

No. 681,412.

Patented Aug. 27, 1901.

G. B. ESSEX.

LUBRICATOR.

(Application filed Jan., 30, 1901.)

(No Model.)

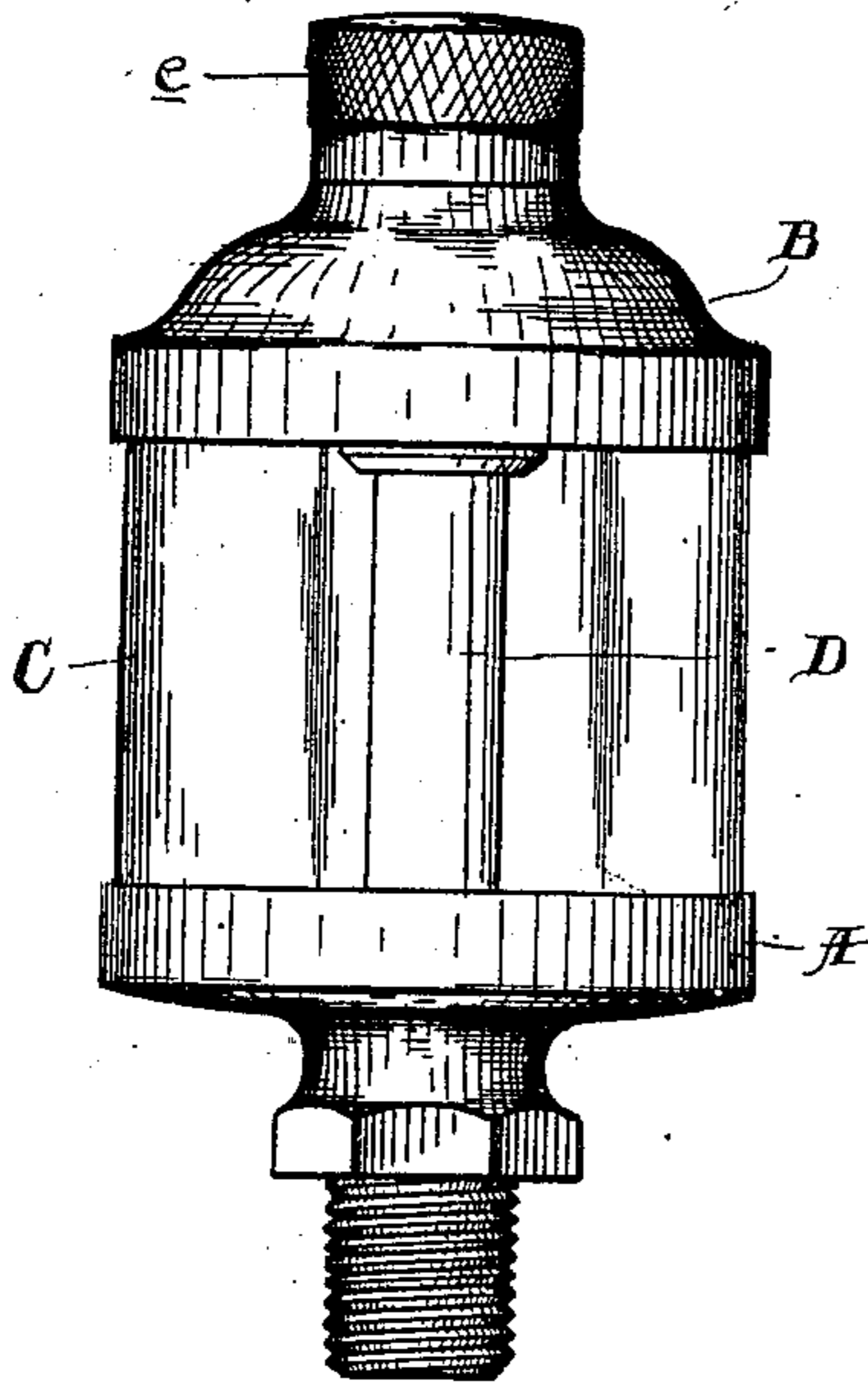


Fig. 1.

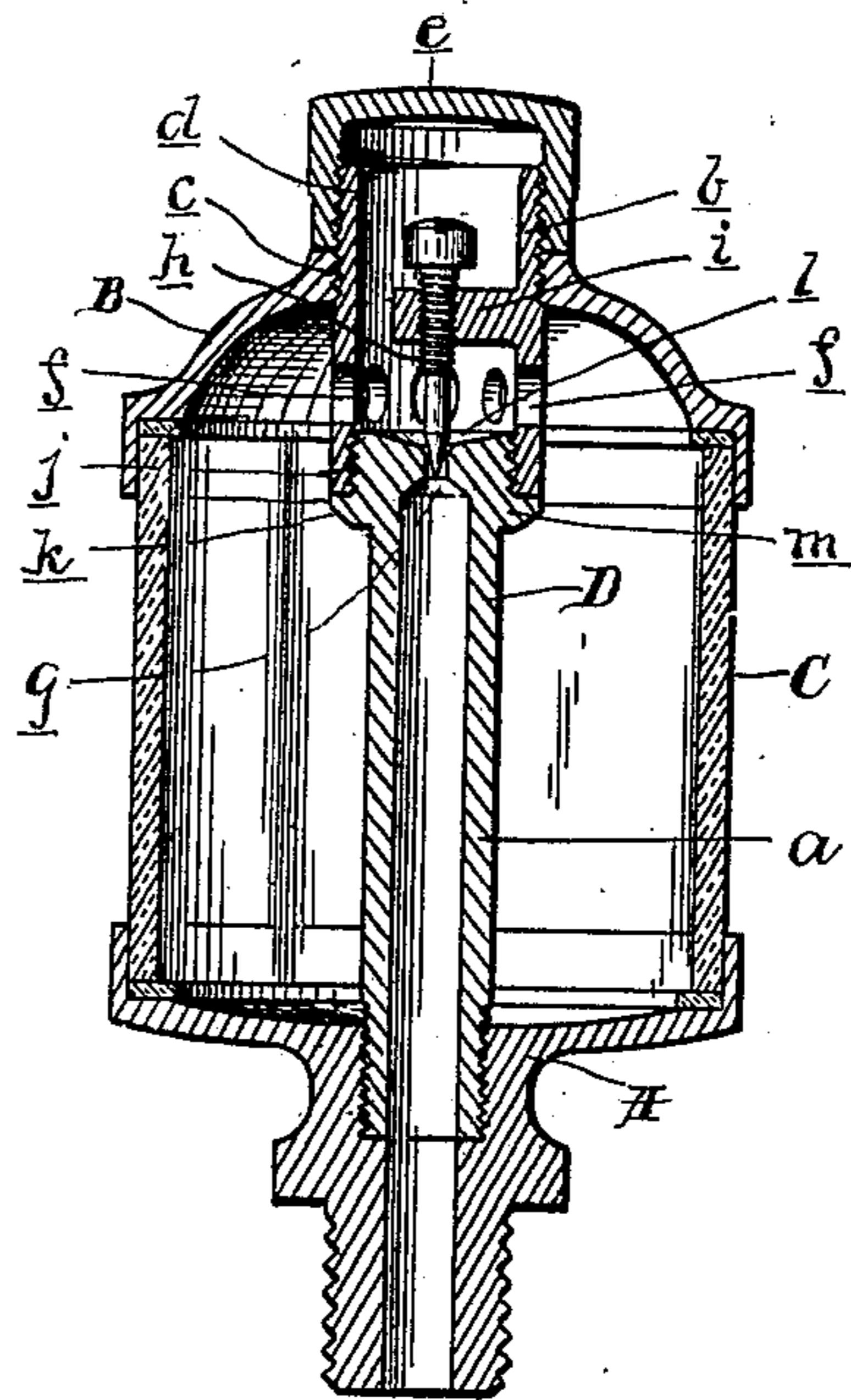


Fig. 2.

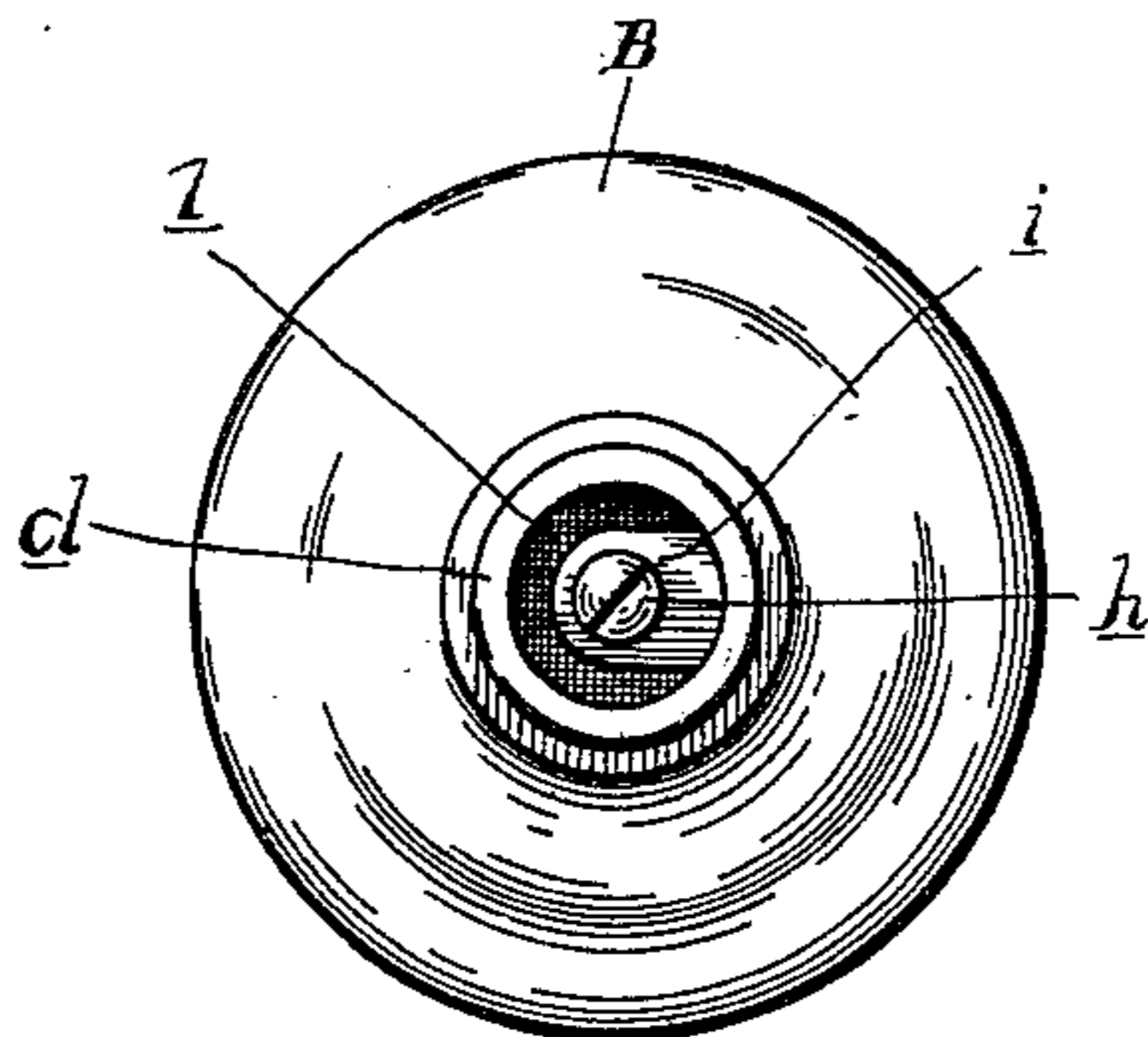


Fig. 3.

WITNESSES:

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# UNITED STATES PATENT OFFICE.

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## LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 681,412, dated August 27, 1901.

Application filed January 30, 1901. Serial No. 45,287. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE B. ESSEX, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Lubricators, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates more particularly to that class of lubricators known as "crank-pin oilers;" and the invention consists in the novel construction and arrangement of parts, all as more fully hereinafter described, and shown in the accompanying drawings, in which—

Figure 1 is an elevation of my improved lubricator. Fig. 2 is a vertical central section. Fig. 3 is a plan with the cap of the fill-opening removed.

The oil-cup is composed of a lower head A, an upper dome-shaped head B, a cylindrical glass case C, and a central feed-tube D, which ties the parts together in a well-known manner by having its opposite ends screwed into the opposite heads. The central feed-tube is for convenience in manufacturing preferably formed in two parts *a b*, the lower part, which is secured into the lower head extending up to above the height at which the cup is usually filled with the lubricant, and the upper section *b*, which has a screw-threaded connection with the lower section, extends up through a screw-threaded aperture *c* in the upper head and forms, with its upper end, a screw-threaded nipple *d*, which is closed by a screw-cap *e* and constitutes a fill-opening for the cup. This feed-tube is provided at a point above the highest level of the lubricant with one or more openings *f*, which establish free communication between the interior of the cup and the interior of the feed-tube, and directly below a contracted feed-opening *g* is formed in the center of the tube. Above this feed-opening a regulating screw-valve is secured in position by a stud *i* projecting interiorly from the wall of the tube, all so arranged that by unscrewing the cap the head of the regulating-valve is in convenient proximity to the top of the feed-tube for regulating the valve. In making the feed-tube in two sections, as shown,

I preferably make the upper section of larger diameter than the lower section, the latter being provided with an enlarged head *m*, formed with exterior screw-threads *j*, adapted to engage with an interior screw-thread in the lower end of the upper section, and with a projecting flange *k*, forming a shoulder for the upper section to screw against. I also preferably form a slight cavity *l* in the top of the head to facilitate the flow of the lubricant in the opening *g*.

In practice it will be seen that at each oscillating motion of the cup when in use the lubricant will enter through the openings *f* and a regulated quantity will pass through the opening *g* and flow through the outlet to the part to be lubricated.

My construction is very simple and cheap to manufacture, it has no movable parts, its regulation is simple and easily effected, and there is no chance for any leakage, if properly put together.

What I claim as my invention is—

1. In a lubricator, the combination with the cup, of a central feed-tube in the cup, open at both ends, and the lower end secured in the bottom of the cup and communicating with the outlet from the cup, and the upper end secured in the top of the cup and extending through it and constituting the fill-opening, an opening or openings in the wall of said feed-tube through which the upper portion of said feed-tube communicates with the interior of the cup, a restricted feed-opening in said feed-tube below the aforesaid opening or openings, a regulating screw-valve for the restricted feed-opening secured in position above the same within the upper portion of the feed-tube and a cap on the upper end of the feed-tube.

2. In a lubricator, the combination with a cup composed of upper and lower heads, and a cylindrical glass case interposed between the same, of a feed-tube centrally secured in said heads and connecting the parts of the cup together, a restricted feed-opening in the center of the tube through which the portion of the feed-tube above the lubricant communicates with the lower portion thereof leading to the outlet of the cup, a regulating screw-valve held in position in the feed-tube

above said restricted opening, and an opening or openings in the walls of said feed-tube above the restricted opening therein, said feed-tube extending through the upper head 5 of the cup and forming the fill-opening for the same.

3. In a lubricator, the combination with the cup composed of lower and upper heads A, B, and intervening glass case C, of an open- 10 ended feed-tube in said cup, centrally secured in said heads, and clamping the parts together, said feed-tube composed of a lower section *a* secured to and communicating with the bottom outlet of the cup, and an upper 15 section *b* secured to the upper end of the lower section and having a screw-threaded upper

end engaging in a screw-threaded aperture in the upper head and extending through the same and forming the fill-opening for the cup, the lower section formed with the head *m* 20 having a restricted feed-opening *g*, and the upper section having openings *f* and a regulating screw-valve *h* secured in position centrally of the tube above the feed-opening, and the screw-cap *e* closing the upper end of 25 said upper section.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE B. ESSEX.

Witnesses:

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JOSEPH A. NOELKE.