(No Model.)

A. NOTEMAN.

LUBRICATOR.

No. 293,590. Patented Feb. 12, 1884.

Fig. 1.

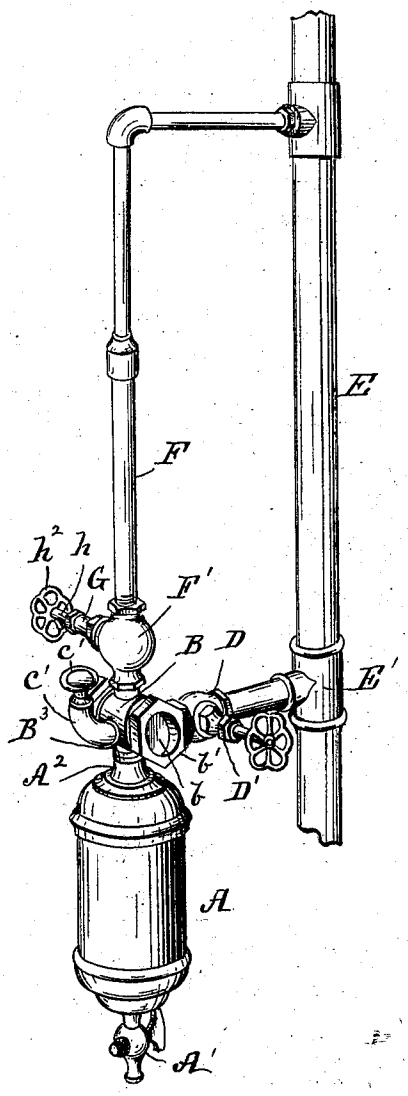


Fig. 2.

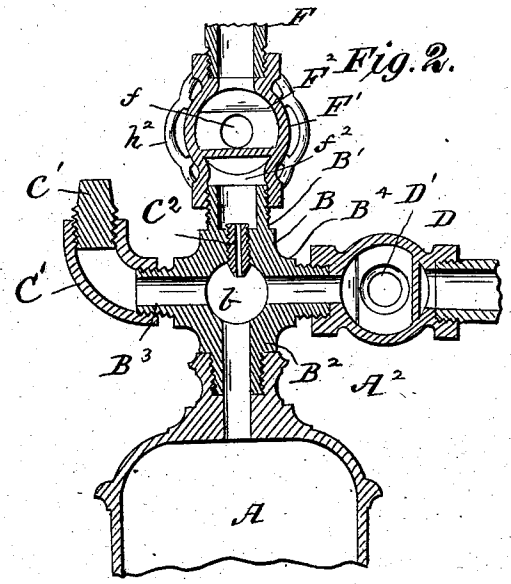


Fig. 3.

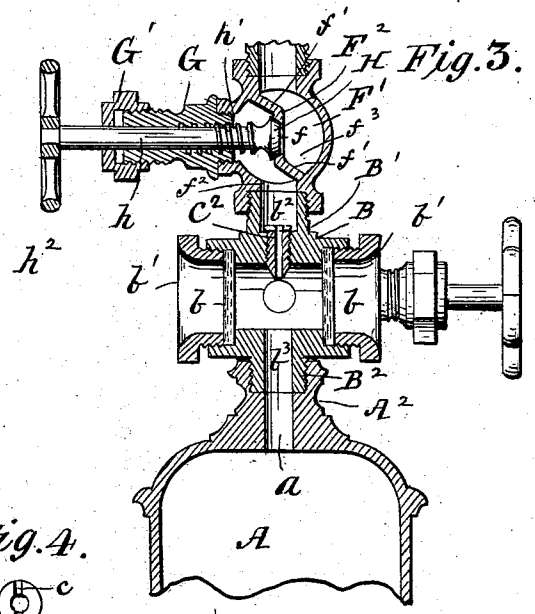
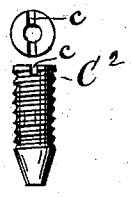


Fig. 4.



Witnesses.
Sam'l R. Turner
R. B. Mupin

Inventor
Alonzo Noteman
By R. S. & A. P. Lacey
Attys

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

ALONZO NOTEMAN, OF TOLEDO, OHIO.

LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 293,590, dated February 12, 1884.

Application filed June 30, 1883. (No model.)

To all whom it may concern:

Be it known that I, ALONZO NOTEMAN, a citizen of the United States, residing at Toledo, in the county of Lucas and State of Ohio, have invented certain new and useful Improvements in Lubricators; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in that class of lubricators wherein the oil is fed to the parts to be lubricated by overflowing the reservoir thereof by admitting therein water formed by condensation of steam; and it consists in the construction and combination and arrangement of the several parts, as will be hereinafter more fully described and claimed.

In the drawings, Figure 1 is a perspective view of my lubricator and a section of the steam-pipe. Figs. 2 and 3 are vertical sections of the lubricator, the reservoir being partially broken away; and Fig. 4 is a detail view of the dropper, as will be described.

Like letters designate like parts throughout the several views.

The cup A is provided at its lower end with the petcock A′, for drawing off the water before refilling the cup, and at its upper end it has the neck or extension A^2, through which the vertical passage *a* is formed. This passage at its upper end is enlarged and threaded to receive the lower nipple of the sight-cylinder. The sight-cylinder B is constructed with openings at both ends, which are covered by glass plates *b*, which are suitably packed and secured in place by screw-rings *b′*, as most clearly shown in Fig. 3. Nipples B′ B^2 are extended from, respectively, the upper and lower sides of the cylinder B, through which nipples are openings b^2 b^3, in line with the passage *a* in the oil-cup. These nipples B′ B^2 are threaded externally, in order to connect the cylinder with the condenser and reservoir-cup, as shown. The passage b^2 through the nipple B′ is contracted at its lower end and threaded to receive the dropper C^2, which turns through the said passage, and is provided with a dropping-opening. This dropper is arranged directly over the passages b^3 *a*, and is provided at its upper end with the nick *c*, to permit the said dropper to be turned up or down to vary the distance between it and the cup. It will be understood that, when so desired, the dropper could be cast integral with the sight-cylinder; but I prefer to make it as shown and before described, so that it may be adjusted to vary the distance the drop of water falls on the oil. By employing this dropper, and extending its lower end within the cylinder, the quantity of water passing into the cup can be more readily determined than were the same allowed to trickle down the wall of the cylinder. Nipples B^3 B^4 are extended horizontally from the sides of the cylinder and midway the ends thereof. The supply-pipe C′, provided with cap *c′*, is screwed on the nipple B^3, and the oil-feed pipe D is screwed on the nipple B^4. This oil-feed pipe D furnishes a passage through which the oil flows to the engine-cylinder. This pipe D is provided with a suitable valve, D′, and is connected with the steam-pipe E by means of the T E′, as shown in Fig. 1. The condensing-pipe F is connected with the steam-pipe E in the manner clearly shown in Fig. 1, and is provided at its lower end with the valve-chamber F′, which is connected by threaded joint with the nipple B′ of the cylinder. Within the chamber, I arrange the valve-seat F^2, which extends from side to side of the chamber, and is constructed with the vertical intermediate plate through which the opening *f* is formed, and with the inclined plates *f′* at its upper and lower ends. The lower plate *f′* is deflected or bent over to one side clear of the passage f^2, leading into nipple B′, and forms a receptacle, f^3, for the water, as the same is condensed under the pipe F. A bearing, G, is extended horizontally from the valve-chamber in a line parallel with the sight-cylinder, and provided with suitable packing-box, G′, as shown. The valve H is provided with stem *h*, having screw-thread *h′*, turning in a threaded opening through the bearing G, and is provided on its outer end with hand-wheel h^2, so that the valve can be turned and adjusted to open, close the valve, or regulate the passage of water, as may be desired.

The oil and steam passages of my lubricator are large and substantial. All small pipes, valves, &c., are dispensed with, and there is consequently little, if any, chance for stoppage or getting out of order. By arranging the sight-chamber with transparent ends the passages of water and oil may be seen from either side.

My lubricator, it will be seen, is simple in its construction, and can be manufactured at a small cost, and will be substantial and not likely to get out of order, and the several parts are compactly arranged, so as to take up but small space.

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

1. An upward-feed lubricator, substantially as described and shown, composed of the cup or reservoir arranged at the lower end thereof, the sight-chamber mounted thereon, and the condenser arranged above the sight-cylinder, the said reservoir, sight-cylinder, and condenser being arranged in a line, one above the other, and provided with connecting passages or openings, also arranged or formed in line with each other, as and for the purposes specified.

2. The lubricator, substantially as described and shown, consisting of the cup or reservoir A, the sight-cylinder mounted thereon, and closed at its ends by transparent plates, and communicating with the cup A through the passage b^3 a, the horizontal pipe D, connecting the sight-cylinder and the steam-pipe, the feed-pipe C′, opening into the cylinder B at a point opposite the connecting-pipe D, the dropper C^2, threaded as shown, and adjustable into the cylinder B in line with the passage b^3 a, and the condenser F, communicating with the dropper C^2, and provided with suitable valve, F′, the said condenser, dropper, and passage b^3 a being arranged in line with each other and relatively to the oil-feed and connecting pipes C′ D, all as and for the purposes specified.

3. In a lubricator, substantially as hereinbefore shown and described, the sight-chamber B, having its opposite ends or openings closed by transparent plates b, and provided with upper and lower nipples, B′ B^2, and lateral nipples B^3 B^4, in combination with reservoir A, screwed on lower nipple, B^2, the condenser-pipe F, screwed on upper nipple, B′, and provided with suitable valve, F′, the feed-pipe C′ and connecting-pipe D, screwed, respectively, on the nipples B^3 B^4, and the dropper C^2, forming the connection between the condensing-pipe and the sight-chamber B, and extended into the latter and adjustable vertically, in the manner as and for the purposes specified.

In testimony whereof I affix my signature in presence of two witnesses.

ALONZO NOTEMAN.

Witnesses:
A. CHASE,
JACOB KOHN.