

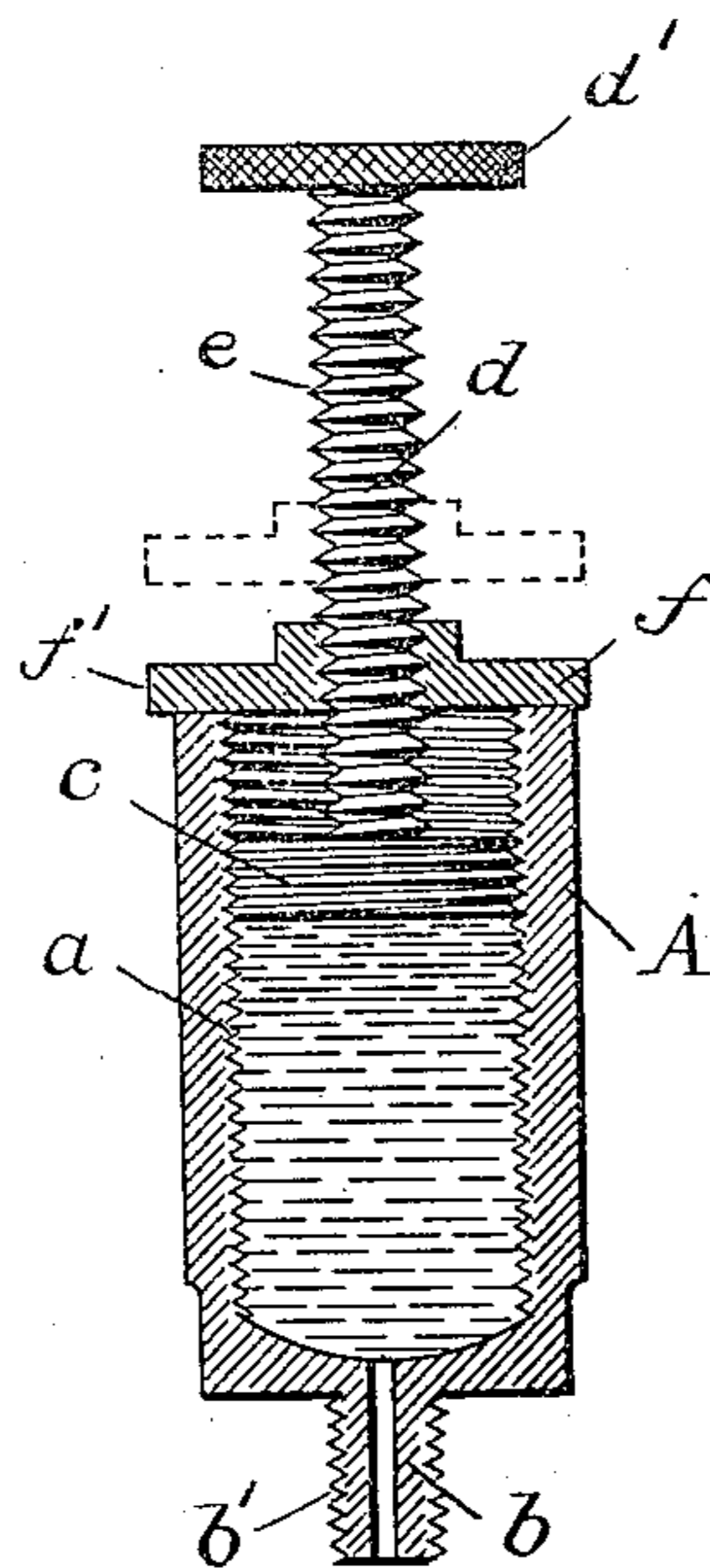
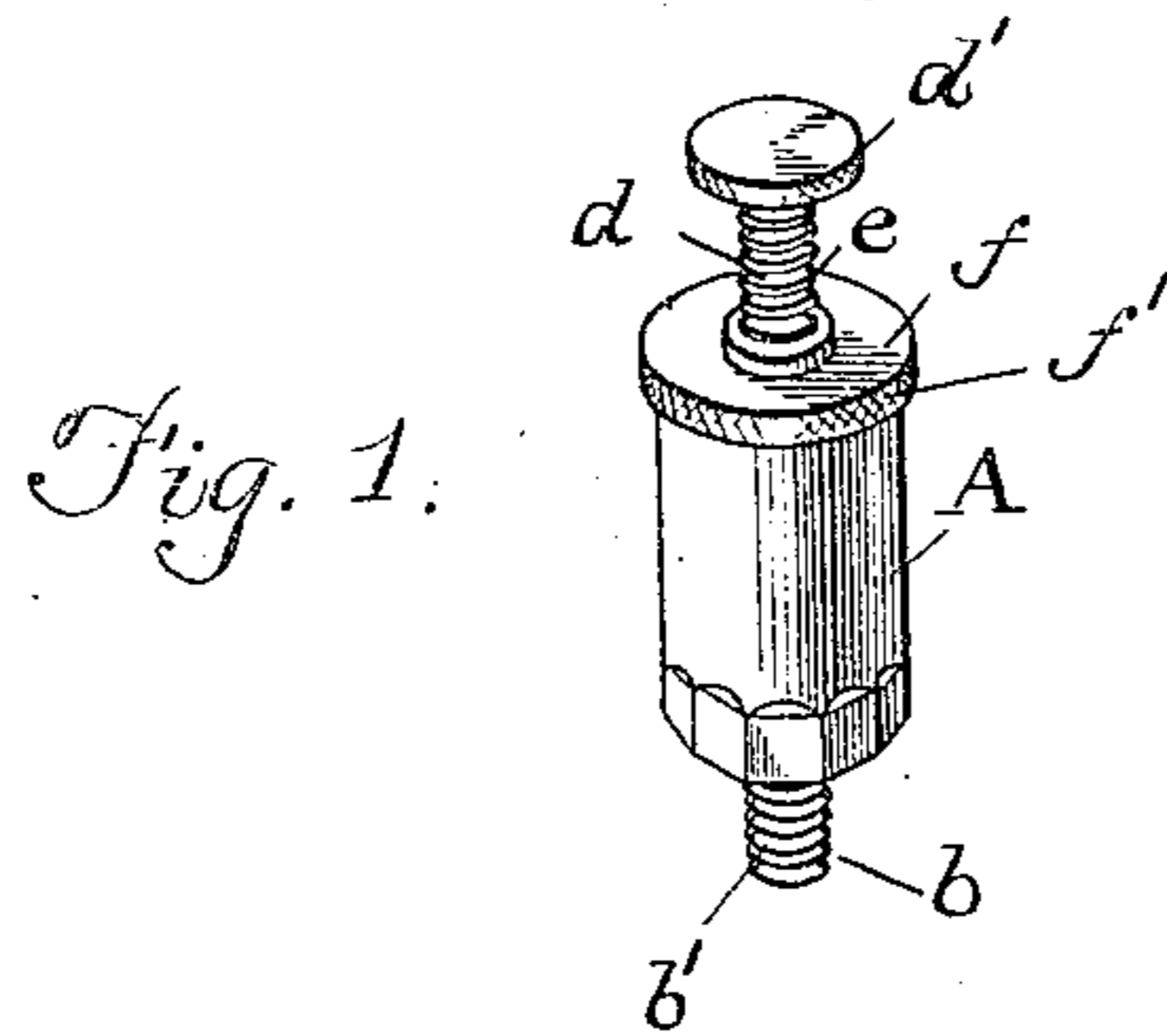
No. 626,498.

Patented June 6, 1899.

G. J. MILLER.
LUBRICATOR.

(Application filed Nov. 5, 1898.)

(No Model.)



Witnesses:-

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UNITED STATES PATENT OFFICE.

GEORGE J. MILLER, OF BALTIMORE, MARYLAND.

LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 626,498, dated June 6, 1899.

Application filed November 5, 1898. Serial No. 695,553. (No model.)

To all whom it may concern:

Be it known that I, GEORGE J. MILLER, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Lubricators, of which the following is a specification.

This invention relates to that class of lubricators known in the art as "force-feed" lubricators, in which the lubricant is forced by pressure into the bearing, and the invention is designed more particularly for lubricating bearings which have movement, such as bearings of connecting-rods or crank-pins of engines. Heretofore in lubricators of this class wherein presser-heads or pistons are employed engineers have been considerably annoyed by the shaking loose of these pistons caused by the rapid motion of the part to which the lubricator is attached, and this shaking loose and constant rattling of the pistons causes the parts to wear to the extent that has compelled the renewal of parts after only ten days' use.

The object of my invention, therefore, is to produce a lubricator which is simple and cheap and which at the same time will avoid these objections.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of the lubricator, and Fig. 2 a sectional view of the cup and cap and shows the presser in the operative position.

In the drawings, A designates the lubricant receptacle or cup and is provided on its inside surface with screw-threads *a*. A discharge-nozzle *b* projects from the bottom of the cup A and has screw-threads *b'* on its exterior surface. This screw-threaded nozzle is screwed into and conveys the lubricant to the bearing. A screw-threaded presser-head *c* is located within the cup and engages the threads *a*, so that it can be screwed up or down. A loose cap *f* sits on the top rim of the cup and has a central bore screw-threaded. Said cap has a milled edge *f'*, which enables it to be easily turned. A stem *d* is rigidly attached to and projects up from the presser-head *c* and is provided at its upper end with a milled head *d'*, which serves as a convenient means for revolving the stem and

head. This stem *d* is provided with screw-threads *e*, which fit the screw-threaded bore in the loose cap, and said threads are of a different pitch or coarser from the thread *a* of the head and cup. The purpose of this relative difference of screw-threads will presently be pointed out.

The operation of the lubricator is simple. The cup A is first filled with the lubricant, (grease,) and the presser-head *c* is then screwed down a little into the cup by means of the milled head *d'* on the stem to place the lubricant under compression. The cap *f* up to this time has had the raised position shown by broken lines in Fig. 2, but is now screwed down on the stem *d* until it is firmly seated on the top rim of the cup A. Now as the stem *d* and cap *f* are connected by a screw-thread *e* of a different pitch from the screw-thread *a*, which connects the presser-head *c* and cup A, the effect is that the cap *f* acts as a lock-nut to the presser-head *c*, and the latter is locked securely from movement either up or down and cannot shake loose or rattle and wear the parts, as has been found so objectionable heretofore in lubricators of this class. The reason that the cap *f* in this construction acts as a lock-nut and prevents the presser-head or piston *c* from shaking loose is that the stem and presser-head are rigidly connected and that the threads on the stem being coarser than those on the presser-head the stem must advance or retract faster than the presser-head, and any rotation of the presser-head would cause a much less back movement of the presser-head relative to the cup A than the back movement of the stem relative to the cap *f*, and any rotation, therefore, would serve to draw the cap *f* still more tightly on the top rim of the cup. Hence it serves as a lock-nut. Even if the lubricant (the grease) should all pass out from under the presser-head *c* the latter can move neither down nor up because of the relative difference between the two screw-threads.

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

1. In a lubricator the combination of an internally-threaded cup provided in its bottom with an outlet; a presser-head provided with screw-threads and working in the cup; a

threaded stem rigidly attached to and projecting above the presser-head, and a screw-cap mounted on the stem and seating loosely on the top rim of the cup for the purpose set forth.

5 2. In a lubricator the combination of an internally-screw-threaded cup; a presser-head provided with screw-threads and working in the cup; a stem projecting above the presser-
10 head and rigidly connected therewith, said stem provided with screw-threads of a different pitch from the thread in the cup; and a screw-cap mounted on the stem and free to

be raised or lowered on the threads thereof and to seat loosely on the top rim of the cup, 15 whereby said cap may be screwed down and seat on the rim edge of the cup and prevent the presser-head from turning either up or down as set forth.

In testimony whereof I affix my signature 20 in the presence of two witnesses.

GEORGE J. MILLER.

Witnesses:

CHARLES B. MANN, Jr.,
LEE I. VAN HORN.