

No. 842,332.

PATENTED JAN. 29, 1907.

W. S. PATTERSON.  
LUBRICATOR.

APPLICATION FILED JUNE 12, 1906.

Fig. 1.

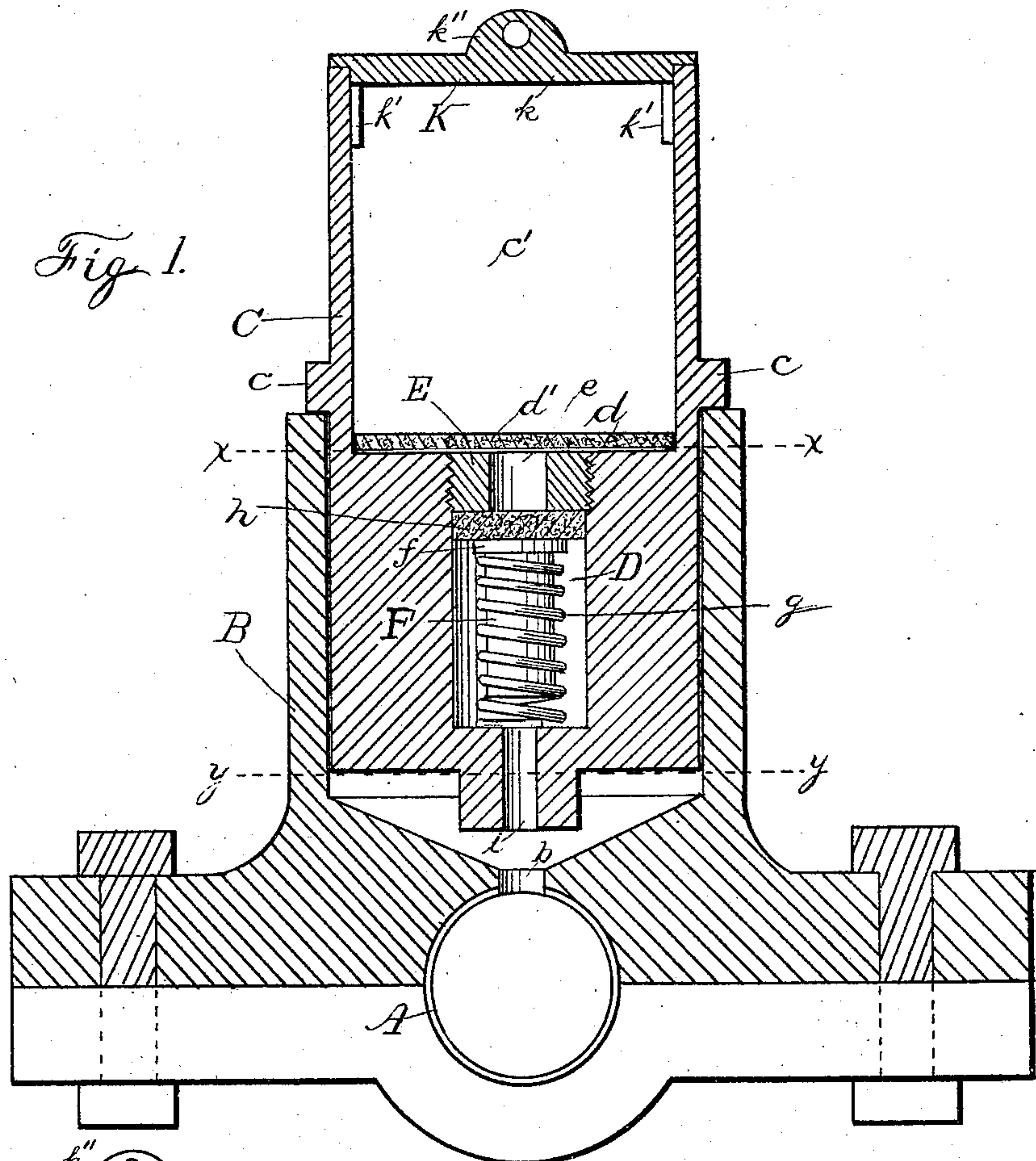


Fig. 2.

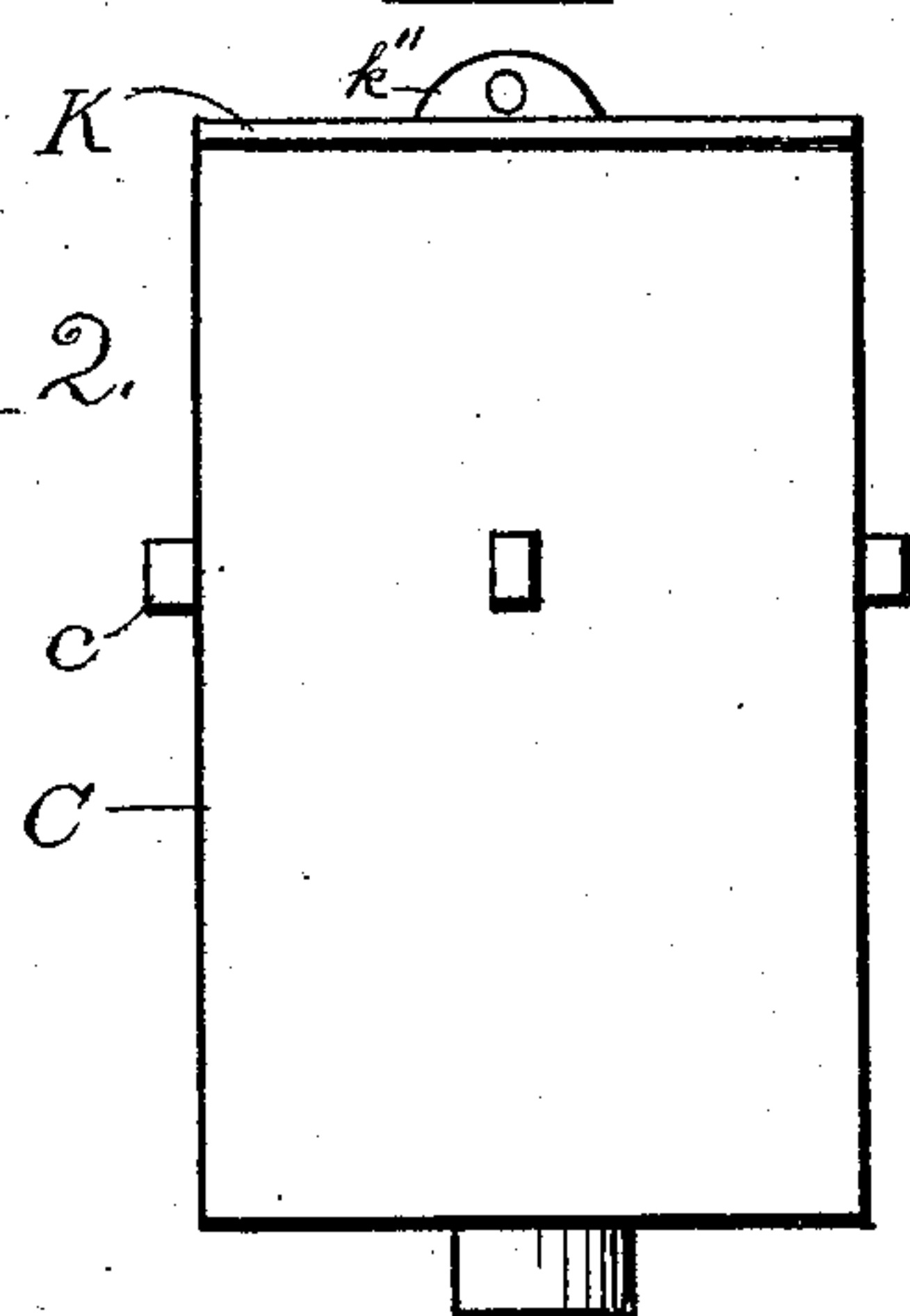
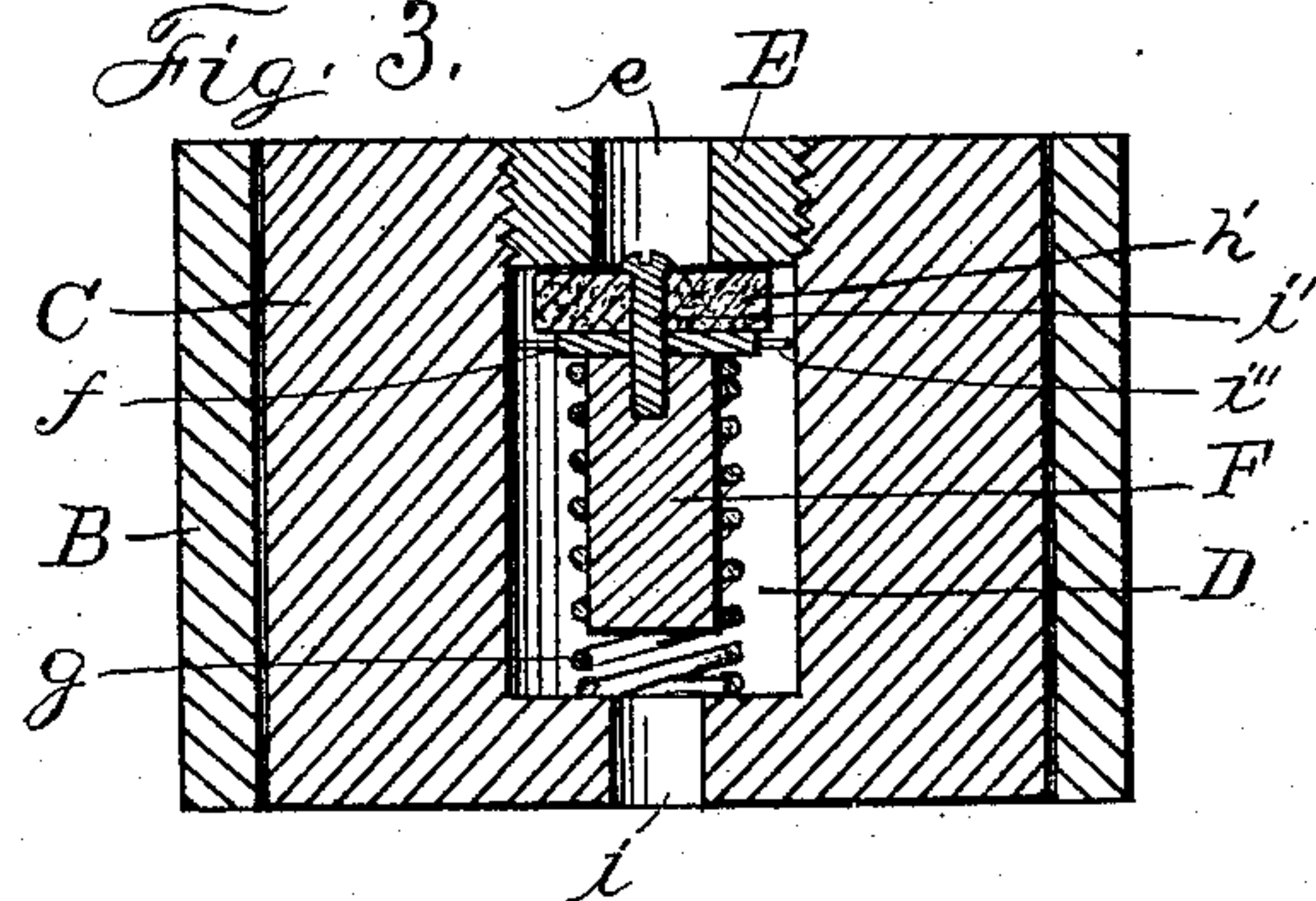


Fig. 3.



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Witnesses

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## LUBRICATOR.

No. 842,332.

Specification of Letters Patent.

Patented Jan. 29, 1907.

Application filed June 12, 1906. Serial No. 321,372.

*To all whom it may concern:*

Be it known that I, WILLIAM S. PATTERSON, a citizen of the United States, residing at Salt Lake City, in the county of Salt Lake and State of Utah, have invented new and useful Improvements in Lubricators, of which the following is a specification.

My invention is designed to lubricate the bearings of automobiles, railroad-cars, and all similar bearings. It is automatic in its action, needing only to be supplied with the lubricant when the oil-reservoir is empty.

The accompanying drawings fully illustrate the device, its various features being referred to by letters of reference, similar letters denoting corresponding parts in the several views.

In the drawings, Figure 1 is a side elevation, partly in section, of the device. Fig. 2 is a reduced side elevation of the oil-cup, and Fig. 3 is a view taken between lines *x x* and *y y* in Fig. 1 and showing a modification of a washer.

The letter *A* designates a bearing to be lubricated and the adjacent parts.

*B* is an oil-box, having a duct *b* through its bottom. This duct leads the oil from the box to the bearing *A*.

*C* is the oil-cup adapted to fit into the oil-box *B* and is provided with external lugs *c*, which rest upon the edge of the box *B* and maintain the cup in proper position.

*K* is the cover of the oil-reservoir *c'*. It is provided with a vertical extension *k* to fit into the cup and with vertical extensions *k'* at each corner to contact with the interior corners of the cup. A perforated lug *k''* on the top of the cover is adapted to be connected with a chain.

The oil-cup *C* is preferably molded in one piece, its upper portion having the reservoir *c'* for the lubricant. In its lower part is formed an opening *D*, in which is located a thick disk *E*, having a vertical perforation *e*. On account of the varying thickness and porosity of the washers, which are used beneath this disk, I prefer to make the disk vertically adjustable in the opening *D*, and this is preferably accomplished by forming a thread on the periphery of the disk to en-

gage a thread in the upper part *d* of the opening *D*.

*F* is a plunger whose head *f* is adapted to rest by its overlapping edge on a spring *g*, coiled around the stem of the plunger. Between the head *f* and the disk *E* is an oil-permeable washer *h*, of felt or other similar material, to retard and regulate the flow of oil through the duct *e* in the disk.

Normally the washer *h* is held against the disk *E* by the pressure of the spring *g*. A duct *i* leads downward from the cup into the oil-box.

In the modification shown in Fig. 3 the diameter of the washer *h'* is less than that of the opening *D*. The washer is preferably secured to the plunger by a screw *i'*. The head *f* is provided with short lateral pins *i''*, which by contact with the sides of the opening *D* keep the plunger in position. When the washer *h'* is used, the oil passes over the edge of the washer in larger quantities than when the form *h* is used.

This device is made operative by the jolting or jarring of the car when in motion, by which means the plunger alternately recedes from and presses against the washer *h* or *h'*, and so permits the passage of oil from the cup to the bearing. A filter *d'* in the bottom of the reservoir prevents any foreign matter from reaching the bearings.

What I claim, and desire to secure, is—

1. In a lubricator, an oil-cup having a thick bottom with a vertical opening therein, a perforated disk in said opening, a spring-supported plunger reciprocating vertically below said disk, an oil-permeable washer between said plunger and said disk and a duct at the bottom of said opening as specified.

2. In a lubricator an oil-cup seated in an oil-box and having a thick bottom with a vertical opening therein, a vertically-adjustable perforated disk in said opening, a spring-supported plunger reciprocating vertically below said disk, an oil-permeable washer between said plunger and said disk and a duct at the bottom of said opening as specified.

3. A lubricator comprising an oil-box having a channel connecting with the bearing,

an oil-cup seated in said box and having an oil-chamber with a central opening in its bottom, having its upper part threaded, a filter covering said opening, a threaded disk in  
5 said opening having a vertical channel there-through, a plunger below said disk, a spring supporting said plunger, a washer of less diameter than that of the opening between said plunger and said disk, means to secure

said washer upon said plunger and a duct 10 opening into said oil-box as herein set forth.

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

WILLIAM S. PATTERSON.

Witnesses:

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F. A. MOYLE.