

G. W. BOWEN.
GREASE CUP.
APPLICATION FILED AUG. 7, 1911.

1,024,673.

Patented Apr. 30, 1912.

Fig-1.

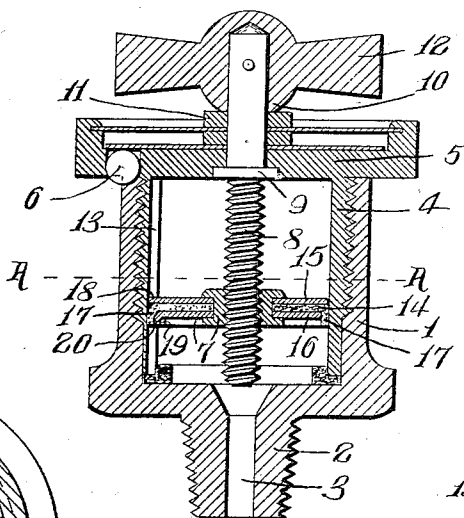


Fig-2.

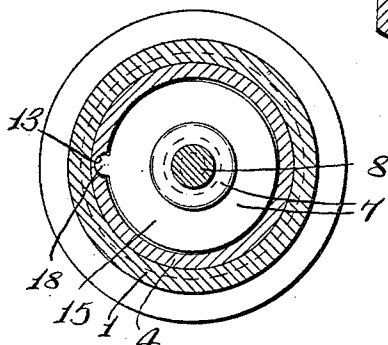


Fig-3.

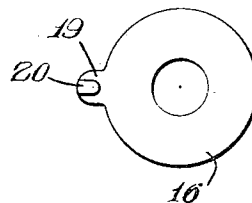
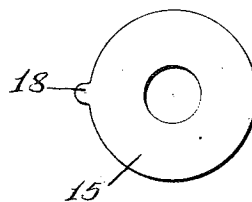


Fig-4.



WITNESSES:

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UNITED STATES PATENT OFFICE.

GEORGE W. BOWEN, OF AUBURN, NEW YORK.

GREASE-CUP.

1,024,673.

Specification of Letters Patent.

Patented Apr. 30, 1912.

Application filed August 7, 1911. Serial No. 642,746.

To all whom it may concern:

Be it known that I, GEORGE W. BOWEN, of Auburn, in the county of Cayuga and State of New York, have invented a new and useful Grease-Cup, of which the following is a specification.

My invention has for its object the production of a grease cup which is particularly simple in construction, and highly efficient and durable in use; and it consists in the combinations and constructions hereinafter set forth and claimed.

In describing this invention reference is had to the accompanying drawing in which like characters designate corresponding parts in all the views.

Figure 1 is a vertical sectional view of a preferable form of my invention. Fig. 2 is a horizontal sectional view on line "A—A", Fig. 1. Figs. 3 and 4 are plans of the lower and upper disk members of the plunger.

This grease cup comprises, generally, a receptacle, a plunger or follower movable in the receptacle, rotary means for operating the plunger, and means for preventing turning of the plunger with its operating means.

As shown in the present exemplification of my invention, the receptacle of the grease cup comprises a base, and a closure or cap connected by screw threads to the base, and the plunger and the operating means therefor are carried by the cap.

1 is the base here shown as in the form of a cup or receptacle having its inner circumferential face threaded, the base also having a depending nipple 2 for connection with the part to be lubricated, the nipple having a passage 3 communicating with the interior of the base.

4 is the cap or closure for the base, the cap or closure being in the form of a receptacle inverted with respect to the base and having an externally threaded barrel portion turning into the base 1, and a head 5 having a flange overlapping the upper edge of the base 1. A spring-pressed locking member, as a ball 6, is carried by the head 5 for locking the cap 4 from turning movement when it has been turned to its full extent into the base 1.

7 is a plunger movable in the barrel portion of the cap 4 and having a threaded opening.

8 is a threaded stem carried by the head 5 of the cap 4 and extending through the opening of the plunger 7, the stem 8 being

held from endwise movement, and being here shown as provided with a collar 9 engaging the inner face of the head and with a shoulder 10 engaging the outer face of a part 11 associated with the head, the shoulder 10 being part of the handle 12 by means of which the stem is turned. The plunger 7 is held from turning movement with the stem so that it will be moved upwardly or downwardly by the stem 8, by interfitting means associated with the barrel portion of the cap 4 and said plunger 7. The barrel portion of the cap 4 is usually cylindrical or circular in general outline and the interfitting means consists of non-circular portions which are usually provided for by forming the barrel portion of the cap 4 with a lengthwise groove 13 and the plunger with means extending into the groove. Preferably the plunger comprises a flexible member or washer 14 formed of fabric or leather and interposed between upper and lower rigid sheet metal members or disks 15 and 16 which are held at their inner margins by the hub or body of the plunger. As shown, the margin 17 of the washer 14 is turned downwardly to conform to the inner circumferential wall of the barrel portion of the cap 4. One of the disks 15 or 16, here shown as the upper disk 15, is preferably provided with a tongue or projection 18 extending into and slidable in the groove 13 and the other of such disks as the lower disk 16 is formed with a projection 19 which is bent downwardly at an angle to the disk as shown in Fig. 1 and is formed with an offset or embossed portion 20 of less width than the projection 18 and the groove 13, for pressing a portion of the down-turned margin 17 of the flexible disk 14 into such groove 13.

This grease cup is particularly advantageous in that it includes no movable part as a coiled spring or other movable device for holding the plunger from turning movement.

What I claim is:

1. A grease cup comprising a receptacle including a barrel portion and a head, the barrel portion being cylindrical in general outline and having an internal lengthwise groove, a plunger reciprocally movable in the receptacle lengthwise thereof and comprising a flexible member having its margin bent to conform to the inner face of the barrel portion, the plunger also including a

rigid member having means for pressing a portion of such margin into the groove, and rotary means carried by the head of the receptacle for reciprocally moving the plunger in the receptacle, substantially as and for the purpose set forth.

2. A grease cup comprising a receptacle including a barrel portion and a head, the barrel portion being cylindrical in general outline and having an internal lengthwise groove, a plunger reciprocally movable in the receptacle lengthwise thereof and comprising a flexible member having a downturned margin conforming to the inner surface of the barrel portion, and a rigid disk arranged beneath the central portion of the flexible member and having a rigid peripheral projection for pressing a portion of said downturned margin into the groove, and rotary means carried by the head of the receptacle for reciprocally moving the plunger in the barrel portion, substantially as and for the purpose specified.

3. A grease cup comprising a receptacle including a barrel portion and a head, the barrel portion being cylindrical in general outline and having an internal lengthwise groove, a plunger reciprocally movable in the receptacle lengthwise thereof and comprising a flexible member having a downturned margin conforming to the inner surface of the barrel portion, and a lower rigid disk having a downturned projection formed with an offset portion of less width than the lengthwise groove for pressing a portion of said downturned margin into the groove, and rotary means carried by the head of the receptacle for reciprocally moving the plunger in the barrel portion, substantially as and for the purpose set forth.

4. A grease cup comprising a receptacle including a barrel portion and a head, the barrel portion being cylindrical in general outline and having an internal lengthwise groove, a plunger reciprocally movable in the receptacle lengthwise thereof and comprising a rigid portion formed with a projection for entering the groove, and a flexible portion of greater diameter than the barrel portion of the receptacle and having its margin bent to conform to the inner surface of the barrel portion, the plunger also

including a rigid member having means for forcing a portion of the flexible member into the groove, and rotary means carried by the head for reciprocally moving the plunger in the barrel portion, substantially as and for the purpose described.

5. A grease cup comprising a receptacle including a barrel portion and a head, the barrel portion being cylindrical in general outline and having an internal lengthwise groove, a plunger reciprocally movable in the receptacle lengthwise thereof and comprising an upper rigid disk formed with a projection entering the groove, a flexible member having a downturned margin conforming to the inner surface of the barrel portion, and a lower rigid disk having a projection for pressing a portion of said downturned margin into the groove, and rotary means carried by the head of the receptacle for reciprocally moving the plunger in the barrel portion, substantially as and for the purpose specified.

6. A grease cup comprising a receptacle including a barrel portion and a head, the barrel portion being cylindrical in general outline and having an internal lengthwise groove, a plunger reciprocally movable in the receptacle lengthwise thereof and comprising an upper rigid disk formed with a projection entering the groove, a flexible member having a downturned margin conforming to the inner surface of the barrel portion, and a lower rigid disk having a downturned projection formed with an offset portion of less width than the first-mentioned projection for pressing a portion of said downturned margin into the groove, and rotary means carried by the head of the receptacle for reciprocally moving the plunger in the barrel portion, substantially as and for the purpose set forth.

In testimony whereof, I have hereunto signed my name in the presence of two attesting witnesses, at Auburn, in the county of Cayuga, in the State of New York, this 31st day of July, 1911.

GEORGE W. BOWEN.

Witnesses:

A. LOUISE RAMSAY,
E. M. SALOMON.