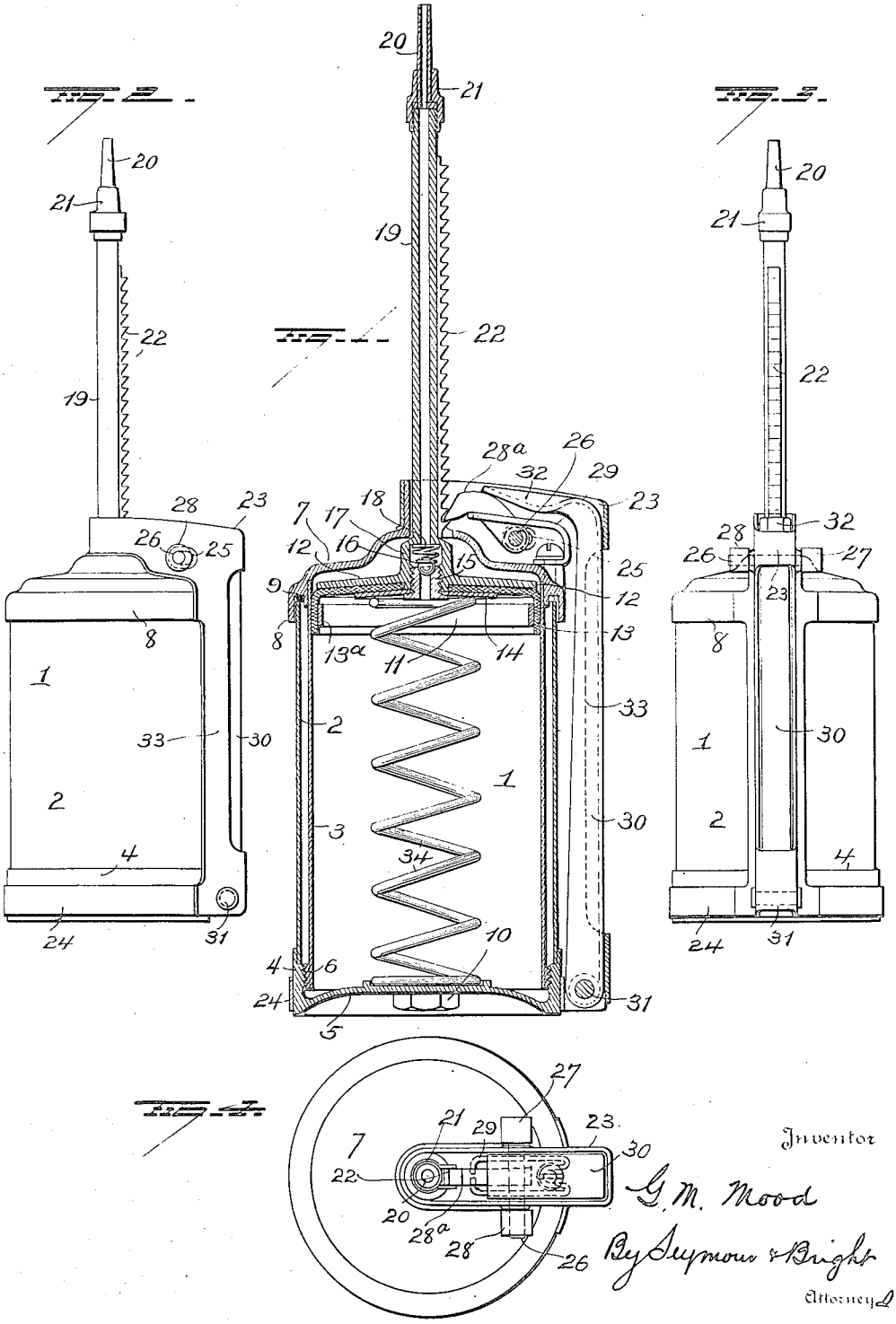
G. M. MOOD.

HAND OILER.

APPLICATION FILED AUG. 9, 1920.

1,379,471. Patented May 24, 1921.



Inventor

G. M. Mood

By Seymour & Bright

Attorneys

UNITED STATES PATENT OFFICE.

GEORGE M. MOOD, OF CHARLESTON, SOUTH CAROLINA.

HAND-OILER.

1,379,471. Specification of Letters Patent. Patented May 24, 1921.

Application filed August 9, 1920. Serial No. 402,208.

To all whom it may concern:

Be it known that I, GEORGE M. MOOD, a citizen of the United States, and a resident of Charleston, in the county of Charleston and State of South Carolina, have invented certain new and useful Improvements in Hand-Oilers; 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.

This invention relates to improvements in hand oilers for use in oiling machinery of all kinds,—one object of the invention being to provide an oiler which may be manipulated with one hand in applying it to a part to be oiled and also to operate force-feed means for ejecting the oil.

A further object is to provide simple and efficient means to positively feed the oil regardless of the position in which the device may be held by the user.

A further object is to so construct a hand oiler that shall be efficient in operation and so that liability of leakage or spilling of oil shall be reduced to a minimum.

With these and other objects in view the invention consists in certain features of construction and combinations of parts as hereinafter set forth and pointed out in the claims.

In the accompanying drawings, Figure 1 is a vertical transverse sectional view of an oiler embodying my invention. Fig. 2 is a view in elevation. Fig. 3 is an elevation taken at right angles to Fig. 2, and Fig. 4 is a plan view.

1 represents the body of the device and comprises two cylindrical shells 2, 3. The outer shell 2 is secured to the flange 4 of a bottom member 5 and is threaded internally to receive a threaded ring 6 surrounding the lower end portion of the inner shell 3. The shells 2 and 3 are spaced apart and the inner shell 3 is secured at its upper end to a cap or cover 7 and the latter is provided with a peripheral depending flange 8 to surround the upper portion of the shell 2 and a gasket 9 is provided against which the upper end of the shell 2 abuts to effect a tight joint. In order to permit the removal of the outer shell 2 for filling purposes, the bottom member 5 is provided with an angular head 10 to receive a wrench.

The piston 11 is located within the cylinder or shell 3 and may comprise a head portion 12 of metal and a portion 13 of leather or other suitable material fitted with a spring ring 13ª and held in place against the head 12 by a plate 14 and the latter is held in place by the flange of a threaded nipple 15 which enters the central portion of the head 12 and at its upper end forms a seat for a ball or check valve 16. The head 12 of the piston is provided with a central enlargement 17 thereon forming a chamber for the valve 16 and the latter is normally held to its seat by a spring 18 located within said chamber. A tubular stem 19 projects upwardly from the piston head and, after passing through a suitable opening in the cap or cover 7, extends some distance beyond the latter and is provided at its free end with a nozzle 20 held in place on said tubular stem by means of a nipple 21. The tubular stem is provided with a ratchet bar 22 which may be formed therewith or secured thereto, for a purpose presently explained.

An L-shaped frame 23 is secured by means of a band 24 to the lower portion of the body 1 and the upper arm of said frame projects partially across the cover 7 and is secured to the latter in a manner to permit the passage of the stem 19 therethrough. The side-walls of the laterally projecting portion of the frame 23 are made with elongated openings 25 through which a bolt or pin 26 passes. One end of this bolt or pin is provided with a head 27 and a nut 28 is threaded on the other end. The bolt 26 serves as a pivotal support for a pawl 28ª to engage the ratchet-bar 22 and a spring 29 secured to the cover 12 engages the pawl and normally tends to raise the same.

A lever 30 is pivotally mounted as at 31 in the lower portion of the frame 23 and is provided at its upper end with a lateral cam-shaped arm 32 disposed within the lateral portion of the frame 23 in position to be engaged by the pawl 28ª. It will be noted that the vertical portion of the frame 23 is cut away as at 33 to permit access to the lever 30.

The piston 11 is normally held at the upper end of its throw by means of a spring 34, located within the body 1,—the upper portion of said spring bearing against the piston and the lower portion resting on the bottom 5.

The body 1 may be supplied with oil by removing the outer shell 2 and pouring oil thereinto. Such removal of the shell 2 will be permitted by first moving the pivot bolt

26 back through the elongated slot 25 to disengage or prevent engagement of the pawl 28[a] with the ratchet bar 22.

In using the device the operator may grasp the body portion 1 in such manner that his fingers may engage the lever 30 and then by pressing the latter, the cam arm of said lever will press the pawl (against the resistance of the spring 29) in such manner as to cause its coöperation with the ratchet-bar 22 to press the piston 11 downwardly. When the piston is thus moved, oil will be forced past the check valve 18 and out through the tubular stem 19 and the nozzle 20 to the parts to be lubricated. When this operation shall have been completed and the lever 30 shall have been released by the operator, the spring 29 will tend to press the pawl 28[a] upwardly and the latter, co-operating with the cam arm 32 will move the lever 30 to its normal position. When the piston has been moved downwardly, as above explained, and the pawl has been released from the bar, there will be a momentary tendency of the piston to rebound and this will cause closing of the check valve by atmospheric pressure and the piston will be retained approximately in the position to which it had been depressed. This operation may be continued until the supply of oil within the body or container 1 shall have been nearly depleted.

With the use of my improvements, the device may be handled and the force-feed means operated with one hand. The device is capable of assuming any position which may be required to reach parts to be lubricated and liability of leakage or spilling of oil is reduced to a minimum.

Slight changes might be made in the details of construction of my invention without departing from the spirit thereof or limiting its scope and hence I do not wish to restrict myself to the precise details herein set forth.

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

1. A hand oiler comprising a container, a piston therein, a tubular stem carried by said piston and adapted to communicate through the latter with the interior of the container, a check-valve for controlling the duct through said stem, and manually operable rack and pawl means carried by the container for depressing said piston step-by-step, said check valve being operable to cause the piston to be retained approximately in the position to which it may be depressed at each step.

2. A hand oiler comprising a container, a piston therein, a tubular stem carried by said piston and adapted to communicate through the same with the interior of the container, a check-valve for controlling the duct through said stem, a rack-bar carried by the stem, a pawl supported by the container, a spring tending normally to raise the pawl and a manually operable lever supported by the container and provided with a part to move said pawl into coöperative relation to the rack bar and to depress the plunger.

3. In a hand oiler, the combination with a container, a piston therein, a tubular stem carried by said piston, and a check-valve for controlling the duct through said stem, of a frame secured to the container and provided with diametrically opposite elongated slots, a pin passing through said slots, a pawl on said pin, a rack-bar on the stem to be engaged by said pawl, a spring tending to move the pawl away from the rack-bar, and a lever mounted in said frame and provided with a cam portion to engage said pawl.

4. The combination with two spaced shells, a bottom member and a cover constituting a container, said outer shell and bottom member being removable from the inner shell and cover, of a valved piston in said container, a tubular stem carried by said piston, and manually operable means carried by the container and coöperable with said stem to operate the piston.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

GEORGE M. MOOD.

Witnesses:
J. A. Baker,
Walter B. Wilbur.