

(No Model.)

J. L. MORRIS.
LUBRICATOR.

No. 494,788.

Patented Apr. 4, 1893.

Fig. 1

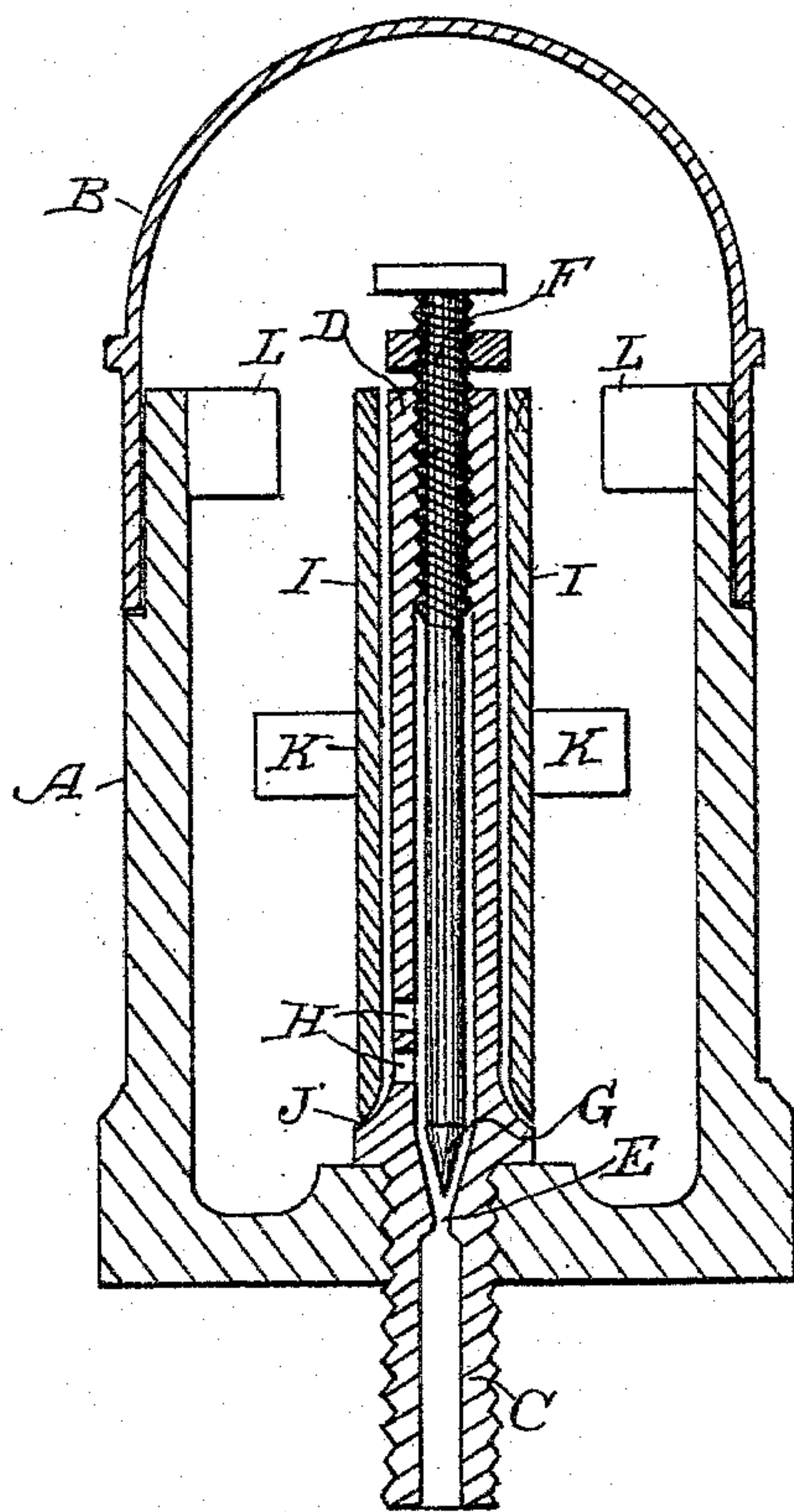
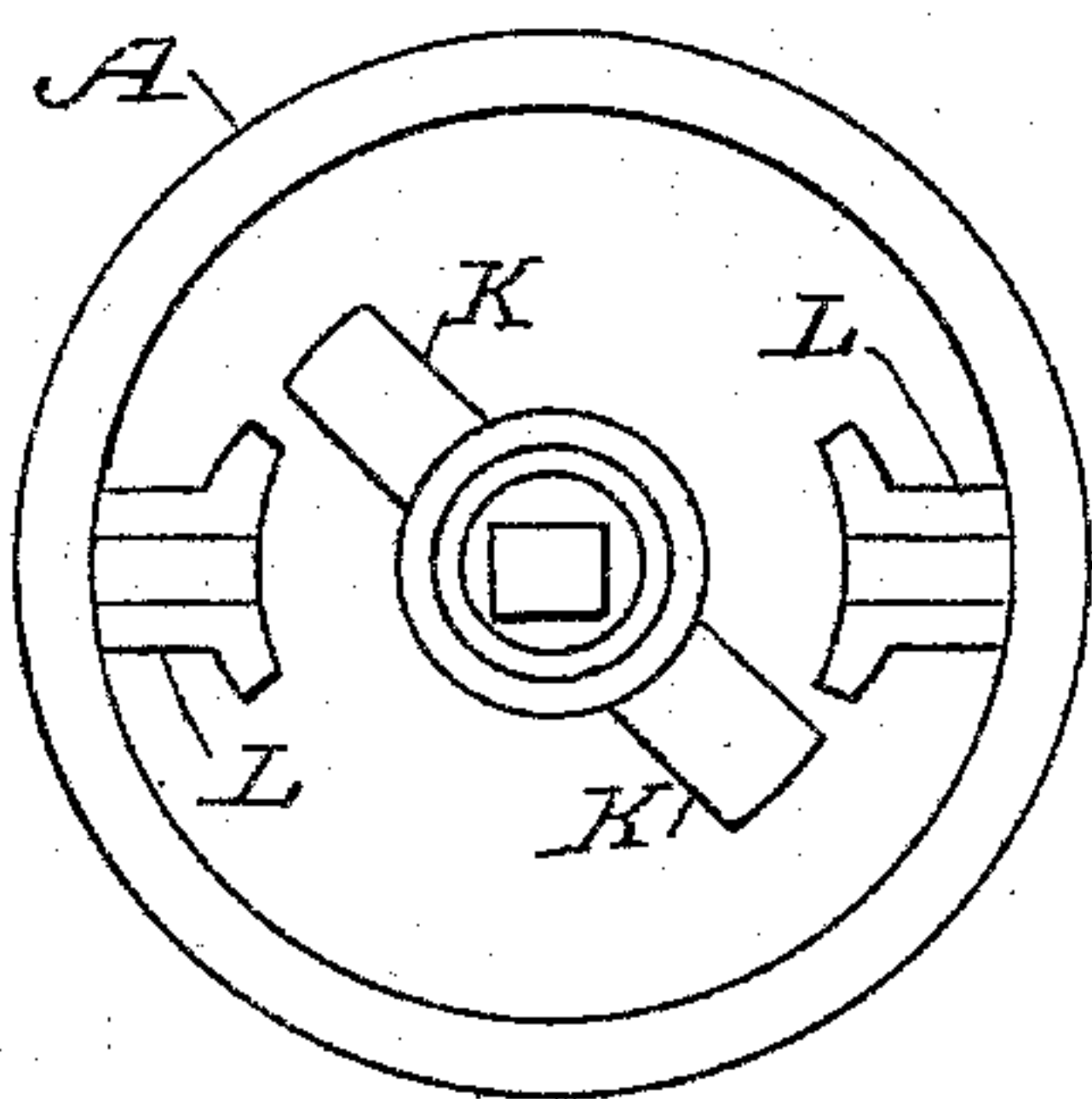


Fig. 2



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UNITED STATES PATENT OFFICE.

JAMES L. MORRIS, OF TIBURON, CALIFORNIA.

LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 494,788, dated April 4, 1893.

Application filed October 11, 1892. Serial No. 448,572. (No model.)

To all whom it may concern:

Be it known that I, JAMES L. MORRIS, a citizen of the United States, residing at Tiburon, Marin county, State of California, have invented an Improvement in Lubricating-Cups; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to lubricating cups.

It consists in certain details of construction whereby the cup automatically closes the oil supply passages whenever it is not in motion, and opens the passages when it is in motion.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1—is a vertical section taken through the axis of the cup. Fig. 2—is a top view of the cup with the cover removed.

A is the body of the lubricating cup having a removable cap B, and the screw threaded extension C at the bottom by which it is attached to the guide or other part to be lubricated.

D is a hollow stem extending up into the interior of the cup, the lower end screwing into the bottom of the cup inside so that it may be removed at will.

In my invention I have designed to make the screw threaded portion so long as to pass through the bottom of the cup and take the place of the extension C, so that by screwing this part D down through the bottom of the cup, and into the part to which it is to be attached, it will as soon as the shoulder is screwed down upon the bottom of the cup, secure itself into the cup, and the cup into its place at the same time. This tubular sleeve D has a conical opening E at the lower end which communicates with the passage through the stem C. The interior of the tube D is screw-threaded at the upper end and a correspondingly threaded rod F is fitted into these screw-threads. The lower end of this rod is of smaller diameter as shown, and it terminates at the bottom in a cone shaped end G. The upper end of the screw F has a head by which it may be turned to cause the point G to enter more or less into conical opening E and thus close or open it, to deliver oil as fast as may be desired.

Through the sides of the tube D are made openings H, which allow the oil to pass from

the body of the cup A into the tube D, and thence down into passage E by whatever opening is made for its escape.

In my invention I fit a tube I, of larger diameter around the outside of the tube D leaving sufficient space between the two, so that the tube I can rock or oscillate when the cup is moving. Around the outside of the lower end of the tube D and below the openings H, is formed a seat J, and the lower end of the tube I is correspondingly formed to fit this extension C, so that when the machinery is quiet, the tube fitting the seat J prevents any oil from passing from the cup A through the openings H, and into the feed tube D. As soon as the apparatus to which the cup is attached begins to move, this large exterior tube I will, by being shaken from side to side, oscillate upon its seat J, thus allowing the oil to pass up between it and the tube D, and thence to enter holes H and the tube D from whence it feeds as fast as the regulators allow it. As soon as the apparatus stops, the flow of oil is cut off by the closing of the tube I upon the seat J. If it is desired to allow the oil to flow without restraint, the tube I is provided with lugs K, and the interior of the cup A near the top has corresponding projections L upon which the lugs K will rest and support the tube I when it is raised above its seat.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A lubricating cup, consisting of the exterior receptacle the central hollow tube, having openings in the side, through which oil may pass into it from the cup, and a passage through which it is delivered to the point to be lubricated, a screw valve to regulate the flow of oil in combination with an exterior tube of larger diameter, a seat upon the exterior of the inner tube, upon which the outer tube closes, and from which it is moved by oscillation of the tube when the parts are in motion, substantially as described.

2. A lubricator consisting of the exterior oil containing cup, a central tube with a conical discharge passage leading to the part to be lubricated, openings in the side of said tube through which oil is admitted from the cup, an adjustable valve by which the discharge

opening is controlled, a seat formed around
the exterior of the tube below the inlet open-
ings, and an exterior tube the lower end of
which fits said seat, and prevents ingress of
5 oil when the apparatus is not in motion, and
is raised by its oscillating to admit oil when
the apparatus is in motion, lugs fixed to the
side of the tube and corresponding supports
in the cup whereby this exterior tube may be

supported above its seat to allow the oil to
flow without any interruption substantially
as described.

In witness whereof I have hereunto set my
hand.

JAMES L. MORRIS.

Witnesses:

S. H. NOURSE,

J. H. BAYLESS.