J. J. ROMIG.

BLAZE PLUG.

APPLICATION FILED JUNE 4, 1919.

1,332,636. Patented Mar. 2, 1920.

Fig1

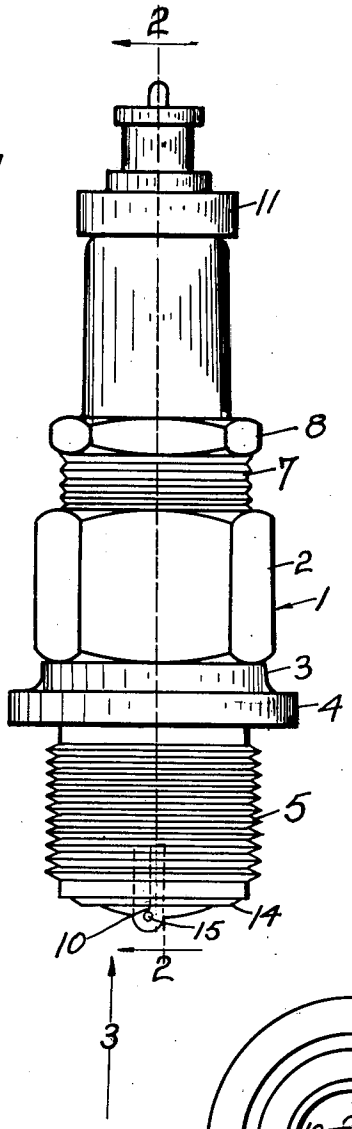


Fig2

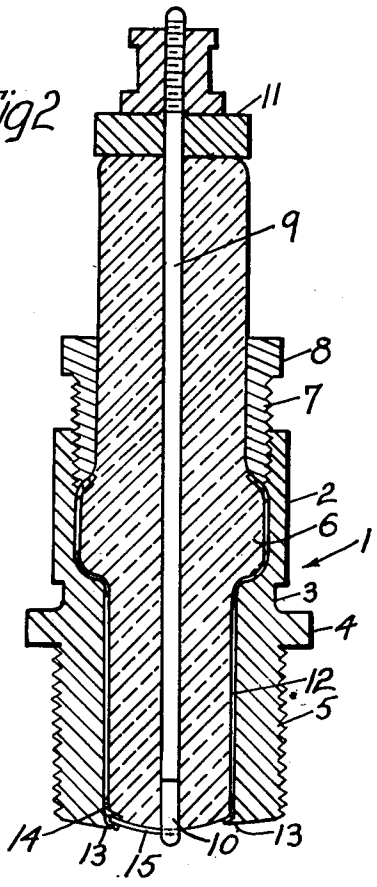




Fig.4

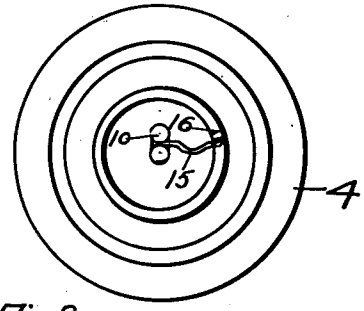


Fig3

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BLAZE-PLUG.

1,332,636. Specification of Letters Patent. Patented Mar. 2, 1920.

Application filed June 4, 1919. Serial No. 301,790.

To all whom it may concern:

Be it known that I, JAMES J. ROMIG, a citizen of the United States, residing at Terminal, in the county of Los Angeles and State of California, have invented new and useful Improvements in Blaze-Plugs, of which the following is a specification.

My object is to make blaze plugs take the place of spark plugs for internal combustion engines, and my invention consists of the novel features herein shown, described and claimed.

Figure 1 is an elevation of a blaze plug embodying the principles of my invention.

Fig. 2 is a central section upon the line 2—2 of Fig. 1.

Fig. 3 is a bottom plan view looking in the direction indicated by the arrow 3 in Fig. 1.

Fig. 4 is a perspective of the retaining ring to which the hot wire is connected at one end.

The casing 1 comprises the hexagon portion 2, the neck 3, the flange 4, and the screw threaded nipple 5. The porcelain insulator 6 fits in the casing 1 and is held in place by a gland 7 screwed into the upper end of the portion 2 of the casing and having a hexagon head 8. The main conductor 9 has its lower end bent upon itself to form a connecting loop 10 and the conductor is inserted upwardly through the porcelain 6 and the usual fittings 11 are screwed upon the upper end of the conductor 9 against the upper end of the porcelain 6.

The casing 1 has a bore 12 formed from its upper end, and in forming the bore 12 the tool is held from going entirely through thereby making a lip 13 at the extreme lower end of the casing and at the lower end of the bore 12. The band 14 is inserted downwardly into the bore 12 against the lip 13 and the band is curved in cross section, so that when the porcelain 6 is forced downwardly in the bore 12 against the band the band is firmly clamped between the end of the porcelain and the lip 13.

The band 14 is made of a strip of thin copper and the hot wire 15 is placed in position with one end of the wire between the overlapping ends 16 of the band and the other end of the wire pinched by the connecting loop 10. Preferably the wire is longer than the straight line between its ends thereby making the wire wavy and allowing for expansion and contraction. Of course the wire 15 is preferably made of a very fine strand of platinum.

The operation is obvious and practically the same as in the spark plug. The electric impulse passing over the wire 15 will cause the wire to become red hot thereby igniting the explosive charge, and the carbon collected upon the end of the porcelain and around the wire will be burnt away thereby keeping the wire clean. Each electric impulse will cause the wire 15 to blaze or glow as in a filament lamp.

Various changes may be made without departing from the spirit of my invention as claimed.

I claim:

In combination in a blaze plug a metallic casing having a central bore a lip extending inwardly from the inner end of the central bore and an electric conducting band positioned against the lip, an insulator for the bore against the band having a central electrode, and a fine high resistance wire connecting the inner end of the central electrode with the band.

In testimony whereof I have signed my name to this specification.

JAMES J. ROMIG.