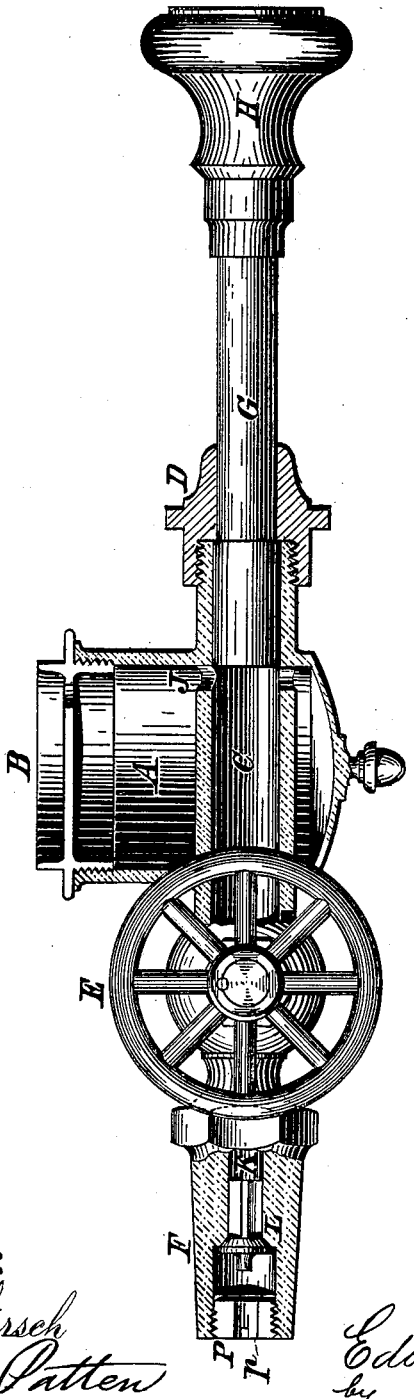
E. G. FELTHOUSEN.
Lubricating Pump.

No. 199,428. Patented Jan. 22, 1878.




Witnesses:
Frank Hirsch
Jno. D. Patten

Inventor:
Edward G. Felthousen,
by Michael J. Stark
his Atty.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

# UNITED STATES PATENT OFFICE.

EDWARD G. FELTHOUSEN, OF BUFFALO, NEW YORK.

## IMPROVEMENT IN LUBRICATING-PUMPS.

Specification forming part of Letters Patent No. **199,428**, dated January 22, 1878; application filed December 17, 1877.

*To all whom it may concern:*

Be it known that I, EDWARD G. FELTHOUSEN, of Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Lubricating-Pumps; and I do hereby declare that the following description of my said invention, taken in connection with the accompanying-drawing, forms a full, clear, and exact specification, which will enable others skilled in the art to which it appertains to make and use the same.

This invention has special reference to improvements in lubricating-pumps for steam and other engines working with heated gases under tension; and it consists in the peculiar arrangement of parts and details of construction, as hereinafter first fully set forth and described, and the pointed out in the claim.

In the drawing heretofore mentioned, the figure is a longitudinal sectional elevation of my improved lubricating-pump.

A is the oil reservoir or bowl, provided with the usual screw-cap B. C is the pump-cylinder, consisting of a cylindical tube fixed at right angles to and passing centrally through the before-mentioned bowl A. This cylinder has on its forward end a stuffing-box, D, and near its opposite extremity the globe-valve or stop-cock E, and it terminates in the shank F, by means of which it is secured to the part of the engine, &c., to be lubricated.

Within the cylinder C operates the plunger G, which consists of a cylindrical rod of a diameter slightly less than that of the said cylinder C, having on its end the knob or similar device H, for convenience in actuating said plunger. The end of this plunger opposite that provided with said knob is increased in diameter to fit the bore of the cylinder C, (a nice fit,) and this end, when striking the stuffing-box D, which fits the smaller size of the plunger only, prevents the said plunger from being entirely withdrawn from said cylinder.

When pulled out as far as the increased part of said plunger will allow, said piston has just passed and opened an aperture or apertures, J, in the cylinder C within the bowl A; and this aperture or apertures, serving as an inlet to the said cylinder, will allow the lubricant to enter and fill said cylinder.

Within the discharge-aperture K in the shank F is placed a valve, L, which operates as a check-valve, to prevent steam or other gases from entering the pump-cylinder. This valve is retained in position by a bushing, P, having centrally an aperture, *p*, for the passage of the lubricant.

To lubricate with my pump, the bowl A is filled with the lubricating liquid and the plunger G pulled out, as heretofore stated, and the lubricant allowed to flow into and fill the cylinder C. When thus filled the contents are ejected by pushing the plunger into the cylinder, the check-valve L preventing the return of the liquid to the cylinder C.

It will be observed that in my pump there is no suction-valve of any kind, and that the lubricant passes into the cylinder by gravitation. Thus dispensing with said valve considerably cheapens the lubricator, and overcomes one of the greatest troubles in oil-pump lubricators—viz.; the sticking of the suction-valve, owing to the adhesive nature of the liquid employed, and consequent non-operation of the pump.

A further advantage in my pump is the absence of any valve-casings in the bowl, whereby I am enabled to pass the cylinder through the bowl, which materially shortens the entire device without shortening the stroke of the pump, and thus results in a saving of metal and time in finishing up, besides making the pump-lubricator more attractive and applicable in crowded spaces.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent of the United States—

A lubricator consisting, essentially, of the bowl A, cylinder C, piston G, and the shank F, formed with the stop-cock E, bowl A, and cylinder C in one piece, said cylinder being passed through the walls of the bowl, and provided with filling-apertures J, as and for the use and purpose specified.

In testimony that I claim the foregoing as my invention I have hereto set my hand and affixed my seal in the presence of two subscribing witnesses.

EDWARD G. FELTHOUSEN. [L. S.]

Attest:

MICHAEL J. STARK,

FRANK HIRSCH.