

O. ZERK.
GREASE CUP.

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1,043,558.

Patented Nov. 5, 1912.

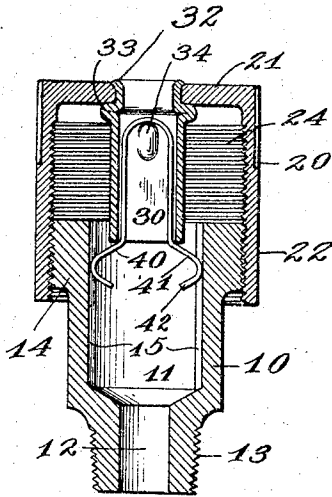


FIG. 1

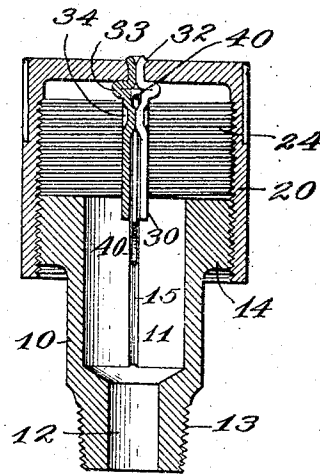


FIG. 2

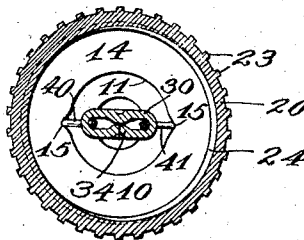


FIG. 3

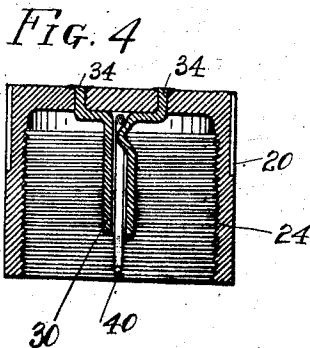
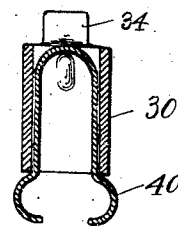


FIG. 4

FIG. 5



WITNESSES:
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UNITED STATES PATENT OFFICE.

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GREASE-CUP.

1,043,558.

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To all whom it may concern:

Be it known that I, OSCAR ZERK, a subject of Austria, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have
5 invented a certain new and useful Improvement in Grease-Cups, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

10 This invention relates to grease cups of the type wherein there are two members, one of which screws onto the other and a spring detent is provided preventing accidental displacement of the movable member
15 with reference to the other.

The primary object of the invention is to provide such a cup in a form which shall be very simple and cheap in construction, and at the same time shall be efficient in service
20 and durable.

Another object is to provide a very neat and efficient knurling for the cap of the cup.

To the above ends, the invention consists of the combinations of parts hereinafter described and summarized in the claims.
25

In the drawings, Figures 1 and 2 are vertical diametric sections through the grease cup in planes at right angles to each other; Fig. 3 is a horizontal section through the cup; Fig. 4 is a vertical section through a
30 cap having a somewhat modified means for holding the detent spring; Fig. 5 is an elevation of such modified holder in a plane at right angles to Fig. 4.

35 Briefly stated, 10 in the drawings represents the stationary body or cup proper; 20 the movable cap screwing onto the cup or body, 30 a spring holder carried by the cap, and 40 a spring in such holder periodically engaging notches in the cup whereby the cap is prevented from accidental displacement.
40

Referring more specifically to the parts shown, the cup 10 has an internal bore 11
45 below which is a reduced bore 12. Outside of this reduced bore are external threads 13 by which the cup may be secured into a suitable receiving thread. Near its upper end the outer wall of the cup has an enlargement 14 on which are external threads. The
50 bore 11 has preferably a cylindrical wall, and in this wall, parallel with the axis, are formed grooves 15, such grooves being arranged diametrically in one or more pairs.

One pair of grooves is shown in the drawing. 55

The cap 20 is preferably a stamped sheet metal member. It has a top portion 21 and a wall 22 bounded by a cylinder but preferably having located about its surface, near
60 the top, ribs 23 parallel with its axis and extending a sufficient distance from top to provide an efficient finger hold for turning the cap. The outer surfaces of the ribs are flush with the cylindrical wall. On the inner
65 face of the caps are threads 24 adapted to screw onto the external threads on the portion 14 of the cup.

Secured to the head 21 of the cap and depending thereinto is a flattened tubular
70 holder 30 which carries the spring 40. This holder is preferably made of sheet metal plate bent on itself into the form illustrated in Fig. 2, or in Figs. 4 and 5. Near its
75 upper end, portions of this holder pass through one or more openings in the head of the cap and the upper end of the holder is up-set or peened over, as shown at 32. In the form shown in Figs. 1 and 2, adjacent to
80 the under face of the head of the cap the holder is provided with an outward bulge or bead 33. This head, together with the flaring upward end of the holder cause it to be secured very rigidly to the cap. In the construction of Figs. 4 and 5, the holder 30
85 is cut and bent at its upper end to produce a pair of separated tongues 34 which pass through two openings in the cap and are then upset.

The spring 40 is preferably of the U-shape
90 shown, having a parallel-sided portion occupying the tubular space 30 and two flaring end portions 41 with returning ends 42, thereby providing spring shoulders, which may occupy the grooves 15 or slide around
95 the smooth wall of the bore 11 in passing one groove to the other. The spring is effectively held in place by cooperating inward projections or dents 34 formed by pressing inwardly the two flattened sides of
100 the tubular member 30.

My grease cup may be very cheaply made. As shown, it consists of but four pieces. The body may be conveniently cast or made
105 otherwise, as desired, with the threads turned thereon; the cap may be stamped with its threads turned and its exterior surface broached; the spring holder may be a

piece of flat sheet metal buckled to provide the projection 33 and bent on itself to make a tube in which the spring is placed and held by the dents 34, and thereafter the spring holder is held in place by being upset in the cap head; the spring itself is simply a piece of wire bent and tempered. Notwithstanding the simplicity of this structure and cheapness of construction, it is very efficient and durable. The spring, in acting, bends through a very small angle and thus is subjected to a very slight strain.

Having thus described my invention, what I claim is:

1. In a grease cup, the combination of a cup proper, a cap, a U-shaped spring depending within the cap and having flaring free end portions adapted to engage the bore of the cup, and means secured to the cap extending outside of the two legs of the spring for holding the spring.

2. In a grease cup, the combination of a cup proper having a bore, a cap screwing onto such cup, an inwardly projecting spring holder carried by the cap, and a U-shaped spring within such holder embraced by it and having a projecting flaring end portion adapted to engage the bore of the cup.

3. In a grease cup, the combination of a cup proper having external threads, a cap with internal threads screwing thereonto, a flattened tubular member located within the cap and upset in the head of the cap, a U-shaped spring within said member held in place by an inwardly bent portion of the member, said spring having outwardly flaring end portions adapted to engage grooves in the bore of the cup.

4. In a grease cup, the combination of a cup proper having a bore with longitudinal diametrically placed grooves and having external threads, a cap having internal threads screwing onto the external threads mentioned, a spring holder within the cap and secured to the head thereof, and a spring made in a U-shape and held by the holder, the end portions of the spring bending outwardly and then returning, whereby two rounded diametrically placed spring shoulders are adapted to engage in the grooves referred to.

5. In a grease cup, the combination of a cup proper having a bore and external threads, a cap having its outer surface bounded by a cylinder and having internal threads substantially throughout its length, a centrally placed spring holder secured by upsetting to the cap, and a spring carried within said holder and adapted to engage within the bore of the cup.

6. In a grease cup, the combination, with a cup, of a cap having a screw-threaded engagement therewith, a U-shaped spring adapted to coact with the cup, and a holder for the spring carried by the cap, said holder consisting of a tube-like member embracing the legs of the spring and abutting the under side of the top of the cap and having portions extending upwardly through such cap and upset on the upper side of the cap.

In testimony whereof, I hereunto affix my signature in the presence of two witnesses.

OSCAR ZERK.

Witnesses:

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BRENNAN B. WEST.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents Washington, D. C."