

(No Model.)

T. J. HART.
GREASE CUP.

No. 440,309.

Patented Nov. 11, 1890.

Fig. 1.

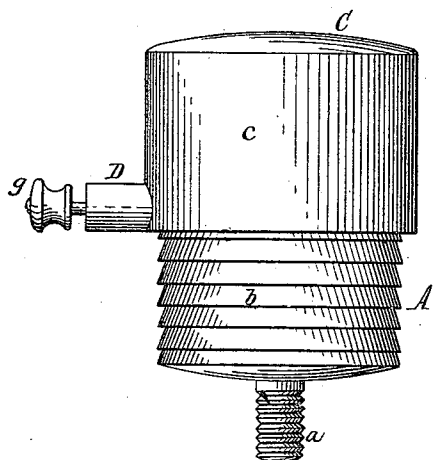


Fig. 2.

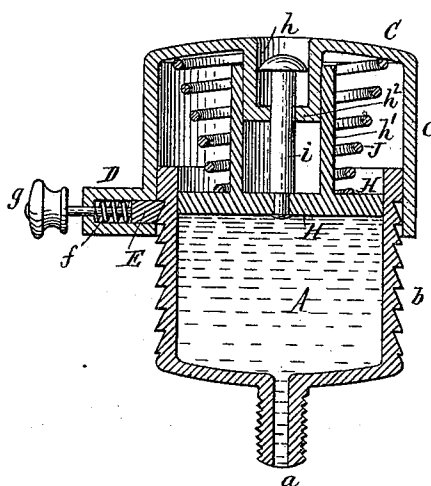
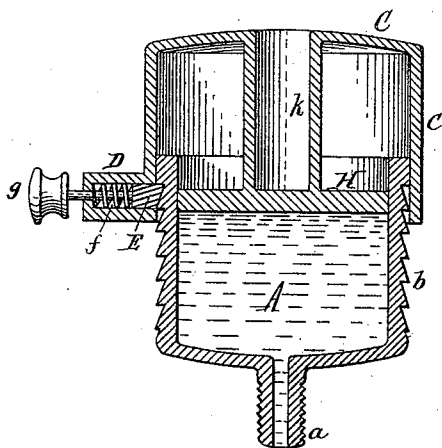


Fig. 3.



Witnesses:
Emil Huhart
Jacob Nylenblatt

Thos. J. Hart Inventor.
By Wilhelm Rönner.
Attorneys.

UNITED STATES PATENT OFFICE.

THOMAS J. HART, OF BUFFALO, NEW YORK, ASSIGNOR TO THE SHERWOOD MANUFACTURING COMPANY, OF SAME PLACE.

GREASE-CUP.

SPECIFICATION forming part of Letters Patent No. 440,309, dated November 11, 1890.

Application filed May 29, 1890. Serial No. 353,577. (No model.)

To all whom it may concern:

Be it known that I, THOMAS J. HART, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented new and useful Improvements in Grease-Cups, of which the following is a specification.

This invention relates to that class of lubricators in which a solid lubricant—such, for instance, as grease—is employed, and which are provided with plungers, whereby the grease is expelled from the discharge-aperture or nozzle of the cup.

My invention has more especial reference to a grease-cup of the class which is especially desirable for use in connection with overhead shafting or in places which are difficult of access.

The object of my invention is to produce a cheap grease-cup of simple and compact construction and in which the plunger can be conveniently and quickly operated from the floor or from a distance, in case the same is not easily accessible.

In the accompanying drawings, Figure 1 is a side elevation of my improved grease-cup. Fig. 2 is a sectional elevation thereof. Fig. 3 is a sectional elevation of a modified construction of the grease-cup.

Like letters of reference refer to like parts in the several figures.

A represents the body of the cup or receptacle containing the lubricant and which is provided at its lower end with a screw-threaded discharge-nozzle *a*, whereby the cup is attached to a journal-bearing or other part to be lubricated. The body A is provided on its outer surface with a vertical series of annular ribs or flanges *b*, which preferably extend from end to end of the cup, as shown. These ribs are each provided with beveled or inclined side faces and abrupt bottom faces.

C represents the cover applied to the top of the cup A and provided with a deep rib or flange *c*, which fits over the body of the cup.

D represents a recessed lug or enlargement on one side of the cover at or near the lower edge thereof, and E is a horizontal spring bolt or catch sliding in the recess of the enlargement and adapted to engage with one of the annular ribs of the cup. The head of the

spring-catch is provided with an inclined or beveled face and a straight upper face, which latter engages against the abrupt bottom faces of the annular ribs.

f is a spiral spring surrounding the stem of the catch between its head and the outer end of the recessed enlargement, and whereby the catch is pressed inwardly toward the ribs of the cup. The catch is provided with a knob *g* for retracting it.

H is the plunger, arranged in the cup and bearing against the grease contained therein. The plunger is guided by means of a sleeve or hollow stem *h*, formed centrally on the inner side of the cover C and fitting into a collar or sleeve *h'* formed on the upper side of the plunger, as represented in Fig. 2. The plunger is attached to the cover by a bolt or screw *i*, which passes loosely with its outer portion through an opening formed in the closed inner end *h²* of the sleeve *h*, and is secured with its reduced inner end in an opening in the plunger. The head of the bolt *i* bears against the closed inner end of the sleeve of the cover when the latter is in its outermost position, and thereby prevents the two sleeves from becoming disconnected.

J is a spiral spring arranged within the cover C around the sleeves *h h'* and bearing with its upper end against the cover and with its inner end against the plunger. This spring tends to depress the plunger and causes the same to exert a continuous pressure upon the grease in the cup, thereby expelling the same from the nozzle of the cup. The straight upper side of the spring-catch bearing against the abrupt bottom of the annular ribs *b* holds the cover in place on the cup and prevents the same from being lifted from the cup by the spring bearing against the plunger. Upon pressing the cover inwardly, the inclined face of the spring-catch rides over the inclined side faces of the annular ribs, causing the catch to be moved outwardly and permitting the cover to be depressed. The cover is thus held at any desired point on the cup by simply depressing it, whereby the tension of the compression-spring is conveniently adjusted from time to time as the grease is consumed. The convenience with which the plunger is adjusted renders my improved cup particularly

desirable for overhead journals of shafting, or in places which are not easily approached, as the plunger is readily depressed, when required, by giving the cover of the cup a slight tap or blow with a bar or stick. The cover is readily removed for refilling the cup by withdrawing the spring-catch out of engagement with the abrupt faces of the annular ribs.

In the modification represented in Fig. 3, the compression-spring is omitted and the plunger is rigidly connected to the cover by a stem *k*, which is preferably hollow and cast integral with the plunger and cover. In this case the plunger does not exert a continuous pressure upon the grease and the plunger must be more frequently adjusted to maintain a sufficient pressure upon the grease to expel it from the cup.

My improved grease-cup being composed of few parts is very simple in construction and can be manufactured at small cost. As the cover fits over the body and itself forms the part whereby the plunger is adjusted, the cup is rendered very compact and the number of parts is reduced to a minimum.

I claim as my invention—

1. The combination, with the body of the cup provided with a vertical series of external ribs or projections having inclined sides and abrupt bottom faces, of a sliding cover fitting over the body of the cup and provided with a

spring-catch engaging with said ribs or projections, and a plunger arranged in the cup and connected with the cover, substantially as set forth.

2. The combination, with the body of the cup provided with a vertical series of external ribs or projections having inclined sides and abrupt bottom faces, of a sliding cover fitting over the body of the cup and provided with a spring-catch engaging with said ribs or projections, a plunger arranged in the cup and connected with the cover, and a spring interposed between the cover and the plunger, substantially as set forth.

3. The combination, with the body of the cup having on its outer surface a series of horizontal ribs provided with inclined side faces and abrupt bottom faces, of a cover fitting over the body of the cup and provided with an interior stem or sleeve and on one side with a spring catch or bolt engaging with the ribs of the body, a plunger arranged in the body and having a sleeve which is guided upon the interior sleeve of the cover, and a spring interposed between the plunger and cover, substantially as set forth.

Witness my hand this 15th day of May, 1890.

THOS. J. HART.

Witnesses:

JNO. J. BONNER,
EMIL NEUHART.