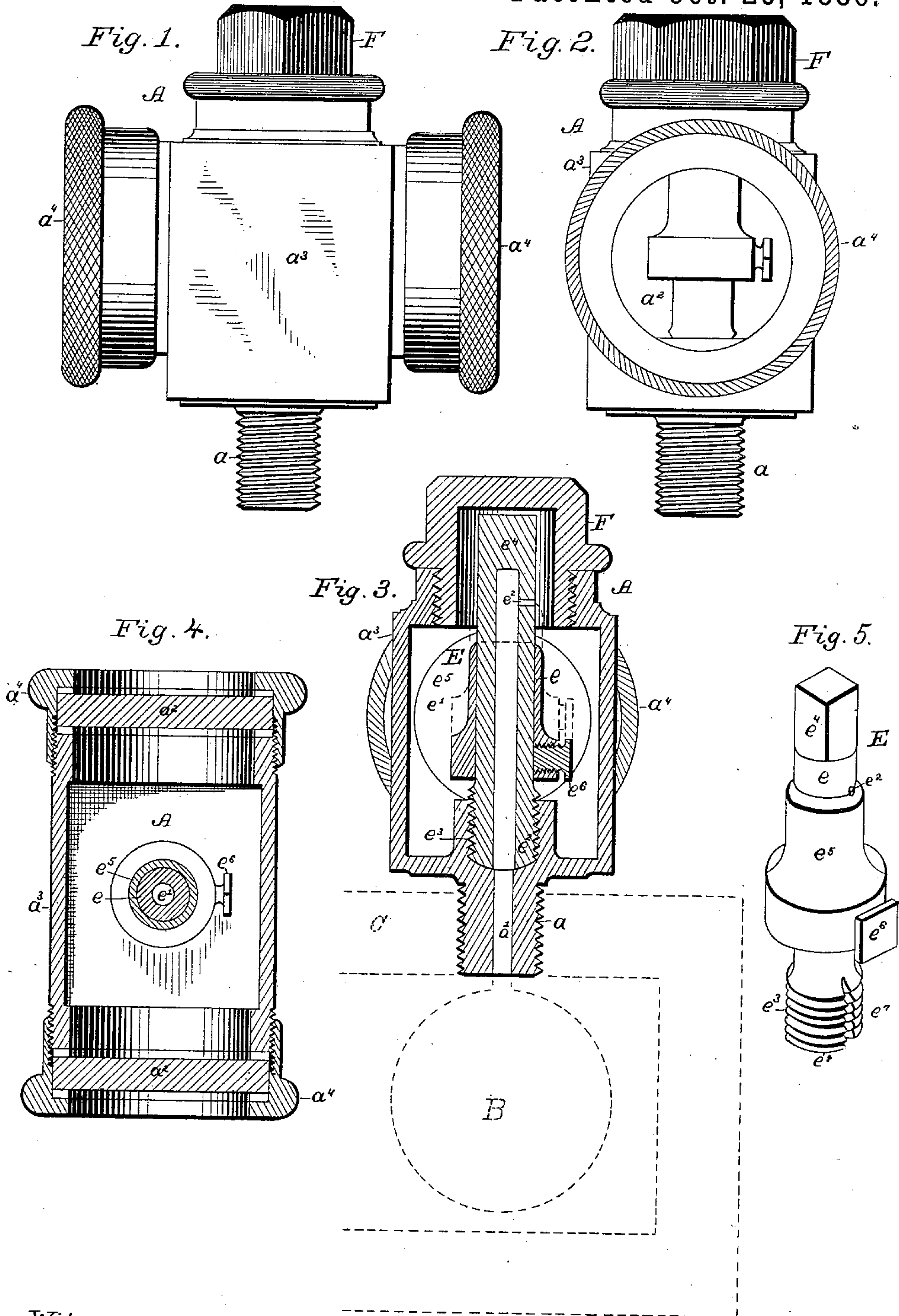


(No Model.)

F. BOLD.
LUBRICATOR.

No. 351,421.

Patented Oct. 26, 1886.



Witnesses
L. G. Fischer
L. Petrie

By his Attorney

Inventor
Fred. Bold
C. D. Moody

UNITED STATES PATENT OFFICE.

FRED BOLD, OF ST. LOUIS, MISSOURI, ASSIGNOR OF THREE-FOURTHS TO
THOMAS V. THOMPSON AND GEORGE BULLOCK, BOTH OF SAME PLACE.

LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 351,421, dated October 26, 1886.

Application filed March 6, 1886. Serial No. 194,308. (No model.)

To all whom it may concern:

Be it known that I, FRED BOLD, of St. Louis, Missouri, have made an Improvement in Lubricators, of which the following is a full, clear, and exact description.

The improvement relates to that type of lubricator which is attached to a revolving bearing, such as the wrist-pin of a steam-engine crank.

It consists, mainly, in the means for directing and regulating the flow of the lubricant from the lubricator-cup. An additional feature is making the shell of the cup, in connection with the feed-regulating device within, in part transparent, in that thereby not only the quantity of the lubricant in the cup may be readily ascertained, but also the position of the feed-regulating device.

In the annexed drawings, making part of this specification and exhibiting the most desirable form of the improvement, Figure 1 is a side elevation of the lubricator. Fig. 2 is an end elevation. Fig. 3 is a vertical transverse section, the broken lines beneath the lubricator indicating the wrist-pin and connecting-rod. Fig. 4 is a horizontal longitudinal section, and Fig. 5 is a view in perspective of the stem through which the lubricant is fed from the cup.

The same letters of reference denote the same parts.

A represents the lubricator cup or chamber, which is, by means of the extension a , adapted to be attached, as indicated in Fig. 3, to the wrist-pin B, the extension being screwed into the strap C upon the connecting-rod or pitman D, and being perforated at a' for the lubricant to flow to the bearing around the wrist-pin. The chamber A serves to contain the lubricant, and it also incloses the device by which the flow of the lubricant from the chamber is directed and regulated. The ends a^2 a^2 of the chamber are made of glass, and are secured to the body a^3 by means of the caps a^4 a^4 . The interior of the chamber is thus rendered visible.

The feed directing and regulating device E is essentially a stem, e , perforated longitudinally at e' and transversely at e^2 . It is held

within the chamber so that its perforation e' connects with the perforation a' , to which end the stem is, at e^3 , screwed into the bottom of the chamber, and so as to bring the perforations e' a' into coincidence. The transverse perforation e^2 is located at the upper end of the stem e , and communicates with the perforation e' . The perforation e^2 is in practice of comparatively small diameter; but it serves to establish communication between the interior of the chamber and the perforation e' . The stem e extends upward above the level of the body a^3 of the chamber, and its upper end, e^4 , is inclosed by the cap F. The perforation e^2 is made to come within the cap, and thus the lubricant, when the lubricator is stationary, does not flow from the main interior of the chamber to the wrist-pin bearing; but when the lubricator is being carried around with the wrist-pin, the lubricant, by reason of the motion, flows into the stem through the perforation e^2 , and thence into the perforation e' , and ultimately to the wrist-pin, by means of the perforation a' .

It is important to be able to control the delivery of the lubricant into the stem, as different oils or lubricants, or even the same lubricant at different times and under different conditions, vary in fluency. For this purpose the stem is provided with a sleeve, e^5 , which is adapted to be slipped, as indicated by the full and the broken lines in Fig. 3, upward and downward upon the stem, and so as to entirely open or partially close the entrance to the perforation e^2 , as may be required. The sleeve is fixed at its point of adjustment by means of the set-screw e^6 . To adjust the sleeve, the cap F is removed from the body a^3 of the cup, the stem e removed from the chamber A, and the sleeve adjusted, after which the stem and cap are replaced.

Before starting the engine, to which the wrist-pin belongs, it is desirable to apply the lubricant to the bearing. For this purpose the stem is grooved at e^7 , Fig. 5. By loosening the stem in its seat in the cup-bottom the lubricant can flow along the groove e^7 to the point e^8 beneath the stem, and thence through the passage a' to the wrist-pin bearing, so as

to prime it, after which the stem is screwed down in its seat.

I claim—

5 The combination of the inclosed chamber A, having the perforated extension *a*, with the detachable and perforated stem *e*, and the adjustable sleeve *e*⁵, provided with the set-screw *e*⁶, substantially as described.

Witness my hand this 26th of February, 1886.

FRED BOLD.

Witnesses:

C. D. MOODY,
N. B. ANDERSON.