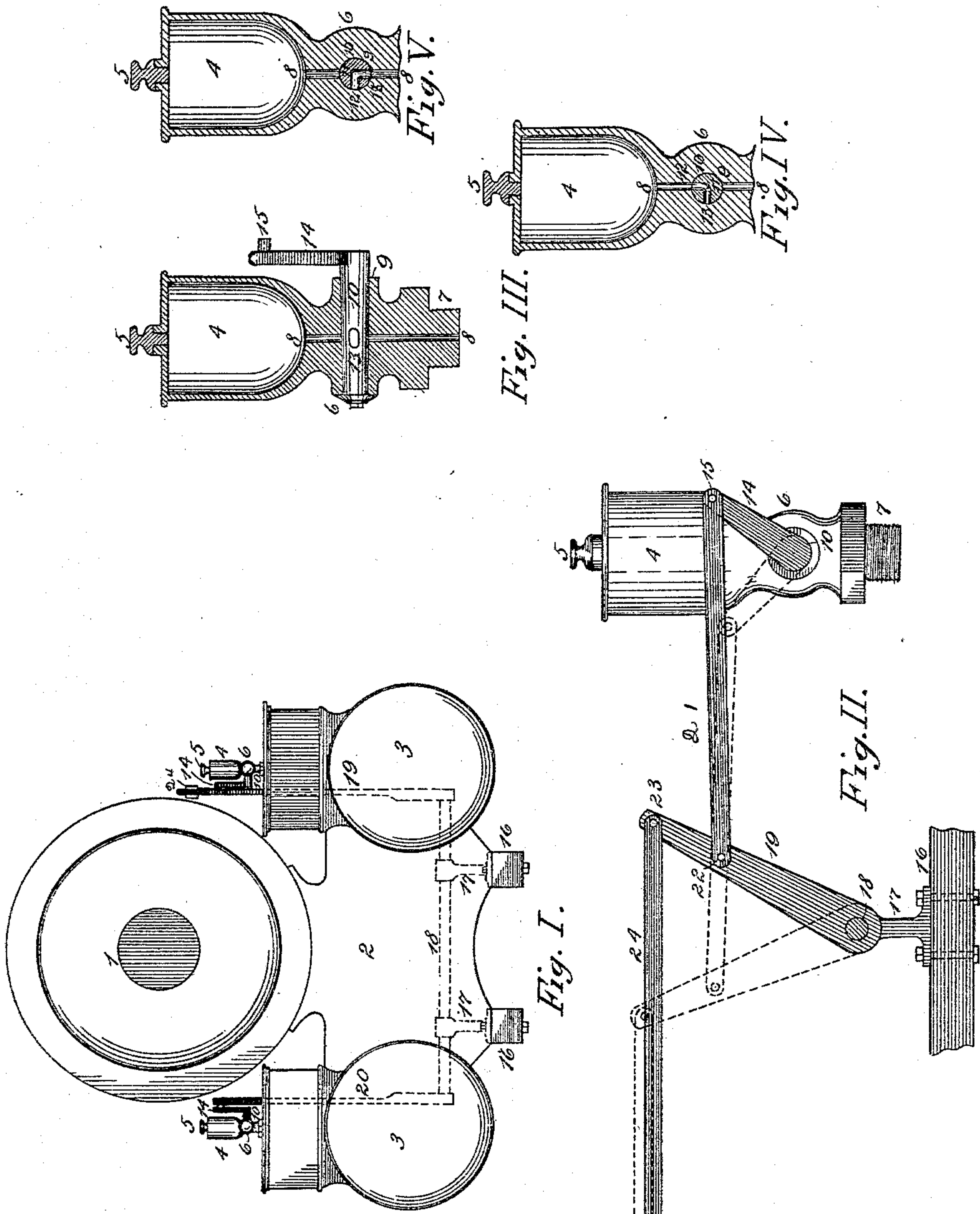


(No Model.)

B. B. ELDRED & K. B. RHEIM.
LUBRICATOR.

No. 412,077.

Patented Oct. 1, 1889.



Attest
C. Arthur,
Samuel Knight.

Inventors
Benjamin B. Eldred
Kavanaugh B. Rheim
By Knight Bros.
Attys.

UNITED STATES PATENT OFFICE.

BENJAMIN B. ELDRED AND KAVANAUGH B. RHEIM, OF LARAMIE CITY,
WYOMING TERRITORY; SAID RHEIM ASSIGNOR TO SAID ELDRED.

LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 412,077, dated October 1, 1889.

Application filed May 21, 1889. Serial No. 311,585. (No model.)

To all whom it may concern:

Be it known that we, BENJAMIN B. ELDRED and KAVANAUGH B. RHEIM, both of Laramie City, in the county of Albany and Territory of Wyoming, have invented certain new and useful Improvements in Lubricators, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, and in which—

Figure I shows a section of a boiler and end views of the cylinders with our improved lubricator attached thereto. Fig. II is a side view of the lubricator and its operating parts. Fig. III is a vertical section of the cup and stem, showing the plug in place. Fig. IV is a vertical section showing the plug in position to receive the lubricant. Fig. V is a vertical section showing the position of the plug when the lubricant is discharged into the cylinder.

Our invention relates to a device whereby the cylinders of locomotives, &c., may be readily lubricated; and our invention consists in features of novelty hereinafter described, and pointed out in the claim.

Referring to the drawings, 1 represents a section of a locomotive-boiler, and 2 its support.

3 represents the usual cylinders.

4 represents oil-cups provided with plugs 5 at their upper ends.

6 represents the stems of the cups, which are provided at their lower ends with screw-threaded portions 7, by which they are attached to the upper sides of the cylinders.

8 represents vertical passage-ways or openings leading from the cups to the cylinders, which permit the lubricant to pass into the cylinders. At a suitable point in the stems 6 we provide openings 9, in which are secured plugs 10. The plugs 10 are provided with transverse right-angle openings or passage-ways 11, said openings having their receiving-ports 12 and discharge-ports 13 at different points in the plugs.

We have shown and prefer to so construct the plugs that the discharge-ports will be located at a point at or near one-fourth of the way around the plug from the receiving-ports. To one end of each of the plugs 10 we secure an arm 14, each arm being provided with a pin 15, located near its upper

end. At a suitable point beneath the boiler we secure to the frame-work 16 (or any other suitable portion of the locomotive) brackets 17. The brackets 17 support a rod 18, which extends from one side of the locomotive to the other. To the ends of the rod 18 we secure levers 19 20.

21 represents bars pivoted at one of their ends by pins 22 to the levers 19 20. The other ends of the bars 21 are pivoted to the arms 14 of the plugs 10 by the pins 15. The lever 19 is extended up beyond the pivotal point of the bar 21. (See Fig. II.) To this extension is pivoted by pins 23 a bar 24. The bar 24 is intended to extend to a suitable point in the cab of the locomotive.

The operation is as follows: When the plug 10 is in the position shown in Figs. II, III, and IV, the lubricant will enter from the cups 4 through the port 12 into the passage-way 11 in the plug. Then all that is necessary to do when the operator desires to oil the cylinders is to pull on the bar 24, and thus force the plug 10 into the position shown by dotted lines in Fig. II and as shown in Fig. V, in which position the port 13 will discharge into the lower portion of the opening 8, and the lubricant will pass into the cylinders without permitting the steam to escape. Of course this operation may be repeated as often as may be desired, and the cylinders may be lubricated for any length of time without the operator leaving the cab.

We claim as our invention—

A lubricating device consisting of a cup 4, formed with a stem 6, having a vertical passage 8, and provided with a plug 5, for closing the cup, the rotary plug 10, having right-angle passage 11, the arm 14, secured to the rotary plug, the frame 17, the rod 18, journaled to the frame, having the arm 19, the connecting-bar 21, the pin 15, connecting the bar with the arm 14, the pin 22, connecting the bar to the middle portion of the arm 19, the operating-bar 24, and the pin 23, connecting the operating-bar with the upper end of the arm 19, substantially as described.

BENJAMIN B. ELDRED.

KAVANAUGH B. RHEIM.

In presence of—

WALTER E. WARE,

CHARLES BELLAMY.