

June 29 , 1926.

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A. G. WILLIAMS ET AL

LOCK CAP FOR GREASE CUPS

Filed April 9, 1924

Fig:1

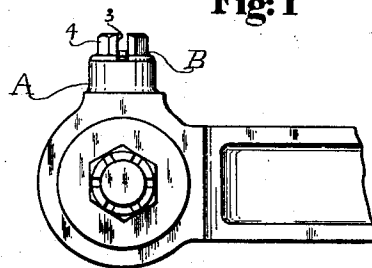


Fig:2

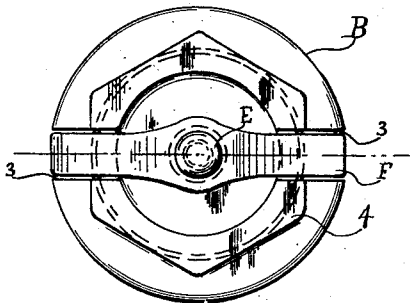


Fig.3

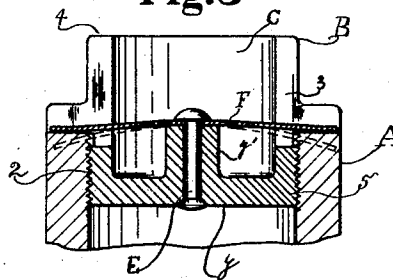
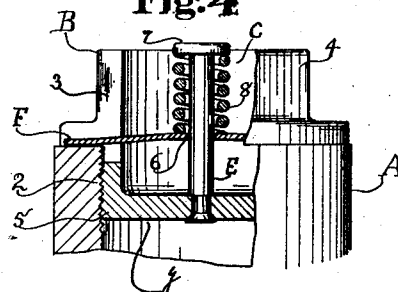


Fig.4



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UNITED STATES PATENT OFFICE.

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LOCK CAP FOR GREASE CUPS.

Application filed April 9, 1924. Serial No. 705,201.

Our invention relates to lock-caps for grease cups, or a locking device for grease cup caps used on locomotive side rods, or wherever such devices may be used, and for providing a means for locking the cap to the grease cup, so as to hold the cap in place by a resilient pressure, and locking the cap against loosening and becoming lost.

With these objects in view, our invention relates to certain novel features of construction and arrangement of parts, as will be hereinafter more particularly described and pointed out in the claims, reference being had to the accompanying drawings, in which—

Fig. 1 is a side elevation of the preferred form of our device as mounted on a locomotive side rod.

Fig. 2 is a plan view of the preferred form of our device.

Fig. 3 is a side elevation partly in cross section of the preferred form of our device.

Fig. 4 is a side elevation of a modified form of our device partly in cross section.

The same reference characters denote like parts in each of the several figures of the drawings.

In carrying out our invention, we adopt a form applicable to the usually formed grease cup, designated by A and having the usual threaded interior indicated by 2; our invention consists of the cap B, having the usual octagonal or square shaped head 4, the lower part of which has an outer threaded surface 5, circular in form, engaging the interior threaded surface of cup A, and is adapted to fit into the same; the cap B may be hollow producing an interior chamber C, and with an open top, and inclosed bottom y; or the top may be solid or closed. In the sides of the head on cap B we have opposite parallel vertical slots 3—3 which extend through the rim projection on the cap head; from the bottom y we may have a vertical lug y' and through this and the bottom y is mounted a bolt or pivot stem E, and pivotally mounted on E and on top of lug y' we have a bow spring F, with its opposite ends projecting through the slots 3—3, the ends adapted to contact with and rest upon the upper edge of cup A as shown in Fig. 3, the bolt or pivot stem passing through the bow spring F.

In another form of our device we have the bow spring F with the opening 6 therein, through which passes the pivot E, the spring

being pivotally mounted thereon, and the ends of spring F passing through slots 3—3 in cap B are adapted to rest upon the upper edge of cup A; slidably mounted on pivot E and between bow spring F and cap 7, we have the coil spring 8, resting upon bow spring F and adapted to be compressed between bow spring F and cap 7; on stem or pivot 6; the coil spring 8 has in Fig. 5 as shown, resilient contact with bow spring F.

In the operation of our device, in the first form shown, we mount cap B in cup A, as shown in Fig. 3 as follows: we insert the threaded portion of cap B in the threaded opening in cup A, and the outer ends of bow spring F enter the slots 3—3 and on turning the cap B downward, the ends of bow spring F come in resilient contact with the edge of cup A, and by the downward movement of the cap, an increasing contact tension is produced in spring F, holding the cap B firmly in place within the cup.

In a further form of our device as shown in Fig. 5, the cap being mounted in the cup the ends of bow spring F projecting into the slots 3—3 as the cap B is turned downward and contacting with the edge of cup A, producing a continued compression of coil spring 8, in contact with bow spring F produces an increasing resilient tension of spring F, and resultant pressure between the threads on cap B and cup A, holding the cap B securely in place within cup A and prevented from being loosened and unscrewed by sudden jar or other cause, and eventually lost from the cup.

The petitioners reserve the right to modify the details of the form of construction of their device without departing from the spirit of their invention.

Having thus described our invention what we claim as new and for which we desire Letters Patent is as follows:

1. In a device of the character described; a male threaded plunger element engaging a corresponding female-threaded chamber element; a cup-shaped bifurcated head surmounting the plunger element; a leaf spring fixed in the cup-shaped head the ends of which project thru the bifurcating slots of the bifurcated head and beyond the walls of the head and may be brought into resilient pressure contact with the rim or upper edge of the chamber element, thus locking the head against accidental or jar-induced turning.

2. In a device of the character described;
a cylindrical lubricating chamber of the
type used for locomotive side rod lubrica-
tion; threads on the interior wall of said
5 chamber; a cylindrically based plunger
member; threads on the exterior of the base
of the plunger member capable of engaging
the threads on the interior of the chamber
wall; a hexagon head surmounting the nut
10 to permit its being rotated; a cylindrical
opening within the hexagon head; bifurcat-
ing slots dividing the wall of the hollow
hexagon head; on the bottom of the plunger
element a riser having an opening there-
15 through; a leaf spring pivoted on the top of

the said riser by a rivet passing through the
riser and spring; the ends of the flat spring
extending through the bifurcating slots to
engage the top rim of the cylindrical cham-
ber wall and so engaging with a resilient 20
pressure the said top rim when the hexagon
head of the bifurcated hollow nut is properly
rotated, and causing to be exerted a constant
resistance against twisting of the plunger
element from any cause. 25

In testimony whereof we have affixed our
signatures.

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