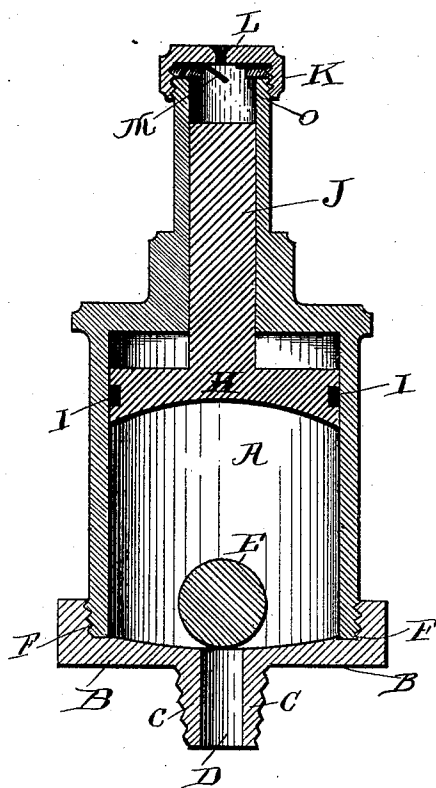


(No Model.)

C. VERNIAUD.
GREASE LUBRICATOR.

No. 428,657.

Patented May 27, 1890.



Witnesses

S. E. Bates

Dorsey Bates

C. Verniaud Inventor

By *his* Attorney *Wm. H. Bates*

UNITED STATES PATENT OFFICE.

CLAUDIUS VERNIAUD, OF QUINCY, ILLINOIS.

GREASE-LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 428,657, dated May 27, 1890.

Application filed December 6, 1889. Serial No. 332,753. (No model.)

To all whom it may concern:

Be it known that I, CLAUDIUS VERNIAUD, a citizen of the United States, residing at Quincy, in the county of Adams and State of Illinois, have invented certain new and useful Improvements in Lubricators; and I do hereby declare the following to be a clear, full, and exact description of the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon, forming a part of this specification.

My invention relates to certain improvements in lubricators, particularly such as are adapted to feed heavy grease to the crank-pins of engines or other bearings subjected to more or less motions or reciprocating actions.

My invention consists, first, in a lubricator having an exit-opening in the bottom and a loose composition ball seated over such exit and capable of being thrown about within the lubricator by the motion of the bearings for the purpose of feeding or forcing the lubricant into the journals.

The invention also consists in making the said loose balls of anti-friction metals—such as antimony, copper, and lead—the diameter and weight of said balls to be in accordance with the amount of feed required, as it varies according to the speed of the part on which the lubricator is placed or secured, and, finally, my invention consists in certain novel details of construction and arrangements of parts, to be hereinafter more fully described, and particularly pointed out in the appended claims.

In the accompanying drawing, the figure represents a vertical sectional view of my lubricator constructed in accordance with my invention.

The body A of the lubricator is preferably constructed of the usual material—brass or gun-metal—and is composed of two parts, the bottom part B of which has a threaded depending shank C, in which the exit-opening D is located. This bottom part B is also threaded at F to receive the threaded lower end of the main body A, which forms the reservoir.

In the body A is a piston H, having a leather packing I inserted in a groove formed therein to prevent the lubricant contained in the lu-

blicator from escaping into the part above the piston. The upper end of this body A is extended upwardly and made to receive the piston-stem J. The upper end of this body A is threaded upon its outer surface to receive screw-threads upon the inner surface of a cap-nut K. This cap-nut is provided on its top with a small aperture L, and between it and the neck of the body A of the lubricator is secured a leather washer, forming a flap-valve M, which opens inwardly into the piston or plunger chamber. The flap-valve M in the screw-cap is normally open when the device is in operation. Should a jolt or shock occur, so as to throw the piston upward, this will force the air in the rod-chamber against the valve and close it. A metallic washer O is secured between the neck of the body A of the lubricator and the leather valve M to securely hold the valve in its place.

The base of the cup or body portion B is slightly concave upon its inner surface, in order that the composition ball E may not find a permanent lodgment thereon at any part except on the valve-seat at the upper part of the exit-tube D. The ball-valve E is made sufficiently large to allow for wear due to the abrasion of its surface against the seat, and as but a very small portion of the sphere rests against this a very slight jar will give it an oscillating movement to one side or the other, and this will permit the lubricant to escape and cause the wear of the ball-valve, and though seemingly infinitesimal, will go on at each vibration and add its detritus to the lubricant.

In operation the movement of the machine-bearings causes the ball to be rolled about within the lubricator, thoroughly mixing and grinding up the lubricant, and the detritus which is ground off from the surface of the ball-valve is mingled with the lubricant in the lubricator.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A lubricator having a piston therein, the rod of which extends into a tubular prolongation of its cover, a cap on said cover having a downwardly-acting flap-valve therein, the lower end of said lubricator being provided

with a screw-threaded base-piece which has an exit-duct therein, the upper part of which forms a valve-seat for an abrasive composition ball-valve.

- 5 2. In combination with a lubricator to be placed upon a moving part of a machine, a ball of soft metallic composition placed in the lubricator-reservoir, said ball adapted to be worn away by the movement of the lubri-

cator and to mingle its detritus with the lubricant, substantially as described. 10

In testimony whereof I affix my signature in presence of two witnesses.

CLAUDIUS VERNIAUD.

Witnesses:

SETH I. SILSBY,
WM. CORBY.