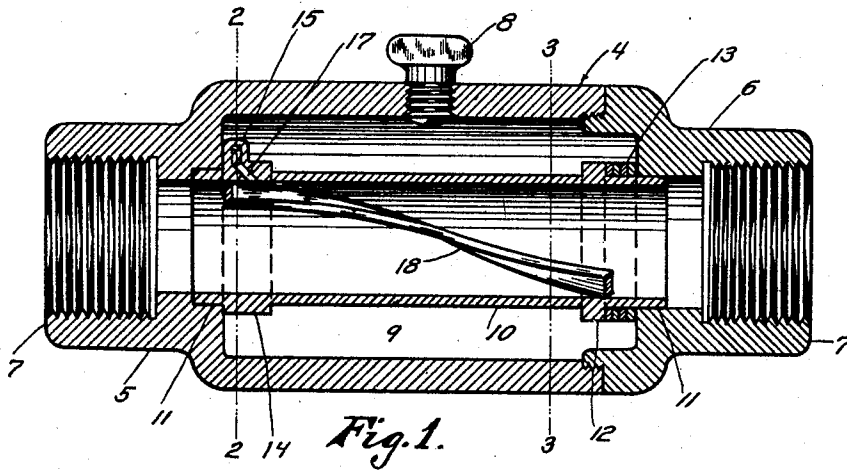
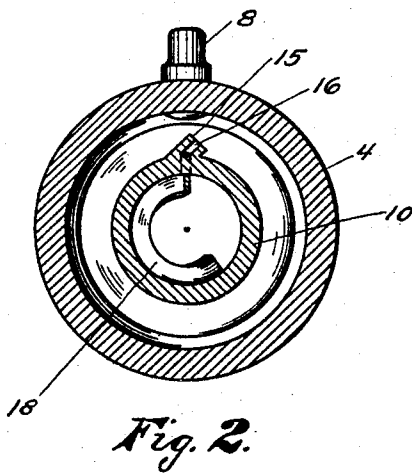
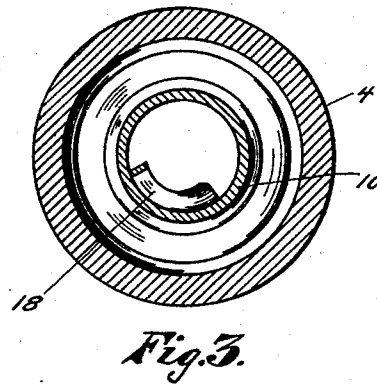


O. E. CLARK.
LUBRICATOR.
APPLICATION FILED DEC. 17, 1918.

1,318,646.

Patented Oct. 14, 1919.



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LUBRICATOR.

1,318,646.

Specification of Letters Patent.

Patented Oct. 14, 1919.

Application filed December 17, 1918. Serial No. 267,147.

To all whom it may concern:

Be it known that I, OMAR E. CLARK, a citizen of the United States, residing at Denver, in the county of Denver and State of Colorado, have invented certain new and useful Improvements in Lubricators, of which the following is a specification.

The present invention more particularly relates to means for supplying lubricant to fluid used in operating motors, and is especially applicable to rock drills and similar apparatus actuated by compressed air.

The object is to provide a simple and effective structure of a novel character, wherein a predetermined amount of the lubricant is continuously delivered to the supply of motive fluid.

In the accompanying drawings,

Figure 1 is a longitudinal sectional view through a lubricator constructed in accordance with the present invention,

Fig. 2 is a cross sectional view on the line 2—2 of Fig. 1,

Fig. 3 is a cross sectional view on the line 3—3 of Fig. 1.

Similar reference numerals designate corresponding parts in all the figures of the drawings.

In the embodiment illustrated, a lubricant reservoir is employed, preferably in the form of a cylindrical casing 4 having an integral head 5 and a detachable head 6, these heads terminating in internally threaded nipples 7, to which sections of the hose line can be coupled. A supply port in the casing is normally closed by a detachable plug 8.

Extending across the internal chamber 9 of the casing is a motor in the form of a rotatable tube 10, the ends of which are rotatably mounted, as shown at 11, in the heads, said tube thus constituting a passageway through the chamber for the motive fluid. One end portion of the tube 10 has an annular flange 12 between which and the adjacent head are placed packing washers 13. The other end portion of said tube has a flange 14 somewhat wider than the flange 12 and provided at one point with an outstanding tangentially disposed nipple 15. This nipple constitutes a scoop, and is provided with a discharge port 16 that extends through the adjacent portion of the flange 14 and tube 10 and has an outlet end 17 opening into the bore of the tube 10. The

interior of said tube is furthermore provided with one or more spiral vanes 18.

It will be understood that in use this lubricator is placed in the supply line, the motive fluid entering through the left hand port 7 of Fig. 1, and passing out of the right hand end. It consequently traverses the tube 10, and the vane or vanes 18, being impinged against by the stream, will cause the rotation of the tube. If now lubricant in liquid form is placed in the reservoir, it will be evident that this will be caught by the revolving nipple 15 and discharged into the tube, and consequently into the fluid passing therethrough. It will be carried by the latter on into the drilling or other apparatus actuated by the motive fluid.

From the foregoing, it is thought that the construction, operation and many advantages of the herein described invention will be apparent to those skilled in the art, without further description, and it will be understood that various changes in the size, shape, proportion and minor details of construction, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is:

1. In a lubricator of the character set forth, the combination with a lubricant reservoir, of a fluid passageway, a motor operated by the fluid passing through the passageway and having a portion constituting a wall of the reservoir, and means carried by said portion for delivering lubricant from the reservoir to the passageway and thus to the fluid passing through the same.

2. In a lubricator of the character set forth, the combination with a lubricant reservoir, of a motor in the reservoir, means for passing actuating fluid through the motor, and means operated by the motor for delivering lubricant from the reservoir to the actuating fluid passing through the motor.

3. In a lubricator of the character set forth, the combination with a lubricant reservoir casing, of a motor therein, means for delivering motive fluid to and from the motor to actuate it, and means operated by the motor for delivering lubricant from the reservoir to such motive fluid.

4. In a lubricator of the character set

forth, the combination with a lubricant reservoir casing, of a motor including a tube rotatably mounted in the casing and constituting a conduit for motive fluid, and means
5 operated by the motor for delivering lubricant from the reservoir to said motive fluid.

5. In a lubricator of the character set forth, the combination with a lubricant reservoir casing, of a tube rotatably mounted
10 therein, means for passing motive fluid through the tube and causing said tube to rotate, and means carried by the tube for discharging lubricant from the reservoir into the fluid passed through the tube.

15 6. In a lubricator of the character set forth, the combination with a lubricant

reservoir having an inlet and an outlet port, of a tube rotatably mounted in the reservoir and extending across the same, said tube affording communication between the inlet
20 and outlet, and vanes within the tube for effecting its rotation upon the passage of motive fluid therethrough, said tube having a port affording communication between the reservoir and the interior of said tube. 25

In testimony whereof I affix my signature in the presence of two witnesses.

OMAR E. CLARK.

Witnesses:

S. ALLEN T. JOHNSON,
C. E. COPE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents Washington, D. C."