No. 847,988. PATENTED MAR. 19, 1907.

A. J. GRAY.

GREASE CUP.

APPLICATION FILED MAR. 6, 1905. RENEWED JUNE 22, 1906.

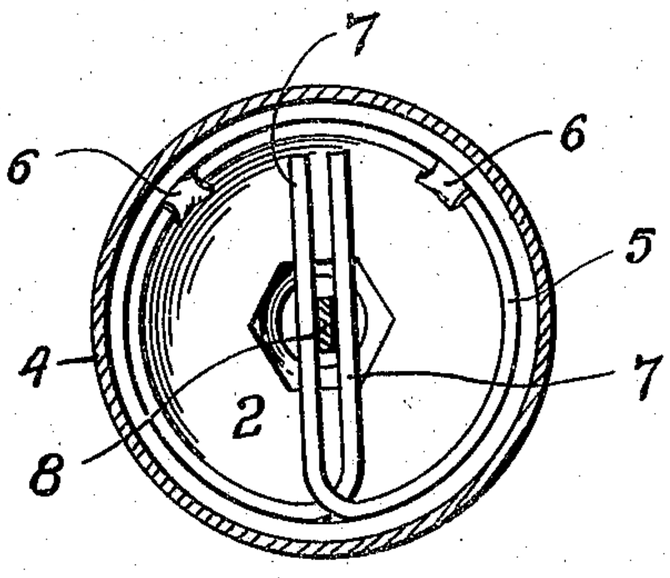

Fig 3.

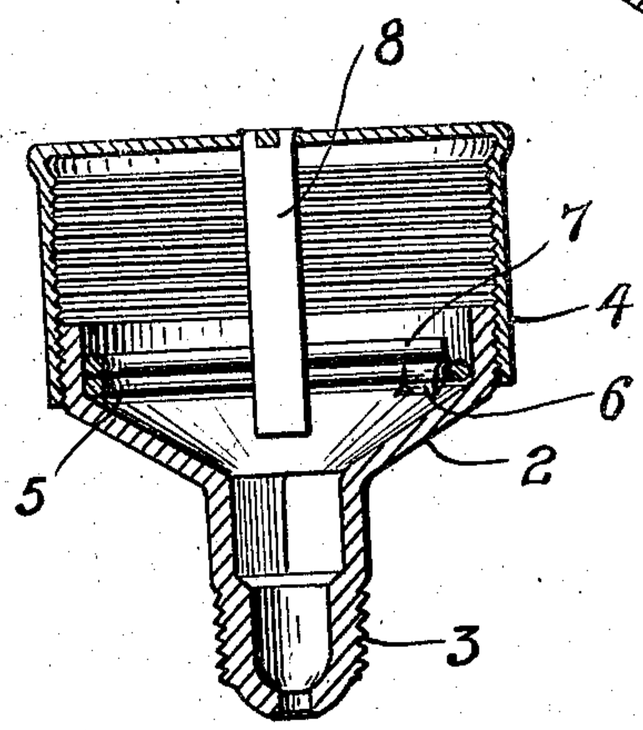

Fig 1.

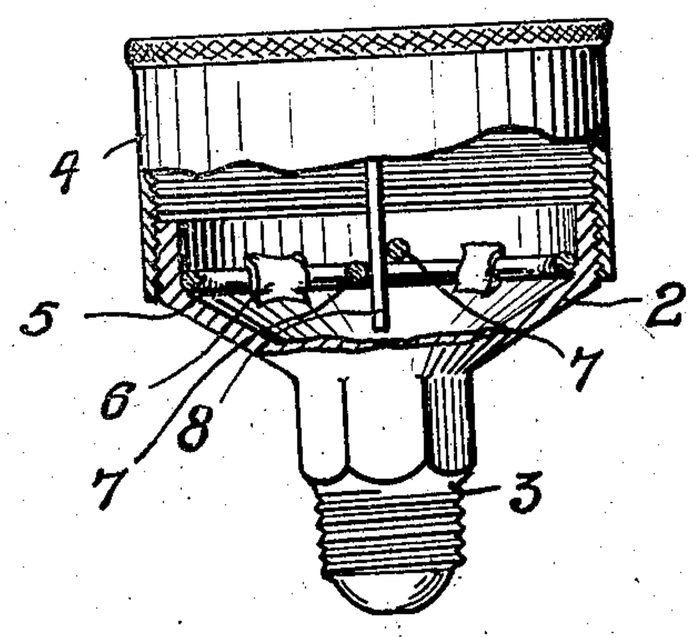

Fig 2.

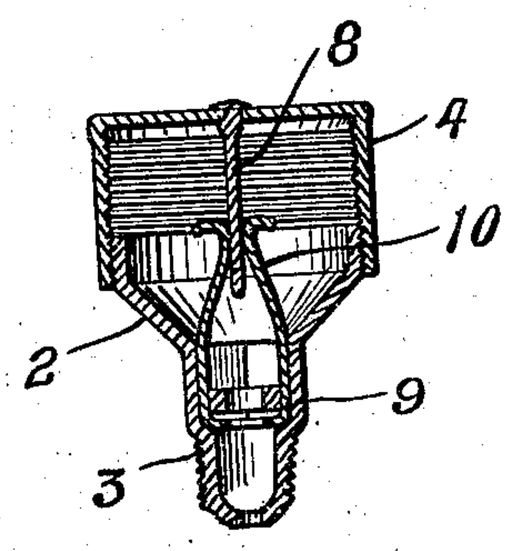

Fig 4.

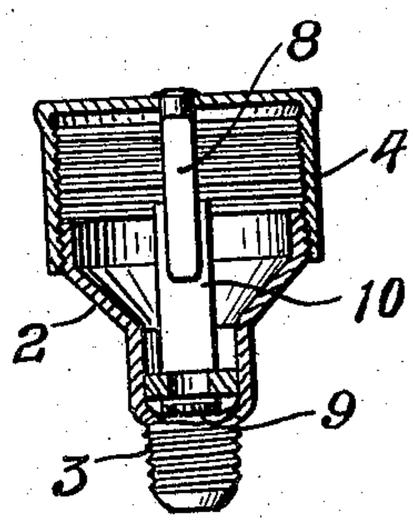

Fig 5.

WITNESSES

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UNITED STATES PATENT OFFICE.

ALMON J. GRAY, OF ST. PAUL, MINNESOTA, ASSIGNOR, BY MESNE ASSIGNMENTS, TO WILLIAM E. S. STRONG, OF CHICAGO, ILLINOIS, AND FRANK V. BARTLETT, OF DETROIT, MICHIGAN.

GREASE-CUP.

No. 847,988. Specification of Letters Patent. Patented March 19, 1907.

Application filed March 6, 1906. Renewed June 22, 1906. Serial No. 322,952.

To all whom it may concern:

Be it known that I, ALMON J. GRAY, of St. Paul, Ramsey county, Minnesota, have invented certain new and useful Improvements in Grease-Cups, of which the following is a specification.

The object of my invention is to provide means to prevent the top or cover of a grease-cup from accidentally working loose and coming off the cup while in use.

The invention consists generally in a grease-cup cover having a retarding device arranged to yieldingly resist rotary movement of the cover on the cup.

In the accompanying drawings, forming part of this specification, Figure 1 is a vertical sectional view of a grease-cup with my invention applied thereto. Fig. 2 is a similar view taken on a section-line substantially at right angles to the section-line of Fig. 1. Fig. 3 is a horizontal sectional view looking into the cup. Fig. 4 is a vertical sectional view of a modified construction. Fig. 5 is a similar view taken on a section-line substantially at right angles to the section-line of Fig. 4.

In the drawing, 2 represents a grease-cup, having a threaded shank 3 for mounting the device on a bearing. The walls at the top of the cup are exteriorly threaded to receive an interiorly-threaded cap or cover 4, that fits thereon and is revolved to raise or lower the cap to adjust the same. I have found where these cups are used upon bearings of various kinds that the jar or vibration of the machinery will frequently cause the cap to rotate sufficiently on the cup to relieve the pressure on the grease and prevent it from being fed down into the bearing. There is also danger of the cap working loose sufficiently to become entirely detached from the cup. To obviate this objection, I provide a loop or coil 5, preferably of wire, within the cup, held therein by any suitable means, as solder 6, and having inwardly-turned spring ends 7, that project in parallel relation with one another across the cup-chamber. These ends are spaced from one another and are under sufficient tension to return to their normal position when temporarily separated by any object between them. 8 represents a depending finger or pin secured to the cap 4 and having a flattened lower end that hangs between the ends 7. This finger is wider at the point where it passes between the ends 7 than the width of the space between them, and consequently the cap and finger cannot be turned without separating the ends and placing the wire under tension. The tension of the wire is not sufficient to prevent the cap and finger from being easily turned by hand, but will prevent accidental rotation of the cap through the vibration of the bearing or box upon which the cup may be mounted. The cap can therefore be adjusted to the desired position on the cup and will remain in such position until such time as it is desired to readjust it or refill the cup.

In Figs. 4 and 5 I have shown a slight modification, which consists in providing a flat spring 9 in the shank of the cup having upwardly-projecting spring ends 10 between which the finger is suspended. These ends are adapted to move outwardly when engaged by the edges of the finger and allow the cap to be revolved by hand, but will offer sufficient resistance to the rotation of the pin and cap to prevent their accidental or premature rotation. Other modifications in the arrangement of the yielding resistance will suggest themselves to others skilled in this art, and hence I do not wish to be confined to the constructions shown herein.

I claim as my invention—

1. The combination, with a grease-cup having a revoluble cover, of a spring arranged within said cup and having ends projecting across the cup, said ends being free to be moved toward or from each other, and a finger carried by said cover and having a flattened lower end that depends between the ends of said spring, substantially as described.

2. The combination, with a grease-cup having a revoluble cover, of a spring device secured within said cup and having free ends that project into the cup-chamber, said ends being spaced from one another and held in parallel relation by the tension of said spring, and a finger carried by said cover and having a flattened lower end of greater width than the distance between the free ends of said spring and depending between said free ends, substantially as described.

3. A grease-cup comprising a fixed and a revoluble member, a spring device mounted on one of said members within said cup and means carried by the other member and em-

braced by said spring device and whereby said revoluble member is yieldingly held against premature movement, substantially as described.

4. The combination, with a grease-cup having a revoluble cover, of a spring device arranged within said cup and having ends free to be moved toward or from each other, and a finger carried by said cover and having an end depending between the ends of said spring.

5. The combination, with a grease-cup having a revoluble cover, of a spring device secured within said cup and having ends spaced from one another and held in yielding substantially parallel relation with one another, and a finger carried by said cover and depending between said free ends, the part of said finger between said ends being wider than the normal distance between said ends, for the purpose specified.

In witness whereof I have hereunto set my hand this 18th day of January, 1905.

ALMON J. GRAY.

Witnesses:
RICHARD PAUL,
C. MACNAMARA.