A. L. PENQUITE.

SPARK PLUG ATTACHMENT.

APPLICATION FILED FEB. 8, 1915.

1,162,804.

Patented Dec. 7, 1915.

Fig. 1.

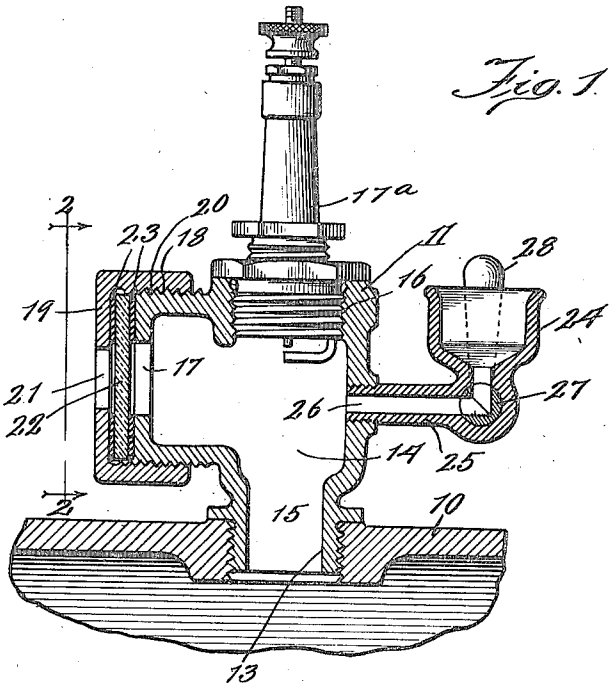
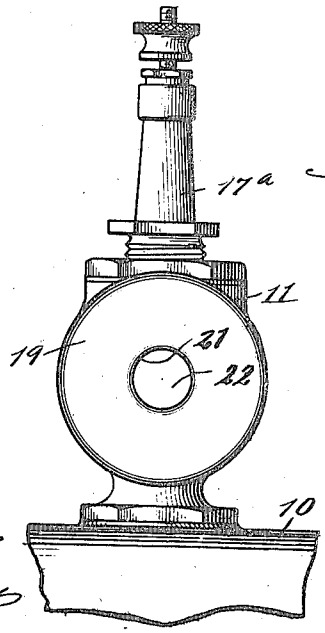


Fig. 2.



Witnesses:

Inventor:

Archie L. Penquite

By Wilfred C. Lane.

Atty.

UNITED STATES PATENT OFFICE.

ARCHIE L. PENQUITE, OF MARSHALLTOWN, IOWA.

SPARK-PLUG ATTACHMENT.

1,162,804. Specification of Letters Patent. Patented Dec. 7, 1915.

Application filed February 8, 1915. Serial No. 6,827.

To all whom it may concern:

Be it known that I, ARCHIE L. PENQUITE, a citizen of the United States, residing at Marshalltown, in the county of Marshall and State of Iowa, have invented certain new and useful Improvements in Spark-Plug Attachments, of which the following is a specification.

This invention relates to improvements in spark plug attachments for engine cylinders and one of the objects of the same is to provide an improved means whereby the conditions inside of the engine may be visible at all times from the outside thereof and while the engine is in operation.

A further object is to provide an improved device of this character embodying a priming chamber intermediate the cylinder and the spark plug and which chamber is provided with a sight opening closed by a transparent closure.

Other and further objects will appear from the following specification and claims in connection with the accompanying drawing and in which drawing—

Figure 1 is a view partly in vertical longitudinal section, and partly in elevation of an improved device of this character constructed in accordance with the principles of this invention, showing the same applied to the cylinder and showing the spark plug in position. Fig. 2 is a view taken on line 2—2, Fig. 1.

Referring more particularly to the drawing, the numeral 10 designates a portion of the engine cylinder having an opening therein, and 11 designates an element having a portion 13 by means of which the element may be connected with the engine cylinder. This element 11 is provided in its body with a chamber 14 that has communication as at 15 with the interior of the engine cylinder. This element 11 is provided with an opening preferably through the top wall thereof and which opening is provided with threads 16 to receive the threads on the spark plug 17^a, which latter is connected with the element and extends through the opening to project into the chamber 14. The wall of the chamber 14 is provided with an opening 17, and the element is provided with threads 18 surrounding the opening 17.

A cap member 19 is provided with internal screws 20, and is also provided with an opening 21 therethrough, which opening 21 is adapted to register with the opening 17 in the element 11, when the cap is placed upon the element so that the threads 20 of the cap will engage the threads 18 of the elements. A transparent element 22 is provided which forms a closure for the opening 17, 21 and is arranged between the cap 19 and the face of the element.

Packing elements 23 such as gaskets or the like are provided, and are arranged on each side of the element 22. One of the gaskets 23 engages one face of the element 22 and the adjacent face of the element 11 and the other gasket 23 engages the other face of the element 22 and the cap 19. When the parts are assembled, the cap 19 may be screwed tightly upon the element 11, and these gaskets or packing elements 23 serve as means to form fluid tight joints between the parts.

It will thus be manifest that by means of the openings 21, 17 and the transparent closure 22 therefor, the interior of the chamber 14 is visible at all times, as are also the points of the spark plug, so that the operator can readily ascertain whether or not the plugs have carbonized and whether they are properly adjusted with respect to each other. Furthermore the ignition of the charge of gas is also visible and thereby enables the operator to ascertain whether or not the proper mixture is being supplied to the engine.

A priming cup 24 may be provided which is connected with the element 11 by means of the extension 25 having an opening 26 passing therethrough and which opening has communication with the interior of the chamber 14 and also with the cup 24. This priming cup is advantageous in assisting in starting the engine during cold weather and is so located that it will discharge a supply of fuel into the chamber 14 near the ignition point of the spark plug. A valve 27 having an operating handle 28 is provided for controlling the discharge of the fuel from the cup 24 into the chamber 14.

What is claimed as new is:

1. The combination of an element, means whereby said element may be connected with the cylinder of an explosion engine, a chamber in the element, there being a spark plug opening through the wall of the chamber and through which the plug projects into the chamber, a priming cup having communication with the chamber, said chamber having communication with the interior of

the cylinder, there being a sight opening in the wall of the chamber, a portion of the element around the sight opening being threaded, an apertured cap engaging said threads, and a transparent element disposed between and held by the said element and cap.

2. The combination of an element, means whereby said element may be connected with the cylinder of an explosion engine, a chamber in the element, there being a spark plug opening through the wall of the chamber and through which the plug projects into the chamber, a priming cup having communication with the chamber, said chamber having communication with the interior of the cylinder, there being a sight opening in the wall of the chamber, a portion of the element around the sight opening being threaded, an apertured cap engaging said threads, a transparent element disposed between and held by the said element and cap, and packing disposed between each side of the transparent element and the respective adjacent coöperating elements.

In witness whereof, I hereunto subscribe my name to this specification in the presence of two witnesses.

ARCHIE L. PENQUITE.

Witnesses:
A. T. DAVIS,
E. H. NYCE.