

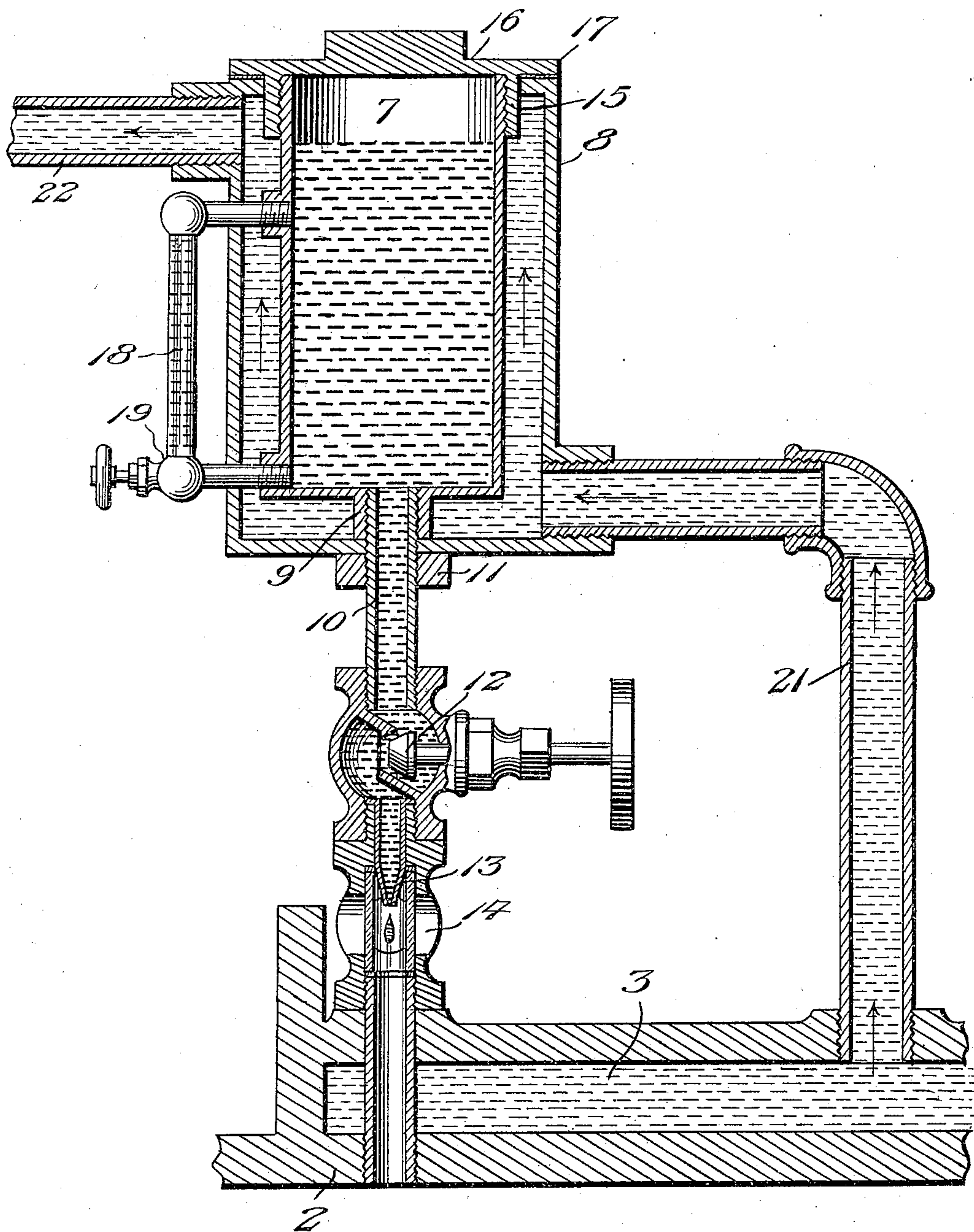
No. 810,844.

PATENTED JAN. 23, 1906.

L. O. CRAWFORD.

LUBRICATOR.

APPLICATION FILED DEC. 13, 1904.



Inventor

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Witnesses

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# UNITED STATES PATENT OFFICE.

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## LUBRICATOR.

No. 810,844.

Specification of Letters Patent.

Patented Jan. 23, 1906.

Application filed December 13, 1904. Serial No. 236,666.

*To all whom it may concern:*

Be it known that I, LUNDY O. CRAWFORD, a citizen of the United States, residing at Pendleton, in the county of Madison and State of Indiana, have invented new and useful Improvements in Lubricators, of which the following is a specification.

This invention relates to lubricators of that kind in which the heated water from the water-jacket of an engine-cylinder is utilized for maintaining the lubricant in liquid condition.

The objects of the invention are to improve and simplify the construction of such devices.

With the foregoing and other objects in view, which will appear as the description proceeds, the invention resides in the particular combination and arrangement of parts and in the precise details of construction hereinafter described and claimed as a practical embodiment thereof.

In the accompanying drawing, forming part of this specification, the figure is an enlarged sectional view of the lubricator and a portion of the engine-cylinder.

Referring to the drawing by reference-numerals, 2 designates part of a cylinder of the usual form and construction, said cylinder being provided with the usual form of water-jacket 3. My improved lubricator is adapted to be applied to the engine-cylinder, so as to lubricate the cylinder and to permit of the heated discharge of the water which is adapted to circulate within the water-jacket 3 being fed to a casing surrounding the reservoir of the lubricator, so as to heat the lubricant to insure an even discharge thereof.

7 designates the reservoir, adapted to contain lubricant, and surrounding said reservoir is an outer casing 8, the reservoir and casing having their upper ends fully open. The reservoir is provided with a centrally-located depending shoulder or annular member 9, adapted to rest upon the bottom of the casing, so as to space the lower end of the reservoir therefrom. The reservoir and casing are provided with alining openings through which one end of the feed-tube 10 projects, and said tube has threaded connection with the reservoir and casing, so as to retain the casing and reservoir in relative position. A lock-nut 11 is mounted upon the feed-tube 10 and adapted to en-

gage the under side of the casing to retain the reservoir in applied position within the casing 8 against accidental displacement. The opposite end of the feed-tube has threaded engagement with the cylinder 2, whereby lubricant may be fed thereto.

A valve 12 is interposed within the feed-tube to permit of the control of the discharge of the lubricant, and situated within said discharge-tube below said valve is a discharge-nipple 13, which is visible through a sight-opening 14 in the feed-tube.

The upper end of the reservoir is provided with external screw-threads adapted to receive the screw-threaded flange 15 of a cap or closure 16. This cap or closure is provided with a laterally-projecting flange 17, adapted to engage over the upper edge of the casing, whereby the reservoir and casing may be closed by means of a single cap. A gage 18 is secured to the reservoir in the usual manner and is provided with a valve 19, by means of which the contents of the reservoir may be withdrawn when desired.

The water-jacket 3 is supplied with water in any suitable manner, and said water is adapted to be discharged therefrom through an outlet-pipe 21, having connection with the lower end of the casing 8. The casing is provided at its highest point with a discharge-pipe 22, said pipe being arranged at an opposite point to the outlet-pipe 21.

The operation of the device may be briefly stated as follows: The water adapted to cool the engine-cylinder is fed to the jacket 3, and after said water has circulated about the cylinder 2 it passes out through the pipe 21, the water being heated during its circulation about the cylinder. This heated discharge of the water is carried by the pipe 21 into the casing 8 and thence around the reservoir 7 out through the pipe 22, the heated discharge during its circulation about the reservoir heating the lubricant carried thereby so as to render it of the proper consistency to insure its ready flow. The lubricant in this condition passes through the feed-tube 10 into the cylinder 2, whereby the latter may be regularly supplied with the proper amount of lubricant. The discharge of the lubricant may be determined through the sight-opening 14, and its discharge may be regulated by the valve 12.



It is apparent from the above description, taken in connection with the accompanying drawing, that I provide a lubricator which may be readily and quickly applied to any  
5 form of gas or gasolene engine without making any changes therein and that the circulation of the heated discharge of the water adapted to cool the engine-cylinder about the reservoir of the lubricator will retain the  
10 lubricant in such condition as to insure its ready feed to the engine-cylinder.

Having thus fully described my invention, what I claim as new is—

1. In a lubricator, the combination with  
15 an engine-cylinder provided with a water-jacket, of a casing provided with inlet and outlet openings, a reservoir disposed within said casing and having an annular member to space the same away from the bottom of  
20 the casing, a feed-tube connected with the annular member to secure the reservoir in applied position and convey the lubricant to the engine-cylinder, and a pipe having one end mounted within said inlet-opening and the  
25 other end connected to the water-jacket, whereby the heated water will pass into the

casing to retain the lubricant in proper condition.

2. In a lubricator, the combination with a cylinder provided with a water-jacket, of a  
30 casing provided with inlet and outlet openings, a reservoir positioned within said casing and having an annular member to space the reservoir away from the bottom of the casing, a closure adapted to be removably  
35 secured to the reservoir to close the casing and reservoir, a gage secured to the reservoir, a feed-tube connected with the annular member to retain the reservoir in applied position  
40 and convey the lubricant to the cylinder, and a pipe having one end mounted within the inlet-opening of the casing and its other end secured to the water-jacket so as to convey the heated water to the casing to retain the lubricant in proper condition. 45

In testimony whereof I affix my signature in presence of two witnesses.

LUNDY O. CRAWFORD.

Witnesses:

E. TAUKE,  
H. T. CAMPBELL.