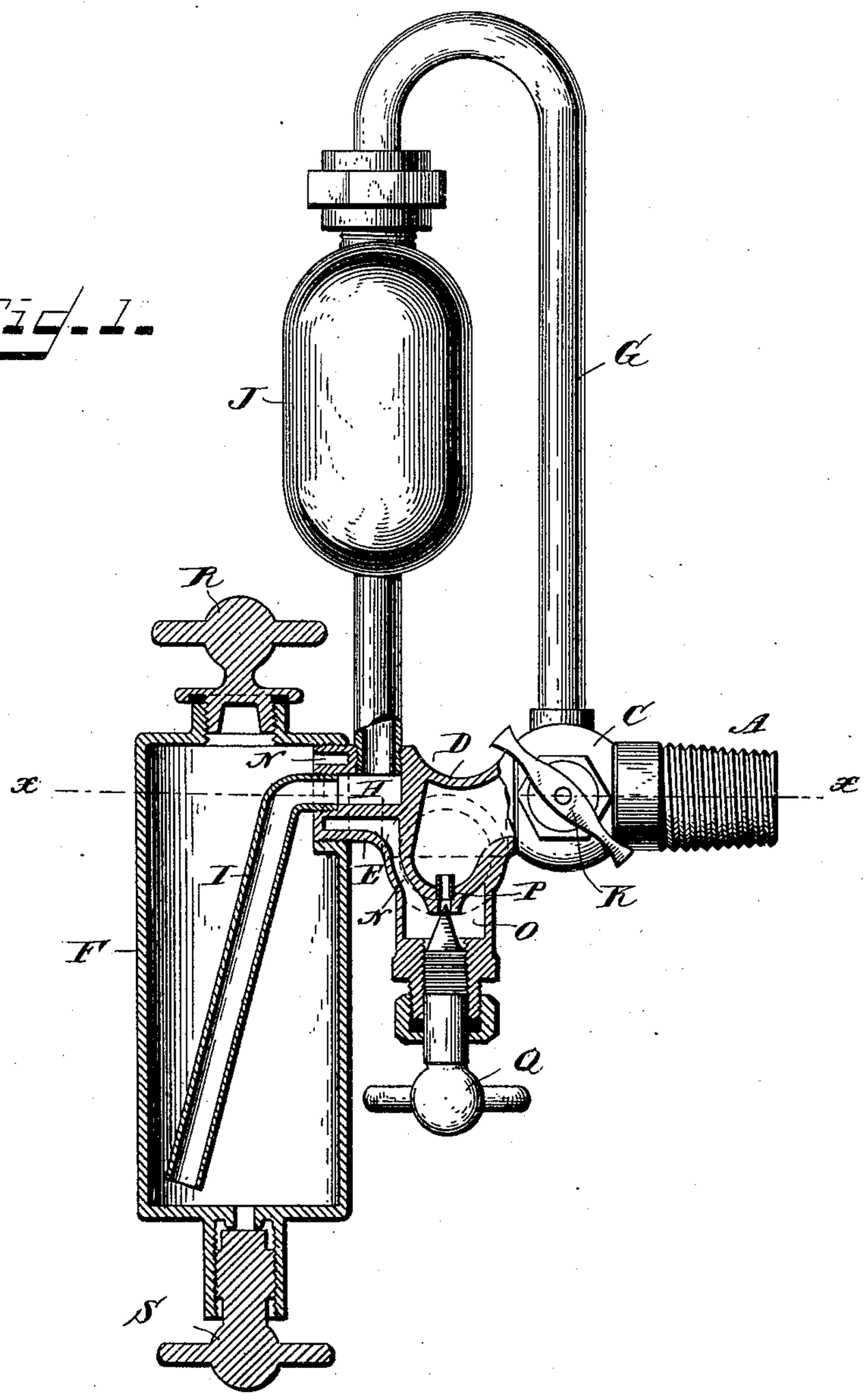
(No Model.) 2 Sheets—Sheet 1.

E. LUNKENHEIMER.

SIGHT FEED LUBRICATOR.

No. 446,993. Patented Feb. 24, 1891.

Fig. 1.



Witnesses.
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Charles Billon

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(No Model.) 2 Sheets—Sheet 2.

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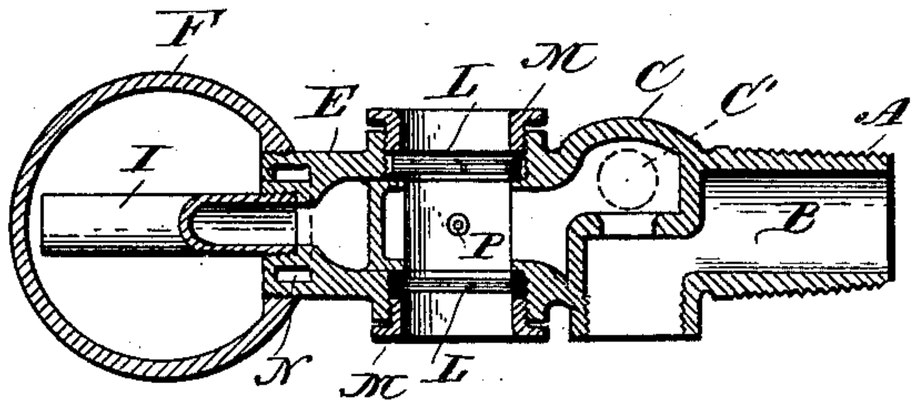
Fig. 2.



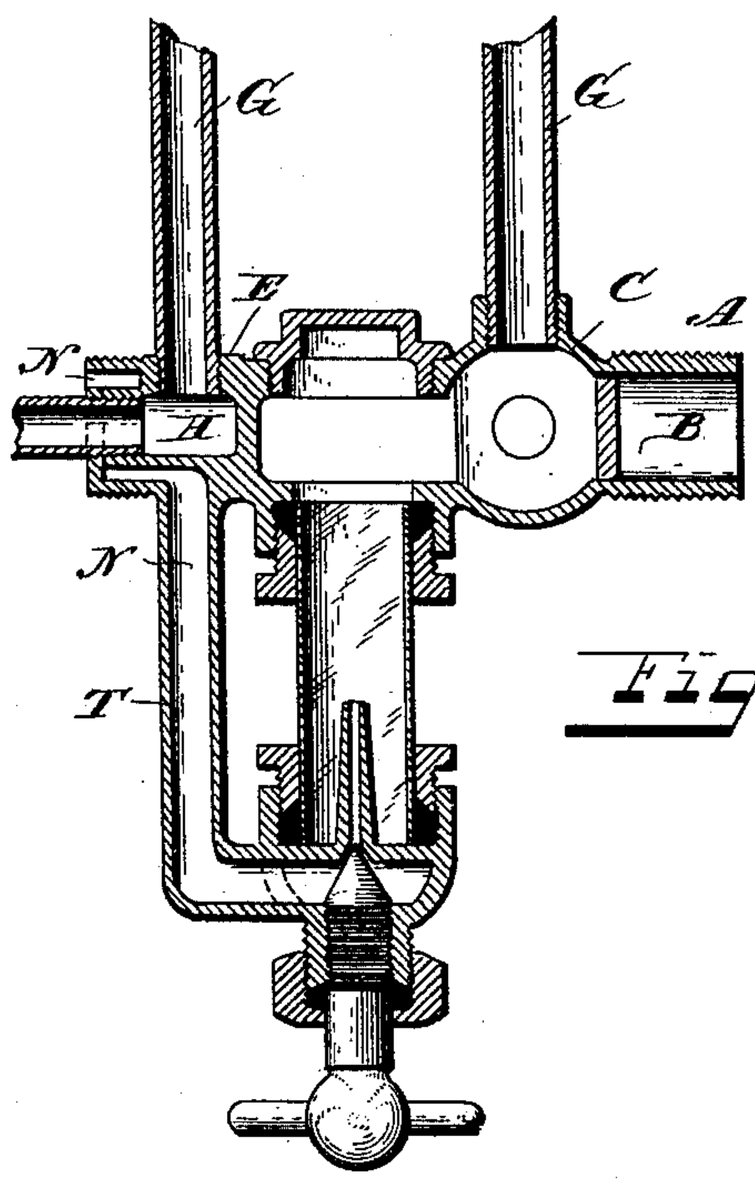


Fig. 3.

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UNITED STATES PATENT OFFICE.

EDMUND LUNKENHEIMER, OF CINCINNATI, OHIO, ASSIGNOR TO THE LUNKENHEIMER BRASS MANUFACTURING COMPANY, OF SAME PLACE.

SIGHT-FEED LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 446,993, dated February 24, 1891.

Application filed July 31, 1890. Serial No. 360,458. (No model.)

To all whom it may concern:

Be it known that I, EDMUND LUNKENHEIMER, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Sight-Feed Lubricators, of which the following is a description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to that class of lubricators which operate on the ascending sight-feed principle, and in some respects is an improvement upon that for which Letters Patent No. 386,596, of July 24, 1888, were granted me.

The object of my invention is to simplify and cheapen the construction of such lubricators, and its novelty will be herein set forth, and specifically pointed out in the claim.

In the accompanying drawings, Figure 1 is a side elevation, partly in section, of my improved lubricator. Fig. 2 is a sectional plan view substantially on the dotted line *x x* of Fig. 1. Fig. 3 is a detail view showing a modification in construction.

The same letters of reference are used to indicate identical parts in all the figures.

My improved lubricator, like the one shown in my prior patent above referred to, is designed to be secured to the steam-pipe by a single connection A, this connection having a single channel B for the admission of steam and delivery of oil, and being cast integral with a valve-chamber C, a sight-chamber D, and a shank E, which is screwed into the body of the oil-reservoir F and supports the latter. A steam-condensing pipe G communicates at its lower right-hand end with the interior of the valve-chamber C, as shown and at its lower left-hand end with a passage H in the shank E, which passage communicates with a water-pipe I, extending down inside the oil-reservoir nearly to its bottom. A condensing-bulb J is interposed in the left-hand branch of the pipe G to facilitate condensation of the steam. A valve K controls the passage through the valve-chamber C, both as to the admission of steam to the pipe G and delivery of oil from the sight-chamber D to the channel B in the connection H. The two sides of the sight-chamber D are formed of glass disks L, secured in place by cylindrical screw-plugs M with interposed gaskets of rubber or other material.

A passage N is formed in the inner end of the shank E, around and concentric with the passage H, into which the water-pipe I is screwed. It opens at its upper side into the oil-reservoir and extends downward at its opposite lower side and communicates with an oil-chamber O, immediately beneath the sight-chamber C, an opening P between the two being controlled by a valve Q.

The connection A, valve-chamber C, sight-chamber D, shank E, and oil-chamber O are preferably cast in one piece. The oil-reservoir F has the usual filling-plug R at its upper end and drain-cock S at its lower end.

The operation of my improved lubricator is as follows: When the reservoir has been filled with oil and the filling-plug replaced, and the valve K is then opened, the steam will enter the sight-chamber D and be condensed therein, filling the latter with water up to the level of the opening in the diaphragm in the valve-chamber. The steam also condenses in the pipe G and condenser J and flows down through the passage H and pipe I to the bottom of the oil-reservoir. When the valve Q is now opened, the oil is forced from the top of the oil-reservoir out through the passage N and down into the oil-chamber O, thence through the opening P into the sight-chamber, where it passes up through the water in drops visible through the glass sides of the chamber, and on through the valve-chamber, and out the channel B into the steam-pipe.

In my former lubricator the sight-chamber consisted of a glass tube supported in fittings at its upper and lower ends and having the oil delivered to its lower end by an oil-pipe extending from the inner end of the lower fitting to the upper part of the interior of the oil-reservoir, as was common in sight-feed lubricators. My present invention dispenses with the oil-pipe on the interior of the reservoir, and also obviates the necessity of connecting the lower fitting of the sight-chamber with the reservoir. A single connection

with the reservoir affords passages for both the admission of water from the condensing-pipe and delivery of oil to the sight-chamber, thereby simplifying and cheapening the construction of the lubricator.

My invention is not limited to the form of sight-chamber above described, however, for the advantages of a single connection with the body of the oil-reservoir may be obtained where the usual glass tube is employed for the sight-chamber. This I have illustrated in Fig. 3, where it will be seen that the passage N, opening at its upper end into the oil-reservoir, extends down through a tubular portion T of the casting supporting the lower fitting for the glass tube and delivers the oil through a nozzle into said tube, through which it passes out to the steam-pipe in the usual manner.

While I have illustrated my invention in a lubricator having a single connection with the steam-pipe, it is evident that the condensing-pipe G might have an independent connection with the steam-supply. In such case the valve-chamber C and valve K might be dispensed with and a valve be interposed in the condensing-pipe.

Having thus fully described my invention, I claim—

In an ascending sight-feed lubricator, the combination, with the oil-reservoir, of the connection A, valve-chamber C, sight-chamber D, and shank E, cast in a single piece and provided with the passages H and N, the condensing-pipe G, connected at one end with the valve-chamber C and at its other with the passage H, and the valve K, controlling both the admission of steam to the pipe G and delivery of oil from the sight-chamber D, substantially as described.

EDMUND LUNKENHEIMER.

Witnesses:
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CHARLES BILLON.