

1,346,759.

Patented July 13, 1920.

Fig. 1.

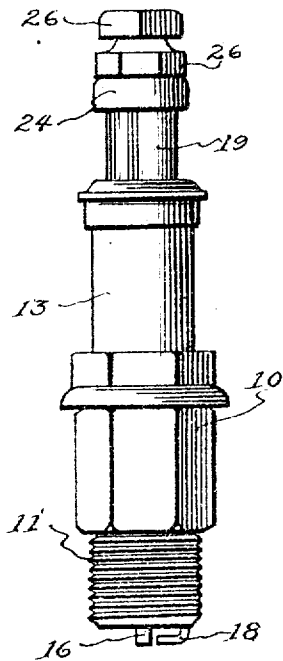


Fig. 3.

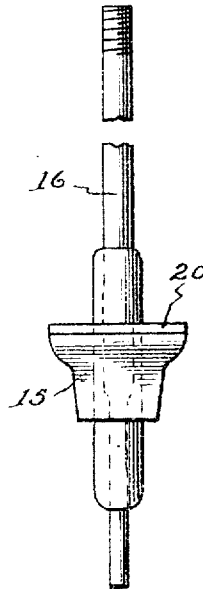


Fig. 2.

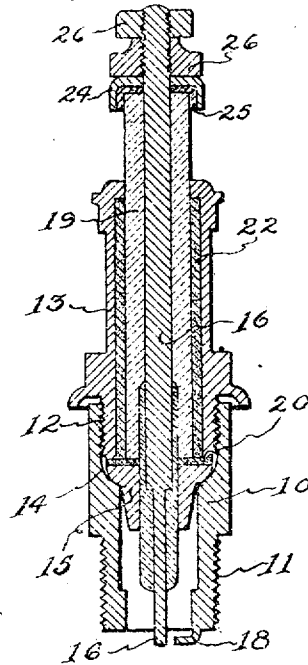
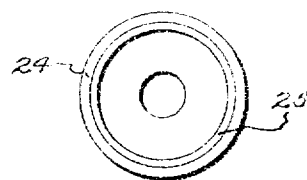


Fig. 4.



Fig. 5.



Witness

J. A. Palato.

Inventor

Albert R. Meyer

By

Victor J. Evans

Attorney

UNITED STATES PATENT OFFICE.

ALBERT R. MEYER, OF SACRAMENTO, CALIFORNIA.

SPARK-PLUG.

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Specification of Letters Patent.

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Application filed October 6, 1919. Serial No. 328,681.

To all whom it may concern:

Be it known that I, ALBERT R. MEYER, a citizen of the United States, residing at Sacramento, in the county of Sacramento and State of California, have invented new and useful Improvements in Spark-Plugs, of which the following is a specification.

This invention comprehends the provision of a spark plug wherein the main electrode is insulated by glass tubing which can be quickly and easily associated with the component parts of the plug, or removed therefrom as the occasion requires, thus eliminating the use of porcelain and producing a plug which can be manufactured and sold at a nominal cost.

The nature and advantages of the invention will be better understood when the following detail description is taken in connection with the accompanying drawing, the invention residing in the construction, combination and arrangement of parts as claimed.

In the drawing forming part of this specification, like numerals of reference indicate similar parts in the several views and wherein:

Figure 1 is a view of the plug in elevation.

Fig. 2 is a sectional view therethrough.

Fig. 3 is a detail view of the main electrode.

Fig. 4 is a view of the glass insulating tube.

Fig. 5 is a view of the cap.

Referring to the drawing in detail, 10 indicates the casing or body of the plug which is exteriorly threaded as at 11, and interiorly threaded as at 12 to accommodate the tubular extension 13 which is detachably associated with the casing or body 10. The body 10 is provided with an internal shoulder 14, upon which the enlargement 15 of the main electrode 16 is seated. The main electrode projects a slight distance below the casing 10 in close proximity to the electrode 18, depending from said casing. The electrode adjacent its connection with the enlargement 15 is insulated by mica which extends a short distance throughout the length of the electrode. The remaining portion of the electrode is insulated by a glass tube 19, which surrounds the electrode and seated upon the enlargement 15. The latter is pro-

vided with an asbestos cushion 20, against which the adjacent end of the tube 19 bears. This end of the tube is relatively large to receive the mica 21, while the remaining portion of the tube is reduced to fit close around the electrode. The glass tube is covered with an asbestos sleeve 22 to protect the tube from the heat, and to also insulate the electrode from the body of the plug, should the glass tube become broken. The tube projects a slight distance above the adjacent end of the extension 13 and is received by a cap 24 slidably fitted upon the electrode, the cap being lined with asbestos 25. Nuts 26 are threaded upon the electrode in the usual manner and hold the cap 24 in position. The glass insulating tube takes the place of the porcelain now commonly employed in spark plugs, and not only provides a good insulator for the plug, but materially reduces the cost of manufacture and sale of such articles. The glass tubes can be readily associated with the electrode and body of the plug, and can also be readily separated from these parts should the occasion require. The opposite ends of the tube bear against an asbestos cushion and thus protect the tube from being broken when the cap 24 and nuts 25 are arranged in operative positions.

While I have shown and described what I consider the preferred embodiment of the invention, I desire to have it understood that I do not limit myself to the exact construction and arrangement of parts disclosed, and that such changes may be resorted to when desired as fall within the scope of what is claimed.

What is claimed is:—

1. A spark plug comprising a body, an internal shoulder, an electrode passed through said body, a member seated upon said shoulder and receiving said electrode, insulating material surrounding the electrode for a portion of its length above said member, a glass tube surrounding the electrode and receiving said insulating material, said tube resting upon the said member, a cap fitted on the electrode and receiving the opposite end of said tube. means for holding the cap in position, and an electrode depending from said body.

2. A spark plug comprising a body hav-

ing an internal shoulder, an electrode passed through said body, a member seated upon said shoulder and having said electrode, insulating material surrounding said electrode
5 above said member, a glass tube surrounding said electrode and receiving said insulating material, an asbestos sleeve covering said tube, said tube resting upon the said member, a cap fitted upon said electrode and receiving the opposite end of said tube, 10 means for holding said cap in position, and an electrode depending from said body.

In testimony whereof I affix my signature.

ALBERT R. MEYER.