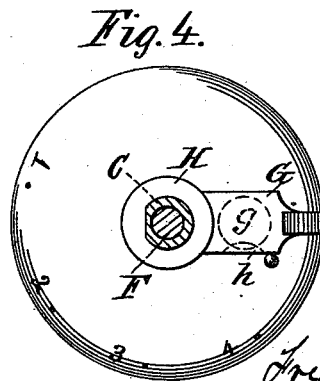
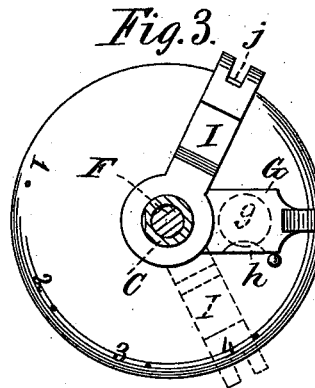
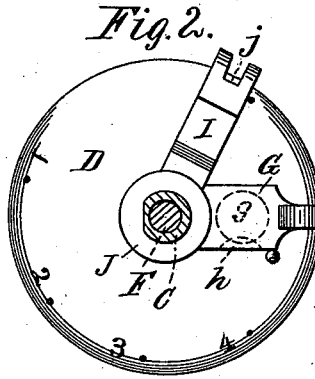
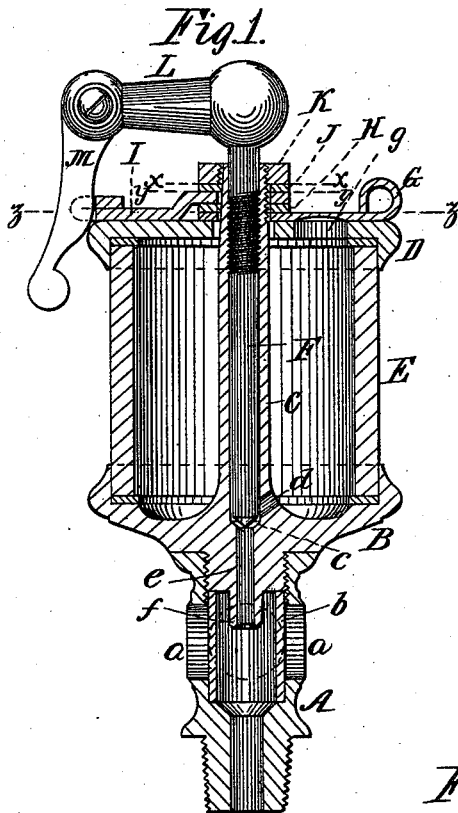


(No Model.)

F. LUNKENHEIMER.
OIL CUP.

No. 418,645.

Patented Dec. 31, 1889.



Witnesses:
W. C. Jordinston.
Charles Billor.

Inventor:
Frederick Lunkheimer
by Rep^d Reetor
his Attorneys.

UNITED STATES PATENT OFFICE.

FREDERICK LUNKENHEIMER, OF CINCINNATI, OHIO, ASSIGNOR TO THE LUNKENHEIMER BRASS MANUFACTURING COMPANY, OF SAME PLACE.

OIL-CUP.

SPECIFICATION forming part of Letters Patent No. 418,645, dated December 31, 1889.

Application filed March 5, 1889. Serial No. 301,962. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK LUNKENHEIMER, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Oil-Cups or Lubricators, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to that class of cylindrical glass-bodied lubricators known as "gravity feed-cups;" and it has for its object the improved construction of such cups, by which the feed is readily and certainly regulated as desired.

The novelty of my invention will be here-with set forth and specifically pointed out in the claims.

In the accompanying drawings, Figure 1 is a central sectional elevation of a cup embodying my invention. Fig. 2 is a plan view of the same in section through the dotted line *xx* of Fig. 1, with all the parts above removed. Fig. 3 is a corresponding view in section through the dotted line *yy* of Fig. 1, with all the parts above removed. Fig. 4 is a corresponding view in section through the dotted line *zz* of Fig. 1, with all the parts above removed.

The same letters of reference are used to indicate identical parts in all the figures.

A is the metal base-tube, usually perforated transversely, and quartering, as at *a*, to afford sight-feed apertures and containing a glass tube *b*. The lower end of the tube A is threaded exteriorly for attaching the cup to the part to be lubricated, and its upper end is threaded interiorly to receive the male-threaded stem of the base-plate B of the cup.

C is the central hollow stem integral with the base B and extending up through a central opening in the metal cap or top plate D of the cup, between which cap and the base B the cylindrical glass body E of the cup is clamped. Within the stem C is confined the valve F, which is a rod seated at *c*, from which point an opening *d* extends through the stem into the bottom of the cup, and another opening *e*, through the base B and its

feeding-nozzle *f*, into the glass tube *b*. So much of the cup illustrated and described is old and well known, and the construction of the parts may be varied as desired. The upper part of the valve F is threaded to engage with the interiorly-threaded part of the stem C, and the upper projecting end of said stem is exteriorly threaded and flattened on one side, as shown, to engage D-washers. Upon this upper projecting part of the stem is first fitted the usual scutcheon G for covering and uncovering the filling-opening *g* in the top plate D, and to avoid drilling a separate air-vent in said cap the edge of the scutcheon is cut off on its under edge at one side, as seen at *h*, to afford an air-vent and at the same time prevent foreign substances from getting into the cup, as might be the case if the usual vent were employed. Over the projecting end of the stem is then fitted a D-washer H, Fig. 4, which bears upon the scutcheon, and over this is fitted the inner perforated end of a swinging arm I, which extends out slightly beyond the edge of the cap and has its outer extremity slotted, as at *j*. This arm I, just as it leaves the D-washer, is bent down, as seen in Fig. 1, so as to rest flat upon the surface of the cap D.

Upon the perforated end of the arm I on the stem C is fitted a second D-washer J, and finally a locking-nut K is screwed upon the upper end of the stem C and serves to lock the parts firmly together, as will be readily understood. As the washers H and J cannot turn, the swinging of the scutcheon and arm I cannot loosen any of the parts, nor can the swinging of the scutcheon affect the adjustment of the arm I, and vice versa. The upper end of the valve-rod F has a projecting arm L, in the outer slotted end of which is pivoted a pendent latch M, adapted to fit into the slot *j* of the arm I. From this construction it will be seen that by turning the valve-rod to open or close the valve to the exact point to get the desired rate of feed, and then swinging around the arm I, which binds sufficiently tight to prevent accidental displacement, and engaging the latch M in the slot *j*, the valve-rod becomes locked and the exact rate of feed is kept up. At the

same time, without disturbing the adjustment of the arm I, the latch M may be lifted out of engagement and the valve-rod be turned around to close the valve completely, as upon
5 shutting down, or it may be turned to open the valve wider upon an emergency, and in both cases be brought back and relocked to its exact previously-adjusted position.

If desired, the top of the cap may be provided with indicating notches or numbers, or
10 both, as shown, where zero represents the position of the arm I when the valve is entirely closed, and 4 its position when open to its fullest extent, the intermediate part being
15 equally divided by the numbers 1, 2, and 3 for convenience in adjusting the valve. These indicating-points are especially desirable where the cup has no sight-feed by which the rate of flow of the oil can be determined. Of
20 course it is understood that the slot *j* might be transferred from the arm I to the latch M, in which event the end of the arm would be sufficiently narrow to engage the slot in the latch.

25 Having thus fully described my invention, I claim—

1. In an oil-cup, the combination, with the rotating adjustable valve, its projecting arm, and a swinging latch secured thereto, of an
30 adjustable swinging arm upon the top of the cup, with which said latch may be engaged

to lock the valve in any of its adjusted positions, substantially as described.

2. In an oil-cup, the combination, with the central stem projecting through the top of
35 the cup and threaded exteriorly and flattened on one side, of a swinging scutcheon turning on said stem and arranged to cover and uncover a filling-opening in the top of said cup, a D-washer tight upon said stem over
40 the scutcheon, a swinging locking-arm turning on said stem and arranged to engage a latch connected to the valve-rod, a D-washer tight upon said stem over the locking-arm, and a clamping-nut screwed upon the top of
45 the stem, substantially as and for the purpose specified.

3. In an oil-cup, the combination and arrangement, with the body of the cup and its top provided with a filling-hole, of the central
50 stem C, the valve-rod F, with its arm L and latch M, the scutcheon G, D-washer H, arm I, slotted at its outer end, D-washer J, and nut K, said nut, D-washers, arm I, and scutcheon being secured upon the project-
55 ing threaded end of the stem C, substantially in the manner and for the purpose specified.

FREDERICK LUNKENHEIMER.

Witnesses:

J. R. P. BROWN,
CHARLES BILLON.