S. P. DONKEL.

OIL-CUP.

No. 185,505. Patented Dec. 19, 1876.

Fig. 1.

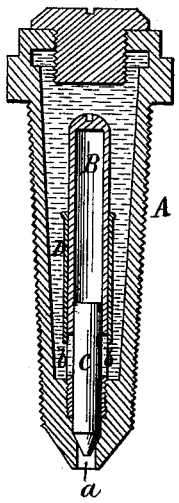
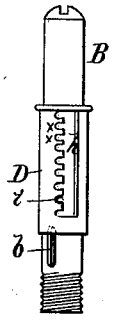


Fig. 2.



WITNESSES

Henry N. Miller.

F. L. Durand.

INVENTOR

Simon P. Donkel.

Howson & Howson

ATTORNEYS.

UNITED STATES PATENT OFFICE.

SIMON P. DONKEL, OF HASTINGS, MICHIGAN.

IMPROVEMENT IN AUTOMATIC OIL-CUPS.

Specification forming part of Letters Patent No. **185,505**, dated December 19, 1876; application filed November 16, 1876.

To all whom it may concern:

Be it known that I, S. P. DONKEL, of Hastings, in the county of Barry and in the State of Michigan, have invented certain new and useful Improvements in Automatic Oil-Cups; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of an automatic lubricator for wagon and carriage axle-trees, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a longitudinal section of my lubricator; and Fig. 2 is a side view of a detached part thereof.

A represents the oil-cup made in the form of a tapering cylinder, and provided with exterior screw-threads to be screwed through the hub of a wagon or carriage wheel, the lower end of said cup fitting in a countersink in the iron pipe or box of the hub. In this end of the box is an oil-passage, *a*, through which the oil passes to the spindle. B is a cylinder closed at the upper end, open at the lower end, and screwed into the bottom of the oil-cup A. Near the lower end of the cylinder are two slots, *b b*, running longitudinally, as shown. Inside of this cylinder is a plunger, C, which, when the oil-cup is in the position shown in Fig. 1, closes not only the slots *b b*, but also the passage *a* in the bottom of the oil-cup. When the wheel revolves and the oil-cup is bottom side up, the plunger C falls by its own weight, opening the slots *b* and allowing the oil to flow in and fill the cylinder B, or as much as is needed to keep a constant supply. When the oil-cup again comes right-side up the plunger C drops down, forcing the oil in the cylinder B out through the passage *a* to the axle-tree, thus giving a small supply of oil at each revolution of the wheel.

The amount of oil thus fed to the axle-tree is regulated by means of a sleeve, D, surrounding the cylinder B, and which sleeve can be adjusted up and down, as required, to lengthen or shorten the slots *b*. The sleeve D is provided with a longitudinal slot, *h*, one edge of the metal in said slot being formed with a series of notches, *x x*, to fit over a pin, *i*, made fast in the cylinder B, whereby the sleeve may be adjusted and held as required. The upper end of the cylinder B is formed with a groove at *y*, so that by means of a screw-driver the cylinder can easily be taken out, when required, for cleaning and other purposes.

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

1. The combination of the oil-cup A with passage *a*, the cylinder B, with slots *b b*, and the plunger C, all constructed substantially as and for the purposes herein set forth.

2. The sleeve D, provided with the slot *h* and notches *x*, in combination with the cylinder B, having slots *b b*, and pin *i*, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 2d day of November, 1876.

SIMON PETER DONKEL.

Witnesses:
M. W. RIKER,
JOHN MOCHAEL.