *b* and such other minor parts as are usually employed. The invention, however, may be used in connection with spark plugs of other types as will be fully understood from the prior art.

The body of the clip comprises a stem or shank *d* at one end of which pliable fingers *e* are arranged. These fingers are preferably three in number, two at one side and one at the other. At the opposite end of the body a concavo-convex cap *f* is arranged in which a radial slot *f'* is formed. Struck up from the middle part or shank *d* is a tongue *g* and at each side of the stem or shank is arranged a tongue *h* the purpose of both of which tongues will be fully set forth hereinafter. The body of the device above described is preferably constructed of an integral sheet of pliable metal such as brass but other metal may be employed. This body is stamped out by suitable die.

The tongues *h* are bent downward and inward and clamped to the under side of the body at the outer end of the fork *i*. This fork is also formed of sheet metal and preferably stamped or died therefrom in the usual manner. As shown in Fig. 1 the forked end *i'* lies directly under the capped cup *f*.

In the use of the device the insulated wire which is to be connected with the electrode *b* is passed over the top of the body and the fingers *e* are then bent up around the insulation as shown in Fig. 1. The extremity is introduced under the tongue *g* and said tongue bent down to form a firm connection therewith. It will thus be seen that the wire is both mechanically and electrically connected with the body of the clip. The clip itself is connected with the spark plug by slipping the cup *f* over the top of the lock nut and the fork *i* under the nut around the neck thereof or around the electrode *b* in case the form of the nut is not that shown in the drawings. In this connection it is observed that the use of the device is not limited to the specific form of nut here shown and that the construction of the cap *f* and fork *i* is such as to adapt the device to various forms of nuts. The engagement of the clip with the spark plug is brought about by simple movement of the clip laterally into engagement with the plug and disengagement is effected by a reversal of this movement which is simply to withdraw the clip. This

enables full electrical and mechanical connection to be secured between the wire and clip and at the same time allows easy connection and disconnection between the clip
5 and plug.

Having thus described the preferred embodiment of my invention what I claim as new and desire to secure by Letters Patent of the United States is:

10 1. A spark plug clip, comprising a body having at one end pliable fingers adapted to engage the insulated portion of the wire and a tongue struck up from the body and adapted to be electrically connected with the wire,
15 said body also having a cupped cap with a radial slot therein and pliable prongs at the sides of the body and a fork arranged under the body and held rigidly thereto by means of said pliable prongs the bifurcated portion
20 of the fork registering with the slot in the cap.

2. A spark plug clip having two separate opposing members, spaced from each other and adapted to receive part of the plug between them, each of said members being
25 slotted and adapted to receive a part of the

plug in the slot pliable fingers on one member engaging the other member and means for connecting a wire to the clip.

3. A spark plug clip having two separate
30 opposing members spaced from each other, and adapted to receive a part of the plug between them, the outer or top member being slotted to receive in the slot the central electrode of the plug pliable fingers on one member
35 engaging the other member to hold them together and means for connecting a wire to the clip.

4. A spark plug clip having a body terminating in a slotted cap, a fork lying against
40 the under side of the body and having its bifurcated end coincident to the slotted cap, whereby the fork and cap may receive between them the nut of the plug and the slotted parts may straddle parts of the plug,
45 means for connecting the fork with the body and means for electrically and mechanically connecting the wire to the body.

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