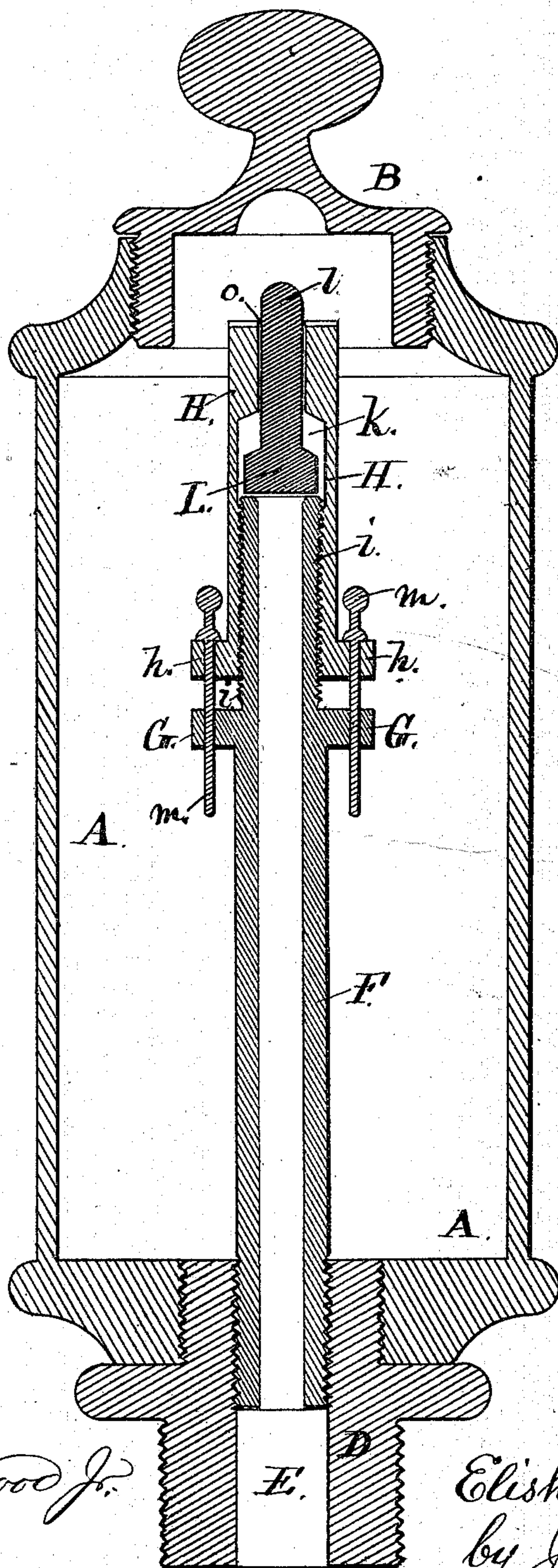


**E. S. FASSETT.**  
**Oil-Cups for Steam-Engines.**

No. 146,328.

Patented Jan. 13, 1874.



*Witnesses*  
*Geo. T. Smallwood Jr.*  
*Chas. B. Abell.*

*Inventor*  
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*by John J. Halsted*  
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# UNITED STATES PATENT OFFICE.

ELISHA S. FASSETT, OF ANN ARBOR, MICHIGAN.

## IMPROVEMENT IN OIL-CUPS FOR STEAM-ENGINES.

Specification forming part of Letters Patent No. **146,328**, dated January 13, 1874; application filed November 24, 1873.

*To all whom it may concern:*

Be it known that I, E. S. FASSETT, of Ann Arbor, State of Michigan, have invented certain Improvements in Oil-Cups for Steam-Engines; and I do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

My improvements consist in a novel construction of the oil-supplying tube and its valve and connections, which are located within the oil-cup or box to be applied to the steam-chest of a steam-engine.

In my improvements, I have dispensed entirely with the use of any spiral springs, which are found, by experience, to lose their force and resiliency, and to get, at times, out of good working action; and I have aimed to secure a simple and efficient means of gaging at will, and of indicating to the eye, the amount of oil which may pass into the valve-chamber. I also dispense with a long piston running through the tube, and I provide a means for preventing the gage from turning under the action of the apparatus.

In the drawings accompanying this application, and making part thereof, A represents an oil-cup of ordinary construction, provided with a cover, B, and any convenient outlet. The part D is adapted to be screwed into the steam-chest, and has the usual orifice E to permit the downward passage of the oil; and in these parts I claim nothing new, my invention relating to the remaining parts now to be described, as follows: The tube F I make with a flange, G, and the gage-cap H with a corresponding flange, *h*, the tube above its flange, and also the cap above its flange, being both screw-threaded, as seen at *i*, so that the gage-cap can be adjusted, at will, higher or lower, to regulate, as may be desired, the quantity of oil which may at any one time be contained within the oil-chamber *k*, this chamber being the space between the inside of the top of the cap and the top of the indicating-valve L. This valve has no piston projecting downward from it into or through the tube, nor any

spring within the tube to control its action. On the contrary, it rests, by gravity and counter-pressure of steam in the cup, upon the top of tube F, and has a central rod or handle, *l*, extending upward and passing through an opening, *o*, in the gage-cap; this rod, when the cover B is removed, being visible and accessible, and its height above the cap indicating the amount of oil-space or capacity of the chamber, and also preventing any dirt getting into the hole *a*, and thence into the chamber *k*, it being understood that the cap H may be raised or lowered, as may be desired, by means of the bolts *m m*, which connect together the two flanges G and *h*. These bolts also serve another important purpose, namely: By holding firmly the cap to position, they prevent its turning, and thereby keep the gage to the capacity to which it may have been adjusted, there being no risk of its unscrewing, as this cannot occur until the bolts are removed and a new adjustment made.

It will be seen from the above that the quantity of oil receivable in the chamber may not only be varied at option, but that it cannot vary by accident, and the exact amount of play of the valve is discoverable.

It will be understood that, the oil-cup being supplied with oil, in the usual manner, the valve is operated by the pulsations of the steam in the steam-chest, affording a perfect shut-off at the top when it is raised, and also a perfect shut-off for the oil when it falls and rests again on the top of tube.

The oil is elevated to the top of the oil-cup by the condensation of the steam which enters the cup, as in other lubricators of this class.

The tube F, being open and free for its whole length, affords an unobstructed course for the passage of the hot steam through it and to the top of the cup, and this effectually keeps the tallow, oil, or lubricating material in a heated condition, so that my oiler is of great value for use on locomotives, &c., in the coldest weather.

In all other oilers known to me, there is either a piston or other device within the tube, or a shut-off cock at the bottom of the cup—the one preventing the steam rising more than



half-way up, and the other not allowing it to reach even to the center of the cup.

I claim—

1. The combination of the valve L, arranged to project upward through and beyond the gage-cap, with the tube and gage-cap, as and for the purposes set forth.

2. The flanged cap H, in combination with the flanged tube F and connecting-bolts, as and for the purposes set forth.

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Witnesses:

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