G. W. GAGEBY & W. JAMES.

LUBRICATOR.

No. 185,516. Patented Dec. 19, 1876.

Fig. 1.

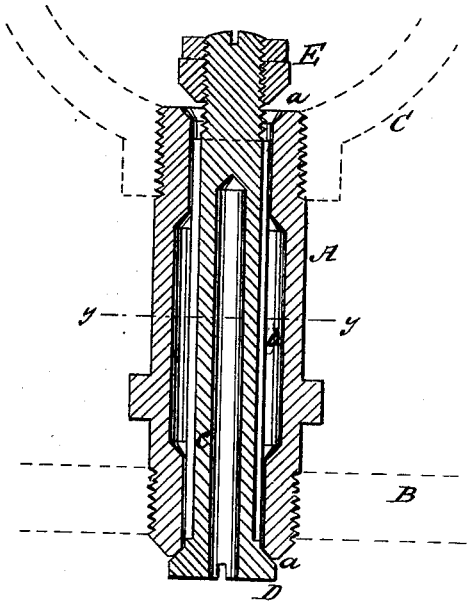
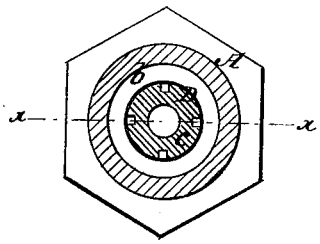


Fig. 2.



WITNESSES:

E. Wolff

J. H. Scarborough

INVENTOR:

G. W. Gageby

W. James

BY

ATTORNEYS.

UNITED STATES PATENT OFFICE.

GEORGE W. GAGEBY AND WILLIAM JAMES, OF JOHNSTOWN, PENNSYLVANIA.

IMPROVEMENT IN LUBRICATORS.

Specification forming part of Letters Patent No. **185,516**, dated December 19, 1876; application filed November 11, 1876.

To all whom it may concern:

Be it known that we, GEORGE W. GAGEBY and WILLIAM JAMES, of Johnstown, county of Cambria, and State of Pennsylvania, have invented a new and Improved Lubricator, of which the following is a specification:

Figure 1 is a vertical section on line *x x* in Fig. 2. Fig. 2 is a transverse section on line *y y* in Fig. 1.

Similar letters of reference indicate corresponding parts.

Our invention relates to lubricators for automatically lubricating the cylinders of engines; and it consists of two valves oppositely arranged upon the ends of a common stem, and provided with seats upon opposite ends of a chambered tubular conductor that connects the oil-cup and steam-chest and is so arranged that steam-pressure from within the steam-chest closes the valve against the seat on the lower end of the tubular conductor, and a removal of the pressure from the steam-chest allows the valve to drop and permits the lubricant to enter the steam-chest.

Referring to the drawing, A is the tubular conductor, having valve-seats *a* formed on each end, and provided with a central chamber, *b*. One end of the conductor A is screwed into the steam-chest B, and the upper end receives the oil-cup C. D is a valve that fits the seat *a* on the lower end of the conductor A, and is provided with a stem or guide, *c*, that extends through the conductor A, and is threaded to receive the valve E, that fits the valve-seat *a* in the upper end of the conductor A. The distance between the valves D and E is greater than the length of the conductor A, so that when steam is admitted to the chest B the valve D is closed against its seat, and consequently the valve E is opened, admitting the lubricant to the chamber *b*. The stem *c* is grooved throughout its length, to form passages for letting oil into and out of the chamber *b*. When the pressure is removed from the chest B the valves D and E drop, closing the upper end and opening the lower end of the tubular conductor A, permitting the oil contained by the chamber *b* to run into the chest B. The guide or stem *c* is bored from its lower end throughout the greater portion of its length, to lighten it, and also to admit steam for the purpose of keeping the upper end of the valve warm and by this means warming the lubricant contained by the cup C.

We do not limit our improvement to the exact form shown and described, as it may be varied without departing from our invention—for example, two valves having separate tubular stems or guides may be used, and the chamber *b* may be dispensed with.

With our improvement a valve and cylinder are regularly and effectually lubricated, and a material saving in oil and labor is effected.

Having thus described our invention, we claim as new, and desire to secure by Letters Patent—

The combination with conductor A, having an inner oil-receptacle connected at one end with oil-cup, and at the other with steam-chest, of the internal rod C, having reversed valves at its opposite ends, said valves being placed a little farther apart than their seats in the ends of the conductor, for the purpose specified.

GEORGE W. GAGEBY.
WILLIAM JAMES.

Witnesses:
A. B. DAVIS,
J. S. STRAYER.