(No Model.)

O. A. ROLLINS.

STEAM ENGINE CYLINDER LUBRICATOR.

No. 263,356. Patented Aug. 29, 1882.

Fig. 1.

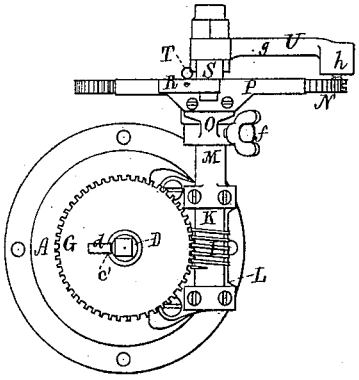


Fig. 2.

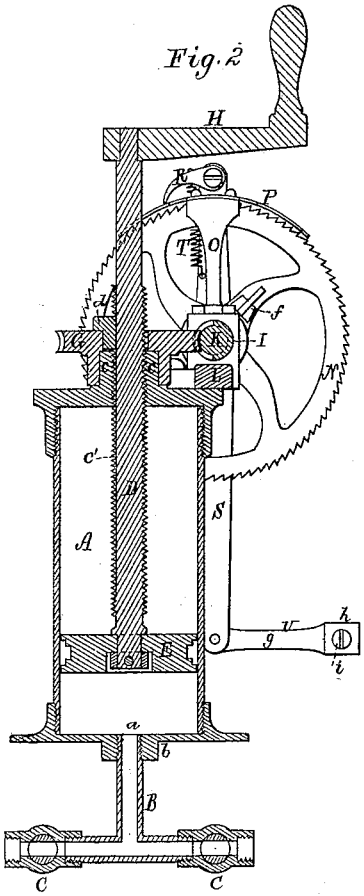
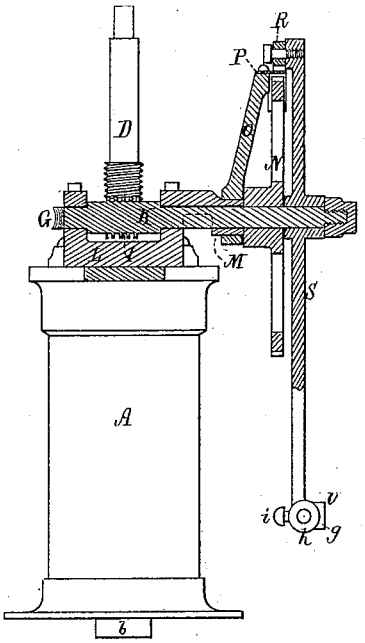


Fig. 3.



Witnesses.

S. N. Piper

M. A. Sullivan

Inventor.

Oscar A. Rollins.

by R. H. Eddy atty.

UNITED STATES PATENT OFFICE.

OSCAR A. ROLLINS, OF CAMPELLO, MASSACHUSETTS.

STEAM-ENGINE-CYLINDER LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 263,356, dated August 29, 1882.

Application filed July 5, 1882. (No model.)

To all whom it may concern:

Be it known that I, OSCAR A. ROLLINS, of Campello, of the city of Brockton, in the county of Plymouth, of the State of Massachusetts, have invented a new and useful Improvement in Steam-Engine Cylinder-Lubricators; and I do hereby declare the same to be described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a top view; Fig. 2, a vertical section of my improved lubricator, the plane of section being taken through the axis of the pump-cylinder, and showing the mechanism applied to the worm-shaft. Fig. 3 is a vertical section taken through and in line with the axis of the worm-shaft.

My present invention relates to the class of lubricators to which belongs the improvement set forth in Letters Patent No. 222,739, granted December 16, 1879, to me, the nature of my improvement, hereinafter described, being defined particularly in the claims of this specification.

In the drawings, A denotes the pump-cylinder, which, instead of having in its lower head two holes to receive separate pipes, furnished with cocks, has but one opening, *a*, arranged at or near its center and in a short neck, *b*, projecting from such head, as shown, and there is screwed into the said opening a tubular "T-educt," B, provided with the cocks C C, arranged in it, as represented. The upper head of the cylinder has a boss or journal, *c*, through which is screwed the screw piston-rod D, adapted to revolve in and carry the piston-head E, the said rod having a groove, *c'*, extending in it lengthwise of it, to receive the key *d* for keying to such rod the worm-gear G, pivoted upon the boss *c*. Upon the upper end of the rod is a crank, H, for revolving the rod by manual power applied to such crank after extraction of the key from the gear and rod.

The worm for turning the gear is shown at I as carried by or formed upon a shaft, K, arranged within a puppet, L, screwed to the upper head of the cylinder, and disposed as represented. From this puppet there projects concentrically with the shaft K a tubular or stationary journal, N. The worm-shaft extends through and beyond the said journal, and has fixed upon it (the said shaft) a ratchet-wheel, N. On the journal there is fastened by a set-screw, *f*, an arm, O, having fixed to it at its outer end a shield or arc, P, to extend over the wheel N, in manner as represented. On this arc rests a pawl, R, jointed to a lever S, fulcrumed upon the worm-shaft. A spiral spring, T, connects the arm of the lever with the pawl and draws the latter downward. There is jointed to the longer arm of the lever a connection-rod attachment, U, consisting of the arm *g*, provided with a tubular head, *h*, and a set-screw, *i*, the latter being screwed laterally into the head. The connection-rod for imparting vibratory motion to the lever S is to be inserted in the tubular head and fastened thereto by its set-screw.

From the above it will be seen that as the arm can be turned on the journal the arc can be adjusted so as to cause the pawl in passing off such arm to move or turn the ratchet-wheel more or less, as occasion may require, no movement being given to such wheel while the pawl may be moving upon the arc. The quantity of oil supplied to the engine-cylinder at each stroke of the piston thereof depends on the distance the ratchet-wheel may be revolved by the pawl during each advance movement of the pawl. The wheel may be revolved to the extent of one or more teeth of it, as may be desirable, the piston of the lubricator descending in its cylinder faster as the ratchet-wheel movement may be increased.

The advantage obtained by the present construction of lubricator over that patented, as hereinbefore mentioned, is that it can be applied to any engine, whether upright or horizontal, without or with fewer changes than would be required with the patented form.

I claim in the described improved lubricator—

1. The combination of the worm-shaft-supporting puppet fastened to the cylinder and provided with the stationary tubular journal extending from it, (the said puppet,) as set forth, with the adjustable arm and its arc, and with the ratchet-wheel and its operating lever and

pawl, applied to such worm-shaft and stationary journal, essentially as explained, all being adapted and to operate substantially as specified.

2. The combination of the connection-rod attachment U, constructed as described, with the lever, the pawl, ratchet-wheel, curved arc, and its carrying-arm, arranged and applied to the arm-shaft and the stationary journal, as set forth.

OSCAR A. ROLLINS.

Witnesses:
J. R. PERKINS,
MARY E. PERKINS.