(No Model.)

W. H. WILKINSON.

OIL CUP.

No. 561,187. Patented June 2, 1896.

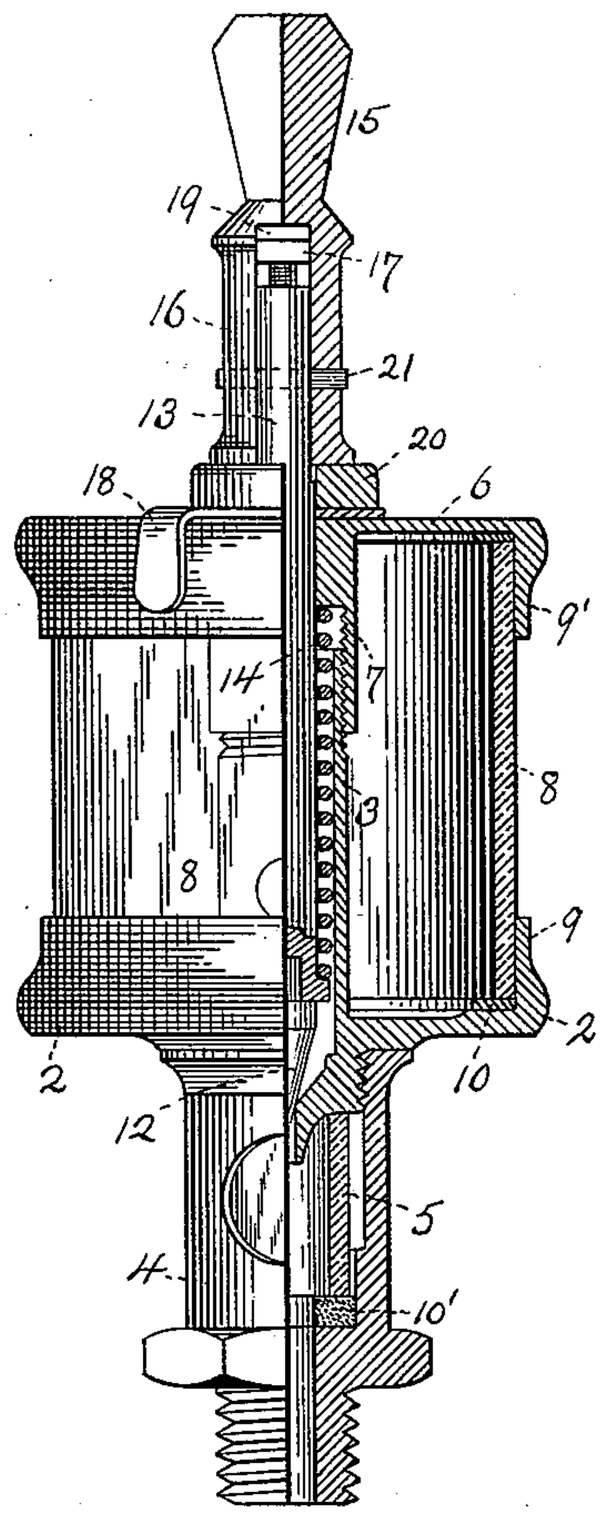

Fig. 1.

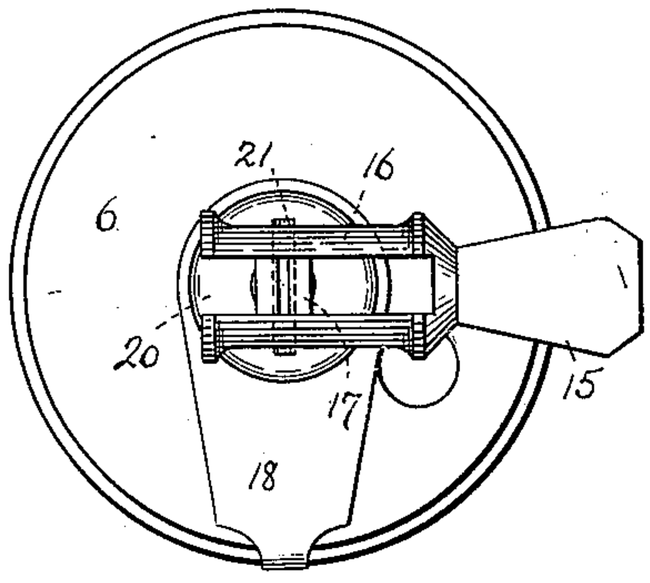

Fig. 3.

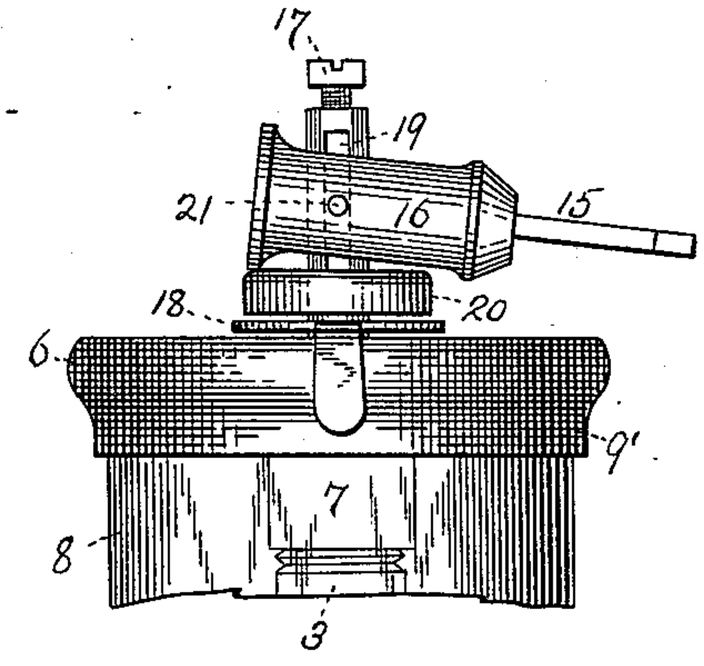

Fig. 2.

WITNESSES.

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UNITED STATES PATENT OFFICE.

WILLIAM H. WILKINSON, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO WILLIAM H. WILKINSON & CO., OF SAME PLACE.

OIL-CUP.

SPECIFICATION forming part of Letters Patent No. 561,187, dated June 2, 1896.

Application filed August 14, 1895. Serial No. 559,299. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. WILKINSON, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Oil-Cups; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to figures of reference marked thereon, which form a part of this specification.

This invention relates to oil-cups, particularly to that class in which the supply-valve is operated by means of a rocking lever.

The object of my invention is to provide for the locking of the cover which closes the filling-aperture, and my improvements are embodied in the arrangement of the parts whereby a positive locking of the filling-hole cover is secured whenever the supply-valve is open; furthermore, in the relation of the parts whereby the spring which operates the supply-valve is given an additional function, or the duty of holding the cover closed.

The drawings represent, in Figure 1, a sectional elevation longitudinally of an oil-cup embodying my invention. Fig. 2 is a side elevation in part with the lever down and the supply cut off. Fig. 3 is a plan.

In the present instance my invention is applied to a sight-feed oil-cup, which comprises a metallic flanged cup or base 2, provided with a central hollow tube 3, screw-threaded at both ends, the lower portion projecting below the base and adapted to engage a pendent apertured post 4, containing a removable glass duct 5, through which the oil passes. The extremity of said post is screw-threaded for attachment of the cup to the bearing or other point to be oil-supplied. The metallic top piece 6 consists of a flanged cover formed with a pendent hollow sleeve 7, which engages the tube by screw-thread attachment, and this confines a glass cylinder 8, which forms the oil-cup chamber, the ends being inclosed and clasped by the flanges 9 9′. In this way an oil-reservoir is readily constructed and the glass, if broken, can easily be replaced. Gaskets 10 10′ at the base of the glass portions create tight joints and prevent the escape of oil.

In connection with this oil-cup is a valve 12, secured to a spindle 13, spring-actuated at 14, the latter serving to normally hold the valve upon its seat. This spindle is adapted to turn axially in the cap as likewise to move longitudinally and projects through the cap, being slotted at 19. This slot is arranged to receive a bolt or pin 21, which moves freely in the slot and serves to secure the operating valve-lever 15. This latter element consists of a flat plate or thumb-piece with a bifurcated portion 16, adapted to straddle the spindle.

The device to regulate the feed consists in a screw 17, adapted to move longitudinally in and out of the spindle-top, and said screw is positively locked when the valve-lever is upright, the walls of the legs 16 clasping the head of the screw and thus preventing said screw from shifting its position and so changing the feed.

In connection with this oil-cup is a pivotal cover 18 in the shape of a flat plate 19 arranged to rest upon the cover 6 and serves to close the filling-orifice and prevent foreign substances from entering. The center of motion of this cover is the axis of the spindle. Above the cover 18 and resting thereupon is an annular block 20 loosely about the valve-spindle and held in this position thereby. The upper face of this block serves as a fulcrum for the valve-lever.

From the arrangement of the above-described elements it will be seen that the valve is held firmly to its seat by the spring 14 when the lever is down. At this time the oil-discharge is closed, while the cover and the fulcrum-block are loose and free to revolve. The cover can now be readily moved from over the supply-opening and the lubricating fluid entered. The cover is now returned to place and the lever thrown into an upright position. This act serves to bring the bolt 21 against the regulating-screw, while the lower end of the lever acting upon the block 20 as a fixed point now lifts the valve-spindle, and the tension of the spring is at once transferred to the fulcrum-block and filling-hole cover

18. The latter, it is evident, is now held firmly in one position by the valve-spring and with the same pressure which heretofore was exerted upon the valve, thus preventing movement by vibration or jar of the machine. However, it may be moved manually should occasion require. This pressure is sufficient to retain the cover securely locked and closed at such times as the oil-cup is discharging oil; but when the lever is thrown down and the feed stopped then the cover-plate is relieved from the pressure of the valve-spring, but it is in readiness at all times to be moved manually for the introduction of oil or other lubricant into the oil-cup.

Thus the advantage of my improvements consists in locking the filling-hole cover against jar or vibrations of the machine when the oil-cup is in active service and releasing the said cover when the oil supply is shut off, and furthermore in transferring the valve-spring pressure from the valve, when open, to the oil-cup-filling cover, and conversely.

A further advantage in the employment of the valve-spring to secure the oil-cup-filling-hole cover consists in the fact that the spring always exerts a positive active function as long as the cup lasts, while check-nuts or other fastening devices soon wear, become loose by constant jar and vibration, and fail to perform their duty.

What I claim is—

1. In an oil-distributing device, the combination with a valve, and a filling-hole cover for the admission of fluid and adapted at times to move freely upon the spindle and swing thereabout, of a spring to hold the valve closed, and means by which the tension of the spring is transferred to the cover to prevent free movement when the valve is open, substantially as stated.

2. In an oil-cup, the combination with a valve, a valve-spindle, and an actuating valve-lever adapted for free rotation with the spindle in the oil-cup, of a valve-spring, a loosely-mounted filling-hole cover, and a fulcrum-block, whereby the spring-pressure is alternately transferred from the valve to the filling-hole cover and vice versa, upon opening and closing of the valve, substantially as specified.

3. In combinatian with an oil-cup, an axially-movable valve, a spring-actuated valve-spindle having a slotted end projecting above said cup, and an adjusting-screw, a swinging filling-hole cover, a fulcrum-block loosely fitted about the valve-spindle, and a valve-lever adapted to transfer the pressure of the valve-spring to the filling-hole cover in the act of opening the valve, substantially as set forth.

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

WM. H. WILKINSON.

Witnesses:
H. E. LODGE,
FRANCIS C. STANWOOD.