Dec. 2, 1924. 1,517,502

L. GRISSOM ET AL

COMPOUND DISTRIBUTOR

Filed Nov. 30, 1923

FIG. 1.

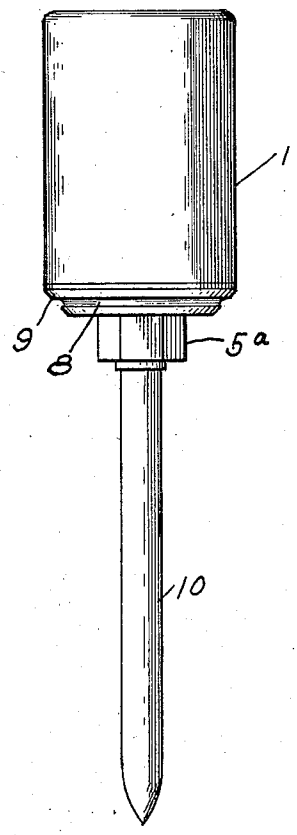


FIG. 2.

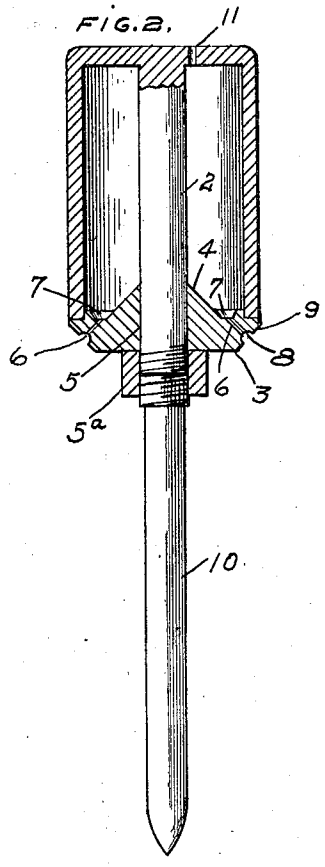


FIG. 3.

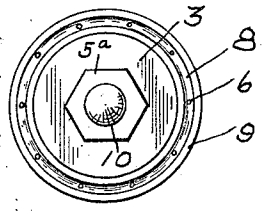
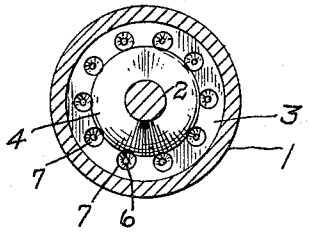


FIG. 4.



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UNITED STATES PATENT OFFICE.

LEONARD GRISSOM AND JOSEPH H. JONES, OF INDIANAPOLIS, INDIANA.

COMPOUND DISTRIBUTOR.

Application filed November 30, 1923. Serial No. 677,625.

To all whom it may concern:

Be it known that we, LEONARD GRISSOM and JOSEPH H. JONES, citizens of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented new and useful Improvements in Compound Distributors, of which the following is a specification.

This invention relates to compound distributors and is designed primarily for distributing a grinding compound onto a valve seat of an internal combustion engine, so that by properly manipulating the valve, the valve and seat will be properly ground, and the prime feature of the invention is the provision of a receptacle for the reception of the grinding compound, to the lower end of which is attached a head having openings therethrough for the discharge of the compound.

A further feature of the invention is in so constructing the head that the compound will be discharged directly onto the valve seat without wasting or applying an excess amount of the compound.

A further feature of the invention is the provision of a shank or extension for properly guiding the head portion of the device onto the valve seat, and

A further feature of the invention is the provision of means for causing the compound to move towards the discharge openings in the head portion of the distributor.

Other objects and advantages will be hereinafter more fully set forth and pointed out in the accompanying specification.

In the accompanying drawings which are made a part of this application,

Figure 1 is an elevation of the distributor.

Figure 2 is a vertical transverse section of the distributor.

Figure 3 is a bottom plan view thereof, and

Figure 4 is a horizontal section through the compound containing portion of the distributor.

Referring to the drawing, 1 indicates the body portion of the distributor which is open at one end and has a stem 2 extending axially therethrough and attached at one end to the closed end of the body 1. The open end of the body 1 is normally closed by means of a removable head 3, on the inner face of which is formed a cone 4, the taper of which causes the contents of the body to move towards the peripheral wall of the body. The head 3 and cone 4 are provided with an opening 5 through which the stem 2 extends, the lower end of the stem threading into a nut 5^a by means of which the head 3 is held in position over the open end of the body 1.

The contents of the body 1 discharges through bores 6, formed through the head 3, there being any suitable number of the bores, the inner ends of which communicate with cavities 7, while the outer ends thereof enter a circumferential channel 8, formed in the tapered edge wall 9 of the head 3. The taper of the edge wall 9 is such that it will strike squarely against the valve seat, the jar thus imparted to the body 1 causing a prescribed quantity of the compound to filter through the openings 6 into the channel 8, and as the edge wall 9 is at this time resting against the valve seat, the compound will be deposited in a uniform circle or in ring formation entirely around the seat. This manner of applying the grinding compound eliminates wastage as the compound, when deposited on the valve seat, is confined within the circumferential channel 8. Also attached to the nut 5^a is a shank or extension 10, which is adapted to enter the orifice provided for the usual valve stem and thus positively guides the edge wall 9 against the valve seat, and the free end of the shank is preferably tapered so that it will more readily enter the valve stem orifice. To prevent a vacuum in the upper portion of the body 1 the closed end of the body is provided with a vent 11, so that air may readily pass into the interior of the body and prevent a vacuum forming therein.

In applying the device to use, the head 3 is removed and a suitable grinding compound entered into the body portion 1, after which the head is returned to position for closing the open end of the body. The valve to be ground is then removed from its seat and the shank 10 entered through the opening in the motor and lowered until the edge wall 9 strikes the face of the valve seat, the jar incident to the wall 9 striking the seat causing a prescribed quantity of the compound to pass through the bores 6 onto the valve seat. By imparting a jarring action to the distributor, a limited quantity of the grinding compound is caused to filter through the bores 6 and be deposited directly onto the valve seat, thus avoiding wastage of the compound as is

prevalent in the present method of applying the compound with the fingers or otherwise.

As soon as the proper amount of the grinding compound has been applied to the valve seat, the shank 10 is removed from the opening into which it is entered and the valve proper returned to its seat, when, by properly rotating the valve, the edge thereof and the valve seat will be properly ground.

As the device is preferably constructed entirely of metal it may be very cheaply and economically produced, while at the same time it will be practically indestructable from usage.

It will likewise be seen that the compound may be quickly applied and as the compound is placed directly onto the valve seat in limited quantities, a great saving of the compound will result over the method now employed for applying the same.

What we claim is:—

1. In a compound distributor, a hollow body portion, a closure for the body portion having discharge openings therethrough, means on said head adapted to receive an impact for causing the contents of the body portion to discharge through said openings and means on the head for guiding said head into engagement with a valve seat.

2. In a compound distributor, a hollow body having a closed end and an open end, a head for normally closing the body portion, means for holding the head in position over the body, a plurality of discharge openings through said head, means on said head adapted to receive an impact and impart a jarring action to the body and means for confining the compound onto a valve seat when discharged through said openings.

3. In a compound distributor, a hollow body having a closed end and an open end, a head for normally closing said open end, said head having a plurality of discharge openings therethrough, means on the inner face of the head for guiding the contents of the body towards said openings and a shank for guiding said head into engagement with a valve seat.

4. In a compound distributor, a hollow body portion, a head for closing one end of the body portion, said head having a tapered edge wall in which is formed a circumferential groove, a plurality of discharge openings for discharging compound therethrough, being extended through said head and entering said groove, a cone on the inner face of said head for guiding the contents of the body towards said openings and a shank for guiding said head into engagement with a valve seat.

5. In a compound distributor, a hollow body portion, a head for closing one end of the body portion, said head having a plurality of discharge openings, and a shank connected with said head adapted to guide said head into engagement with a valve seat.

In testimony whereof we hereto affix our signatures.

LEONARD GRISSOM.
JOSEPH H. JONES.