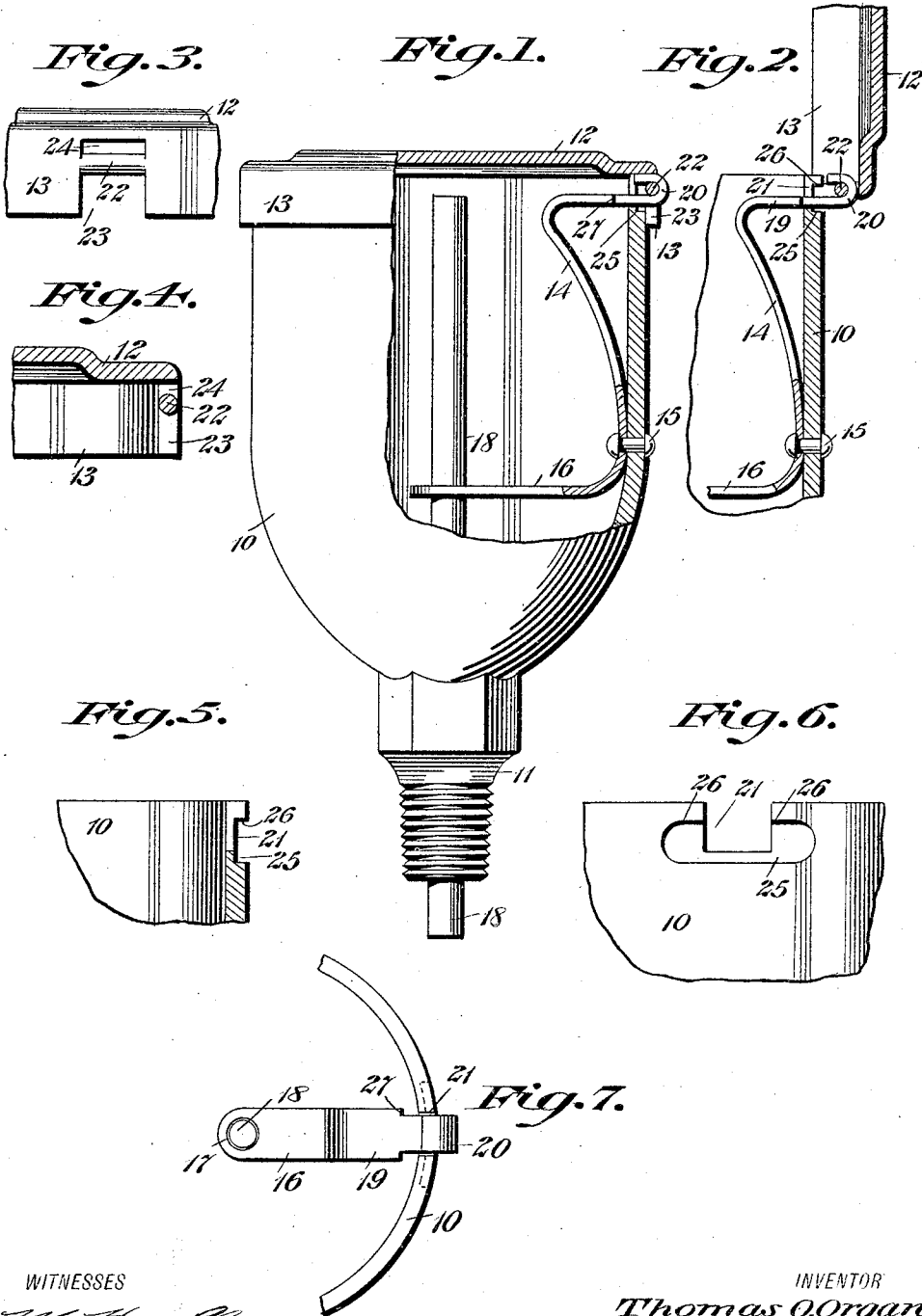


T. O. ORGAN,
GREASE CUP.

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WITNESSES

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GREASE-CUP.

1,121,392.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, THOMAS O. ORGAN, a citizen of the United States, and a resident of Germantown, Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and Improved Grease-Cup, of which the following is a full, clear, and exact description.

The present invention is more particularly intended for embodiment in grease cups of the funnel cup type, provided with a rod, usually of copper, inserted therein axially, and adapted to extend downwardly through the bore of the threaded shank of the cup to the top of the journal bearing or other element to be lubricated.

The object of my invention is to provide an attachment forming at one end a guide for the copper rod, and at the other end a resiliently supported hook co-acting with an element on the cover to hingedly secure the latter.

A further object of the invention is to provide a guide for the rod which will hold the latter in the vertical position and allow it to accommodate itself to the size of the bearing, without becoming displaced.

A further object of the invention is to provide a spring hinge that will hold the cover of the grease cup tightly in a closed position, and prevent it from being shaken off or displaced by vibration, and which will also serve to hold the cover raised for refilling.

A further object of the invention is to provide a spring hinge which will not be easily broken when placed under tensile strain and so arranged as to be prevented from being overstrained or its elasticity destroyed.

The invention consists in novel means hereinafter more particularly explained, for carrying out the stated objects and the additional objects that will appear from the following description.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of a grease cup embodying my invention, with parts broken away and others in section, the cover being shown in a closed position; Fig. 2 is a fragmentary vertical section showing the cover raised; Fig. 3 is a fragmentary rear

view of the cover; Fig. 4 is a vertical section at the rear of the cover; Fig. 5 is a fragmentary vertical section of the upper portion of the cup adjacent to the hinge; Fig. 6 is a fragmentary rear view of the said upper portion of the cup; and Fig. 7 is a fragmentary plan view with the cover removed.

In embodying my invention in a grease cup in accordance with the illustrated example, the body 10 is preferably given the usual form of a funnel cup, and provided with the usual threaded stem 11 having a bore for the outlet of the grease to the bearing to be lubricated. The cover 12 of the cup is formed with a depending peripheral flange 13, which overlaps the cup at the exterior.

Secured to the interior of the cup is an attachment of the general form of a plate spring, 14, which is secured to the side wall of the cup as by a rivet 15 or equivalent means. The portion of the attachment above the fastener 15 is in the form of a resilient arm, while the lower end 16 is disposed in the lower half of the cup, or below the horizontal center, and is formed with an eye 17 through which the copper rod 18 extends downwardly, the lower end of said rod being adapted to drop through the threaded stem 11 of the cup. The upper end of the resilient arm is bent outwardly, as at 19, and the outer end is turned, presenting an inwardly disposed hook 20. The hook 20 extends laterally through a transverse opening 21 formed in the cup 10, at the upper edge, so that the hook may vibrate transversely to the wall.

A hinge pin or bar 22, hereinafter called a hinge bar, is formed in connection with the flange 13, there being a transverse opening 23 in said flange below the bar 22, and a transverse opening 24 above said bar for accommodating the hook 20, the opening 23 extending through the lower edge of the flange, as clearly shown in Figs. 3 and 4. A depression 25 is formed in the outer face of the cup 10 adjacent to the transverse opening 21, and extending at both sides of the latter, the said depression presenting overhanging shoulders 26 at the sides of said transverse opening 21. As seen best in Fig. 7, the hook 20 is of reduced width relatively to the laterally bent portion 19 of the resilient arm, thereby presenting shoulders 27 at the base of the hook.

With the described construction, when the cover is in the closed position, as in Fig. 1, the resiliency of the arm 14 will exert a pressure on the cover through the hinge bar 22 and press the adjacent portion of the depending flange 13 against the cup so that the cover will be tightly held in position and maintained against accidental displacement due to vibration. When the cover is raised for supplying grease to the cup, the raising of the cover will cause the flange 13 adjacent to the hinge to bear against the exterior surface of the cup, so that the cover will be forced laterally as it is swung upward, and the hinge bar 22 will place the resilient arm 14 under tension, the lower edge of the flange finally seating itself in the depression 25. The upward swinging movement of the cover will be arrested by the engagement of the flange 13 with the overhanging shoulders 26, and the cover will be maintained in a position with the flange 13 perpendicular, or approximately so, to the outer surface of the cup and with the cover in an upright position. The hook in its vibratory movements will be accommodated by the recess 21 in the cup, while the openings 23, 24, in the flange will accommodate the movements of the flange relatively to the hook.

By disposing the attachment at the interior of the cup it will have the lubricant applied thereto and thereby be prevented from becoming oxidized. The combined hinge and rod guide it will be seen is of simple construction and conveniently secured in position, and by forming the hinge member and the guide integral, the positioning of the hinge member will so position the guide in the cup as to effectively sustain the rod 18 against displacement when accommodating itself to the size of the bearing.

The form of the spring hinge is such that the resilient arm will not be overstrained at any time, and at the same time it will be effective in maintaining the cover either in the closed or in the open position.

Having thus described my invention, I claim as new, and desire to secure by Letters Patent:

1. A grease cup having a cover formed with a depending flange overlapping the cup at the exterior, and means for hingedly securing said cover, said means comprising a resilient arm at the inside of the cup and extending laterally outward therethrough, an inwardly turned hook on the arm, the arm having shoulders adjacent to the hook; and a hinge bar on the cover at the flange thereof, said bar being engaged by the hook, the flange having transverse openings above and below the bar, and the cup body adjacent to the hinge having a transverse opening, together with a depression extending at the sides of the opening, and over-

hanging shoulders at the upper side of the depression at the sides of the transverse opening.

2. A receptacle having a cover provided with a depending flange overlapping the receptacle at the exterior, and hinge means for the cover comprising a hook resiliently supported at the interior of the receptacle and extending outwardly through the wall of the latter, for vibratory movements transversely to the wall, the said wall having a transverse opening to accommodate the hook, and a hinge bar disposed on the flange of the cover and engaged by the said hook.

3. A receptacle having a cover formed with a hinge bar, and a body having a co-operating member resiliently sustained on said body and presenting a free end having an inwardly turned hook engaging said hinge bar.

4. A receptacle having a cover provided with a depending member at the exterior of the receptacle, a fixed hinge bar on the said depending member toward the lower edge of the latter, and a hook resiliently supported at the interior of the receptacle and extending transversely of the latter, the hook being intumed and engaging the said hinge bar.

5. A receptacle having a cover, a depending member thereon at the exterior of the receptacle, a hinge bar associated with said member, an intumed hook resiliently supported on the receptacle and engaging the hinge bar, and a stop shoulder on the receptacle adjacent to the hook adapted to arrest the depending member on the cover when the latter is swung upwardly.

6. A receptacle having a cover provided with a depending member, and a hinge bar associated with said member, the receptacle at the upper edge adjacent to the hinge bar having a transverse opening, and a resilient arm on the receptacle at the interior, said arm having an outwardly disposed upper portion formed with an intumed hook at its outer end, and outwardly facing shoulders adjacent to the hook, the said hook extending through the transverse opening of the receptacle and engaging the hinge bar of the cover.

7. A receptacle having a cover formed with a depending flange overlapping the receptacle at the exterior, a hinge member on the cover above the lower edge of the flange, and a co-acting element on the receptacle, said co-acting element comprising a resilient arm on the receptacle at the interior, and a lateral member on said arm extending outwardly through the receptacle, said laterally extending member at its outer end having a hinged engagement with the hinge member on the cover.

8. A receptacle formed with a transverse

opening at the top, and an overhanging exterior shoulder adjacent to said opening, a cover formed with a depending flange overlapping the receptacle exteriorly at the opening, a hinge member on said cover above the lower edge of the flange, and a co-acting hinge element on the receptacle, said co-acting element comprising a resilient arm secured at the interior of the receptacle and formed with a lateral member extending outwardly through the opening of the receptacle, and in hinged engagement with the hinge member on the cover.

9. A receptacle having a body and a

cover, and hinge means for said cover comprising a resilient member on the body at the interior having a free end extending laterally outward through the body and return-bent in the form of an inwardly disposed hook, and a co-acting hinge member on the cover engaging said hook.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

THOMAS O. ORGAN.

Witnesses:

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