No. 864,709. PATENTED AUG. 27, 1907.

J. F. THOMAS & H. J. BOLINSKI.

SPARKING PLUG FOR GAS ENGINES.

APPLICATION FILED AUG. 29, 1906.

Fig. 1.

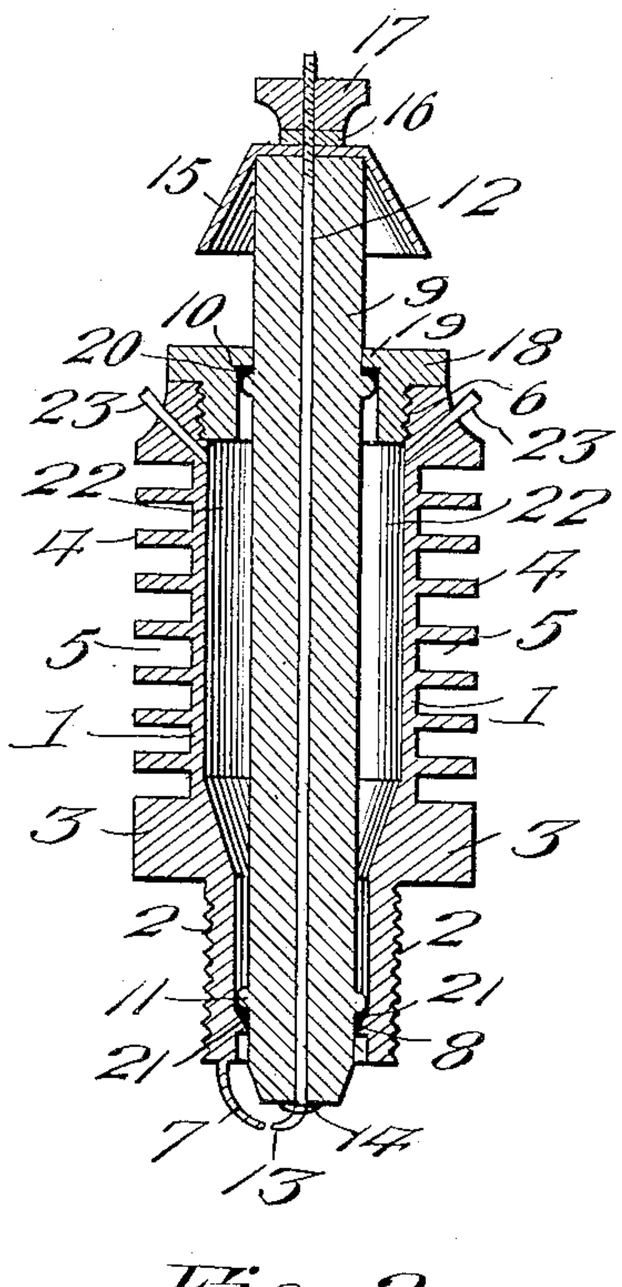
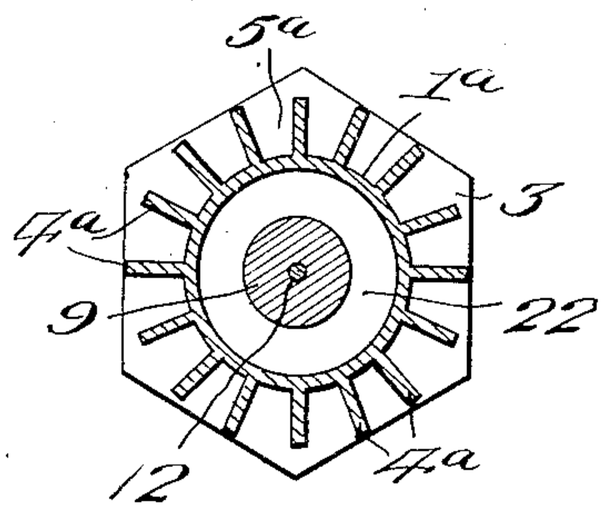


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

JESSE F. THOMAS AND HERMAN J. BOLINSKI, OF NEW LONDON, WISCONSIN.

SPARKING PLUG FOR GAS-ENGINES.

No. 864,709. Specification of Letters Patent. Patented Aug. 27, 1907.

Application filed August 29, 1906. Serial No. 332,524.

To all whom it may concern:

Be it known that we, JESSE F. THOMAS and HERMAN J. BOLINSKI, citizens of the United States, residing at New London, in the county of Waupaca and State of Wisconsin, have invented new and useful Improvements in Sparking Plugs for Gas-Engines, of which the following is a specification.

This invention relates to sparking plugs for gas engines and one of the principal objects of the same is to provide means whereby the plug may retain a low and uniform temperature during its operation.

Another object of the invention is to provide a sparking device with means for preventing the same from becoming overheated during its operation, and in which the construction will be simple and not liable to get out of order.

Still another object of our invention is to provide a jacketed plug for containing a cooling liquid to prevent the plug from becoming overheated.

These and other objects are attained by means of the construction illustrated in the accompanying drawing, in which:

Figure 1 is a central vertical section through a sparking plug made in accordance with our invention. Fig. 2 is a transverse section of a modified form of the same.

Referring to the drawing for a more particular description of our invention, the numeral 1 designates a hollow casing provided with a threaded lower end 2, a polygonal flange 3 for providing means for engagement of a wrench to secure the plug in an orifice in the combustion chamber of an engine, and a series of annular, spaced flanges 4, said flanges extending around the casing to provide intermediate air spaces 5. The upper end of the casing 1 is interiorly screw threaded, as at 6. Projecting from the lower end of the casing 1 is a curved sparking point 7 and inside the bore of said casing near its lower end is an internal annular flange 8.

A porcelain insulator 9 extends through the casing and is provided with an upper annular bead 10 and a lower bead 11, and a central longitudinal bore through which extends a rod 12 having a curved sparking point 13 at its lower end, said sparking point extending beyond the porcelain insulator 9 and provided with an enlargement 14 which serves as a stop to properly locate the point 13 relatively to the point 7. The upper end of the rod 12 extends through a deflector 15 and through a washer 16 and is fitted with a thumb nut 17 for holding the rod 12 in adjusted position.

A threaded adjusting nut 18 fits the internal threads 6 in the casing 1 and is provided with an overhanging flange 19 which bears upon a gasket 20 surrounding the insulator 9 above the bead 10. A similar gasket 21 is placed between the lower bead 11 and the annular flange 8. When the nut 18 is adjusted within the casing 1 it serves to compress the gaskets 20 and 21 and to provide an air tight joint between the insulator and the casing.

A hollow chamber 22 is provided within the casing 1 and surrounds the insulator, said chamber being designed for containing oil or other cooling compound which may be placed therein through openings fitted with plugs 23.

The deflector 15 is for the purpose of preventing moisture from passing down the sides of the insulator and short circuiting the current.

As shown in Fig. 2 the casing 1^a is provided with longitudinally extending flanges 4^a to provide for a free circulation of air in the intermediate spaces 5^a.

From the foregoing it will be obvious that a sparking plug made in accordance with our invention and having a surrounding jacket filled with a cooling compound, will not become overheated under varying conditions in use.

The device is of simple construction, cannot readily get out of order, is strong, durable and efficient in use, and can be produced at slight cost.

Having thus described the invention, what we claim is:

1. A sparking plug for gas engines comprising a hollow casing provided with a series of external flanges forming intermediate air spaces, an insulator extending through said casing and a chamber between the inner wall of the casing and the insulator for containing a cooling compound, substantially as described.

2. A sparking plug for gas engines comprising a hollow casing provided with a series of external flanges forming intermediate air spaces, an insulator extending through said casing, a chamber between the inner wall of the casing and the insulator for containing a cooling compound, and a deflector secured to the upper end of the insulator, substantially as described.

In testimony whereof, we affix our signatures in presence of two witnesses.

JESSE F. THOMAS.
HERMAN J. BOLINSKI.

Witnesses:
GILES H. PUTNAM,
MAYTE M. KOMMERS.