

No. 815,734.

PATENTED MAR. 20, 1906.

T. E. PETERS.
GREASE CUP.

APPLICATION FILED NOV. 23, 1905.

Fig. 1.

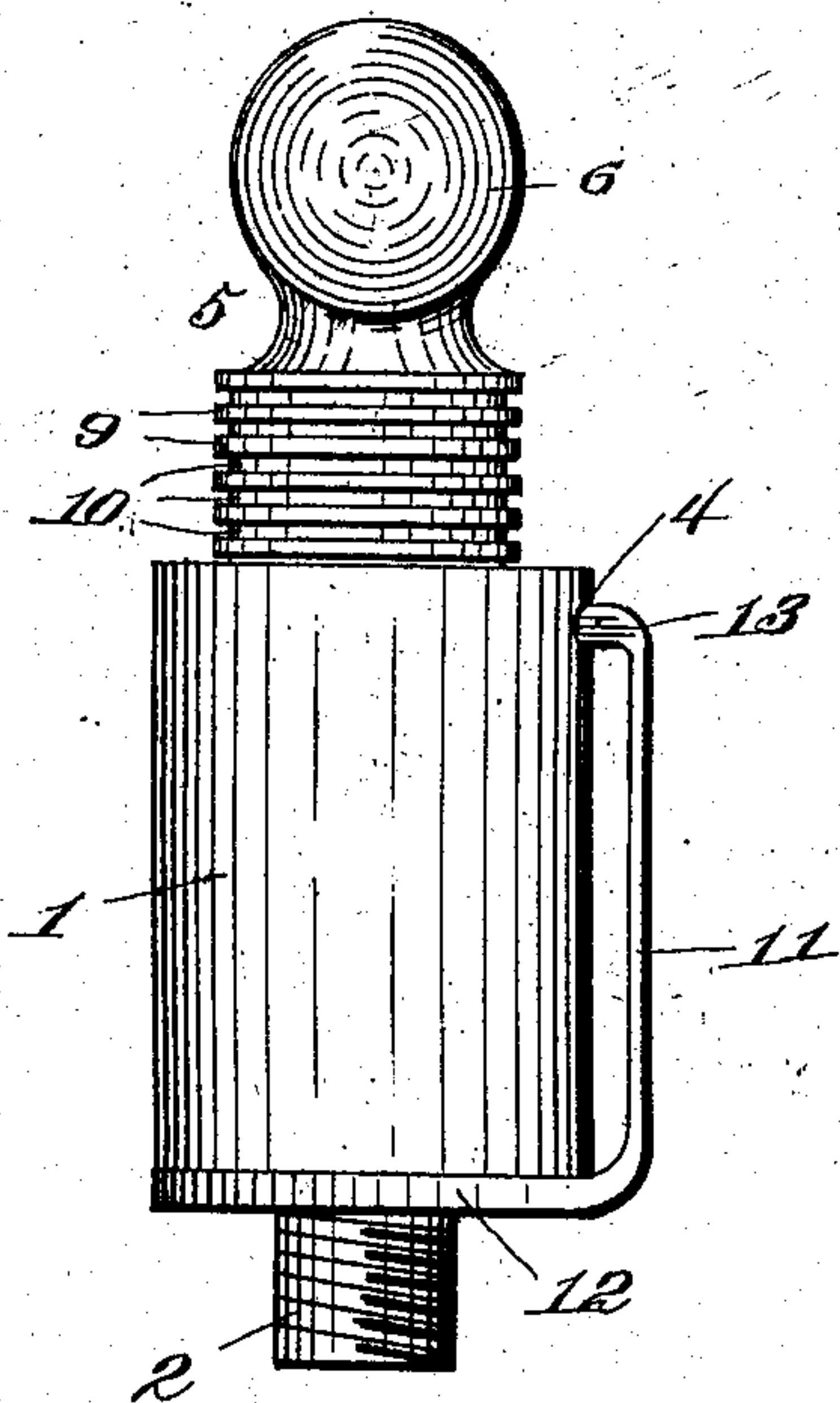


Fig. 2.

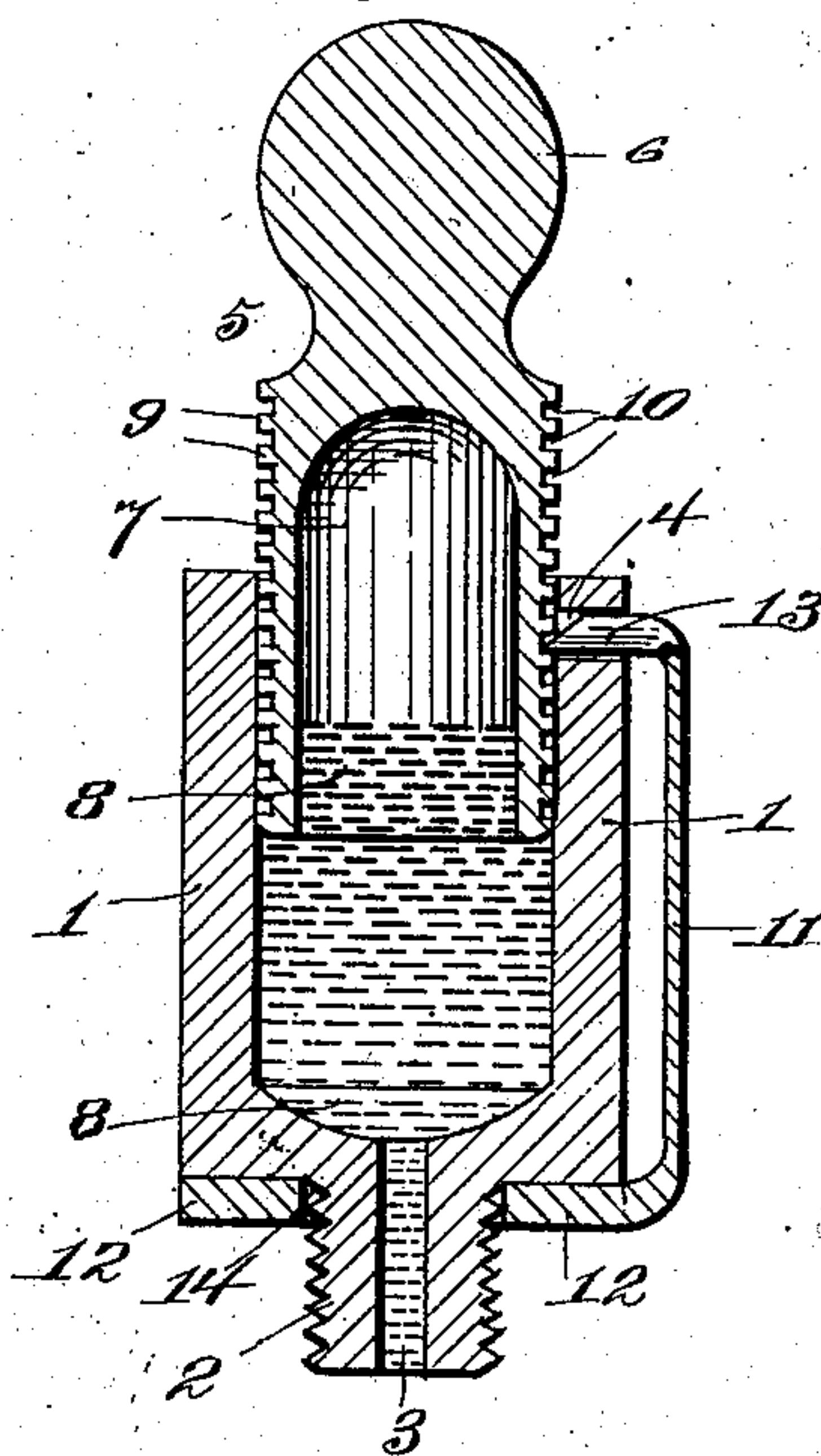


Fig. 3.

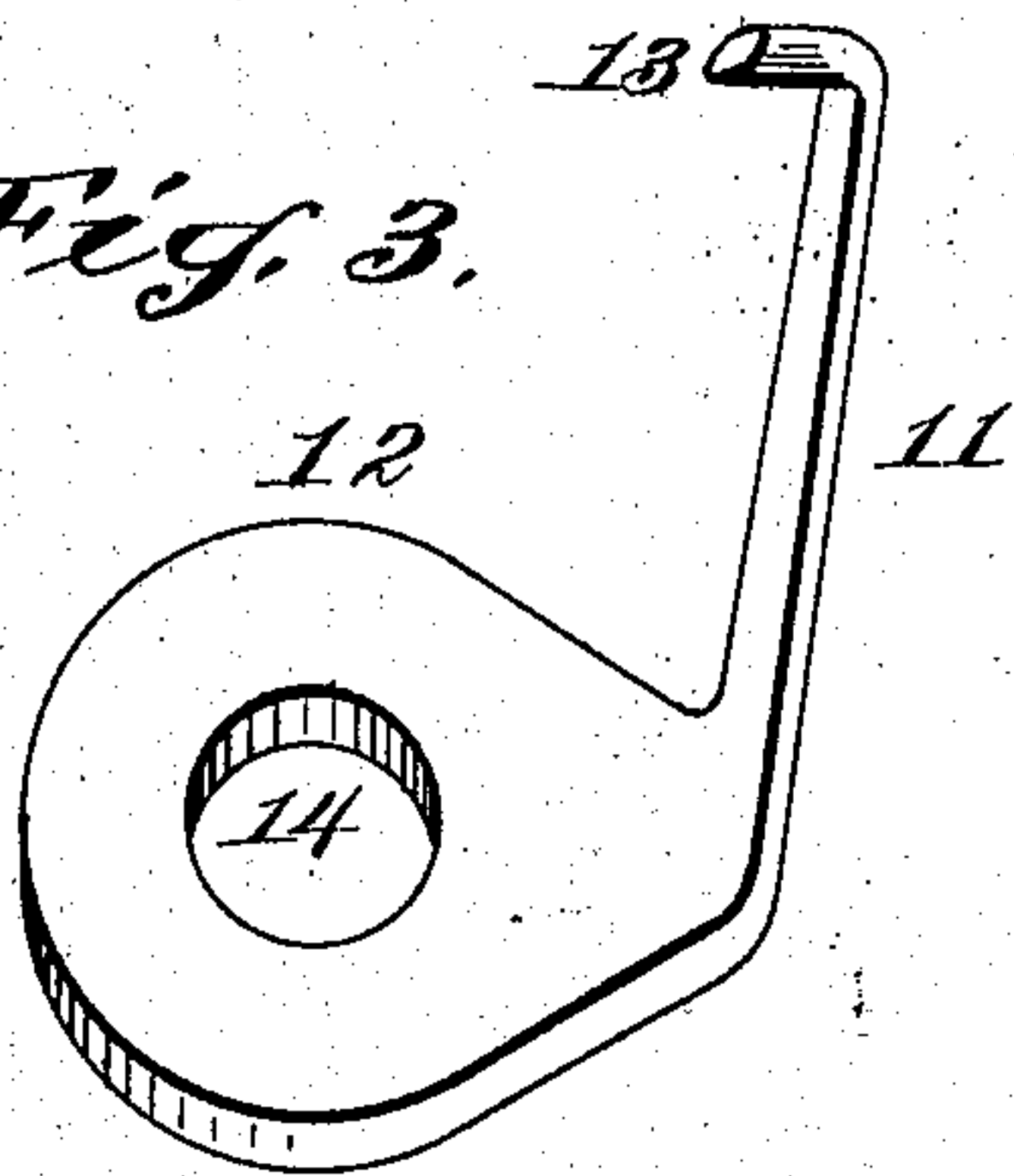
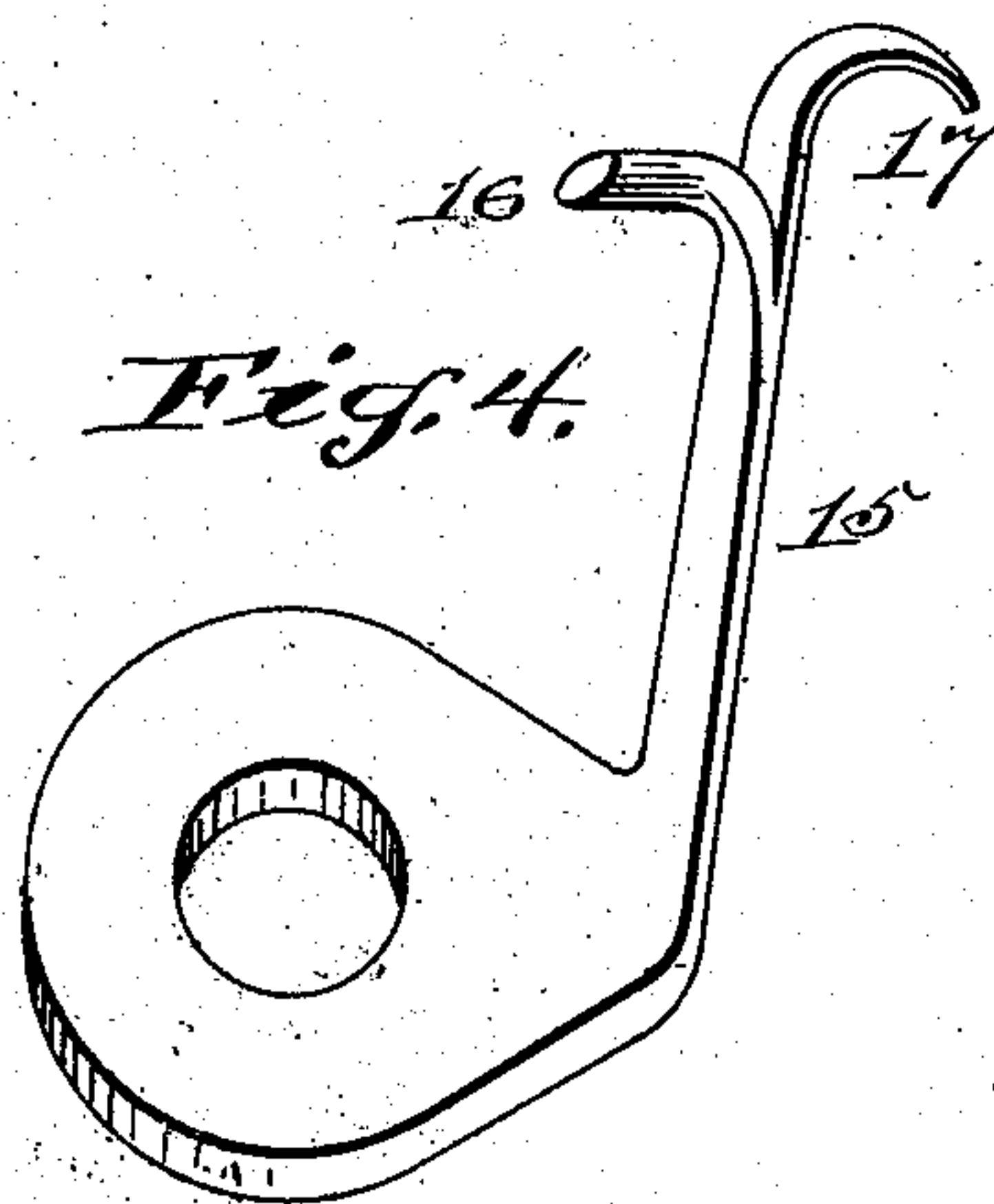


Fig. 4.



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UNITED STATES PATENT OFFICE.

THOMAS E. PETERS, OF MOBERLY, MISSOURI.

GREASE-CUP.

No. 815,734.

Specification of Letters Patent.

Patented March 20, 1906.

Application filed November 23, 1905. Serial No. 288,816.

To all whom it may concern:

Be it known that I, THOMAS E. PETERS, a citizen of the United States, residing at Moberly, in the county of Randolph and State of Missouri, have invented certain new and useful Improvements in Grease-Cups, of which the following is a specification.

This invention relates to oil-cups, and pertains to the class of such cups known as "grease-cups" having telescoping feed-plugs slidable in the cup-shell and forming a stopper or closure for the cup.

The object, primarily, of the invention is to provide a grease-cup with a plunger which shall control the flow of grease from the cup and which shall form a closure for the cup and contain a portion of the lubricant.

A further object of the invention is to provide a feed plunger or plug for oil-cups which shall keep the cup closed and which is capable of movement in the cup to force the oil, grease, or other lubricant out of the cup in quantities according to such movement, while retaining part of the lubricant.

A still further object of the invention is to provide a grease-cup with a hollow feed-plunger to control the discharge of grease from the cup and a controlling device for the plunger carried by the cup-stem.

The object, still further, of the invention is to provide in a grease-cup a feed-plunger to carry a portion of the grease and form a closure for the cup and a novel and peculiar spring attachment carried by the cup-stem and adapted to enter the cup and engage the plunger for holding the latter in various adjusted positions.

With these and various other objects and advantages in view the invention consists in a hollow feed-plunger for grease-cups having an exterior rack adapted to be engaged by a holder carried by the stem of the cup and operated through the latter to permit various adjustments of the plunger in forcing discharges of lubricant from the cup.

In the accompanying drawings, forming part of this application, Figure 1 is an elevation. Fig. 2 is a vertical section showing the oiler charged. Fig. 3 is a perspective view of the spring-holder. Fig. 4 is a perspective view of a modified form of spring-holder.

The invention having special reference to oil-cups carried by moving parts of machinery and particularly locomotive-rods, a cup adapted to be fixed to the boxes of journal-bearings is here employed to exemplify

the invention; but its application is general, and it may be applied either to stationary cups or cups movable with the part or parts of machinery to which they are attached, the essential features being to gage or measure the cup-discharge, to accomplish such discharge without uncovering or opening the cup, and to hold the feed-plunger against accidental movement.

The shell 1 has a cylindrical bore and a screw-stem 2, having a discharge-orifice 3 extending therethrough from the inside bottom of the shell. The exterior of the shell may be of any desired shape or configuration so long as it possesses a cylindrical bore and an aperture 4, the purpose of which will be hereinafter explained. The feed-plunger 5 has a suitable head 6, from which extends a central bore the length of the plunger to form a barrel or receptacle 7 for part of the lubricant 8, the other part being held by the shell. The outer surface of the plunger is provided throughout its length with a series of circular parallel ribs 9 and spaces or grooves 10 intervening the ribs to form a circular rack which fits the shell-bore closely during the telescopic movement of the plunger in the shell and forms a closure for the shell.

The plunger-holder or retaining device consists of a spring 11, projecting from a plate 12 and terminating in a prong 13, having a beveled end and turned at right angles to the body of the spring. The plate 12 has a hole 14 to permit its being slid over the screw-stem, where it is held between the bottom of the shell and piece of machinery or journal-box by screwing said stem into place. The prong 13 extends through the shell-aperture 4, and its beveled end engages the plunger-rack.

Referring to the modification shown in Fig. 4, the upper end of the spring 15 is extended from the prong 16 to form a hand-grasp 17.

In operation a slight tap or blow on the plunger-head will slide the plunger over the prong 4 from one rack-groove to another and force sufficient lubricant from the shell for one ordinary oiling. To remove the plunger, the prong 4 is withdrawn sufficiently to have it disengage the rack; but to insert the plunger it is simply pushed into the shell and the spring tension of the prong will permit it to pass over the beveled face of the prong. It will be seen that the plunger not

only forces the lubricant, but it holds part of the latter, that the plunger is immovably fixed in the shell until sufficient pressure is made upon the plunger-head to overcome the spring-pressure and that upon exhaustion of grease in the shell and in the event of a heated journal or bearing the grease held by the plunger will liquefy and pass out of the cup.

10 Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A grease-cup comprising a shell, a hollow plunger fitting within the shell, and provided with a rack, and a plate-spring carried by the shell and having a prong projecting into the rack to control the movement of the plunger.

2. In a grease-cup the combination, with a shell having a screw-stem through which grease is fed, of a plunger fitting within the shell and having a circular rack formed by a series of ribs and grooves, and a spring-prong operated through the shell to engage the rack.

25 3. In a grease-cup the combination, with a shell having a stem through which grease is fed, of a plunger closing the shell and adapted to contain grease, a circular rack on the

plunger, and a spring-controlled prong projecting into the path of the plunger to engage the rack. 30

4. In a grease-cup the combination, with a shell having a screw-stem through which grease is forced, of a slidable plunger having a grease-receptacle and provided with an external rack, and a plate-spring carried by the shell and having a prong projecting into the path of the rack to control the movement of the plunger. 35

5. In a grease-cup the combination, with a shell having a suitable screw-stem through which grease is forced, of a plunger slidable in the shell and having a head projecting above the shell, a series of parallel ribs encircling the plunger and intervened by grooves to form a rack, and a spring having a plate fitting the screw-stem to fix it and a prong on the free end of the spring adapted to work through the shell in mesh with the rack. 40 45

In testimony whereof I affix my signature in presence of two witnesses. 50

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Witnesses:

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