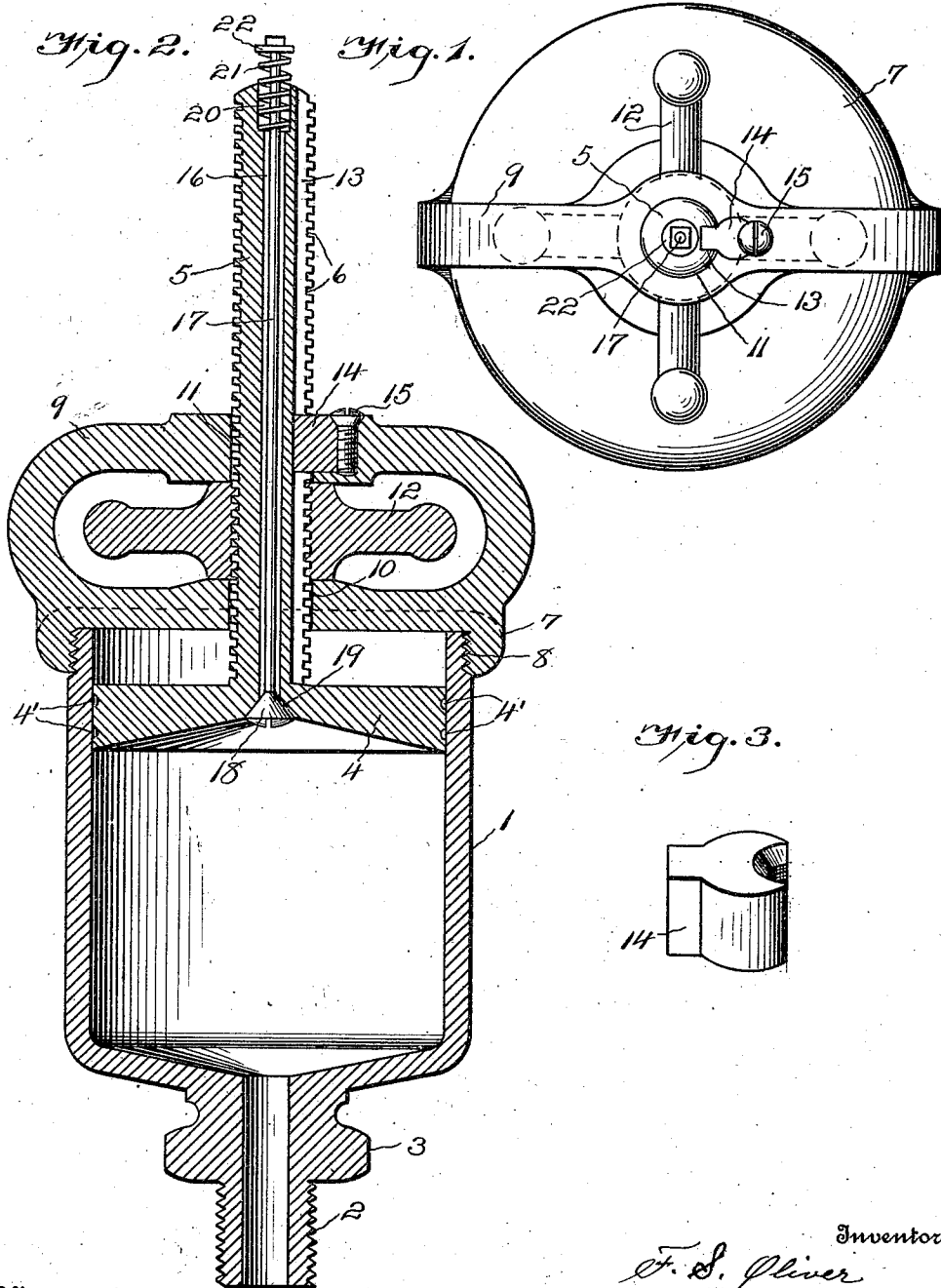


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LUBRICATOR.
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1,016,642.

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FRANK S. OLIVER, OF POPHAM BEACH, MAINE.

LUBRICATOR.

1,016,642.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, FRANK S. OLIVER, a citizen of the United States, residing at Popham Beach, county of Sagadahoc, State of Maine, have invented certain new and useful Improvements in Lubricators, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention relates to lubricators, has especial reference to the type known as force lubricators, manually operated or adapted to be connected to some moving part of the machine to be lubricated and operated thereby, for supplying hard grease or other lubricant.

The object of my invention is to provide a reliable and economical device, and the invention consists in certain improvements in construction which will be fully disclosed in the following specification and claim.

In the accompanying drawings, which form part of this specification:—Figure 1 represents a top plan view. Fig. 2 is a vertical transverse section and Fig. 3 is an enlarged perspective of the key to prevent the piston turning in the cup.

Reference being had to the drawings and the designating characters thereon, the numeral 1 indicates the body of the cup, which is provided with a screw-threaded extension 2 and an angular faced member 3 for securing the cup to a journal box or other part of a machine to be lubricated.

4 indicates the piston or plunger which engages the wall of the cup closely and is provided with grooves 4' in its periphery and with a rod 5 having a left hand thread 6 thereon.

7 indicates the top or cover of the cup which is secured thereto by a screw threaded connection 8. The cover is provided with a yoke 9 integral therewith and in the center of the cover is an opening 10, and opposite thereto in the yoke 9 is a like opening 11, through both of which openings the piston rod 5 passes and closely fits therein, thus keeping the piston 4 in alinement with the wall of the cup 1 and causing it to move therein with the least friction.

12 indicates a feed-wheel located between the top of the cover 7 and the under side of

the yoke 9 and screw-threadedly engages the piston rod 5.

13 indicates a vertical slot in the piston rod engaged by a key 14, secured in the upper face of the yoke 9 by a screw 15 and prevents the rod and the piston revolving on their axes as the piston is forced down by revolving the feed-wheel 12 to supply lubricant. The wheel 12 may be operated by hand, or it may be connected with some moving part of the machine to be operated intermittently and automatically. In the piston rod 5 is a bore or passage 16, provided with a rod 17, having a valve 18 at its lower end engaging a valve seat 19 on the inner or lower face of the piston 4.

20 indicates a chamber at the upper end of the piston rod, in which is a spring 21, seated on the bottom of said chamber 20, and engaged at its upper end by a member 22, for applying tension to the spring to hold the valve 18 to its seat 19. When it is desired to withdraw or remove the piston from the cup, the valve 18 is opened by depressing the rod 17, which allows air to enter the cup below the piston and destroy the vacuum therein, when the piston can be removed by unscrewing the cap or cover 7. In removing the piston for renewing the supply of lubricant, the operative parts of the lubricator remain in their normal position, the piston is run out against the inner side of the cover or top, and the several parts are again assembled. The feed-wheel being located between the cover and the yoke cannot be detached from the piston rod by meddlers or by accident and the cover and the yoke alternately furnish the resistance in the revolution of the hand-wheel to operate the piston in a vertical plane. In replacing the piston 4 and the cover 7, the air trapped between the lubricant and the lower face of the piston is released by the valve 18, and the piston allowed to engage the upper surface of the body of the lubricant to be displaced by the manipulation of the hand-wheel 12.

The lubricator as constructed, is simple, compact and effective in operation.

Having thus fully described my invention, what I claim is—

A lubricator comprising a cup, a cover

having a yoke integral therewith, a piston
having a rod extending through said cover
and yoke and provided with means between
the cover and yoke for feeding a lubricant,
5 a valve seat on the lower face of the piston,
a passage through the piston rod, a valve
engaging said valve seat and a rod extend-
ing through the passage in the valve seat

and means for automatically closing the
valve. 10

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

FRANK S. OLIVER.

Witnesses:

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