H. B. SHERMAN & F. PERKINS.

GREASE CUP.

APPLICATION FILED APR. 12, 1911.

1,025,319. Patented May 7, 1912.

Fig. 1.

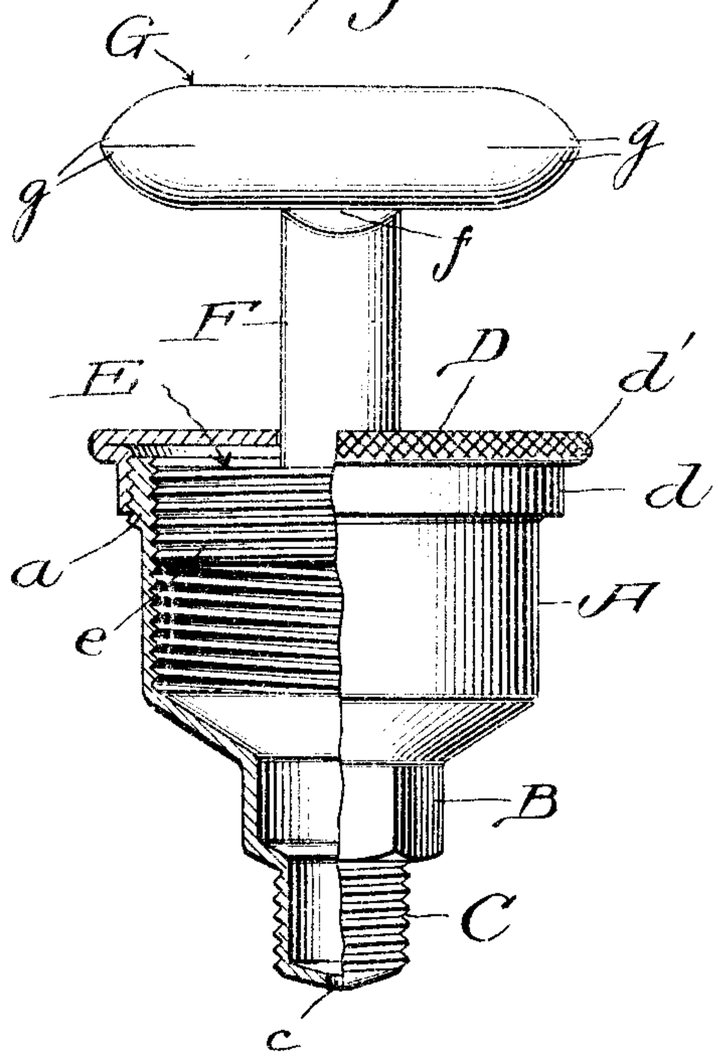


Fig. 2.

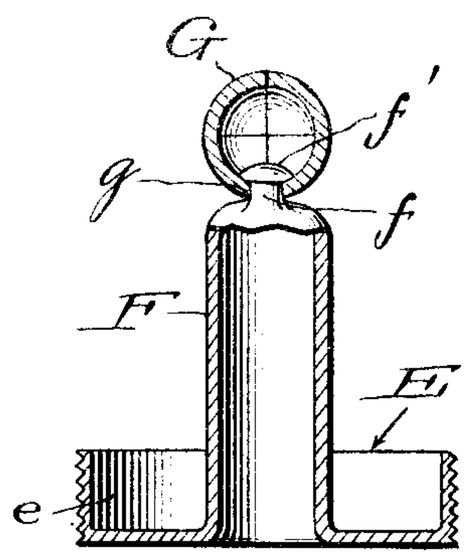


Fig. 4.

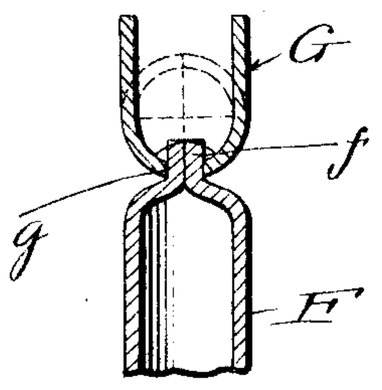
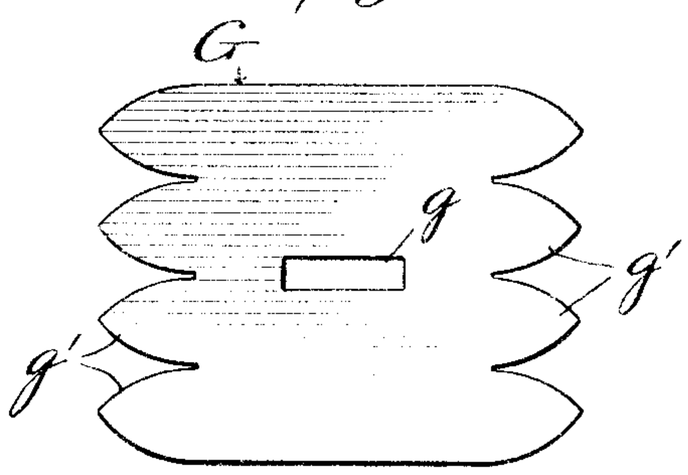


Fig. 3



WITNESSES

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UNITED STATES PATENT OFFICE.

HOWARD B. SHERMAN, OF BATTLE CREEK, MICHIGAN, AND FRED PERKINS, OF WARREN, MASSACHUSETTS; SAID PERKINS ASSIGNOR TO SAID SHERMAN.

GREASE-CUP.

1,025,319. Specification of Letters Patent. Patented May 7, 1912.

Application filed April 12, 1911. Serial No. 620,569.

To all whom it may concern.

Be it known that we, HOWARD B. SHERMAN, of Battle Creek, Calhoun county, Michigan, and FRED PERKINS, of Warren, Worcester county, Massachusetts, have invented certain new and useful Improvements in Grease-Cups; and we hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form part of this specification.

This invention is a novel improvement in grease cups and it comprises a drawn metal grease cup of novel construction; a drawn metal plunger and stem of novel construction; and a drawn metal handle of novel construction. Its objects are to produce an all-drawn metal cup which will possess all the advantages of the best of grease cups now in use but will be more efficient and contain more grease than the present cups of like size, and can be made cheaply and economically.

In the accompanying drawings—Figure 1 is an enlarged part side elevation and part vertical section of a complete cup. Fig. 2 is an enlarged section through the stem. Fig. 3 is a view of the handle blank before folding. Fig. 4 is a detail view showing the manner of attaching the handle.

The body of the cup may resemble any ordinary form of cup in its external appearance. This body comprises a cylindric portion A having a contracted bottom connected with a contracted hexagonal portion B; and below this is a still further contracted exteriorly threaded portion C, all these are formed integral of drawn metal. The portion C is closed at the bottom, save for a minute aperture *c* for the escape of grease. The hexagonal portion B forms a convenient means for applying a wrench when securing the cup in position.

The upper end of the body A is forced back or swaged into a thickened portion as shown at *a* thus forming a double thickness of metal at the top of the cup, and this part *a* is externally threaded, as shown, for the engagement of a cover D; and it is also internally threaded, as shown, for the engagement of a plunger E. This thickening of the upper end of the cup as at *a* is an important feature of the invention, as it enables us to provide an externally threaded portion and an internally threaded portion on the end of the drawn metal body. The cover D is also formed of drawn metal which after being drawn to the proper diameter is forced back upon itself to form a projecting beaded or milled portion *d'* above the flange *d*; the depending flange *d* is internally threaded to engage the external threads on the part *a* of the body. Within the portion A of the body fits a plunger E, which is also formed of drawn metal, and integral with its stem. This plunger is much larger in diameter than the stem, and is provided with an upturned flange *e*, which is exteriorly threaded to engage the interior threads on part *a* of the cup. The stem F extends through a suitable opening in the cover D and to a hand-piece G attached to its upper end.

The hand-piece G may be formed of a piece of sheet metal as indicated in Fig. 3, having its ends indented as shown at *g'*, and provided with an aperture *g*. The upper end of the stem F is contracted or flattened, by pressure, as shown at *f*, so that it can be entered into the slot *g*, and it is then headed or riveted over as shown at *f'* to secure the handle thereto. The piece G is then bent by suitable tools into circular form, and its ends contracted, thereby closing it so as to round the ends of the handle neatly as shown in Fig. 1. The advantages of this construction are the great simplicity with which the parts can be drawn from suitable metal; the lightness of the cup; its strength; and the greatly increased grease capacity as compared with cast metal cups. The stem F being hollow also greatly increases the holding capacity of the cup and lessens the liability of the part to which the cup is attached becoming overheated for want of grease, as this hollow stem F will fill with grease which will ordinarily remain therein, but if the grease in the body of the cup should become exhausted and the parts begin to heat, the grease in the stem will melt and lubricate the bearings or parts. The hollow stem F thus forms an auxiliary or safety grease reservoir which is a peculiar and very useful feature of the present invention.

What we claim is:

1. A drawn metal grease cup comprising a body portion having its upper end thickened by compressing the metal upon itself, and threaded internally for the engagement

of a plunger and externally for the engagement of a cap; with a drawn metal plunger having an externally threaded flange engaging the interior threads of the body, and an integral hollow stem; and a cap, through which the stem passes, having an internally threaded flange engaging the exterior threads on the body portion.

2. A drawn metal grease cup having an enlarged cylindric upper portion, a contracted hexagonal portion below the upper portion and a further reduced cylindric portion below the hexagonal portion all formed integral of drawn metal, the upper cylindric portion having its upper end thickened by swaging the metal upon itself and threaded internally for engagement of a plunger, and the thickened portion being threaded externally for the engagement of a cap, and the lower cylindric portion having its end closed but provided with an aperture for the escape of grease and threaded externally; with a drawn metal plunger having an externally threaded flange engaging the interior threads of the upper portion, and an integral hollow stem integral with the plunger, and a cap through which the stem passes fitted to the top of the body portion.

3. In combination an internally threaded grease cup; a drawn metal plunger comprising a hollow stem and a disk integral with the stem having a flange on its periphery integral therewith and exteriorly threaded to engage the cup; the upper end of the stem being contracted; a handle attached to the upper end of the stem, and a cover attached to the upper end of the cup.

4. A grease cup comprising an internally threaded body of drawn metal, a drawn metal plunger therein comprising a hollow stem, and a disk integral with the stem having an exteriorly threaded flange on its periphery, the upper end of the stem being contracted, and a handle attached to the upper end of the stem and comprising a plate having foliated ends, the plate being bent in cylindric form and the foliated ends closed against themselves to close the ends of the handle.

In testimony that we claim the foregoing as our own, we affix our signatures in presence of two witnesses.

HOWARD B. SHERMAN.
FRED PERKINS.

Witnesses:
ERNEST J. FISK,
ARTHUR E. DOWELL.