J. B. Collin.

Lubricating Cup.

No. 72168 Patented Dec. 17, 1867

FIG. 6.

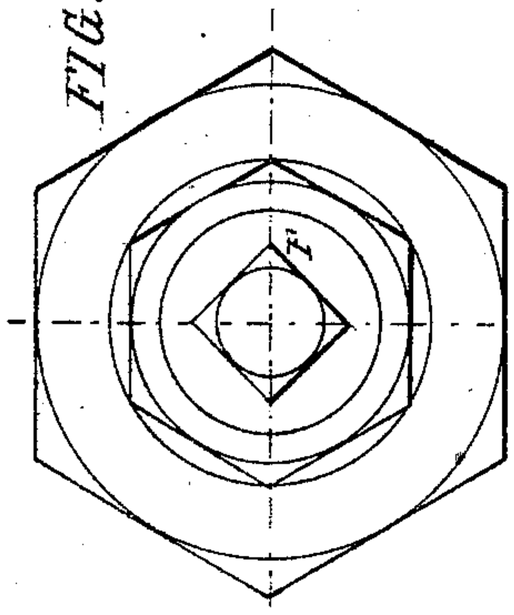


FIG. 5.

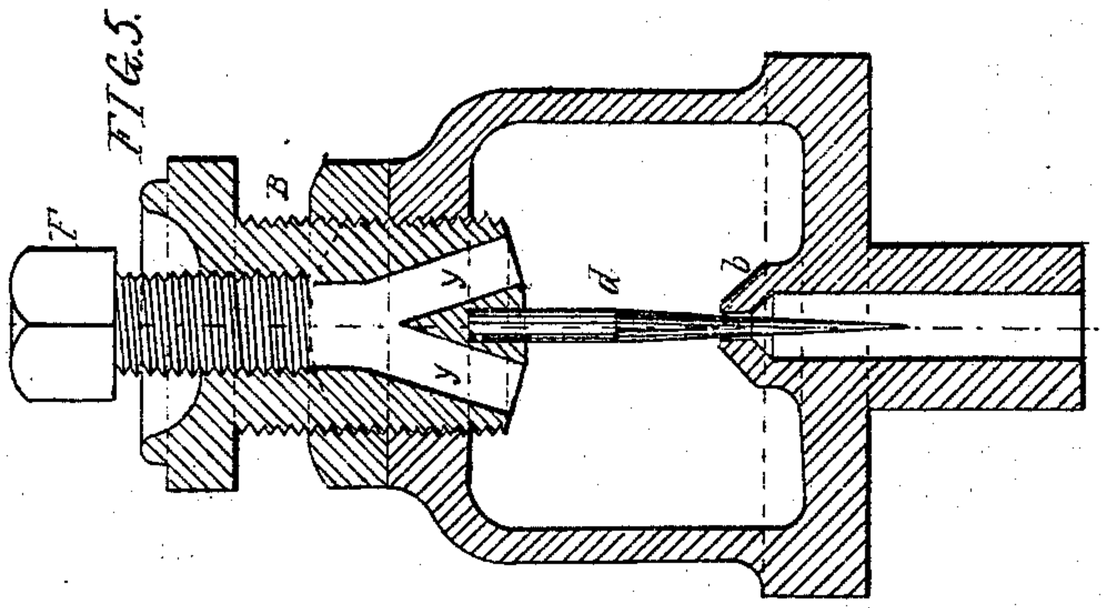


FIG. 4.

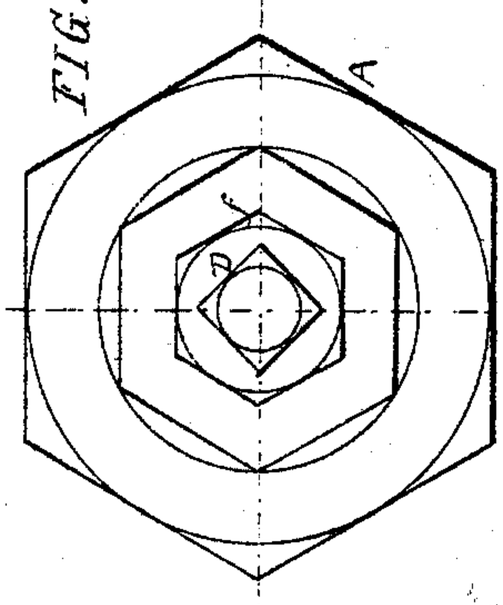


FIG. 3.

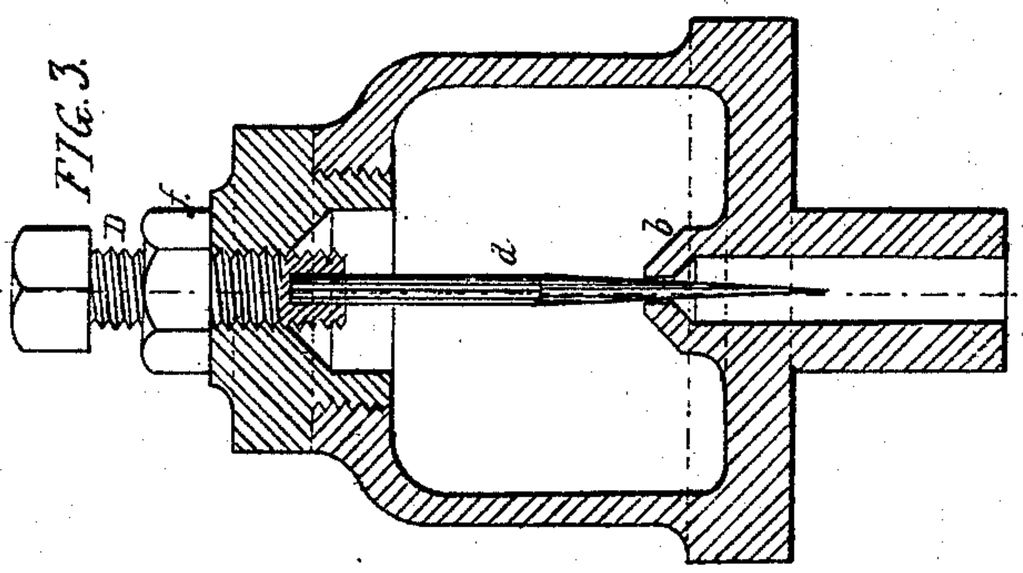


FIG. 2.

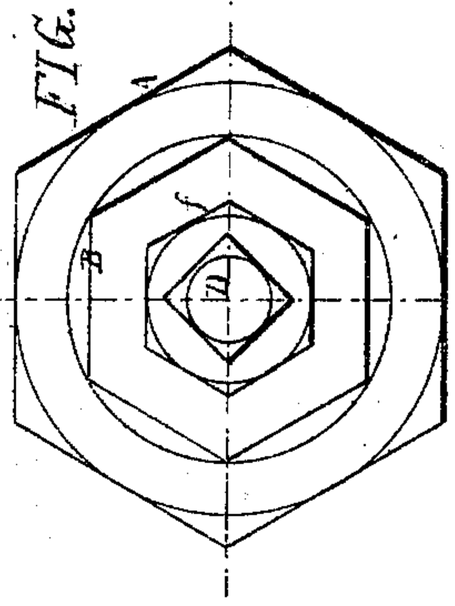
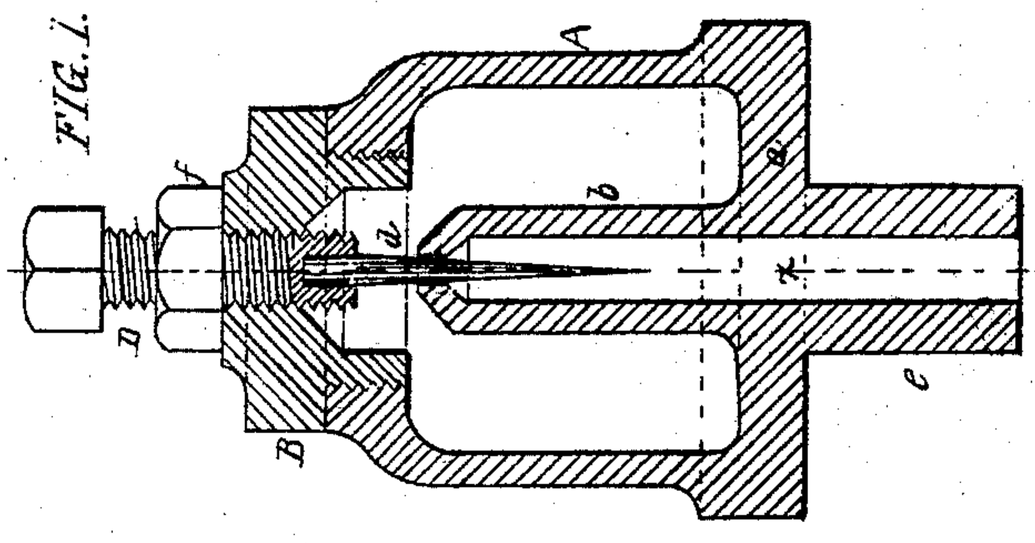


FIG. 1.



Witnesses:
Sol. M Goodwin
J Parker

Inventor:
J. B. Collin
By his Atty
E. Howson

United States Patent Office.

J. B. COLLIN, OF ALTOONA, PENNSYLVANIA, ASSIGNOR TO HIMSELF AND R. E. RICKER, OF SAME PLACE.

Letters Patent No. 72,168, *dated December* 17, 1867.

IMPROVEMENT IN LUBRICATING-CUPS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, J. B. COLLIN, (assignor to myself and R. E. Ricker,) of Altoona, Blair county, Pennsylvania, have invented an Improvement in Oil-Cups; and I do hereby declare the following to be a full, clear, and exact description of the same.

My invention consists of an oil-cup having an adjustable tapering pin projecting through an orifice communicating with and smaller than the discharge-passage, so as to form a regulating-drip or guide for conveying the oil from the cup to the said passage, all substantially as described hereafter.

The main object of my invention is to dispense with the usual wicks and other objectionable appliances to discharge as much oil only as will meet the demand for perfect lubrication, and to maintain the oil and interior of the cup in a clean, ungummed state.

In order to enable others skilled in the art to apply my invention, I will now proceed to describe the mode of carrying the same into effect, reference being had to the accompanying drawing, which forms a part of this specification, and in which—

Figure 1 is a vertical section of my improved oil-cup.

Figure 2, a plan view of the same.

Figures 3 and 4 represent a modification of my invention; and

Figures 5 and 6 represent another modification.

Similar letters refer to similar parts throughout the several views.

On reference to figs. 1 and 2, the body or reservoir A of the cup may be made of any desired form which the intended application of the cup and the taste and judgment of the constructor may suggest as the most appropriate. The top of the cup is provided with a detachable screw-cap, B, through which passes the stem of a set-screw, D, and to the lower end of the latter is secured the long, tapering, and pointed pin *d*, which projects into an orifice formed in the top of the tube *b*, the latter projecting upwards from the bottom *a* of the cup into the interior of the same. There is the usual tubular projection *e* on the under side of the cup for the attachment of the same to the object to be lubricated, the interior, *x*, of this projection forming, with the interior of the tube *b*, the discharge-passage for the oil, and being larger in diameter than the orifice through which the pin *d* projects.

The oil-cup illustrated in figs. 1 and 2 is intended for application to connecting-rods, eccentrics, or other objects, the movement of which is such that the comparatively small quantity of oil contained in the cup will be so agitated as to reach the pin *d* by which the oil is conducted to the discharge-passage *x* in quantities commensurate with the size of the annular space between the said pin *d* and the orifice in the tube *z*, through which the pin projects. The size of this annular space may be regulated at pleasure by first loosening the jam-nut *f*, and then turning the set-screw D, and thereby raising or lowering the pin *d*, as circumstances may require. It should be here understood that the object of the pin is not to serve as a simple valve; in fact, it is never absolutely necessary to close this orifice entirely, and rarely necessary to alter the position of the pin *d* after its first adjustment, which determines the amount of oil necessary to meet the demand; hence the pin, viewed in connection with the orifice, may be termed a regulating-conductor or drip, for conveying a given amount of oil from the reservoir to the discharge-passage *x*, the oil flowing down the pin from which it drops, and not spreading itself on the interior of the passage *x*, owing to the latter being larger in diameter than the orifice through which the pin passes.

In figs. 3 and 5 the tube *b* is much shorter than in fig. 1. These modifications of my invention being intended for application to guides for steam-engine cross-heads, or to other objects which remain in such a quiescent, or comparatively quiescent state, that there can be little or no agitation of the oil, which, however, can reach the pin *d*, owing to the shortness of the tube *b*. In fig. 5 the pin is attached to the screw-cap B, which is furnished with a screw-plug, F, so that, on withdrawing the latter, oil may be poured into the cap, and pass through the branch passages *y y* of the same into the cup.

The replenishing of the cups with oil in figs. 1 and 2, may be effected after removing the screw-cap B and

its adjuncts, which operation does not interfere with the readjustment of the pin to its proper position, as the cap on being replaced is screwed down to a solid shoulder, leaving the pin in its adjusted condition.

Without further description, it will be evident that the important advantages of dispensing with the usual wicks and other imperfect appliances, and of discharging just so much oil from the cup as is necessary to meet the demand for perfect lubrication are attained; at the same time the oil and interior of the cup are maintained in a clean, ungummed state.

I claim as my invention, and desire to secure by Letters Patent—

An oil-cup having an adjustable tapering pin projecting through, but free from contact with the sides of an orifice communicating with and smaller than the discharge-passage x, so as to form a regulating-drip or guide for conveying the oil from the cup to the said passage, all substantially as described.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

J. B. COLLIN.

Witnesses:

JOHN WHITE,

W. J. R. DELANY.