

(No Model.)

J. F. EVANS.
LUBRICATOR.

No. 516,087.

Patented Mar. 6, 1894.

Fig. 1.

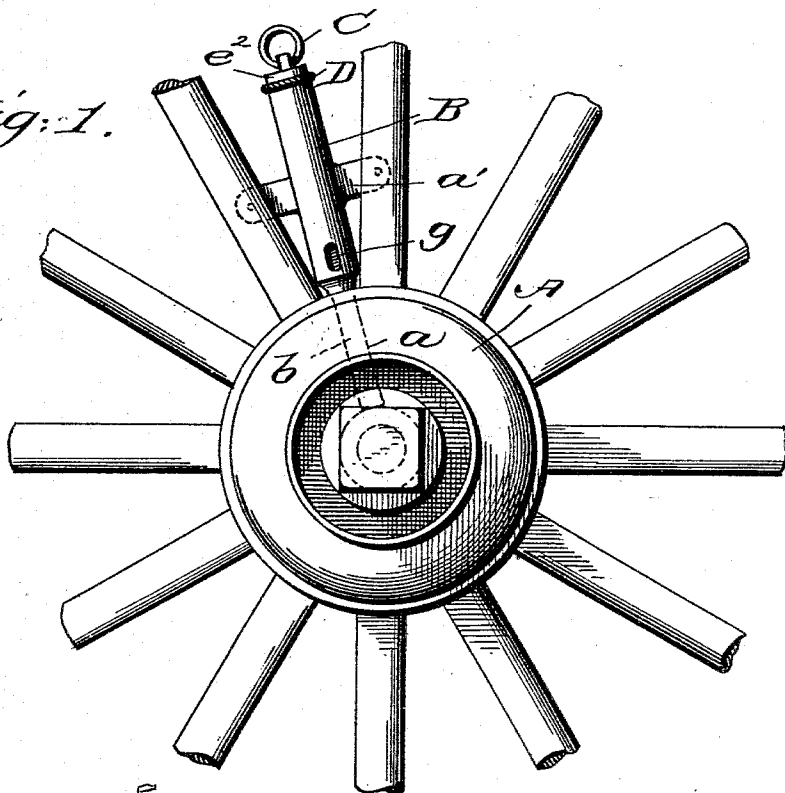
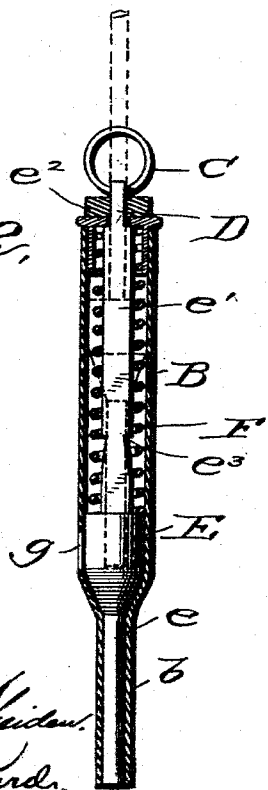
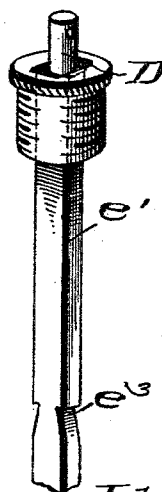


Fig. 2.



Witnesses
Wm. H. Hildner
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Fig. 3.



Inventor
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UNITED STATES PATENT OFFICE.

JOHN FREDERICK EVANS, OF ORANGEBURG, SOUTH CAROLINA, ASSIGNOR OF
ONE-HALF TO JAMES L. SIMS AND WILLIAM L. GLOZE, OF SAME PLACE.

LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 516,087, dated March 6, 1894.

Application filed July 29, 1893. Serial No. 481,855. (No model.)

To all whom it may concern:

Be it known that I, JOHN FREDERICK EVANS, a citizen of the United States, residing at Orangeburg, in the county of Orangeburg, State of South Carolina, have invented certain new and useful Improvements in Lubricating Attachments for Vehicle-Wheels; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to attachments to facilitate the lubricating of vehicle wheels through the hub and obviate the necessity of removing the wheel for this purpose.

The object of the invention is to prevent the clogging of the radial oil passage in the hub and at the same time facilitate the supply of lubricant to the axle.

The improvement consists of the novel features and the peculiar construction and combination of the parts which will be hereinafter more fully described and claimed and which are shown in the annexed drawings, in which—

Figure 1 is a detail view showing the application of the invention. Fig. 2 is a central longitudinal section of the tubular casing showing the plunger and operating spring in full lines, and showing the operation of the said plunger by dotted lines. Fig. 3 is a detail view of the catch showing the manner of locking the plunger in a depressed position.

The hub A is of ordinary construction and is provided at a convenient point between its ends with an oil passage *a* to which lubricant is fed to the axle or spindle. The attachment comprises the tubular casing B having spout *b* at one end which is designed to enter the oil passage *a* and convey the lubricant to the moving part to be lubricated. The upper end of the casing is opened and is closed by a cap D which may be attached thereto in any desired manner preferably by screw thread joint. The tubular casing B may be of any desired length and size and may be of any required form in cross section best adapted for the style of wheel to which the device is to be applied. The plunger E comprises a stem *e* to snugly fit the spout *b*, and a stem *e'* of suffi-

cient length to project through an opening in the cap D. The stem *e* corresponds in cross section to the form of the spout *b* to fill the latter and prevent the lodgment of foreign matter therein. The stem *e'* is oblong in cross section and the opening in the cap D is of corresponding shape. The projecting end of the stem *e'* is reduced and receives a ring C by means of which the plunger is operated when it is desired to lubricate the wheel. When the plunger is turned so that the stem *e'* sets crosswise of the opening in the cap said plunger is locked and prevented from being withdrawn from the tubular casing B. A washer *e²* of metal, leather, rubber or similar material is mounted on the reduced end of the stem *e'* and is adapted to close the opening in the cap and exclude dust and other foreign substances. A spring F encircles the stem *e'* and is confined between the plunger E and the cap D and serves to hold the plunger within the tubular casing. The stem *e'* is reduced at a short distance from the plunger E to form shoulders *e³* which are adapted to engage with the top of the cap D and hold the plunger when withdrawn from the tubular casing B the proper distance to permit the lubricating of the wheel.

The attachment constructed substantially as herein set forth is applied to the vehicle wheel to be lubricated in any desired manner and is held in place by suitable fastenings such as screws which pass through wings *a'* projecting laterally from the tubular casing B or by a fastening attached to, and made part of cap D. An opening *g* in the side of the tubular casing B just above the spout *b* admits of the spout of an oil can being thrust therethrough when it is desired to lubricate the wheel. Under normal conditions the plunger E closes the opening *g* and excludes dust and foreign matter and the stem *e* entering the spout *b* serves a similar purpose. When it is desired to lubricate the wheel the plunger E is withdrawn a sufficient distance to clear the spout *b* of the stem *e* and obtain an unobstructed passage from the opening *g* to the part to be lubricated. The plunger is held in a withdrawn position by turning the stem *e'* to cause the shoulders *e³* to set cross-

wise of the opening in the cap D. The wheel is lubricated through the opening *g* from an ordinary oil can in the manner herein set forth. After the wheel is lubricated the stem *e'* is turned to bring the shoulders *e³* in coincidence with the opening in the cap D when the spring F will regain itself and return the plunger in the tubular casing, thereby closing the opening *g* and the spout *b*.

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

1. In an attachment for lubricating vehicle wheels, the combination with a tubular casing having an opening in the side thereof, of a plunger adapted to work in the said tubular casing and close the opening in the side thereof, and having a stem *e'* oblong in cross section and adapted to work through an opening of corresponding shape in the cap of the casing, and having two sets of shoulders which are adapted to set crosswise of the opening in the cap and hold the said plunger either in a withdrawn position or within the tubular cas-

ing, substantially as and for the purpose set forth. 25

2. A lubricating attachment for vehicle wheels consisting of a tubular casing having an opening in the side and provided with a spout, a plunger adapted to work in the said casing and close the opening in the side thereof, and having a stem to project into and close the said spout, and having a second stem attached thereto to project and work through the cap of the casing and provided with two sets of shoulders to hold the plunger in either a withdrawn position or within the said tubular casing, and a coil spring encircling the said stem and confined between the cap and plunger, substantially as described for the purpose set forth. 30 35 40

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

JOHN FREDERICK EVANS.

Witnesses:

WM. L. GLAZE,
JAS. L. SIMS.