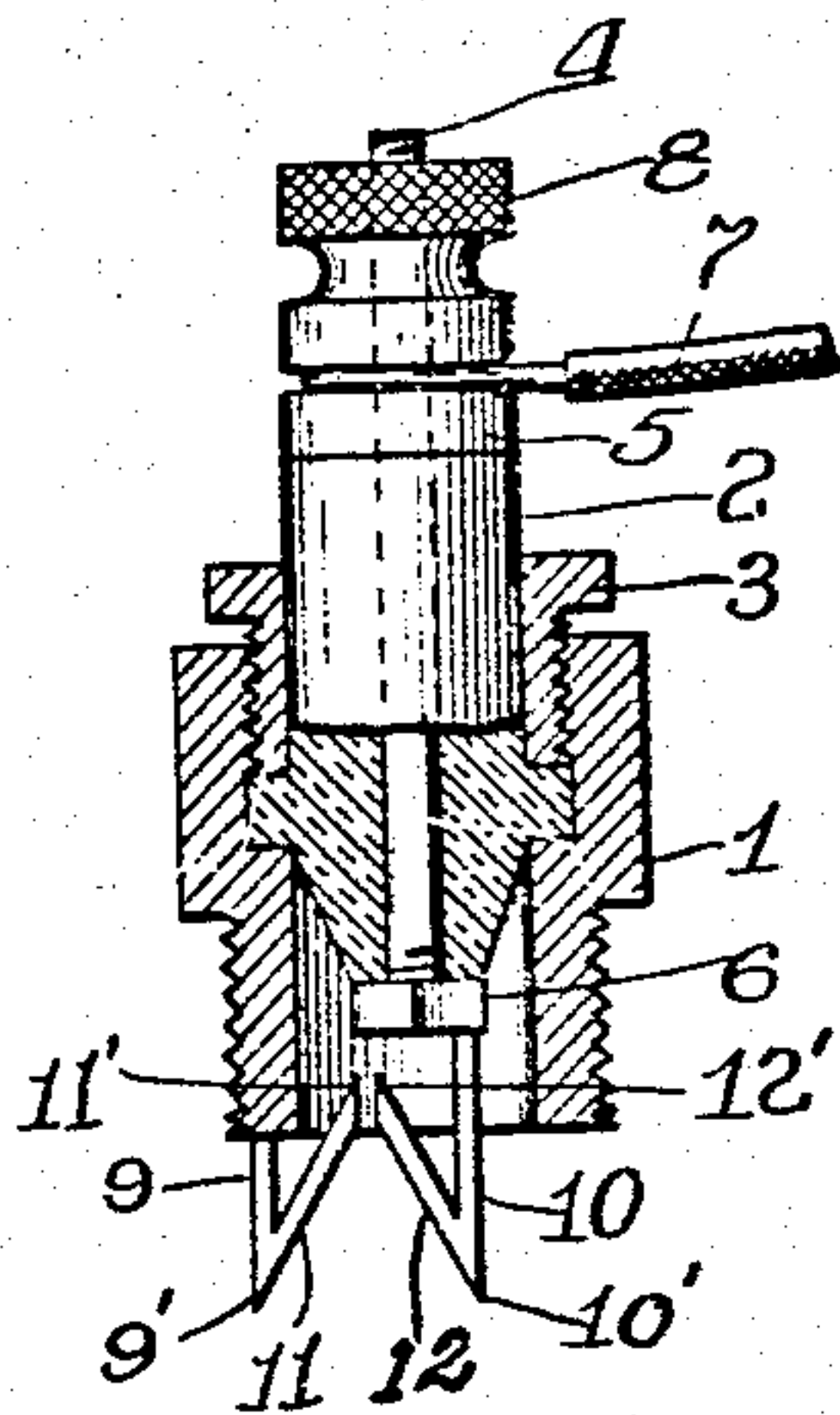


A. A. DAVIS.
SPARK PLUG.
APPLICATION FILED OCT. 31, 1908.

Patented Apr. 27, 1909.

919,425.



Witnesses:
R. A. White
M. A. Kiddie

Inventor
Arthur A. Davis
By *W. H. Belk* Atty.

UNITED STATES PATENT OFFICE.

ARTHUR A. DAVIS, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO BENJAMIN GRIESHABER, OF CHICAGO, ILLINOIS.

SPARK-PLUG.

No. 919,425.

Specification of Letters Patent.

Patented April 27, 1909.

Application filed October 31, 1908. Serial No. 460,375.

To all whom it may concern:

Be it known that I, ARTHUR A. DAVIS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Spark-Plugs, of which the following is a specification.

This invention relates to improvements in spark plugs and it has for its object, broadly, to provide a plug which will at all times produce a large and uniform spark.

The principal difficulty with spark plugs is their unreliability which is due mainly to the fact that oil, soot and other foreign matter accumulate upon the terminals of the electrodes and prevent uniform sparking. This condition necessitates frequent cleaning of the electrodes or replacement of the plug.

My invention aims to keep the terminals of the electrodes in a clean condition prepared at all times to produce a large and uniform spark.

The invention also has for its object to construct the electrodes so that any oil or other foreign matter which may be deposited thereon will drain away from both terminals and discharge from the electrodes without impairing their efficiency.

In the accompanying drawing I have shown a sectional view of a spark plug embodying the invention in one form and referring thereto, 1 is a casing and 2 is a core of porcelain, or other suitable insulating material, which is secured in the casing by a set nut 3. A conductor rod 4 is arranged in the core and nuts 5 and 6 are screwed on to the rod against opposite ends of the core. The battery wire 7 may be engaged with the rod 4 between the nut 5 and a nut 8 which is screwed on to the rod 4 to clamp the wire tightly against the nut 5. The electrodes 9 and 10 are secured respectively to the casing 1 and the nut 6 and they preferably extend outward from the casing and nut in parallelism for a distance beyond the casing and their ends 11 and 12 are bent backward at sharp acute angles 9', 10' to bring the terminals 11', 12' in opposition to each other, preferably within the casing, although this is not essential. The opposing

surfaces of the terminals are preferably made flat as shown. These spark plugs are usually secured in place in an upright position and thus it will be seen that any oil, soot, sweat or other foreign matter which may be deposited on the electrodes will drain down to and be discharged from the points 9', 10', leaving the terminals 11', 12' clean and constantly in condition to produce a uniform spark. The terminals are located above the points 9', 10' and any oil or foreign matter which flows from the casing or the nut 6 on to the electrodes will drain off at the points without affecting the terminals and if any oil or other foreign matter is deposited on the terminals it will tend to immediately flow down the inclined ends 11, 12 away from the terminals and to the points whence it is discharged.

Thus, my invention provides a novel construction for the electrodes of a spark plug so that foreign matter will drain away from the terminals which are thereby maintained in a cleanly condition to produce a large and uniform spark at all times.

What I claim and desire to secure by Letters Patent is:

1. A spark plug comprising a pair of electrodes having their ends bent backward and provided with discharge points beneath the bends of their terminals arranged in opposition to each other.

2. A spark plug comprising a pair of electrodes arranged for a portion of their length in parallelism and having their ends bent backward and inward at an acute angle to said parallel portions and with their terminals in opposition.

3. A spark plug comprising a pair of electrodes arranged for a portion of their length in parallelism and having their ends bent backward at an acute angle to said parallel portions and provided with discharge points beneath said bends and having their terminals arranged in opposition to each other.

ARTHUR A. DAVIS.

Witnesses:

Wm. H. BELT,
M. A. KIDDIE.