R. H. Tradenick,

Lubricator.

No. 82,182. Patented Sept. 15, 1868.

Fig. 1.

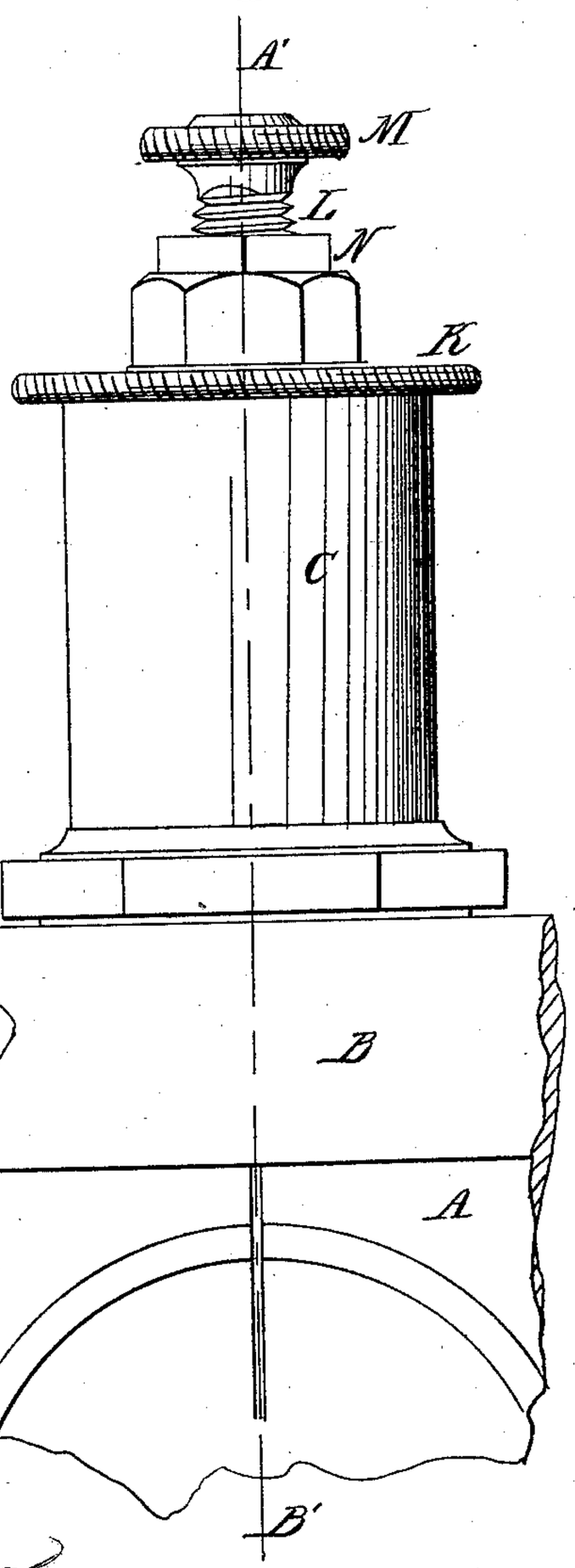
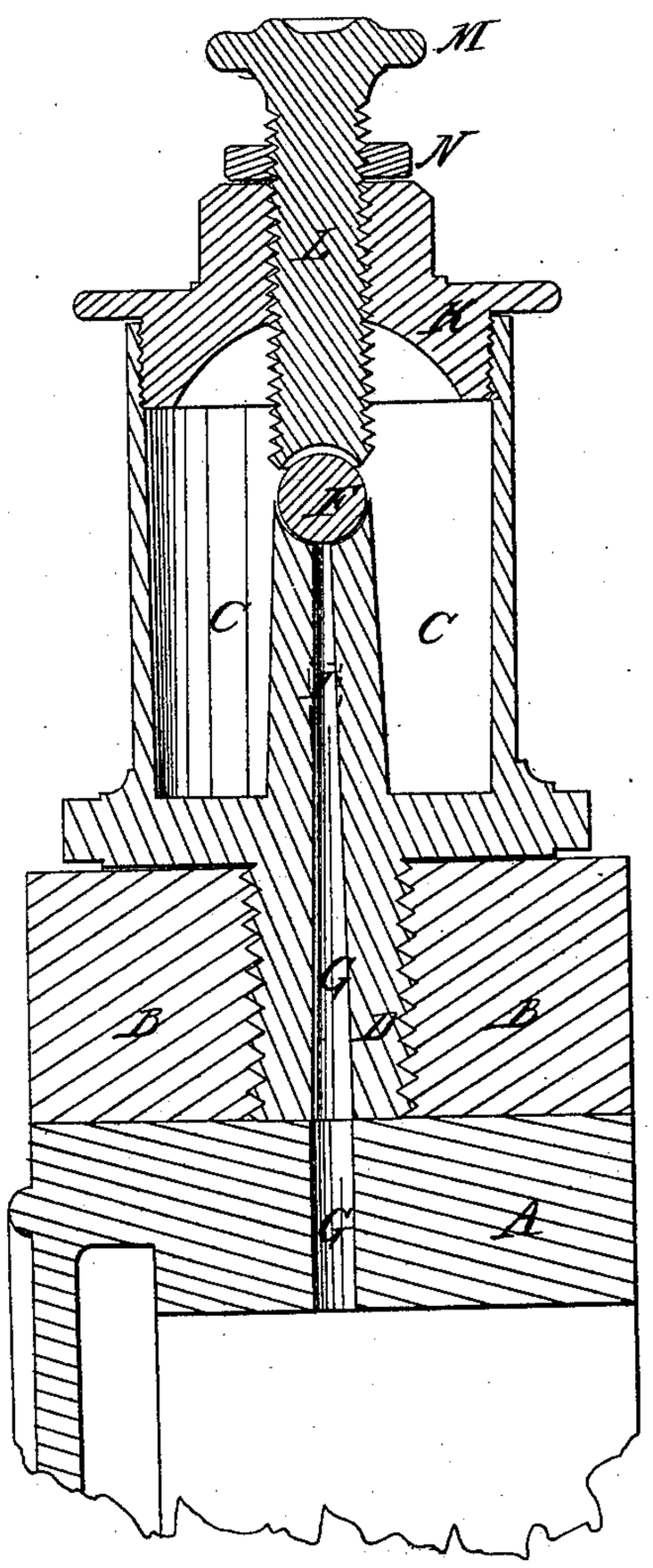


Fig. 2.



Witnesses:
Francis L. Clark
Samuel Morison

Inventor:
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United States Patent Office.

RICHARD H. TRADENICK, OF PITTSBURG, PENNSYLVANIA.

Letters Patent No. 82,182, *dated September* 15, 1868.

IMPROVEMENT IN LUBRICATOR.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, RICHARD H. TRADENICK, of the city of Pittsburg, county of Allegheny, and State of Pennsylvania, have invented an Improved Oil-Cup; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, in which—

Figure 1 is an outside view of my oil-cup, placed on the strap which holds the brasses which surround the crank-pin in position; and

Figure 2 is a section of the same through the section-line A′ B′ of fig. 1.

My invention consists in so constructing my cup that the oil is fed on the crank-pin only while the engine is in motion, and in so arranging the several parts that the oil is cleared of all sand or grit which it may contain, and the pure oil only allowed to reach the crank-pin.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A A are the brass bearings which enclose the crank-pin; B, strap which passes around the brasses, and holds them in place and to the end of the connecting-rod; C, oil-cup. On the bottom of the cup there is a nipple, D, on which a screw is cut, which screws into the strap B, as shown in fig. 2. The column E rises in the centre of the cup, nearly two-thirds the height of the sides of the same; the top being turned out, forming a cup, in which the round ball, F, rests. This column is pierced by the oil-passage G. This oil-passage is larger at the lower than at the upper end. It may be either conical, as shown, or may be drilled part of the way with a large drill and the hole finished with a smaller one, leaving a shoulder, as indicated at 1, fig. 2. The cup is provided with the top, K, which screws on, the construction of which is shown in the section, fig. 2. The set-screw L passes through the centre of the cover, the end being turned out, forming a cup corresponding to that on the column E. This set-screw is turned by its milled head, M, and is firmly secured in any position by the jam-nut N.

Operation.

The oil is poured into the cup until it reaches nearly to the top of the column E. The ball F is then placed in the cup on the top of the column. The cover is screwed on tight, and the set-screw turned down until it almost touches the ball F, leaving only a slight amount of play for the ball between the cups, formed by the ends of the column and set-screw, which partially surround it and keep it in place. The play of the ball is increased or diminished, as the amount of oil required to keep the crank-pin properly lubricated is greater or less. When the engine is running, the oil in the cup is kept in constant agitation, and the ball F is always covered. This ball is constantly playing up and down, and also has a rotary motion. In this rotary motion all the sand or grit which may be in the oil, and which falls on the ball, is scraped off on the edge of the cup on the top of the column, and the pure oil only allowed to pass into the oil-passage G, down which it runs and falls on the crank-pin, keeping it well oiled. The flow of oil stops when the engine is not in motion, so that no oil is ever lost.

The turning of the crank-pin in the brasses forms a partial vacuum, which assists the oil in its descent. The manner in which the oil-channel is constructed also increases the efficiency of the cup, by breaking the vacuum, from time to time, and allowing the air to reach the inside of the cup, when sufficient oil has been drawn off to form a partial vacuum in the same.

Claim.

What I claim as my Invention, and desire to secure by Letters Patent of the United States, is—

The oil-cup C, having the column E, oil-passage G, ball F, top K, and set-screw L, when constructed and operating substantially as and for the purpose set forth.

RICHARD H. TRADENICK. [L. S.]

Witnesses:

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