

(No Model.)

J. W. MORGAN.
LUBRICATOR.

No. 552,194.

Patented Dec. 31, 1895.

Fig. 1.

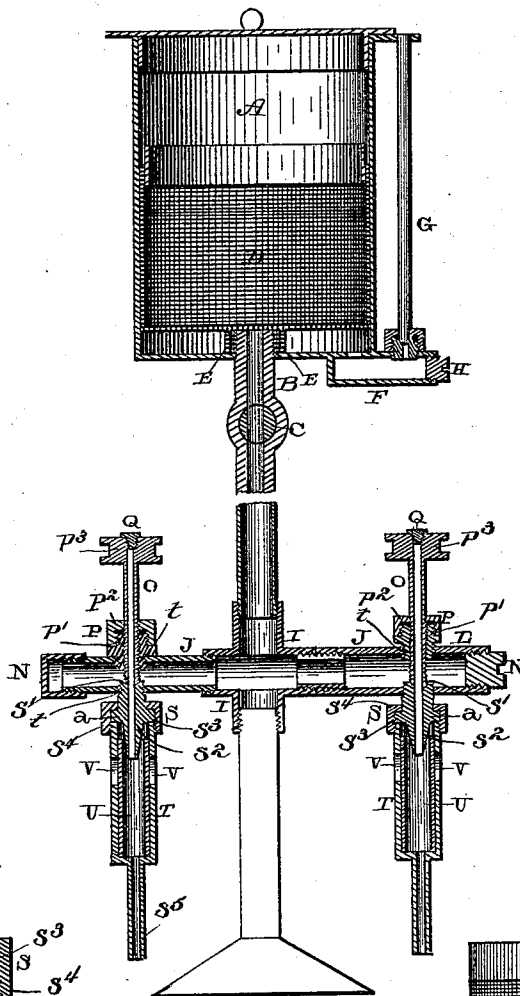


Fig. 2.

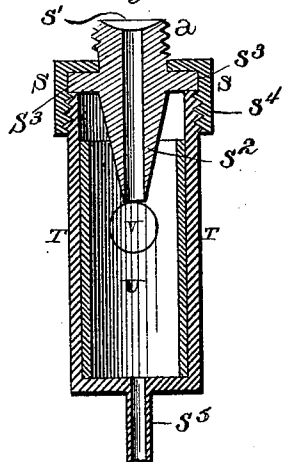
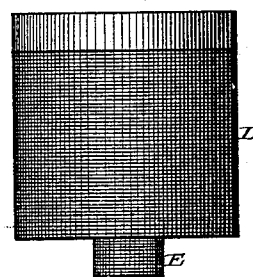


Fig. 3.



Witnesses

F. A. Lehmann
Geo. C. Shoemaker.

By his Attorneys,

John W. Morgan!

CA Snow & Co.

UNITED STATES PATENT OFFICE.

JOHN W. MORGAN, OF NASHVILLE, TENNESSEE.

LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 552,194, dated December 31, 1895.

Application filed August 14, 1894. Serial No. 520,322. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. MORGAN, a citizen of the United States, residing at Nashville, in the county of Davidson and State of Tennessee, have invented a new and useful Pipe-Oiler, of which the following is a specification.

My invention relates to lubricators, and it has for its object to provide a device adapted for use in oiling machinery at a plurality of points from a common tank or reservoir by means of feed-tubes communicating with the tank, and, furthermore, to provide an improved feed-nozzle so constructed as to facilitate its application to the feed-tube at any desired point, whereby the tube may be tapped for a nozzle and the nozzle arranged in operative position with the minimum loss of time.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claim.

In the drawings, Figure 1 is a vertical section of a tank, feed-pipe and nozzle constructed in accordance with my invention. Fig. 2 is a detail vertical section of the lower member of the feed-nozzle, including the valve-seat and the sight-tube. Fig. 3 is a detail side view of the strainer.

Similar letters of reference indicate corresponding parts in all the figures of the drawings.

In an apparatus embodying my invention, A represents a tank in communication with a main feed-tube B having a stop-cock C, and within the tank is arranged a strainer D having a depending sleeve E, which surrounds the projecting extremity of the feed-tube to prevent lint and sediment from entering the feed-tube. Communicating with the tank at its bottom is a trap F and mounted upon this trap is a gage G to show the quantity of oil in the tank. The trap is adapted to catch any water which may be contained in the oil, and the water may be drawn off by removing the screw-plug H without interfering with the operation of the oiler. Communicating with this main feed-tube may be any desired number of branch feed-tubes J, suitable couplings

I being arranged at the points of intersection. The outer extremities of the branch feed-tubes are provided with removable closures N.

The feed-tube may be tapped at any desired point or points for the application of nozzles, and the nozzle embodying my invention comprises upper and lower members P and S, respectively, each of which is provided with a threaded tip *t* adapted to be threaded in registering perforations in the upper and lower sides of the tube. The tip of the upper member is formed integral with a guide P', in which is mounted a tubular valve-stem O. Said valve-stem is preferably threaded in the guide, and a stuffing-box P² is arranged upon the guide to prevent leakage. The stem terminates at its upper end in a hand-wheel P³, and a removable plug Q is secured in the upper end of the bore of the stem to close the same. The tip *t* of the lower member is provided with a valve-seat S' to receive the valve which is formed by the rounded or ground lower extremity of the valve-stem, and said tip forms a part of a tubular conductor S² having lateral flanges S³. Said lateral flanges are secured in contact with the upper end of a sight-tube T by means of a screw-cap S⁴, said sight-tube being provided with lateral openings V closed by a transparent guard U arranged within the tube. The sight-tube is provided at its lower end with a communicating outlet-nipple S⁵.

From the above description it will be seen that the improved nozzle may be applied to a feed-tube by boring and threading registering openings in the upper and lower sides of said tube and screwing the tips *t* of the members of the nozzle thereinto, thereby facilitating the application of the nozzle and enabling the same to be accomplished with the minimum loss of time in operating machinery. The tubular conductor or dropper S², which conveys the lubricant from the feed-tube when the valve is unseated, has its bore arranged in vertical alignment with the bore of the tubular valve-stem, and hence when the plug Q is removed from the upper end of said stem a wire or rod may be inserted through the bore of the stem and the conductor or dropper and also through the bore of the nip-

ple S⁵ to remove any accumulations of dirt or sediment therein and secure the proper flow of oil.

5 A further advantage of the sectional construction of the improved lubricator resides in the fact that the valve-stem, which extends transversely across the bore of the oil-tube, is of such diameter as to avoid interference with the flow of oil past the lubricator. Hence a
10 plurality of lubricators embodying my invention may be applied to the same tube without so obstructing the flow of oil as to prevent those near the end of the line from receiving sufficient oil to preserve a constant flow.

15 Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

20 Having described my invention, what I claim is—

25 In a lubricating device, the combination with a feed tube adapted to communicate with an oil reservoir or tank, of a nozzle comprising independent upper and lower members arranged in axial alignment, respect-

ively, above and below the feed tube and provided with tips threaded in registering openings in the upper and lower sides thereof, the lower member of the nozzle having a con- 30 ductor or dropper in communication with the feed tube and provided contiguous to its upper end with a valve-seat, and the upper member of the nozzle having an axially movable valve-stem terminating at its lower end in a 35 valve adapted to fit said seat, whereby in order to attach the nozzle to the feed tube aligned openings are formed in the upper and lower sides thereof and the tips of the nozzle-members are screwed in said openings, the 40 valve-stem being of such diameter as to extend transversely through the tube without interfering with the flow of oil past the lubricator, substantially as specified.

In testimony that I claim the foregoing as 45 my own I have hereto affixed my signature in the presence of two witnesses.

JOHN W. MORGAN.

Witnesses:

W. M. POLLARD,
J. W. GRISWELL.