Nov. 26, 1929. G. T. CHUPP 1,737,148

GREASE CUP AND CLOSURE

Filed Sept. 2, 1925

Fig. 2

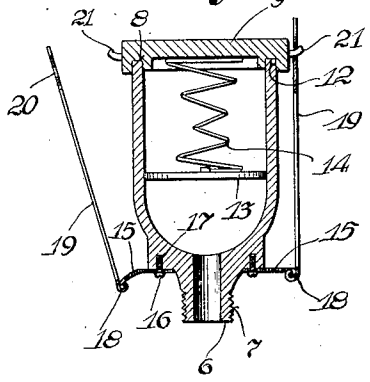


Fig. 1

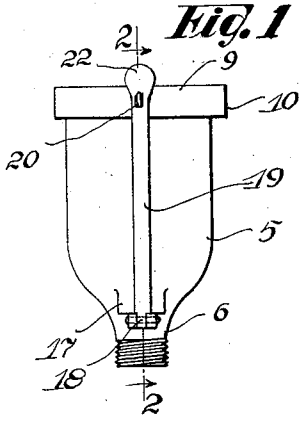


Fig. 4

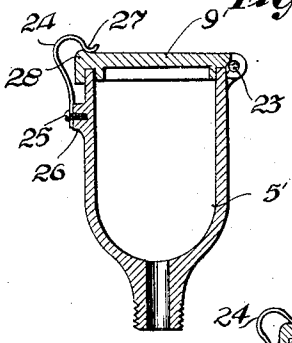


Fig. 3

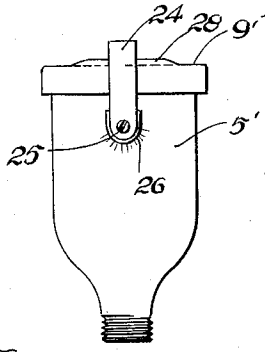


Fig. 9

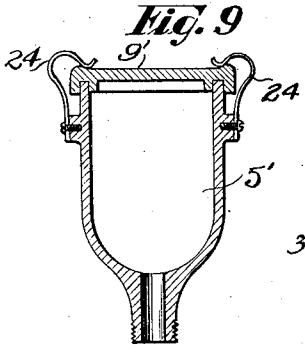


Fig. 5

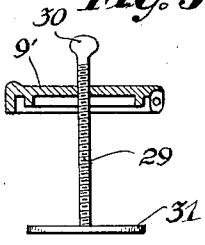


Fig. 6

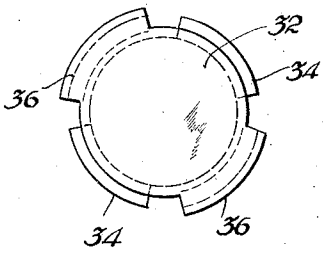


Fig. 7

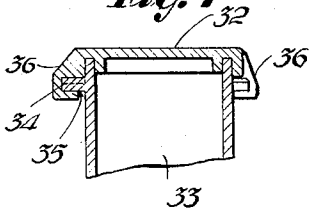
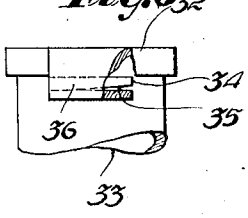


Fig. 8



Inventor
Grady T. Chupp
By Brenda[illegible] Cann
Attorney

Patented Nov. 26, 1929 1,737,148

UNITED STATES PATENT OFFICE

GRADY T. CHUPP, OF SMACKOVER, ARKANSAS

GREASE CUP AND CLOSURE

Application filed September 2, 1925. Serial No. 53,978.

This invention relates to receptacle closures, and more particularly pertains to an improved grease cup and closure therefor.

While, for the purpose of convenience, this invention is illustrated as a grease cup and closure, it will be readily understood that the invention finds a wide field of utility for other purposes.

The principal objects and features of this invention which afford the advantages attendant to the use of this device are: the provision of improved means for retaining a closure in proper place on a receptacle; the provision of a novel and improved joint between the closure and the receptacle; the provision of an improved yieldingly resistance means for retaining a closure on a receptacle; the provision of means for retaining a wholly detachable closure upon the receptacle; and the provision of a device embodying the foregoing features which is simple in construction and possesses a high degree of durability.

Further and more specific features of this invention are expressed in the provision of a grease cup in which the edge which borders the open end thereof is ground smooth and the cap which engages said edge is provided with a ground surface for snug engagement with said edge; the provision of spring actuated means for firmly seating the cap; and the further provision of an improved wedge means for securing the cap.

The foregoing and other objects and features of this invention as may appear or be pointed out later are attained in the embodiment illustrated in the accompanying drawing, in which:

Figure 1 is a side elevational view of the grease cup of this invention.

Figure 2 is a vertical transverse sectional view taken on line 2—2 of Figure 1, looking in the direction of the arrows.

Figure 3 is a side elevational view of a modified form of the invention.

Figure 4 is a vertical sectional view on line 4—4 of Figure 3.

Figure 5 is a modified form of the cap shown in Figures 4 and 5.

Figure 6 is a plan view of a further modified form of the invention.

Figure 7 is a transverse vertical section taken on line 7—7 of Figure 6.

Figure 8 is a fragmentary elevational view of the device shown in Figures 6 and 7.

Figure 9 is a further modified form of this invention.

Referring more particularly to the drawing, and first to Figures 1 and 2, 5 is a grease cup having an outlet nipple 6 on its bottom, said nipple being provided with external threads 7 for an obvious purpose.

The upper open end of the cup is provided with a smooth ground surface 8 to be engaged by a complemental surface on the cap or closure 9. This closure is provided near its periphery with an internal depending annular flange 10 provided with a concentric groove 11, said groove having a smooth ground surface 12. The groove 11 is of such size as to readily receive the upper margin of the cup, the ground surfaces 8 and 12 coming into direct contact and thus serving to accurately seat the closure and effectually seal the grease cup. As is conventional, a plunger 13 is provided, lying within the cup and having an expansion helical spring 14 arranged between said plunger and the closure, so that the contents of the grease cup will be fed as required.

I provide yieldingly resistant means for retaining the cap, and this means comprises a pair of laterally projecting resilient arms 15, having their inner ends fixedly secured by screws 16, or the like, to the under surfaces of enlargements 17—17, formed integrally with the cup. The outer ends of the arms 15 are hingedly connected at 18—18 to substantially rigid links 19—19, said links having each an aperture 20 near the free end, and adapted to engage each over a lug 21, one of which lugs is disposed on either side of the closure 9 and projects slightly upwardly in order to prevent accidental dislodgement of the links. The upper ends of the links 19 are enlarged at 22 to afford a finger piece on each for manipulating the links.

In Figures 3 and 4, a modified form of this invention is shown, the cup and closure being of substantially the same construction as that of the form shown in Figures 1 and 2, in so

far as the ground joint is concerned. However, in this modified form the closure 9′ is hinged at 23 to the upper edge of the cup, and is thereby ordinarily a permanent part. The closure 9′ is retained in closed position by a curved spring strip 24, said strip 24 being secured by a screw 25, or the like, to an abutment 26 formed on one side of the grease cup 5′. The end of the strip 24 is bent outwardly at 27 so that the end of the strip will engage easily a rounded enlargement 28 on one side of the top of the closure 9′. As will be readily understood, the closure and cup are here provided with the ground surfaces 8 and 12 previously described.

In Figure 5, the closure 9′ is illustrated as equipped with an axial screw 29, which has a wing 30 on its outer end and a plunger 31 on the inner end, said plunger serving to force the contents of the cup through its outlet when the screw is turned. Obviously, the plunger 13 and spring 14 might be substituted here, if desired. Figure 9 illustrates the closure 9′ as secured by two of the spring strips 24, and in this form the closure is entirely removable from the cup.

In Figures 6, 7 and 8, a further modified form of this invention is shown, wherein the ground joint previously described is also employed. Here the closure 32 is entirely removable from the cup 33 and the ground joint 24 is provided. However, the closure is retained by the provision of tapering segmental lips or flanges 34, arranged at diametrically opposite points on the cup, the under inclined surfaces 35—35 of said lips being engaged by complemental clamping jaws 36—36 formed integrally with the closure and disposed at diametrically opposite points on the closure. As shown in Figure 6, the closure is in position on the cup, and upon a quarter turn of the closure, the jaws 36 each engage one of the lips, thus firmly seating and frictionally retaining the closure. The cooperating ground surfaces here also serve to assist in sealing the cup.

From the foregoing, it will be seen that means is provided for effectively sealing the grease cup and preventing leakage, and that means is also provided for preventing loss of the closure. It will be obvious that either of the plungers described may be used on the closure 32. Obviously, the resistant qualities of the springs 15 and 24 must be greater than or sufficient to withstand the pressure established by the spring 14 or plunger.

While various specific embodiments of this invention have been described, it will, of course, be understood that I reserve the right to make minor alterations in the details thereof within the purview of this invention and scope of the claims.

I claim:

1. In a receptacle, in combination, a body having an open end, a removable closure for said open end provided with a lateral projection, means for retaining said closure including a spring supported pivotally mounted arm having a portion for engagement over said projection, said spring mounted arm acting in a direction to tend to move said closure toward the receptacle.

2. In a receptacle, in combination, a body having an open end, a removable closure for said open end provided with a lateral projection, having an outwardly turned end, means for retaining said closure including a spring supported pivotally mounted arm having a portion for engagement over said projection, said arm being urged onto said projection by its spring mounting and by cooperation of the latter and the outwardly turned end of said arm and thereby tending to pull said closure toward the receptacle to seal the open end, and preventing casual displacement of said arm.

In testimony whereof I have hereunto signed my name.

GRADY T. CHUPP.