

April 2, 1940.

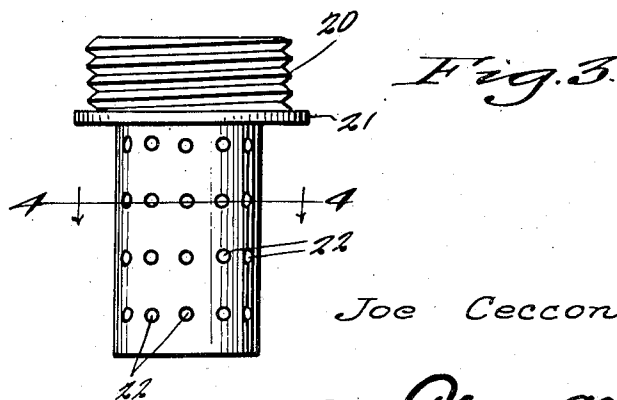
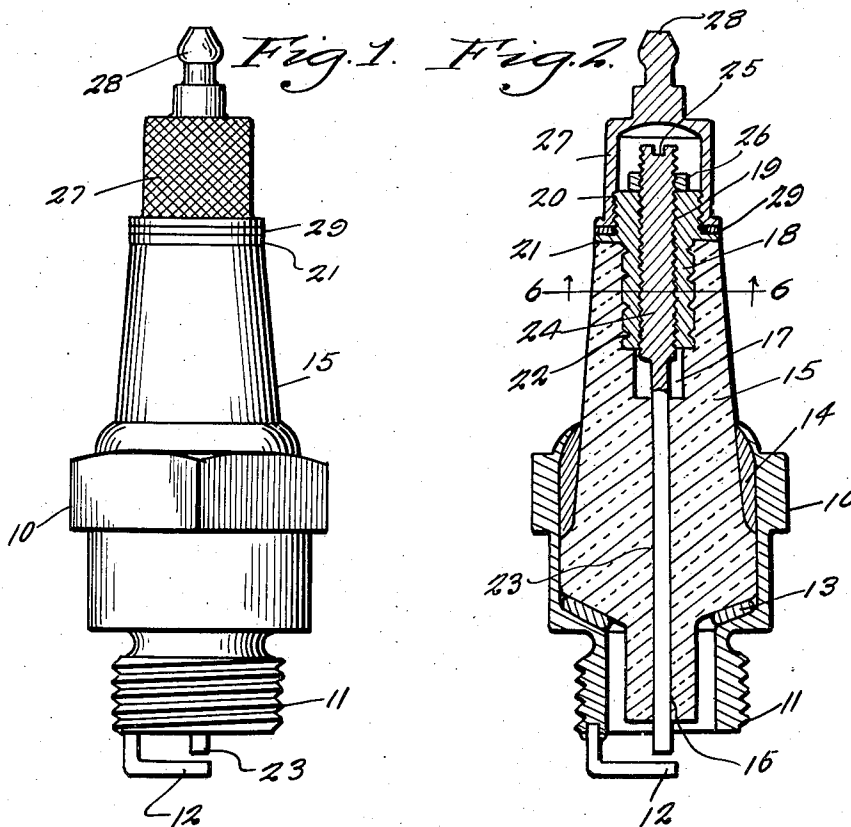
J. CECCON

2,195,953

SPARK PLUG

Filed Aug. 30, 1939

2 Sheets-Sheet 1



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2 Sheets-Sheet 2

Fig. 4.

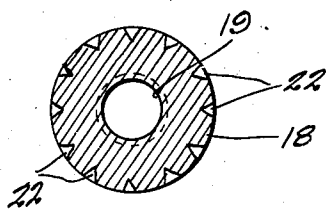


Fig. 5.

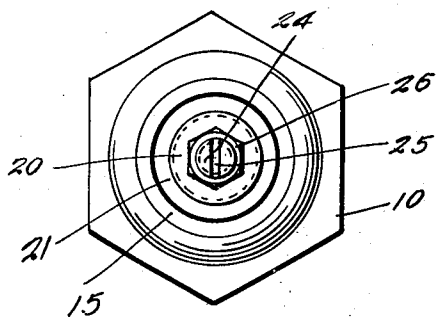


Fig. 6.

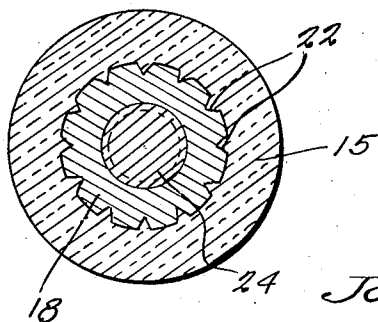
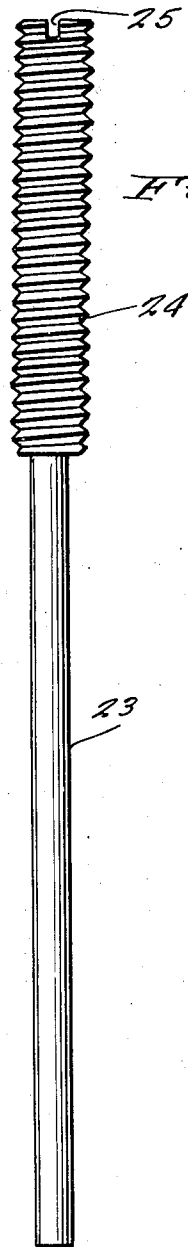


Fig. 7.



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UNITED STATES PATENT OFFICE

2,195,953

SPARK PLUG

Joe Ceccon, Moran, Iowa

Application August 30, 1939, Serial No. 292,704

2 Claims. (Cl. 123-169)

This invention relates to improvements in spark plugs and more particularly to that type of spark plug wherein the electrodes in the same are adjustable.

5 An object of the invention is to provide a spark plug wherein the spark gap may be adjusted.

Another object of the invention is to provide a spark plug wherein the spark gap may be adjusted while the spark plug is mounted in an internal combustion engine or other device.

10 All of the foregoing and still further objects and advantages of the invention will become apparent from a study of the following specification, taken in connection with the accompanying drawings, wherein like characters of reference designate corresponding parts throughout the several views, and wherein:

Figure 1 is an elevational view of a device embodying my invention.

Fig. 2 is a vertical transverse sectional view of the invention.

Fig. 3 is an elevational view of one electrode holder.

25 Fig. 4 is a transverse sectional view taken substantially on the line 4-4 of Fig. 3.

Fig. 5 is a top plan view of the device with the terminal cap removed.

Fig. 6 is a transverse sectional view taken substantially on the line 6-6 of Fig. 2, and

30 Fig. 7 is an elevational view of the adjustable electrode.

Referring now to the drawings, in detail, it will be seen that the reference numeral 10 designates the usual housing nut provided with a threaded tubular shank 11 for securing the same in an internal combustion engine (not shown). The shank 11 has secured to and extending from the bottom edge thereof, an L-shaped electrode 12. Mounted in the housing nut 10 and sealed therein by gaskets 13 and 14, is a dielectric electrode holder 15 having a smooth bore 16 which enlarges to form a pocket 17.

The top portion of the dielectric electrode holder has anchored therein a metallic member 18 of tubular construction wherein the bore thereof is threaded as at 19. This tubular metallic member 18 is provided at its top end portion with threads 20 and a flange 21 while its bottom end portion has formed in the side surfaces thereof pockets 22. This pocketed portion has a baked porcelain coating.

The vertical adjustable electrode 23 is enlarged at its top end portion 24 and provided with 55 threads for screw threaded engagement with the

threaded bore 19. A kerf 25 is cut in the top end of the electrode 23 for engagement with a screw driver or other manipulating tool when an adjustment of the electrode is to be made. After adjustment a lock nut 26 is threaded on the electrode 23 to securely hold the same in adjusted position.

A conductor terminal in the form of an internally threaded cap 27 having a headed post 28 projecting therefrom is screwed onto the threads 20 of the tubular member 18 to cover the top end of the electrode 23. A gasket 29 is mounted between the bottom end of the cap 27 and the flange 21.

When the spark gap between the bottom end of the electrode 23 and L-shaped electrode 12 becomes so great as to diminish the efficiency of the spark plug or to render it inoperative, it is unnecessary to remove the plug from the engine or other device in order to reset the electrode. The cap 27 is removed, the lock nut 26 unscrewed, and by screwing the electrode 23 in or out of the member 18 the distance between the electrodes 23 and 12 may be varied.

The pocket 17 is provided to receive the enlarged portion 24 of the electrode 23 when an adjustment is made.

Although I have shown and described herein a preferred embodiment of my invention, it is to be definitely understood that I do not desire to limit the application of the invention thereto, and any change or changes may be made in the materials and in the structure and arrangement of the parts, within the spirit of the invention as claimed.

What is claimed is:

1. In a device of the character described, a spark plug including a housing nut member, an electrode mounted on said housing nut member, a dielectric member having a small bore and a counterbore mounted in said housing nut member, an electric conducting member mounted in and anchored to the walls of said counterbore, an electrode adjustably mounted in said electric conducting member and extending through said small bore at one end portion and extending beyond said electric conducting member at its other end portion, a cap mounted on said electric conducting member and over said electrode, and a post on said cap for connection with a source of electric current.

2. In a device of the character described, a spark plug including a housing nut member, an electrode mounted on said housing nut member, a dielectric member having a small bore and a counterbore mounted in said housing nut mem-

ber, projections in said counterbore, an electric conducting member having recesses therein mounted in said counterbore with said projections in said recesses, an electrode adjustably mounted in said electric conducting member and extending through said small bore at one end portion and extending beyond said electric con-

ducting member at its other end portion, a cap mounted on said electric conducting member and over said extending electrode portion, and a post on said cap for connection with a source of electric current.

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