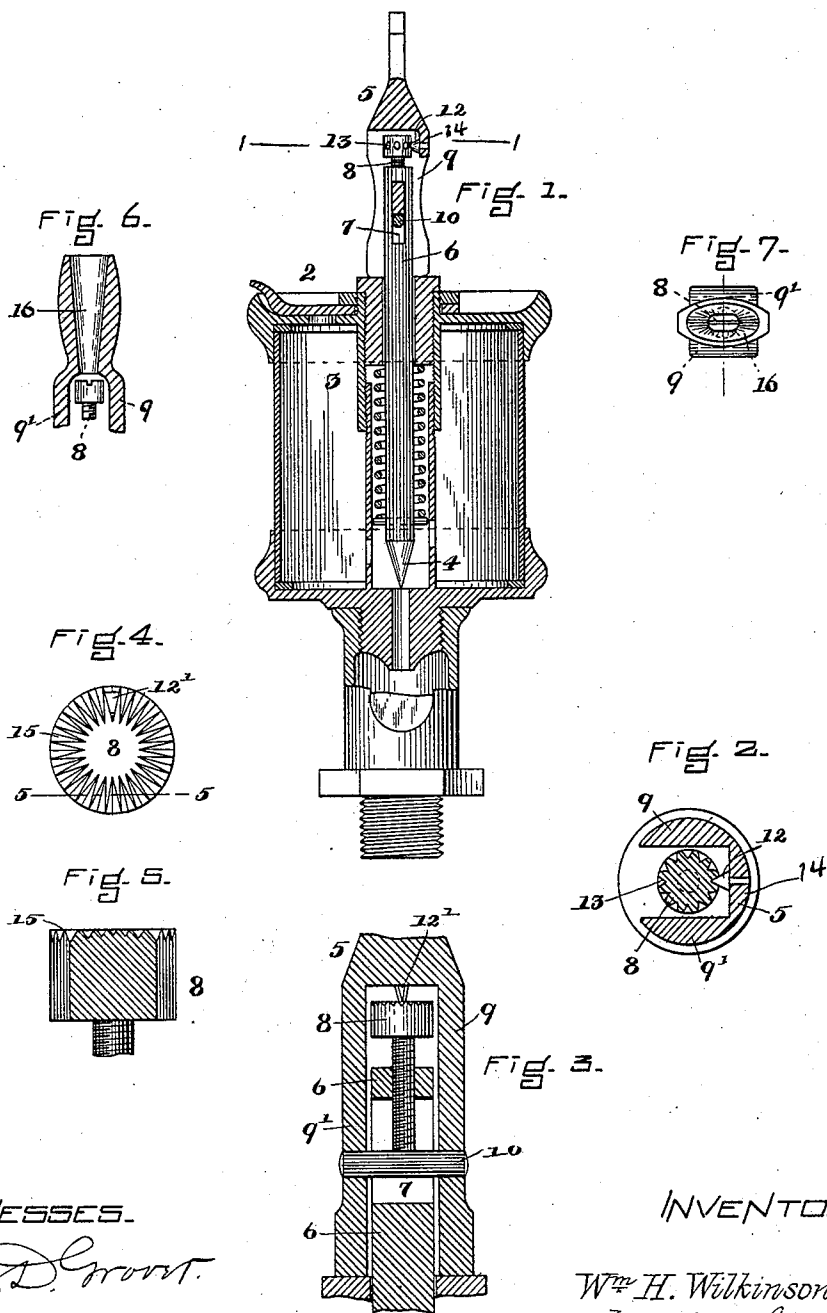


(No Model.)

W. H. WILKINSON.
OIL CUP.

No. 567,182.

Patented Sept. 8, 1896.



WITNESSES.

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UNITED STATES PATENT OFFICE.

WILLIAM H. WILKINSON, OF MEDWAY, MASSACHUSETTS.

OIL-CUP.

SPECIFICATION forming part of Letters Patent No. 567,182, dated September 8, 1896.

Application filed November 19, 1895. Serial No. 569,396. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. WILKINSON, a citizen of the United States, residing at Medway, in the county of Norfolk 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 improvements in oil-cups, particularly that class in which a lever is employed to lift the valve from its seat, and whereby the device adapted to regulate the feed-supply is then held fast by said lever in order to prevent subsequent disturbance of the feed, either to increase or diminish it.

My invention is embodied in the arrangement by which the lever is equipped with a spur, pin, or other equivalent, in order that said element may positively engage with the feed-regulating device when the lever is in such position as to open the valve. Hence no change in the feed can occur from vibrations or jars incidental to the moving mechanism to which the oil-cup may be attached.

The drawings represent, in Figure 1, a vertical sectional elevation of an oil-cup embodying my invention, the lever being up and the valve open. Fig. 2 is a cross-section on line 1 1, enlarged. Fig. 3 is a vertical section of a modification. Fig. 4 is a plan, and Fig. 5 is a transverse section on line 4 4, of a round-headed screw which serves to regulate the feed, as in Fig. 3. Fig. 6 is a sectional view longitudinally of the lever on the plane indicated in Fig. 7, showing a modified construction. Fig. 7 is a plan of the same.

This invention, as before premised, concerns that class of oil-cups which are opened and closed by a rocking lever, and relates particularly to an invention embodied in United States Letters Patent No. 542,854, issued July 16, 1895. In the drawings herewith presented, 2 represents an oil-cup consisting of a reservoir 3, centrally of which is imposed a spring-actuated valve 4, operated

by a lever 5, secured to the projecting end of the valve-spindle 6. The upper portion of said spindle is formed with a longitudinal slot 7, while a feed-regulating device in the shape of a screw 8 engages the extremity of the spindle and may have endwise movement therein, while the lower end of said screw extends into the slot.

The operating-lever by which the oil-cup valve is controlled consists of a lever bifurcated at 9 9', while a bolt 10, which passes transversely across and through the slot, serves to secure the said lever to the oil-cup.

From the above description of parts it will be seen that when the lever is tilted from a horizontal position into an upright one, the foot of the lever acting as a fixed point or fulcrum, the bolt 10 is thrust against the end of the feed-screw, and the position of said screw accordingly determines the distance the valve is raised from its seat and thereby regulates the quantity of lubricant to be delivered.

The purpose of my invention is to enable the feed to be regulated more closely than when the sides of the lever are contiguous with the polygonal head of the feed-screw and to permit a round-headed screw to be employed if occasion requires.

Under my invention it will be seen that the sides of the bifurcated lever do not contact with the head of the regulating-screw. Hence to cause the lever to hold the screw from movement, which otherwise might occur when the valve is open, I have provided the lever with a spur or pin 12, which enters the head of the screw.

It will be understood that changes in the adjustment of the screw will not affect the interlocking of the screw-head with the spur, since for a given length of screw the bolt 10 will always contact against the end of said screw. Hence the head of the screw will remain undisturbed with relation to the spur, the effect of moving the screw being merely to increase or diminish the movement of the valve.

To permit the lever to engage the screw while the latter is in any position, numerous peripheral holes 13 are created, as shown in Figs. 1 and 2. In this construction the spur is preferably attached to a plate 14 trans-

versely at the upper end of the lever. Hence the lever can be swung up or down only from the open side, since the pin striking against the screw prevents movement in the opposite direction.

In Figs. 3, 4, and 5 is shown a modified form of a screw-head, in which radial notches or grooves 15 are cut upon the top of the head and the fastening-stud 12' is eccentrically disposed, and consequently, when the lever is thrown into an upright position, in order to open the valve, moves in across the head, as indicated at 12' in Fig. 4, engaging one of the numerous grooves in said head. This engagement effectually prevents any rotation of the adjusting-screw, and the desired feed remains constant until the lever is thrown down, when adjustment may be effected.

When it is desired to change the feed, and thereby increase or diminish the flow, the lever has usually been thrown down. This act necessarily shuts the valve and stops the supply of lubricant. To obviate this difficulty I create an opening 16 longitudinally through the head of the lever for the introduction of a screw-driver; but under the construction as shown in Fig. 1 it becomes necessary to incline the lever slightly to disengage the holding device from the screw-head. To permit this, and yet to allow the screw-driver to properly engage the head of the screw, this opening is made flaring from the bottom upwardly. Thus it will be seen that without stopping the flow of lubricant the quantity can be changed as conditions demand. However, I do not wish to be limited to the locking of the feed-screw by means of the lever, since I consider my invention is embodied in the form of the lever and its relation to the feed-screw, whereby the latter may be adjusted without stopping the flow of lubricant and without change in the position of the lever.

What I claim is—

1. In combination with a fluid-reservoir, a valve having a spindle slotted at one end, a rocking valve-lever secured to the spindle by a bolt movable in the spindle-slot, a regulating feed-screw having a circular head, and a device carried by the lever to interlock with the feed-screw when the valve is open, substantially as described.

2. A valve-operating device comprising a valve having a valve-spindle slotted at one end, a valve-lever secured to said spindle by a bolt movable in said slot, a regulating-screw having a round head and movable endwise in the spindle, and a locking device carried by the lever to engage the screw-head, substantially as stated.

3. In a valve-operating device a valve, a slotted valve-spindle, a swinging lever to straddle the spindle, and a bolt movable in the slot and which secures the lever to the spindle, combined with an adjustable feed-screw having a cylindrical head and movable endwise in the spindle, a series of depressions in the screw-head, and a stud carried by the lever to engage the depressions when the valve is open, substantially as set forth.

4. In combination with a fluid-reservoir, a valve having a spindle slotted at one end, a rocking valve-lever secured to the spindle by a bolt movable in the spindle-slot, a regulating feed-screw having a serrated head and an opening longitudinally in the head of the lever to permit the feed-screw to be adjusted when the valve is open, substantially as explained.

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

WILLIAM H. WILKINSON.

Witnesses:

H. E. LODGE,
E. K. BOYNTON.