(No Model.)

F. HERMAN.

LUBRICATOR.

No. 505,828. Patented Oct. 3, 1893.

FIG. 1.

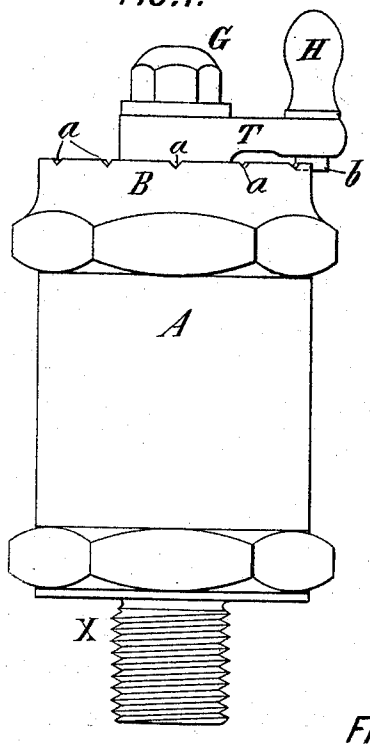


FIG. 2.

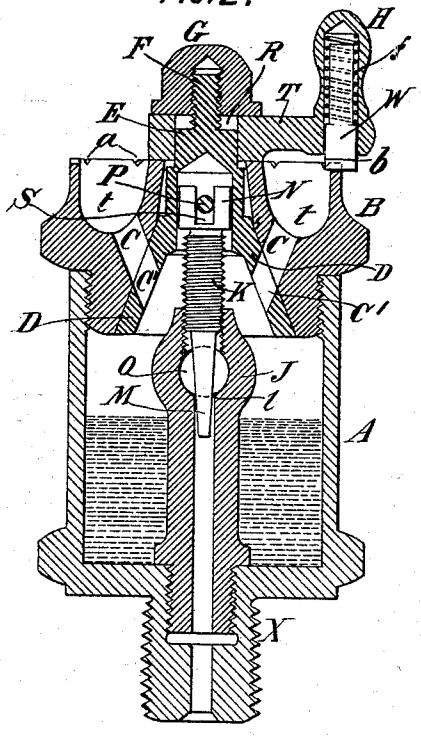


FIG. 5.

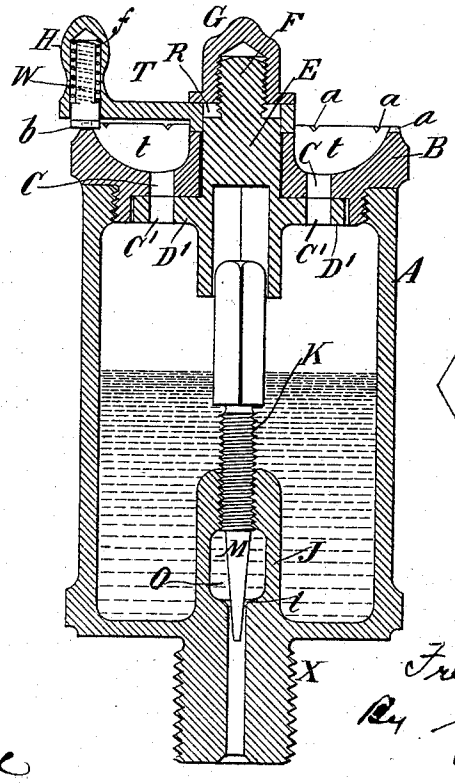


FIG. 4.

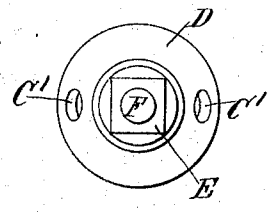
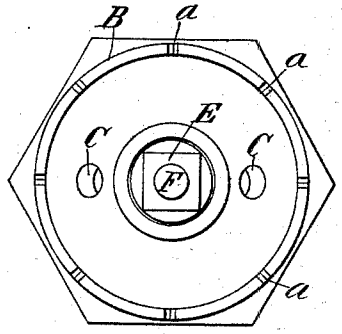


FIG. 3.



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UNITED STATES PATENT OFFICE.

FREDERICK HERMAN, OF ACQUACKANONCK, NEW JERSEY.

LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 505,828, dated October 3, 1893.

Application filed May 18, 1893. Serial No. 474,624. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK HERMAN, of Acquackanonck township, in the county of Passaic and State of New Jersey, have invented a new and useful Improvement in Oil-Cups, of which the following is a specification.

My invention relates to self-feeding oil-cups which are provided with adjustable feeding devices, and the object I have in view is to provide an oil-cup of simple construction, which may be charged and adjusted without the necessity of taking out or removing any filling plug, or loosening or detaching the top or cap of the cup. This I accomplish by the novel construction and arrangement of parts shown in the accompanying drawings, in which—

Figure 1 is an elevation of my improved oil-cup. Fig. 2 is a vertical section of the same. Fig. 3 is a top view of the same, the arm T and nut G being removed. Fig. 4 is a top view of the conical cut-off. Fig. 5 is a vertical section of a modified form of my improved oil-cup.

A is a cylindrical cup.

B is the cap which is screwed into the top of the cup. This cap has its top depressed or hollowed out as shown at *t*, and on its rim are cut notches *a*, *a*. In the bottom of the cap B are openings C through which the oil passes after it has been poured into the hollowed portion of the cap.

D is a hollow conical cut-off which revolves under the cap B, and is provided with openings C′ which correspond with the openings C in the cap B. The cut-off D is adapted to open and close the openings C in the cap B, thereby admitting or preventing the flow of the oil from the cap B into the cup A. The cut-off D is provided at its top with a square shoulder E terminating in the threaded shank F upon which is screwed the nut G.

J is the feed-pipe provided with an opening O for the admission of oil from the cup A.

K is the regulating screw moving vertically in the feed-pipe, its lower end M, which is tapering and conical in shape, extending downward into the opening *l*, and being adapted to open and close said latter opening, for the purpose of regulating the supply of oil from the cup A. The upper end of the screw J is provided with a round head N having a slot S therein to receive the pin P which is fixed transversely in the upper part of the hollow conical cut-off D; so that as the latter is revolved the screw K will turn with it.

T is an arm one end of which engages the conical cut-off D, the arm having an opening R in it to receive the square head of the cut-off, the threaded shank F projecting upward and the nut G being screwed thereon to hold the arm and cut-off together. The other end of the arm T is provided with a hollow handle H, within which is a rod W terminating at its lower end in the knife-edge *b*, which is adapted to drop into the notches *a*, *a*, and is held there by the spring *f*. This spring, however, should not be so strong as to prevent the rod W from being forced upward as the handle H is turned from one notch to another. The oil-cup is provided with the usual screw-shank X.

Having described the several parts of my improved oil-cup its mode of operation will be apparent. By moving the handle H along the rim of the cap B, the cut-off D is revolved, and the openings C are opened or closed according as the openings C′ in the cut-off are or are not made to register with the former, thereby allowing or preventing the flow of oil from the cap B into the cup A. In using my improved oil-cup it is advisable to have the cut-off D so placed relatively to the cap B, that when the arm T is in a given position, as for example immediately over the opening C, the latter will register with the opening C′. The operator will thus know at a glance whether the cap is open or closed. As the handle H is moved along the rim of the cap, as above stated, the regulating screw K will likewise be turned, causing it to move upward or downward in the feed-pipe J, according to the direction in which the handle is turned. This raising and lowering of screw K enlarges or diminishes the size of the opening at *l*, thereby regulating the supply of oil to the feed pipe. The number of threads to the inch on the screw K being known, the size of the opening at *l* may be adjusted by turning the handle H to any particular notch on the rim of the cap B.

It will thus be seen that my improved oil-cup may be charged, adjusted and regulated without removing any filling-plug, or loosen-

ing or detaching any nut cap or other part; and the possible loss of any part of the cup is therefore avoided.

In Fig. 5 I have shown a modified form of my improved oil-cup in which the feed is at the bottom of the cup, and the cut-off instead of being conical is disk-shaped, as shown at D′. This latter form of cup is better adapted for use in cases where the cup is attached to a stationary part, and it is desired to have a continuous feed. When the cup is to be attached to a moving part and it is desired to have the oil feed only when the part is in motion, then the form shown in Fig. 2 is to be used. In this case the level of the oil in the cup being below the opening O, the motion of the cup causes the oil to splash up into the opening O and so through the feed aperture *l*; and when the cup is at rest the oil will cease to feed.

I have shown the cap B and the cut off D as each having two openings for the passage of oil, but it is obvious that there may be more. Also the form and manner of connecting the several parts may be altered without departing from my invention.

What I claim is—

1. In a self-feeding oil-cup, the combination of a cup, a hollow cap therefor provided with openings in the bottom thereof, a cut-off provided with similar openings and capable of being rotated under said cap and adapted to close and open the openings in the bottom of said cap, a feed-pipe placed vertically in said cup, a screw working in said feed-pipe and adapted to regulate the size of the discharge orifice, and means for rotating said cut-off and regulating screw simultaneously, substantially as shown and described.

2. In a self-feeding oil-cup, the combination of the cylindrical cup A, cap B provided with the openings C, the conical cut-off D provided with the openings C′, the feed-pipe J and regulating screw K and means for rotating said cut-off and regulating screw simultaneously, substantially as shown and described.

3. The oil-cup herein described, consisting of the combination of the cup A provided with the hollowed cap B, the latter having openings in its lower part for the passage of oil from the cap to the interior of the cup, the conical cut-off D adapted to open and close the openings in cap B, the feed-pipe J, provided with its regulating screw K, placed vertically in said cup, the arm and handle T, H, adapted to rotate simultaneously the cut-off D and screw K, and means to hold the handle in any desired position, substantially as shown and described.

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