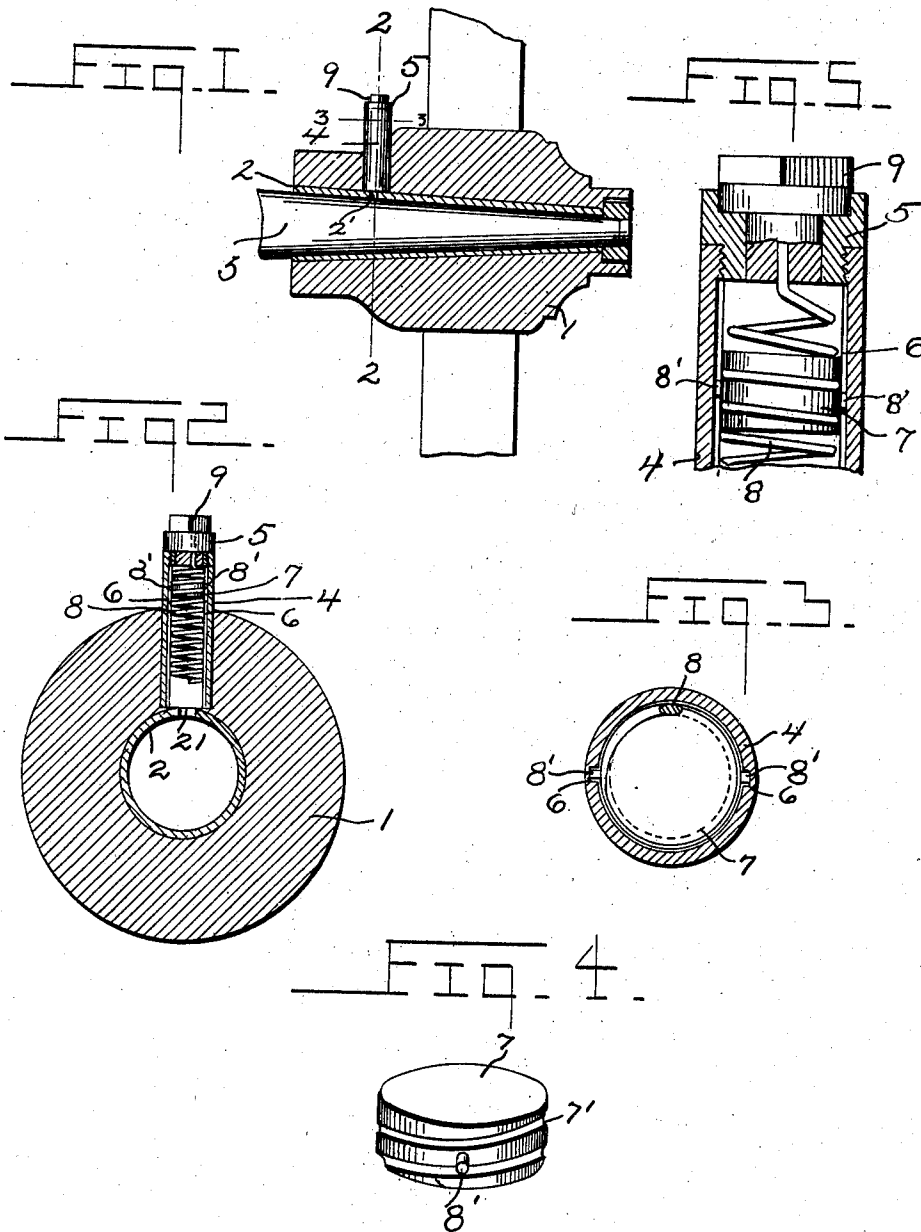


L. V. HOOD.
LUBRICATOR.

APPLICATION FILED JUNE 10, 1909.

963,441.

Patented July 5, 1910.



Witnesses
E. E. Johansen.
E. L. Chandler

Inventor
Linsey Vestal Hood.

By Woodward & Chandler

Attorneys

UNITED STATES PATENT OFFICE.

LINSEY VESTAL HOOD, OF GAIL, TEXAS.

LUBRICATOR.

963,441.

Specification of Letters Patent.

Patented July 5, 1910.

Application filed June 10, 1909. Serial No. 501,249.

To all whom it may concern:

Be it known that I, LINSEY VESTAL HOOD, a citizen of the United States, residing at Gail, in the county of Borden and State of Texas, have invented certain new and useful Improvements in Lubricators, of which the following is a specification.

This invention relates to new and useful improvements in lubricating devices and more particularly to a device of this class which is adapted to be secured in the hub of a vehicle wheel to provide a continuous feed of the lubricant to the axle spindle, or may be used as a manually operated feed with very light lubricant.

A further object is to provide a cylindrical cup or barrel in which is slidably mounted a follower plate to force the lubricant from the lower end of the cup, said plate being moved downward by the rotation of a spiral spring in the coil of which the plate is disposed.

A further object is to provide an extremely simple and efficient device of this class which may be securely closed by a suitable cap, the upper end of the spring being extended through the same and provided with a suitable thumb piece by means of which it may be rotated.

With these and other objects in view, the present invention consists in the combination and arrangement of parts as will be hereinafter more fully described and particularly pointed out in the appended claims, it being understood that changes in the specific structure shown and described may be made within the scope of the claims without departing from the spirit of the invention.

In the drawings forming a part of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a vertical section through the hub of a vehicle wheel, showing my improved lubricating device located therein. Fig. 2 is a central vertical section taken on the line 2—2 of Fig. 1. Fig. 3 is a horizontal section taken on the line 3—3 of Fig. 1. Fig. 4 is a detail perspective view of the follower plate, and Fig. 5 is an enlarged section of the upper end of the device.

Referring to the drawings, 1 indicates a vehicle hub which may be of any ordinary or approved construction and in which is centrally disposed the bushing 2. The spin-

dle 3 of the vehicle axle is disposed within the bushing, and the vehicle wheel is rotatively mounted upon the same.

My improved lubricating device is located in the inner end of the hub 1 and extends through the same, the lower end thereof contacting with the bushing 2, in which is formed the orifice 2' centrally disposed below the lubricator.

The lubricator comprises a cylindrical cup or casing 4, open at each end and provided with the closure cap 5 which is threaded therein. Located at diametrically opposite points in the cylinder casing are the vertical grooves 6, which are adapted to receive the lugs 8' formed upon the periphery of the follower plate 7. A spiral spring 8 is disposed within the casing, and the plate 7 is provided with a spiral groove 7' formed in its periphery and is adapted to receive the coils of the spring 8, the lugs 8' of the plate projecting through the same upon each side and entering the grooves 6 formed in the casing. The upper end of the spiral spring 8 extends vertically above the grooves 6 in the casing 4, and is provided upon its extremity with a suitable thumb piece 9 mounted in the cap 5, by means of which the spring may be rotated, thus moving the follower plate 7 upward or downward within the lubricator casing.

In operation the casing is first filled with the desired lubricating material, and if this is of a heavy thick nature, the follower plate may be adjusted to the lower end of the spring and superposed upon the lubricant, after which the cap is securely engaged upon the cup, and the operation of the device will be automatic as is customary in such construction. If the oil is light and thin, however, after filling the cup, the plate should be adjusted to the upper end of the spring. Then the spring will exert no pressure upon the plate until rotated and normally the plate will be held in stationary position. In order to feed the lubricant, the spring 8 is rotated within the casing by turning the thumb piece 9. It will be seen that as the spring is rotated the follower plate 7 will be forced downward in the vertical grooves 6 into contact with the surface of the lubricant and ejected from the lower end of the lubricator casing into contact with the periphery of the axle spindle 3, thus thoroughly lubricating the same and

providing for the easier rotation of the vehicle wheel and greatly reducing the friction.

It will be understood that any means may be employed for securing the lubricator casing to the hub of the wheel, and also that the manner of attaching the closure cap thereto is not essential to the proper operation of the device.

When it is desired to refill the lubricator, it is only necessary to unscrew the closure cap and remove the same together with the spiral spring and follower plate therefrom, and the same may be filled and the spring and cap readjusted to their proper position.

From the foregoing it will be seen that I have provided a simple and efficient device by means of which the axle spindle may be thoroughly lubricated at all times.

If there is danger of a heavy lubricant being heated and thus liable to be overfed by pressure of the spring, the spring may be adjusted at the start to compress the plate only to a given distance, by adjusting the plate intermediately of the length of the spring.

My improved device comprises but a few simple parts which may be readily manufactured at a trifling cost, and require no especial skill to assemble and secure in position upon the vehicle wheel.

What is claimed is:

1. A lubricating device comprising a cylindrical casing, oppositely disposed vertical slots being arranged in said casing, a closure cap threaded in the upper end of said casing, a spiral spring having its upper end vertically extended, a follower plate having oppositely disposed lugs formed integral therewith and extending through the coils of said spring into said slots, and a thumb piece upon the upper extremity of said spring for rotating the same.

2. A lubricating device comprising a cylindrical casing, oppositely disposed vertically extending slots being formed in the inner surface of said casing, a closure cap in the upper end of said casing, a spiral spring having its upper end vertically extended, a follower plate having a peripheral spiral groove adapted to engage with the coils of said spring and located within the same, oppositely disposed lugs formed integral with said plate extending into said slots, and a thumb piece upon the upper extremity of said spring for rotating the same.

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

LINSEY VESTAL HOOD.

Witnesses:

MIKE E. JONES,
HARVEY W. DALTON.