

D. T. PRAY.
LUBRICATOR.

No. 172,343.

Patented Jan. 18, 1876.

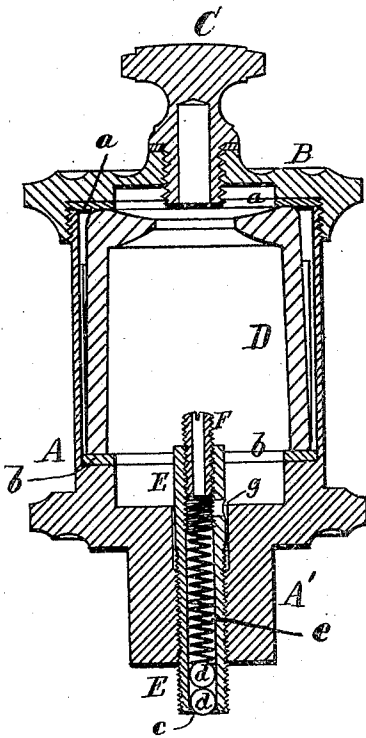


Fig. 1.

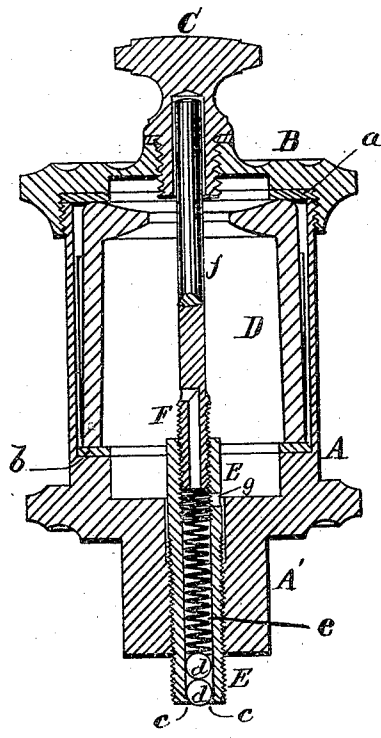


Fig. 2.

Witnesses.

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UNITED STATES PATENT OFFICE.

DAVID T. PRAY, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO MOWRY & PHILLIPS, OF SAME PLACE.

IMPROVEMENT IN LUBRICATORS.

Specification forming part of Letters Patent No. **172,343**, dated January 18, 1876; application filed November 19, 1875.

To all whom it may concern :

Be it known that I, DAVID T. PRAY, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Lubricators, of which the following, taken in connection with the accompanying drawings, is a specification:

My invention relates to the means employed to regulate the flow of oil to the journal or other surface to be lubricated, and is an improvement upon the invention for which Letters Patent of the United States were granted to me July 22, 1873, and numbered 141,168; and it consists in the application of a hollow adjusting-screw to the upper end of the tube which contains the ball or balls, in combination with a spiral spring placed in said tube between the balls and the adjusting-screw, said adjusting-screw being provided with a suitable slot to receive a screw-driver, the whole being so arranged that the tension of the spring, and, consequently, the pressure of the ball upon the journal or other surface, may be readily and easily adjusted without removing the oil-cup, or disturbing the oil therein contained.

My invention further consists in constructing said adjusting-screw with a long stem, hollow or otherwise, extending upward through the opening in the top of the oil-cup, so that it may be operated by the fingers, in combination with a hollow plug or cap for closing said opening.

Figure 1 of the drawings is a vertical central section of my improved lubricator fitted with a short adjusting or regulating screw to be operated by a screw-driver; and Fig. 2 is a similar section, showing the regulating-screw extending upward through the opening in the oil-cup into a position where it may be operated by hand.

A is the metal casing, provided with the hub A' at its lower end, upon which is to be cut a screw-thread (not shown in the drawings) for the purpose of attaching it to the box or other bearing to be lubricated, and provided with the cap B, connected thereto by suitable male or female screw-threads, and having formed in its center an opening, which

is closed by the screw-plug C. D. is a glass cylinder placed within the casing A, the ends of which are made oil-tight by the packing *a* and *b*, all in a well-known manner. E is a threaded tube screwed through the hub A' of the casing A, until its lower end will nearly touch the journal or other surface to be lubricated, and provided with an inwardly-projecting lip or burr, *c*, as shown. Within said tube one, two, or more balls, *d d*, are placed, the lower one resting on the surface of the shaft or other moving surface to be oiled, substantially as described in the Letters Patent above referred to. The tube E projects upward a short distance into the oil-reservoir, and has screwed into its upper end the hollow adjusting or regulating screw F, between the lower end of which and the balls *d d* is placed the spiral spring *e*.

The regulating-screw F may be made short and provided with a slot in its upper end, as shown in Fig. 1, in which case it will be operated to adjust the tension of the spring *e* by means of a screw-driver; or it may be made with a long stem, *f*, which extends upward through the opening in the cap B, and into a recess formed in the under side of the plug C, so that by removing the plug C the screw F may be operated to adjust the tension of the spring *e* by the fingers. The upper end of the tube E has formed therein a slot to receive a screw-driver, for the purpose of adjusting it to the proper position, said slot not being shown in the drawings. The tube E is also provided with a side opening, *g*, near the bottom of the oil-reservoir, through which the oil may flow to the bearing till the reservoir is empty.

The casing A has formed in its cylindrical portion a series of openings, so as to expose the glass cylinder D, through which the height of the oil in the reservoir may be seen in a well-known manner.

The lower ball *d*, by virtue of its contact with the journal or other surface to be oiled, will be made to rotate by the movement of the parts, as described in my former patent, referred to above.

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

The combination, in a self-feeding oil-cup, of one or more spherical valves, *d d*, the lower one of which is arranged to rest upon, and be rotated by, the bearing-surface to be lubricated, a spiral spring, *e*, one end of which rests upon the upper of said valves, and a regulating-screw, *F*, as shown in either Fig. 1 or Fig. 2; adapted to adjust the tension of the

spring *e*, all constructed, arranged, and operating as and for the purposes described.

Executed at Boston this 19th day of October, 1875.

DAVID T. PRAY.

Witnesses:

WM. P. EDWARDS,
E. A. HEMMENWAY.