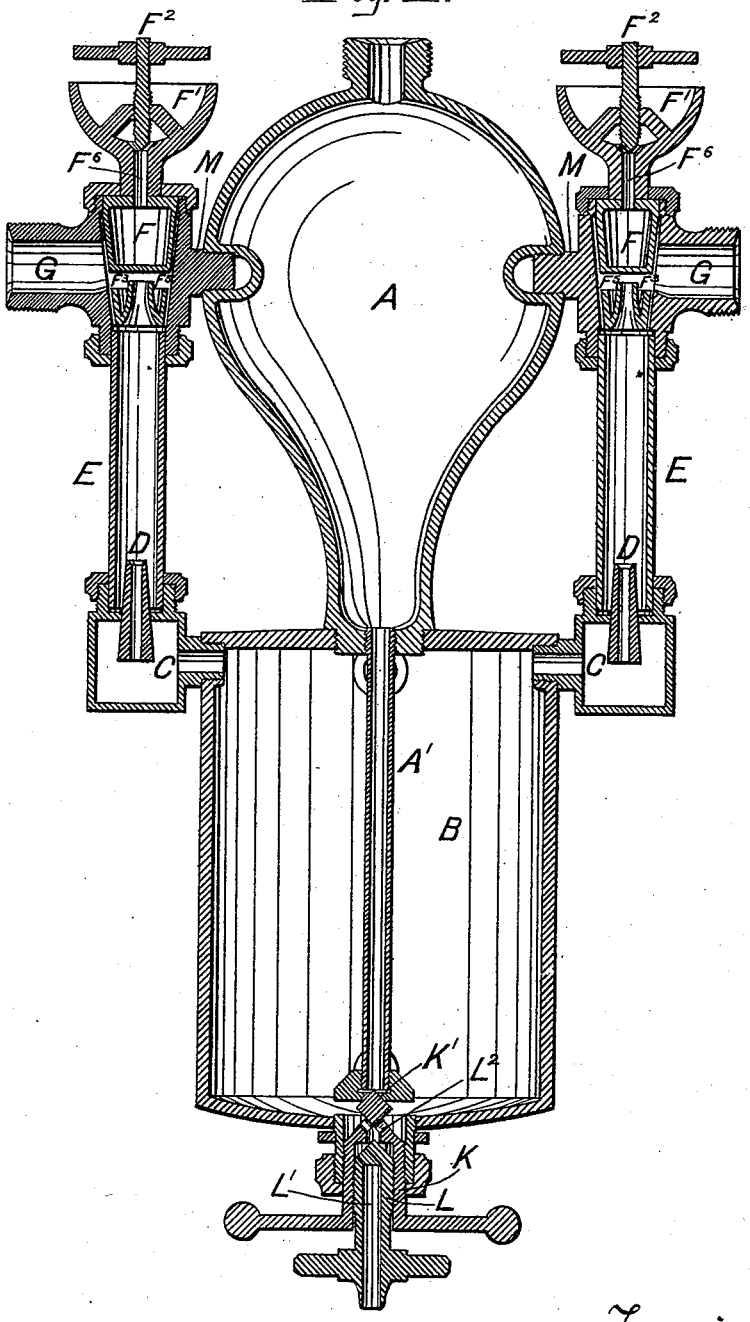
(No Model.) 2 Sheets—Sheet 1.

F. W. KRANTZ.

LUBRICATOR.

No. 342,753. Patented May 25, 1886.

Fig. 1.



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(No Model.) 2 Sheets—Sheet 2.

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Fig. 2.

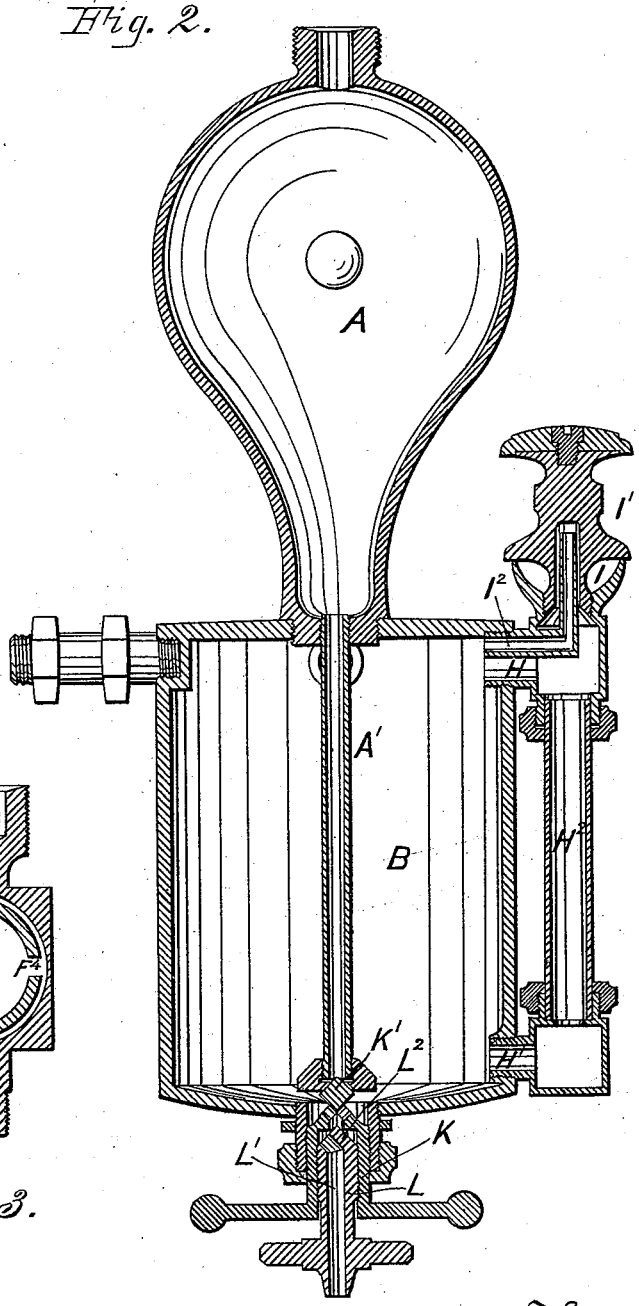
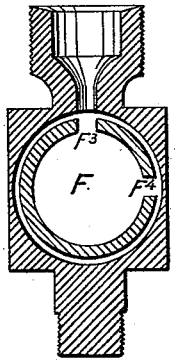


Fig. 3.



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Francis W. Krantz
Inventor:
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UNITED STATES PATENT OFFICE.

FREDRICH W. KRANTZ, OF DETROIT, MICHIGAN, ASSIGNOR TO THE MICHIGAN LUBRICATOR COMPANY, OF SAME PLACE.

LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 342,753, dated May 25, 1886.

Application filed July 13, 1885. Serial No. 171,555. (No model.)

To all whom it may concern:

Be it known that I, FREDRICH W. KRANTZ, of Detroit, in the county of Wayne and State of Michigan, have invented a new and useful Improvement in Lubricators, of which the following is a specification.

In the annexed drawings, making part of this specification, Figure 1 is a vertical section through the sight-feed glasses. Fig. 2 is a vertical section on a plane at right angles thereto and passing through the gage-glass. Fig. 3 is a transverse section through the auxiliary feed-cup.

The same letters are employed in all the figures in the indication of identical parts.

A is the condensing-chamber, and B the oil-chamber, the water of condensation being delivered through the pipe A′, and expelling the oil through the duct C, and discharging it drop by drop from the nozzle D, controlled by valves in the usual manner, but not shown, into the tube E, filled also with water, through which the oil rises drop by drop, and, passing through the ports of the stop-cock F, flows away to the parts to be lubricated through the pipes G.

I have shown two sight-feeds. More may be employed, if desired. These parts, being familiar, need no special description farther than this, that in this class of lubricators it has been hitherto deemed necessary to introduce a secondary jet of live steam into the sight-feed where it delivers the oil to the feed-pipe G. In this machine the upper ends of the sight-feeds are supported by the steam-chamber A, but by a solid arm instead of the usual steam-pipe.

The stop-cocks F control the feed of oil. They are alike; so I will describe one of them. The body of the cock is tapering and fills the outlet from the sight-feed. It is hollow, and contains a chamber, which may be filled with oil from the cup F′, which forms the handle to the stop-cock, by means of the duct F^6, controlled by the valve F^2. In this stop-cock there are two ports, F^3, through which oil rising from the sight-feed through the tube F^5 is discharged, and F^4, through which oil entering the chamber from the auxiliary oil-cup F′ may be discharged into the pipe G. This part of the apparatus is intended for supplying oil either by the entering water through the sight-feed or, in case the glass of the sight-feed should be broken, by the auxiliary oil-cup F′.

The stop-cock may be turned so as to entirely shut off oil from tube G, or, by turning it so that the port F^3 registers with the opening into the tube G, to allow the oil to flow out of the sight-feed, or by turning it to shut off the sight-feed and cause the port F^3 to register with the opening into tube G, in which position oil poured into the cup F′ will be fed into the tube G whenever the valve F^2 is lifted from its seat.

The oil and water are shown in the usual manner by the sight-gage H H′ H^2.

The oil-chamber is fed by the cup I, into which the oil may be poured when the cap I′ is taken off, the air from the chamber escaping through the tube I^2, the upper end of which is above the top of the cup I, and is protected by the cap I′ when in place.

The oil and water can be drained from the chamber B, and the entrance of water also controlled by the double valve placed in the bottom of the oil-chamber.

The valve is made of two parts, one within the other. The outer part of the valve K is tapped into the bottom, and its end works in connection with a valve-seat in the lower end of pipe A′, so that by turning the valve water may be admitted to or excluded from the oil-chamber. The interior valve, L, turns in a threaded tube in the exterior valve, and has an internal tube, L′, which opens at one side, so that the end of the stem acting against the seat L^2 may either close the exit from chamber B or open the same so that the fluid contents of the chamber may escape through the duct L′.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In combination with the sight-feed of a lubricator, the revolving stop-cock F, formed with an oil-chamber in the barrel, and having a cup, F′, and valve F^2 in the handle, and having also independent ports F^3 and F^4, for admitting the passage of oil either from the sight-feed or from the chamber in the barrel of the stop-cock, the arrangement being such that

by turning the stop-cock oil may be either entirely cut off or fed from the sight-feed or the internal chamber of the stop-cock independently, substantially as set forth.

2. In combination with the oil-chamber B and sight-gage H H′ H², the cup I, cap I′, recessed to receive the air-tube, and the air-tube I², extending from the oil-chamber, and terminating within the cap and above the plane of the upper edge of the cup, substantially as set forth.

As witness my hand in the presence of two subscribing witnesses.

FREDRICH W. KRANTZ.

Witnesses:
R. MASON,
F. W. MARVIN.