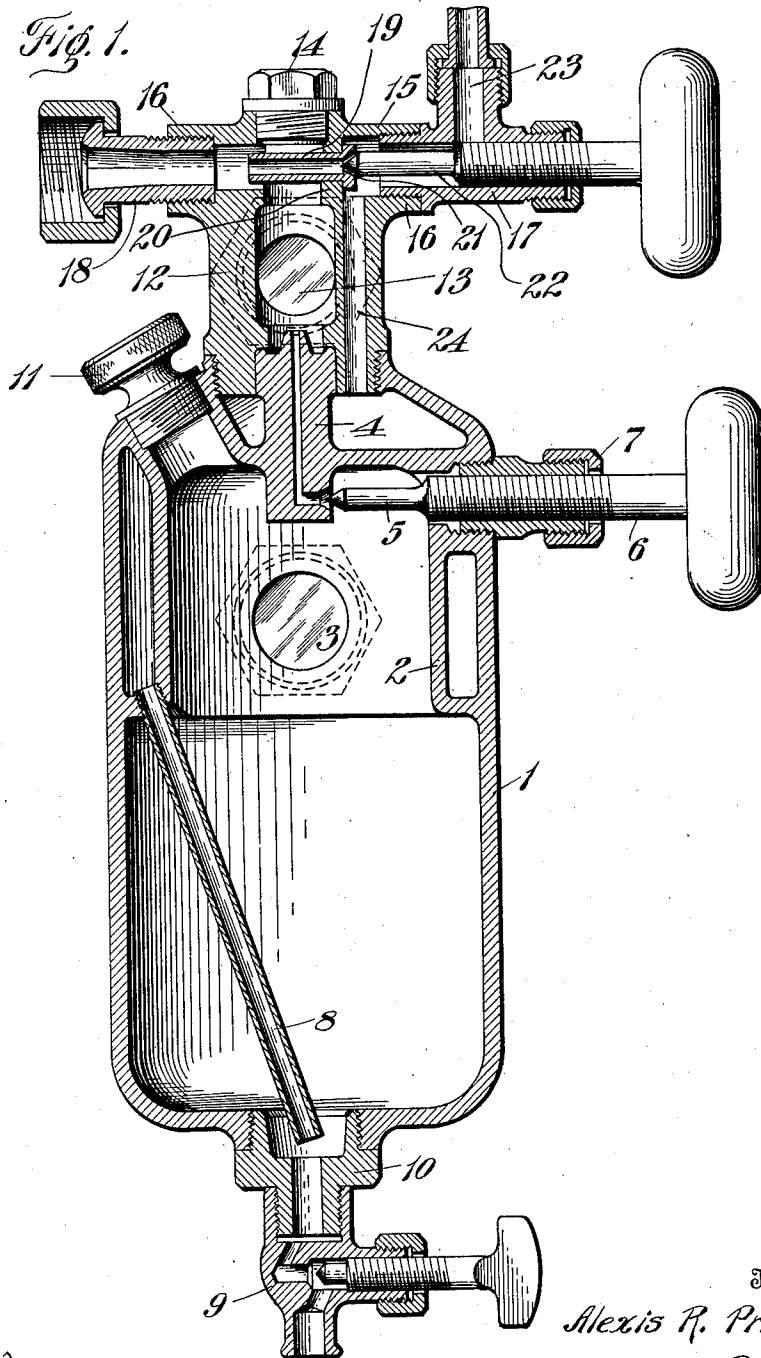


A. R. PRIBIL.
LUBRICATOR.
APPLICATION FILED JULY 29, 1911.

1,050,690.

Patented Jan. 14, 1913.

2 SHEETS—SHEET 1.



Witnesses
Chas. W. Stauffer
Anna C. Parler

By

Alexis R. Pribil

Inventor

Attorneys

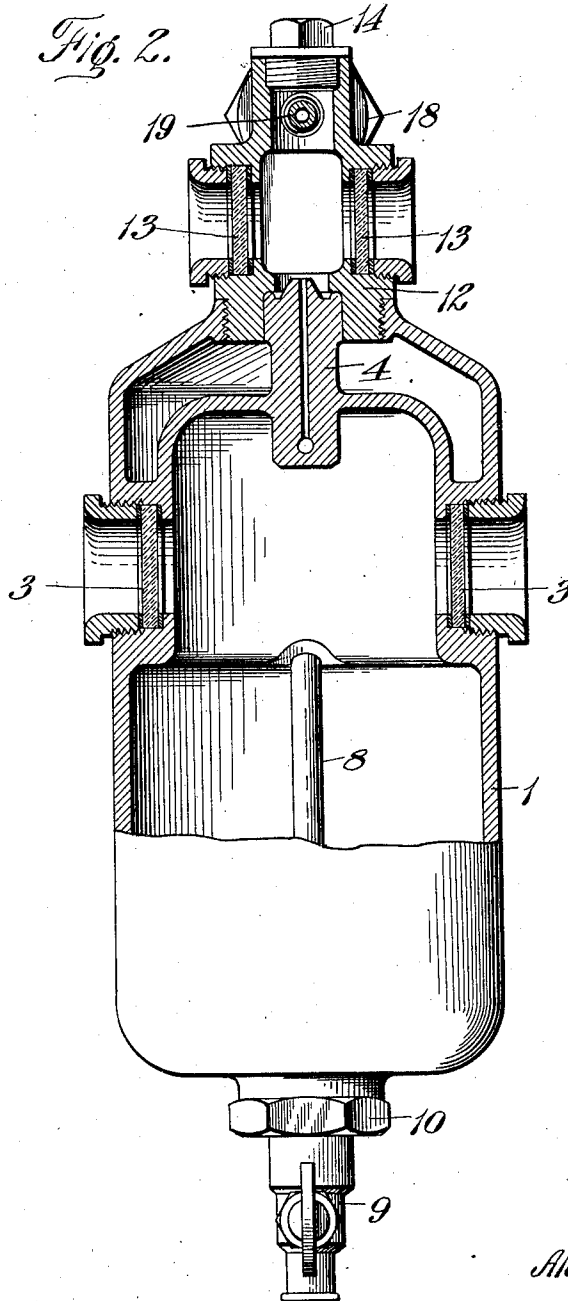
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UNITED STATES PATENT OFFICE.

ALEXIS R. PRIBIL, OF DETROIT, MICHIGAN, ASSIGNOR TO PENBERTHY INJECTOR CO.,
OF DETROIT, MICHIGAN, A CORPORATION OF MICHIGAN.

LUBRICATOR.

1,050,690.

Specification of Letters Patent.

Patented Jan. 14, 1913.

Application filed July 29, 1911. Serial No. 641,225.

To all whom it may concern:

Be it known that I, ALEXIS R. PRIBIL, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Lubricators, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to a lubricator of the sight feed displacement type wherein a lubricant, either liquid or semi-fluid, is projected by admitted steam in the form of vapor into an outlet pipe, the steam being condensed in part to replace the ejected lubricant and being further so distributed as to liquify the lubricant before vaporization. A single valve controls admission of steam, and the introduction thereof to the condensing chamber and to a vaporizing discharge nozzle.

The invention consists in the matters hereinafter set forth and more particularly pointed out in the appended claims.

25 In the drawings, Figure 1 is a view in longitudinal section of a preferred form of lubricator that embodies features of the invention; and Fig. 2 is a view in longitudinal section taken at right angles to the plane of section of Fig. 1.

30 As herein illustrated, a casing 1 of suitable design and material has an inner wall 2 around its upper portion which forms with the casing an annular condensation chamber. Sight glasses 3 are inserted in the walls of this chamber and a centrally longitudinally apertured nipple 4 extends through its upper end. The duct through the latter is controlled by suitable means, as for example a needle closure 5 the stem 6 of which extends through a suitable packing gland 7 or the like on the casing wall. A drain pipe 8 leads from the bottom of the annular condensation chamber to the bottom of the casing which is provided with a drain cock 9 of any preferred type. As a detail of convenient construction a fitting 10 with a recess in its upper end to form a drain cavity for the outlet of the pipe 8, connects the casing and drain cock. A suitable plug 11 closes the filler opening near the top of the casing.

45 A sight feed displacement tube 12 with sight feed glasses 13 properly secured in lateral openings thereof is screwthreaded into

or otherwise secured in the top of the casing and makes a close joint with the upper end of the nipple 4. The upper end of the tube is closed either permanently, or preferably, by a screw plug 14. A transverse passage 15 in the upper end of the tube in communication with its longitudinal opening extends through lateral bosses 16 in one of which a suitable steam inlet valve casing 17 is mounted, a coupling 18 or the like extending from the other boss for the attachment of a discharge pipe. A jet tube 19 is mounted in a transverse wall 20 across the passage 15 with a conical valve seat 21 at one end controlled by a needle closure 22 in the valve casing 17. An inlet opening 23 in the valve casing is controlled by the same closure. A by-pass 24 connects the condensation chamber with the passage 15 adjacent the valve seat 21. By this method of construction steam entering through the valve fills the condensation chamber whereby the upper portion of lubricant filling the casing becomes thoroughly warmed so that when the feed valve is then opened the lubricant passes upward through water previously placed in the sight feed tube. Steam then also passes through the jet pipe 19 and vaporizes lubricant that reaches the upper portion of the sight feed tube and ejects it in the form of a spray into the outlet pipe. Preferably the coupling for connecting the outlet pipe is so disposed as to form a shoulder in the traversed passage of the sight feed tube which traps water of condensation at the jet nozzle to drain back into the tube column. The water of condensation in the jacket or condensation chamber of the casing passes through the tube 8 and replaces oil, or other lubricant in the casing and holds the level therein constant. A single valve thus controls the supply of steam for the jet tube and for the condensation chamber and the outlet of the jet tube is so disposed relative to the condensation chamber that water is constantly supplied to said sight feed tube. All the parts are readily accessible for inspection and repair and are arranged for ready machining and assemblage with a minimum amount of labor. There are no external chambers for condensation purposes or for furnishing water of displacement.

Obviously, changes in the details of construction may be made without departing

from the spirit of my invention and I do not care to limit myself to any particular form or arrangement of parts.

What I claim is:

5 1. A lubricator comprising a casing having a lubricant outlet at its upper end, a steam condensation chamber surrounding the portion of the casing adjacent the casing outlet, a sight feed displacement tube connected to the outlet and provided with a discharge adapted to trap the water of condensation into the tube, a jet tube delivering through the tube discharge, and a valve on the sight-feed tube for controlling admission of steam to the jet tube and to a by-pass leading into the condensation chamber.

2. A lubricator comprising a casing having a condensation chamber surrounding and integrally formed at its upper end and adapted to drain into the lower part of the casing, a sight feed displacement tube connected to the casing outlet and provided with vaporizing means arranged to supply the tube with water of condensation, and a valve on said tube for controlling the supply of steam to both the vaporizing means and the condensation chamber simultaneously.

3. A lubricator comprising a casing having a condensation chamber formed integrally in the casing wall around an outlet nipple in the upper end thereof, a sight feed displacement tube secured to the casing with the bore thereof leading from the nipple duct to a transverse passage in the outer part of the tube and with a by-pass connecting said passage with the condensation chamber, a jet tube in the transverse passage delivering through one end thereof and a valve controlling the admission of steam through the passage into the by-pass and into the jet-tube.

4. A lubricator comprising a casing having a condensation chamber formed integrally in the casing wall around an outlet nipple in the upper end thereof, a sight feed displacement tube secured to the casing with the bore thereof leading from the nipple duct to a transverse passage in the outer part of the tube and with a by-pass connecting said passage with the condensation chamber, a jet tube in the transverse passage delivering through one end thereof, a valve controlling the admission of steam through the passage into the by-pass and into the jet-tube, and a drain tube from the chamber discharging into the lower part of the casing.

5. A lubricator comprising a casing having a condensation chamber formed integrally in the casing wall around an outlet nipple in the upper end thereof, a sight feed displacement tube secured to the casing with the bore thereof leading from the nipple duct to a transverse passage in the outer part of the tube and with a by-pass connecting said passage with the condensation chamber, a jet tube in the transverse passage delivering through one end thereof, a valve controlling the admission of steam through the passage into the by-pass and into the jet-tube, a drain tube from the chamber discharging into the lower part of the casing, a drain-cock for the casing and a plug removably secured in a fill-opening in the casing.

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

ALEXIS R. PRIBIL.

Witnesses:

ADOLPH BARTHEL,
LEWIS E. FLANDERS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."