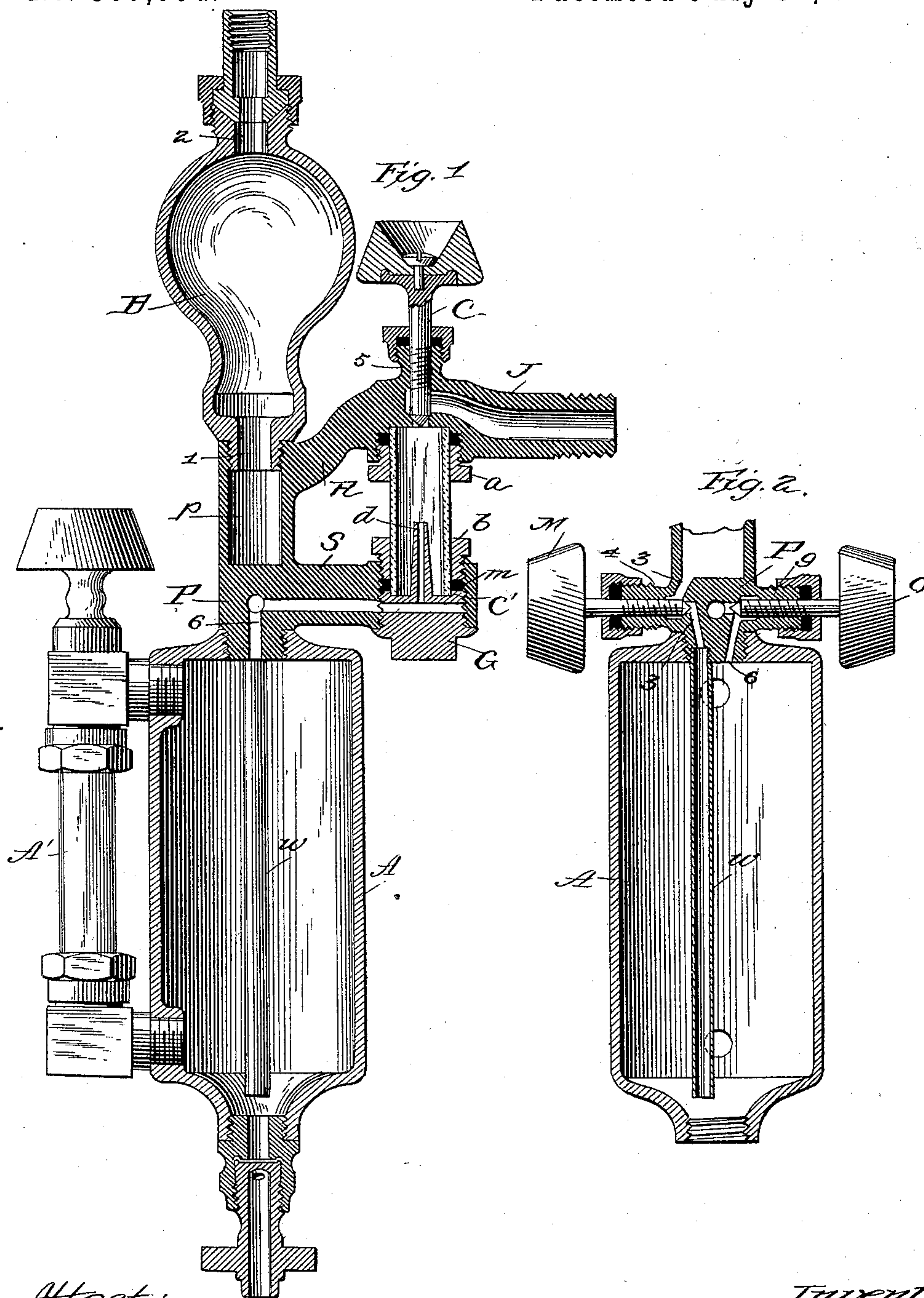


(No Model.)

T. B. McNIECE.  
LUBRICATOR.

No. 387,094.

Patented July 31, 1888.



Attest:  
*William Malden*  
*J. E. Middleton*

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# UNITED STATES PATENT OFFICE.

THOMAS B. McNIECE, OF MANSFIELD, OHIO.

## LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 387,094, dated July 31, 1888.

Application filed September 14, 1887. Serial No. 249,683. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS B. McNIECE, of Mansfield, in the county of Richland and State of Ohio, have invented a new and useful Improvement in Lubricators; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention is an improvement in lubricators of that class in which the feeding of the oil is accomplished by displacement caused by the water of condensation, the oil as it is displaced passing through a suitable outlet to the sight-feed tube, and thence to the parts to be lubricated.

The object of my invention is to so arrange the necessary elements and support them that simplicity of construction and accuracy of adjustment may be secured.

My invention consists in the details of construction and arrangement of the parts, all as hereinafter fully described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a central vertical section through the lubricator-cup and the various attachments thereto. Fig. 2 is a similar view through the cup and a portion of said attachments, the section being taken a quarter-turn from that of Fig. 1.

In the drawings, A represents the lubricator-cup, and A' a tube supported thereby, and having communication with the interior of the cup, by which the height of the lubricant within the cup may be readily seen. These parts are of the well-known form and structure. A screw-threaded opening is formed in the top of the cup and centrally thereof to receive and hold a piece, P, which has a screw-threaded end adapted to the opening in the cup. I aim to utilize this piece P as a support for all the parts which are essential to the lubricator, and for this purpose the said piece is formed as follows: Its upper portion is hollowed out, and at its extreme end is screw-threaded internally, and at this point the condenser B is supported, having its lower end screw-threaded for the purpose of forming the connection. The interior of the condenser B is in communication with the chamber *p* of the center piece, P, as shown at 1, and thus the chamber also serves as a condenser, the live steam being conveyed from the boiler

to the top of the condenser, as at the point 2. A conduit, 3, is formed in the center piece, P, through its lower portion and to one side of its center, leading to the interior of the cup A, and into the lower end of this opening a drip-tube or conduit-pipe, *w*, is secured, which, extending to near the bottom of the cup, conveys the water of condensation through and beneath the lubricant, where it acts to displace the lubricant and force the same from the cup. A lug, 4, on the center piece receives and supports the valve M, which has its inner end seated in the conduit-passage 3, by which the amount of water fed to the cup may be regulated.

From the center piece, P, at points near its top and bottom, arms R S project, being positioned in the same vertical plane. These arms are designed to support the sight-feed tube, and are secured rigidly to the piece P, being formed integral therewith or formed in parts and secured rigidly in place. The upper arm is provided with an outlet-nozzle, J, and is formed with a socket adapted to receive the upper end of the sight-feed tube, and also with a boss or lug, 5, for the valve C. The lower arm, S, has at its outer end an opening extending through it and in exact line with the socket or seat for the upper part of the sight-feed tube. This arm is further provided with a conduit-passage extending through it and communicating with the interior of the cup by means of a second passage, 6, formed through the lower portion of the center piece. Through these passages the displaced lubricant passes to the sight-feed tube. The sight-feed tube is supported in the arms R and S as follows: The upper end fits a suitable seat in the lower face of the upper arm. A suitable washer is positioned about this end, and is held and forced to place by means of a screw-threaded collar, *a*. The lower end of the tube is seated upon a plug, G, which is screw-threaded and fits into the opening in the end of arm S. A washer, *m*, and collar similar to those just described are employed to complete the joint and make it perfectly tight. The washer in this instance rests against the upper surface of the plug G, and is forced thereto by the collar *b*, which is also screwed into opening of arm S. The seat C' in the plug G, when said



plug is screwed into place, is in the same vertical line with the upper seat, and in placing the sight-feed tube in the arms it can be positioned with accuracy in exact vertical plane and without necessitating experiment and adjustment.

Centrally of the plug and extending upwardly is formed a nipple, *d*, through which the oil or other lubricant passes. The opening through this nipple connects with a transverse opening formed in the plug, which in turn connects with the conduit-passage through the arm S, the position of this transverse opening being such that when the plug is screwed to place the said opening will register exactly with the conduit-passage. A second boss or stud is formed on the center piece, P, as at 9, to receive and hold a valve, *o*, by which the feed of the oil may be adjusted.

From this construction it will be seen that in fitting the parts there is no liability of getting the sight-feed tube out of line, and the adjustment may be speedily and certainly effected, as the tube is held in the rigid arms R and S, which are carried by a common supporting-piece adapted to be screwed into the cup. It will also be noticed that the glass or sight-feed tube may be removed or replaced simply by manipulating the plug G.

The action of the lubricator above described does not differ in any essential points from the working of those now in use.

I claim as my invention—

1. In combination, the oil-cup A, the center piece, P, having the arms R S, forming a seat for the sight-feed tube, a condenser, B, supported on said center piece, P, a passage through said piece from the condenser to the cup, a passage through the arm S to the sight-feed tube for the oil, and an exit-passage through the nozzle J of the arm R to the steam-space, with suitable regulating-valves for said passages, substantially as described.

2. In combination with an oil-cup, the center piece, P, provided with arms R S and supporting the condenser B, the conduit-pipe *w*, and the sight-feed tube, substantially as described.

3. In combination; the cup A, the center piece, P, the supporting-arms R S for the sight-feed tube, a screw-plug, G, fitting an opening in the arm S and having a passage there-through for lubricant, a nipple carried by said plug, a screw-collar fitting into the upper part of the opening in the arm S, and a washer between the parts *b* and G, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

THOMAS B. McNIECE.

Witnesses:

LEROY PARSONS,  
GEORGE ERTLEY.