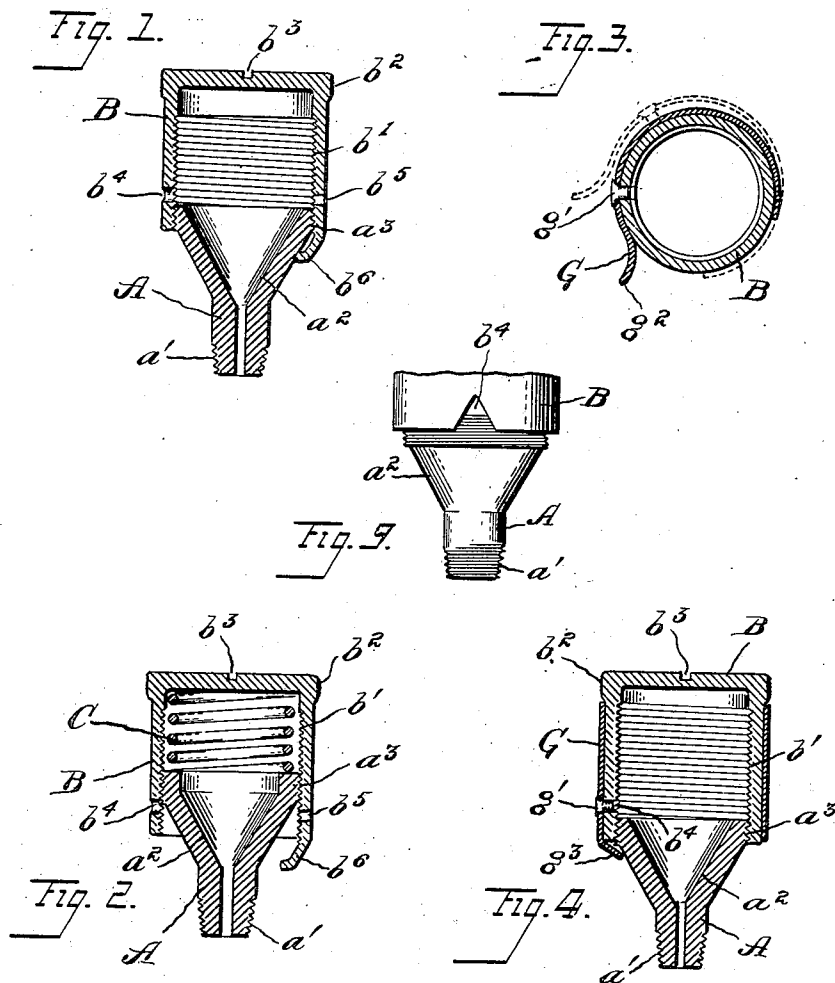


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LUBRICATOR.
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To all whom it may concern:

Be it known that we, SAMUEL C. CUTLER and WILLIAM H. BROWN, citizens of the United States, residents of Cleveland, 5 county of Cuyahoga, and State of Ohio, have invented a new and useful Improvement in Lubricators, of which the following is a specification, the principle of the invention being herein explained and the best mode in 10 which we have contemplated applying that principle, so as to distinguish it from other inventions.

Our invention relates to lubricators, and more particularly to such as are intended for 15 the reception of more or less viscid lubricants.

The object of the invention is the provision of a device of this specific character which shall combine a more generally efficient construction with a greater facility of 20 operation, and at the same time be simple and correspondingly cheap of manufacture.

The said invention consists of means which are hereinafter fully described and 25 particularly set forth in the claims.

The annexed drawing and the following description set forth in detail certain mechanism embodying our invention, the disclosed means, however, constituting but part 30 of various mechanical forms in which the principle of our invention may be employed.

In said annexed drawings:—Figure 1 is the simplest embodiment of our invention, shown in vertical section. Fig. 2 is a similar 35 view of a slight modification thereof. Fig. 3 is a horizontal section of a further modification, and Fig. 4 is a vertical axial section of same. Fig. 5 is a fragmentary elevation of still another modified form.

Our lubricator comprises as one of the main members the usual hollowed cylindrical stem A, exteriorly threaded at its lower 40 end, as shown at a^1 , by means of which it may be screwed into any member to which the lubricant is to be supplied. The upper 45 portion of this stem is funnel-shaped, as shown at a^2 , and exteriorly screw-threaded at the upper end thereof, as indicated by a^3 . A cap member B, also preferably of cylindrical form, to constitute an inverted cup, 50 and with an interior thread b^1 throughout the greater part of its length, is adapted to screw upon the stem member and form jointly with it an interior space. As will 55 now be apparent, the stem and cap members may be moved relatively to each other, so

as to restrict or enlarge such space and bring pressure to bear upon the lubricant contained therein. The upper circumference of the cap member may be knurled, as 60 represented at b^2 , for the obvious purpose of making the turning of the one member upon the other more easy. On the upper surface of this cap member is a slot b^3 into which a screw driver may be inserted, and whereby 65 the cap member may be turned when not accessible by hand. The cap member B is provided near the bottom with an inlet duct b^4 , the purpose of which will hereinafter more clearly appear. One or more small 70 lips b^6 are also formed around the bottom of the cap member, and may be bent or inclined inwardly to prevent the entire separation of the cap and stem member.

The operation of the lubricator is exceedingly 75 simple. The cap is first unscrewed as far as the lips b^6 will permit, exposing the opening b^4 , as clearly shown in Fig. 1. Thereafter, any lubricant may be forced through the opening b^4 and into the space 80 formed between the said stem and cap members, until the same is full or substantially so. When, for all general purposes, a heavy lubricant is best suited, as in the case of automobile usage, a grease-gun is employed 85 for the forceful introduction of the lubricant into the interior space. Thereafter, as will be apparent to those skilled in the art, the mere turning of the cap member, either with the fingers or by other means, as previously suggested, will serve to bring the 90 necessary pressure to bear upon the lubricant, in order to force it down through the hollow stem member, as intended. It will be observed that after a very few turns of 95 the cap member upon its thread, the opening b^4 will be automatically closed, to remain so until the cap member is unscrewed for the purpose of filling the lubricator. It should be noted also that our invention pre- 100 cludes the necessity of entirely removing the cap of a device of this character when it is desired to effect such refilling, whereby the interior thereof becomes exposed to dirt or other obstructions. Further, it precludes 105 the possibility of mislaying or even losing the cap member entirely.

Fig. 2, as the first modification, differs only in that a spring C is interposed between the upper part of the stem A and the cap 110 member B, whereby the tendency of the cap member to loosen and unscrew is resisted.

In Fig. 3, the modification consists in the employment of a spring sleeve G provided with an interiorly positioned pin g' adapted to be seated in the opening and close the same. When so seated, the cap member may be rotated by grasping the projecting end g^2 of the sleeve, as will be likewise apparent to those sufficiently skilled in the art. An outward pull on the projecting end g^2 against its own tension will cause the pin g' to slip out of the opening. Thereafter, the sleeve may be slipped around sufficiently to expose the opening, and permit of a recharge of lubricant. One or more lips g^3 are also best provided at the lower edge of this sleeve, for a similar purpose, as best shown in Fig. 4.

The modification represented in Fig. 5, merely depicts a possible alteration of the shape and extent of the inlet opening b^4 of our preferred form illustrated in Fig. 1.

When the nozzle of the grease-gun which is used to fill the lubricator, closely fits the inlet opening b^4 thereof, it is necessary to provide an air-outlet or vent b^5 , as is shown in Figs. 1 and 2. This permits the escape of the air which is displaced from the interior space upon the introduction of the grease or other lubricant. However, as a general rule, grease-gun nozzles are grooved upon their exterior so as to provide lateral air-spaces, in which event the vent b^5 will not be necessary. In the form of lubricator shown in Figs. 1 and 2, this vent would be located at the lower end of the exterior member B, so that such vent as well as the inlet opening b^4 would be closed when the said member B is screwed down upon the member A.

Having fully described our invention, what we claim and desire to secure by Letters Patent is:—

1. A lubricator comprising the combination with a threaded inner member provided with an axial duct, of a complementarily threaded outer member movable thereabout and provided with a lateral filling aperture, said aperture adapted to be closed by such movement.

2. A lubricator comprising the combination of an exteriorly threaded member provided with a duct, a complementary interiorly threaded member movable thereabout and provided with an aperture, said aperture adapted to be closed by such movement, means for impeding the movement in one direction, one such member being provided with means for limiting the movement in the opposite direction.

3. A lubricator comprising the combination of an exteriorly threaded member, a complementarily interiorly threaded member movable relatively thereto, said interiorly threaded member being provided with an aperture adapted to be closed by such relative movement, a spring interposed between said members for impeding the movement in one direction, said interiorly threaded member being provided with a projection for limiting the movement in the opposite direction.

4. A lubricator comprising the combination of two members forming an interior chamber adapted to receive lubricants and provided with an inlet and an outlet opening; one of said members having an outer thread and an inner recess with which said outlet connects; the other of said members being cylindrical in form, having an open bottom, an interior thread adapted to engage said exterior thread, and a top forming, with the cylindrical shell, an integral structure; one of said members having a bent portion lying in the path of movement of the other of said members, whereby the disengagement of said two members is prevented.

5. A lubricator comprising the combination with a threaded interior member provided with an axial duct; of a complementarily threaded outer member movable about such interior member and provided with a lateral filling aperture adapted to be closed by such movement; such outer member being provided with an inwardly projecting portion lying in the path of relative movement of said interior member.

6. A lubricator comprising the combination of an interior member having an outer conical surface, an inner conical recess, and an outlet connected with the latter; and an outer member movable relatively to said inner member and forming with the latter an interior chamber for receiving a lubricant and provided with an inlet; the said outer member having an open bottom; a top integral with the sides thereof, and an inwardly projecting portion adapted upon such relative movement to engage the conical outer surface of said interior member.

Signed by us, this 30th day of September, 1910.

S. C. CUTLER.
WILLIAM H. BROWN.

Attested by—

WINIFRED WALTZ,
CURT B. MUELLER.