

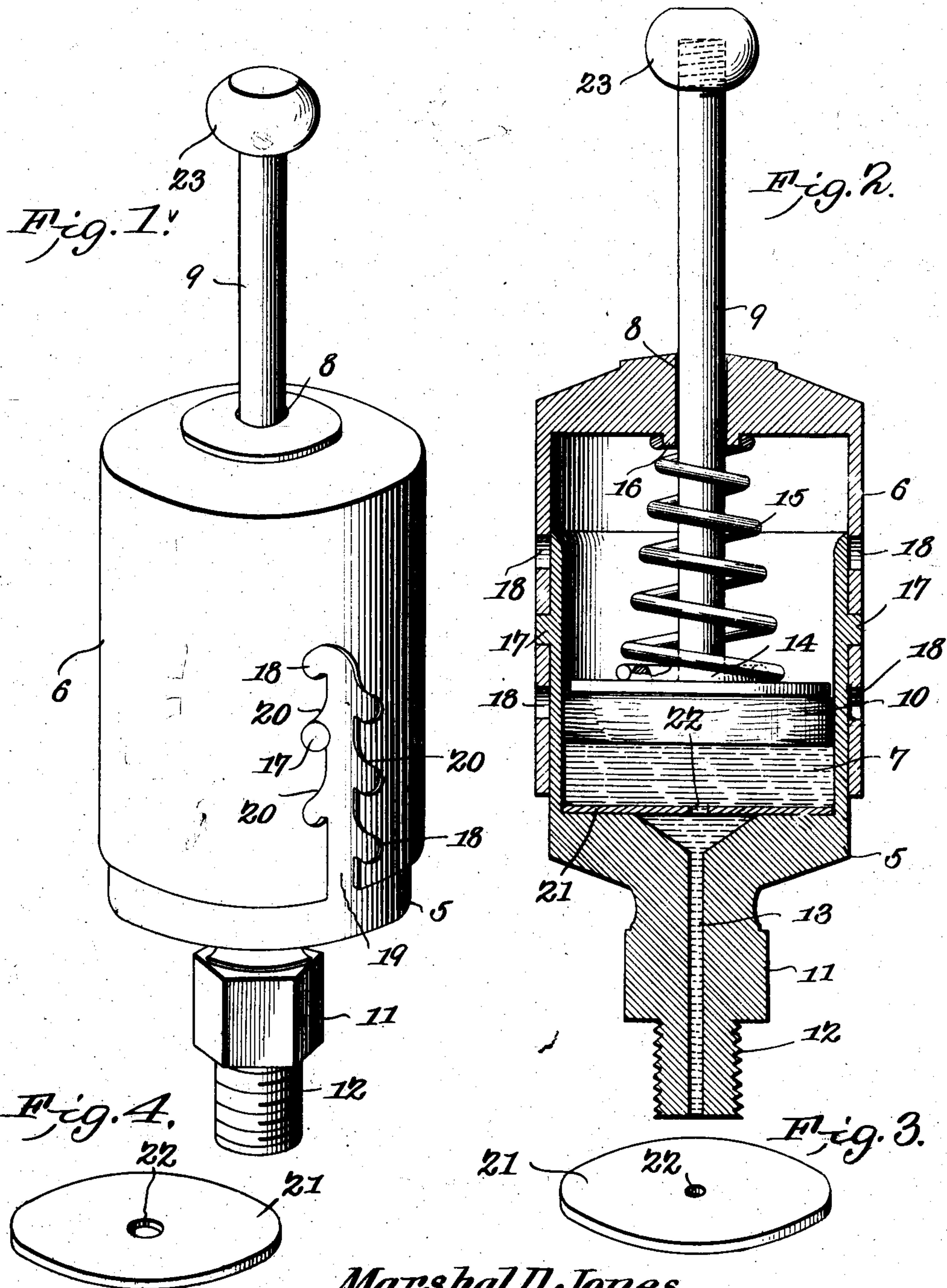
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PATENTED NOV. 6, 1906.

M. D. JONES & D. PATTERSON.

GREASE CUP.

APPLICATION FILED DEC. 8, 1905.



WITNESSES:
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UNITED STATES PATENT OFFICE.

MARSHAL D. JONES AND DAVID PATTERSON, OF DAVENPORT, IOWA.

GREASE-CUP.

No. 835,109.

Specification of Letters Patent.

Patented Nov. 6, 1906.

Application filed December 8, 1905. Serial No. 290,982.

To all whom it may concern.

Be it known that we, MARSHAL D. JONES and DAVID PATTERSON, citizens of the United States, residing at Davenport, in the county of Scott and State of Iowa, have invented a new and useful Grease-Cup, of which the following is a specification.

This invention relates to lubricators, and more particularly to an improved oil or grease cup for automatically feeding lubricant to the moving parts of machinery and the like.

The object of the invention is to provide a grease-cup consisting of a pair of telescoping members, one of which is adapted to contain the lubricant and is provided with laterally-extending lugs for engagement with corresponding notches in the walls of the adjacent member, whereby the tension of the feed-spring may be adjusted to regulate the pressure exerted by the plunger in feeding the lubricant to the discharge-passage.

A further object of the invention is to provide a series of removable disks or diaphragms having different-sized feed-openings formed therein for regulating the quantity of lubricant delivered to the discharge-passage.

With these and other objects in view the invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the accompanying drawings, forming a part of this specification, Figure 1 is a side elevation, partly in perspective, of a lubricator or grease-cup constructed in accordance with my invention. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a detail perspective view of one of the perforated disks or diaphragms detached, and Fig. 4 is a similar view of another perforated disk having a larger feed-opening formed therein.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

The improved device consists of a pair of telescopic cylindrical members 5 and 6, the member 5 being adapted to contain a quantity of grease, oil, or other suitable material 7, while the member 6 forms a cap or closure for the lubricant-containing member and is provided in the top thereof with an opening 8 for the reception of the rod 9 of a plunger 10.

The member 5 is formed with a depending enlargement 11, provided with terminal

threads 12 for detachable engagement with moving parts of a machine or the like, and extending longitudinally of said enlargement and communicating with the interior of the member 5 is an opening or passage 13, through which the lubricant is fed to parts requiring lubrication.

The plunger 10 is provided with a vertical flange or collar 14, which forms a seat for one end of a conical-shaped coiled spring 15, the opposite end of which bears against a flange 16, depending from the top of the member 6, as shown.

Secured to or formed integral with the side walls of the member 5 are laterally-extending lugs 17, adapted to engage notches or recesses 18, formed in the side walls of the member 6, and communicating with a vertically-disposed slot 19, so that by rotating the member 6 until the lugs register with the slot 19 and then adjusting said member vertically and moving any two of the notches into engagement with the lugs the tension of the spring 15 may be adjusted to insure a uniform pressure on the lubricant, and thus cause the latter to be positively fed to the machine.

Attention is here called to the fact that the walls of the locking notches or recesses 18 at the slot 19 are inclined or curved, as indicated at 20, whereby the lugs will be guided into said notches and held therein by the tension of the coiled spring.

As a means for regulating the amount of lubricant fed to the discharge-passage 13 there is provided one or more disks or diaphragms 21, which rest upon the bottom wall of the member 5 and are provided with different-sized feed-apertures 22, preferably disposed in alinement with the passage 13 and through which the lubricant is fed to said passage.

The plunger-rod 9 is preferably provided with a threaded knob or handle 23, so that the same may be quickly removed when it is desired to detach the several parts.

In operation one of the disks or diaphragms 21 is first placed within the feed cup or member 5, after which the latter is filled or partially filled with grease, oil, or other lubricant, and the member 6, carrying the plunger, placed on the member 5, and the two locked together by rotating the member 6 until the lugs engage the adjacent locking notches in the manner before described.

When it is desired to feed a larger or smaller

quantity of lubricant to the discharge-passage, the member 6 is detached and the feed disk or diaphragm removed and replaced by another having a larger or smaller feed-opening, as the case may be.

By having the coiled spring conical in shape, as shown, it affords a larger bearing-surface for contact with the plunger and insures a uniform pressure thereon, while the flanges on the plunger and member 6 serve to center the spring and prevent accidental displacement of the same.

Having thus described the invention, what is claimed is—

1. A device of the class described comprising a pair of telescopic members one of which is provided with a discharge-opening and adapted to contain a lubricant and the opposite member formed with vertically-disposed slots the opposite walls of which are provided with locking-notches disposed in staggered relation to each other, a plunger for feeding the lubricant to the discharge-opening, a spring bearing against the plunger, and a removable disk disposed above the discharge-opening and provided with a feed-aperture, there being oppositely-disposed lugs carried by the lubricant-containing member and adapted to alternately engage the locking-notches in the walls of the vertical slots.

2. A device of the class described comprising a pair of telescopic members one of which is provided with a discharge-opening and adapted to contain a lubricant and the adjacent member formed with vertically-disposed slots the opposite walls of which are curved laterally to produce locking-notches disposed

in staggered relation and communicating with said slots, a plunger for feeding the lubricant to the discharge-opening, and a spring interposed between the plunger and one of the members, there being laterally-extending lugs secured to the lubricant-containing member and adapted to alternately engage the locking-notches in the walls of the vertical slots.

3. A device of the class described comprising a pair of telescopic members one of which is provided with a discharge-opening and adapted to contain a lubricant and the adjacent member provided with a perforated cap and having vertically-disposed slots formed therein, the walls of which are provided with locking-notches disposed in staggered relation and communicating with the slots, a plunger for feeding the lubricant to the discharge-opening, a rod carried by the plunger and extending through the perforation in the cap, a spring interposed between the plunger and cap, and a removable disk disposed above the discharge-opening and provided with a feed-aperture disposed in alinement with the discharge-opening, there being lugs secured to the lubricant-containing member and adapted to alternately engage the locking-notches in the walls of the vertical slots.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

MARSHAL D. JONES.
DAVID PATTERSON.

Witnesses:

JOHN D. LONEIGON,
HERMAN SCOTT.