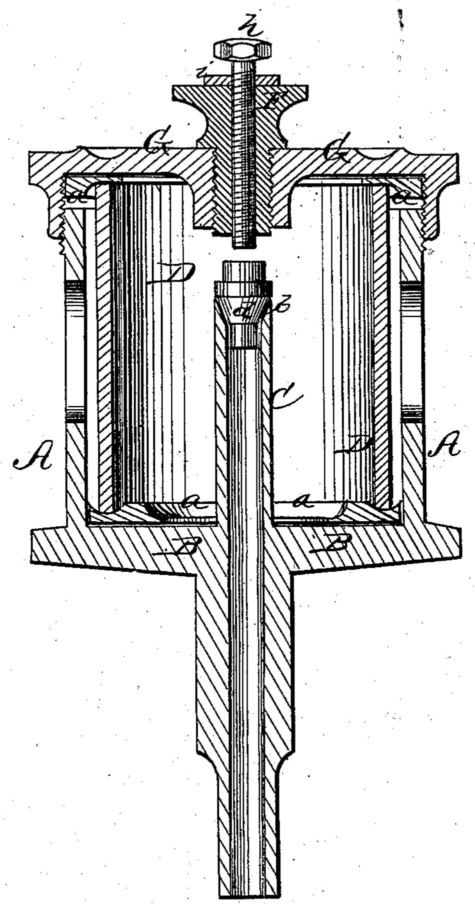
J. FARLEY.
Lubricator.

No. 198,842. Patented Jan. 1, 1878.



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UNITED STATES PATENT OFFICE.

JAMES FARLEY, OF MARQUETTE, MICHIGAN.

IMPROVEMENT IN LUBRICATORS.

Specification forming part of Letters Patent No. **198,842**, dated January 1, 1878; application filed October 8, 1877.

To all whom it may concern:

Be it known that I, JAMES FARLEY, of Marquette, in the State of Michigan, have invented certain new and useful Improvements in Oil-Cups; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, and to the letters of reference marked thereon, which form part of this specification.

The nature of my invention consists in the construction and arrangement of a lubricator to be attached to crank-pins and cross-heads of steam-engines, or any parts of machinery that have a perpendicular or horizontal motion, 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 the figure is a vertical section of my oil-cup.

The oil cup or reservoir consists of a cage, A, with solid bottom B, and a central tube, C, extending downward from the same, and so constructed at its lower end as to be easily inserted and fastened in place. Within the cage A is a glass cylinder, D; and a head, G, is screwed on the upper end of the cage.

Suitable packing *a* is introduced between the ends of the cylinder D and the bottom B and head G, so as to make oil-tight joints when the head is screwed down sufficiently tight for that purpose.

The central tube C extends upward into a cylinder, D, a certain distance, and forms in its upper end a conical valve-seat, *b*, in which is placed a conical valve, *d*.

In the center of the head G is a hollow screw-plug, F, through which is screwed a set-screw, *h*, for the purpose of holding down the valve *d*, so that the valve can only rise a certain distance; and such distance is regulated by said set-screw. When the set-screw *h* has been thus adjusted to regulate the movement of the valve, the set-screw is locked by a jam-nut, *i*, thereon.

The motion of the crank or other part of the machinery to which the lubricator may be attached causes the oil to rise to the top, and at the same time lifts the valve, which allows the oil to flow down the tube to the crank-pin.

The valve being at the top, the oil cannot leak out when the machinery is at rest, which would often be the case if the valve were at the bottom, as the valve would be liable to be held from its seat by sediment, or otherwise prevented from making a tight joint.

I am aware that an oil-cup with stationary center tube and a valve at the top thereof, with a regulating-screw, is not new, and I do, therefore, not claim such, broadly, as my invention. In such case, however, as known to me, the center tube is provided at the top with a cap, through which the valve-stem passes, to guide and retain the valve in place. In my invention this cap is dispensed with, and the valve is prevented from coming entirely out of its seat by constructing the seat and valve both in conical form. This construction gives an unobstructed flow of oil into the center tube whenever the valve is raised from it.

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

In a lubricator, the combination of the cage A, with solid bottom B, having central vertical tube C, with conical valve-seat *b* in its upper end, the cylinder D, screw-head G, conical valve *d*, and screw-plug F, with set-screw *h*, all substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JAMES FARLEY.

Witnesses:

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