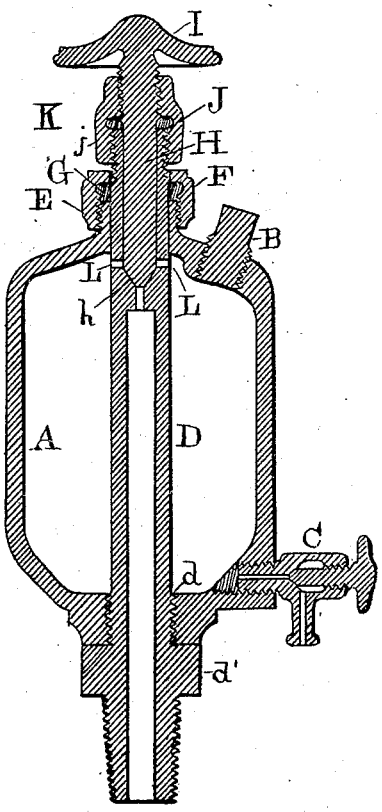
(No Model.)

E. L. REESE.

LUBRICATING CUP FOR STEAM ENGINES.

No. 266,885. Patented Oct. 31, 1882.



WITNESSES

E. H. Barclay.

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UNITED STATES PATENT OFFICE.

EVAN L. REESE, OF ALAMEDA COUNTY, CALIFORNIA.

LUBRICATING-CUP FOR STEAM-ENGINES.

SPECIFICATION forming part of Letters Patent No. 266,885, dated October 31, 1882.

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

To all whom it may concern:

Be it known that I, EVAN L. REESE, of Alameda county, State of California, have invented an Improved Lubricating-Cup for Steam-Engines, of which the following is a specification.

My invention relates to those lubricators which operate by the condensation of steam, which is admitted to an oil or grease reservoir to accumulate in the form of water to displace an equal amount of oil, which flows out and into the steam-passages to lubricate the engine through exit-holes provided at the exact level of the lubricating material in the reservoir, and which lubricators are provided with adjustable regulating or feed valves.

My invention consists in a novel arrangement of the parts which simplifies the construction, while still securing the feed or regulating plug from being affected by varying degrees of temperature, which might otherwise destroy the regularity of the supply.

In the accompanying drawing I show a sectional elevation of a lubricator which fully illustrates the application of my invention.

A is the oil-reservoir or grease-cup, having a charging-hole on top, which is fitted with a screw-plug, B, and a drain cock or valve, C, of any suitable form, placed at the bottom to drain off the condensed steam (water) when required.

D is a tube or conduit through which steam flows from the steam-passages of the engine into the oil-reservoir, and through which the oil is in return conducted to the engine. This tube is screwed into the bottom of the reservoir at *d*, there being a hexagon collar at *d'* to take the wrench. The tube passes up through the center of the reservoir and out at the top through the stuffing-box E, to project above the gland F about an inch. The tube is allowed a free vertical play in this stuffing-box, the packing G being made only tight enough by screwing up the gland F to prevent the escape of steam.

In the tube D, at the top end, is fitted the feed-regulating plug H, which has a conical point, which fits a seat provided for it in the tube at *h*. The top end of this plug has the ordinary milled-edge thumb-nut I.

To prevent leakage of steam, a packing-gland, J, is provided, which screws up and down on the top end of the tube to compress the packing K between the head of the gland and end of tube around the plug. This gland has a hexagon collar at *j* to take the wrench. The plug H is supported by the gland J when off its seat, it being screwed therein, as shown in drawing.

There are small holes at L, passing from inside of tube D just above the seat of the plug, through which steam enters and oil passes out.

The lubricator is attached to the engine (generally the steam-chest cover) by being screwed thereon, the lower end of the tube D being provided with the ordinary taper screw end for that purpose.

The operation of the lubricator is as follows: Turn the thumb-nut I to raise the end of the plug from its seat, when the steam will flow in through the holes at L, and will condense in the reservoir and fall to the bottom (water being heavier than oil) and displace an equal amount of oil, which will flow out through the same holes into the steam-chest of the engine.

The variation of the steam-pressure, and consequent variation of temperature, will not in any way affect the relative distance of the end of the plug H from its seat, because the plug gains its support from the gland J, which is directly supported on the end of the tube and moves with it when expansion or contraction occurs, and thus the feed, when once regulated, is permanent at all temperatures, whatever be the variation between the expansion of the tube and reservoir.

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

The herein-described steam lubricating device, consisting of the shell A, tube D, firmly screwed therein at *d*, and having passages at L, the stuffing-box E, plug H, and screw-gland J, the whole arranged and operating substantially as herein described.

EVAN L. REESE.

Witnesses:

GEORGE PARDY,

THOMAS H. BARCLAY.