S. P. WOOLF.

LUBRICATOR.

APPLICATION FILED FEB. 1, 1915.

1,146,606. Patented July 13, 1915.

Fig. 1.

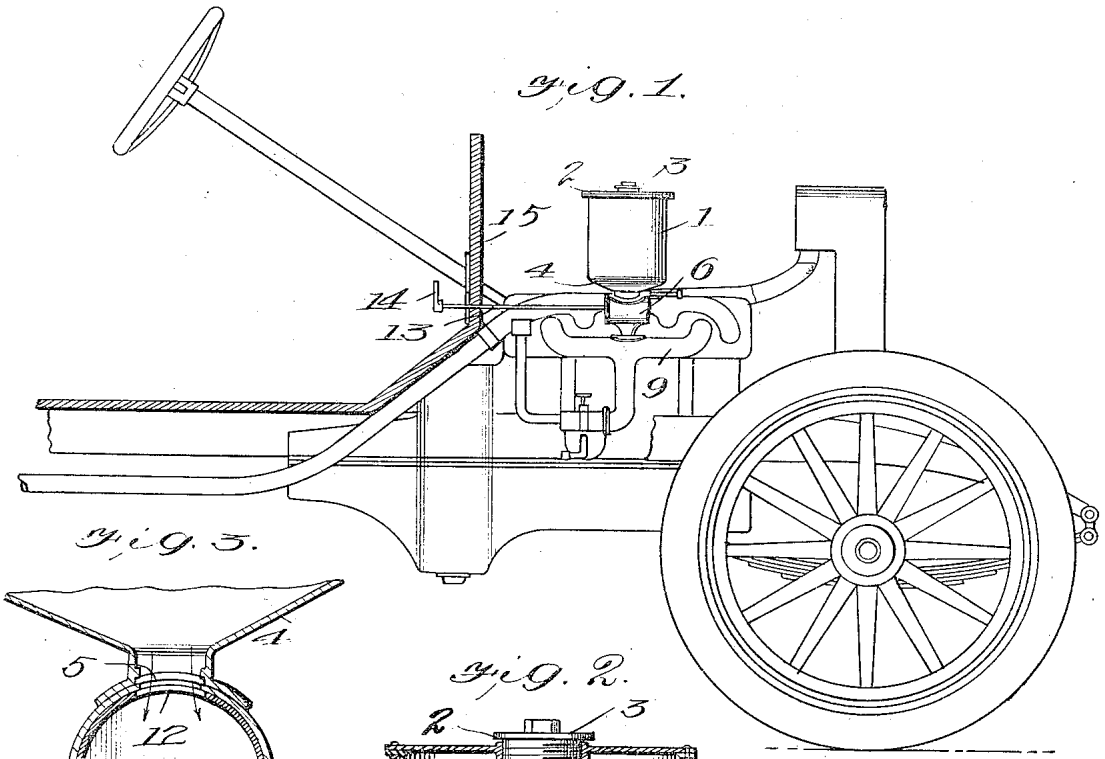


Fig. 3.

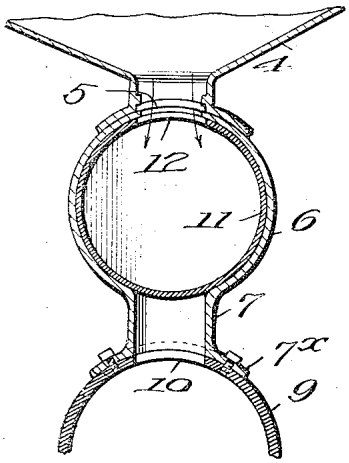


Fig. 2.

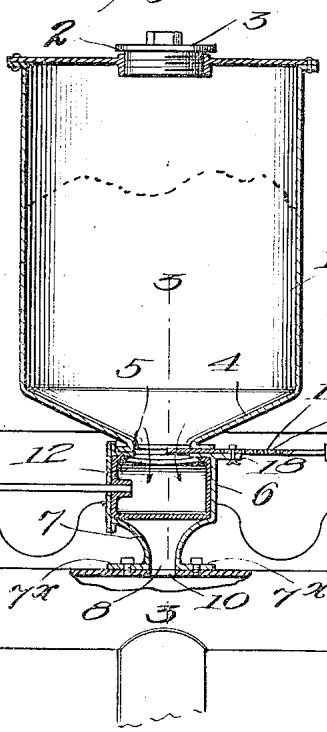
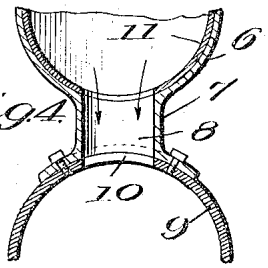


Fig. 4.



WITNESSES:

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LUBRICATOR.

1,146,606. Specification of Letters Patent. Patented July 13, 1915.

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To all whom it may concern:

Be it known that I, SILAS P. WOOLF, a citizen of the United States, and a resident of Omaha, in the county of Douglas and State of Nebraska, have invented a certain new and useful Improvement in Lubricators, of which the following is a specification.

My invention relates to improvements in lubricators, and it consists in the combinations, constructions, and arrangements hereinafter described and claimed.

An object of my invention is to provide a lubricating device for supplying a non-combustible lubricant to an internal combustion engine such as that used on automobiles.

A further object of my invention is to provide a device of the type described which may be operated from the dashboard of an automobile or similar vehicle, and which will deliver a measured quantity of the lubricant into the interior of the intake manifold.

A further object of my invention is to provide a device of the type described having means for regulating the amount of lubricant thus delivered.

Other objects and advantages will appear in the following specification and the novel features of the invention will be particularly pointed out in the appended claims.

My invention is illustrated in the accompanying drawings, forming part of this application in which—

Figure 1 is a side view of the device as applied to an automobile engine, Fig. 2 is a central vertical section through the device, Fig. 3 is a section along the line 3—3 of Fig. 2, showing the feed cylinder in one position, and Fig. 4 a section similar to Fig. 3, but showing the feed cylinder in another position.

In carrying out my invention I provide a receptacle which is preferably of a cylindrical shape as shown at 1 in the drawings. This receptacle is provided with a filling opening 2 at the top part thereof which is normally closed by a screw plug or other similar device 3. The bottom part of the receptacle slopes downwardly as shown at 4, and is provided at the bottom thereof with an opening 5.

Secured to the bottom of the main receptacle is a casing 6 which is provided with a tapering bottom portion 7 having an opening 8. The tapering portion 7 is provided with laterally extending flanges 7* by means of which it may be secured to the intake manifold 9. The latter is provided with an opening 10 arranged to register with the opening 8. A feed cylinder 11 is disposed within the cylindrical casing 6 and is provided with an opening 12 which is arranged to register with the opening 5 in the main receptacle. The feed cylinder 11 is controlled by means of a rod 13 which passes through the dash 15 of the automobile and is provided at its end with a handle 14. Carried by the feed cylinder 6 and arranged to slide through a slot in the latter is a feed regulating plate 16 which is provided with perforations 17 arranged to receive the set screw or bolt 18.

From the foregoing description of the various parts of the device, the operation thereof may be readily understood.

The receptacle 1 is supplied with graphite which passes down through the alined openings 5 and 12 into the interior of the feed cylinder 11. The latter is in its normal position shown in Fig. 2. When now it is desired to feed the graphite into the intake manifold, the handle 14 is turned 180° or until the opening 12 in the feed cylinder comes into register with the funnel-shaped portion 7 which communicates with the interior of the manifold 9. This causes the feed cylinder to discharge its contents into the manifold where the suction of the engine piston will draw the graphite into the cylinders and thus lubricate them.

The use of graphite in the cylinders is sometimes preferable to that of oil because the latter is affected by heat while the former is not.

After a charge of the lubricant has been delivered into the manifold the handle 14 is again turned to its normal position, thus permitting the feed cylinder to be again filled with the graphite and to be in a condition ready to discharge whenever the handle 14 is turned. It will thus be seen that I have provided a device for supplying a lubricant to the manifold which is unaffected by heat and which can be supplied at any time by the very simple operation of turning the handle.

The rate at which the graphite is fed into the feed cylinder can, of course, be regulated by the slidable plate 16 which is held in position by means of a pin 18, in the manner clearly shown in Fig. 2. Thus, if it is desired to empty a portion of the cylinder 11,

slide 16 may be pushed inwardly and the graphite will feed slowly into the cylinder, thus giving the operator time to empty the latter at will. When the slide is pulled out, the graphite will flow suddenly into the cylinder 11 and fill it entirely.

I claim: —

1. The combination with the intake manifold of an internal combustion engine, of a receptacle for a dry powdered lubricant, means disposed between the receptacle and the intake manifold for feeding the contents of the receptacle into the manifold, said last-named means comprising a cylinder having an opening communicating with the receptacle and adapted to be rotated to discharge its contents through the opening into the intake manifold, and a rod arranged to project through the dash of the automobile for rotating the cylinder.

2. The combination with an automobile engine, of a receptacle having an opening in its bottom, a casing secured to the bottom of the receptacle and having an opening registering with the first-named opening, a cylinder disposed within said casing and having an opening in one side thereof, an intake manifold having an opening facing the cylinder, and means for rotating the cylinder to bring its opening into registration with the opening in the intake manifold, or the receptacle opening.

3. The combination with an automobile engine, of a receptacle having an opening in its bottom, a casing secured to the bottom of the receptacle and having an opening registering with the first-named opening, a cylinder disposed within said casing and having an opening in one side thereof, an intake manifold having an opening facing the cylinder, and means for rotating the cylinder to bring its opening into registration with the opening in the intake manifold or the receptacle opening, said last-named means comprising a rod secured at one end to the cylinder and arranged to extend through the dash of the automobile and being provided at the outer end with a handle.

SILAS P. WOOLF.

Witnesses:
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