

(No Model.)

C. H. BESLY & F. N. GARDNER.
FORCE FEED LUBRICATOR.

No. 467,273.

Patented Jan. 19, 1892.

Fig. 1.

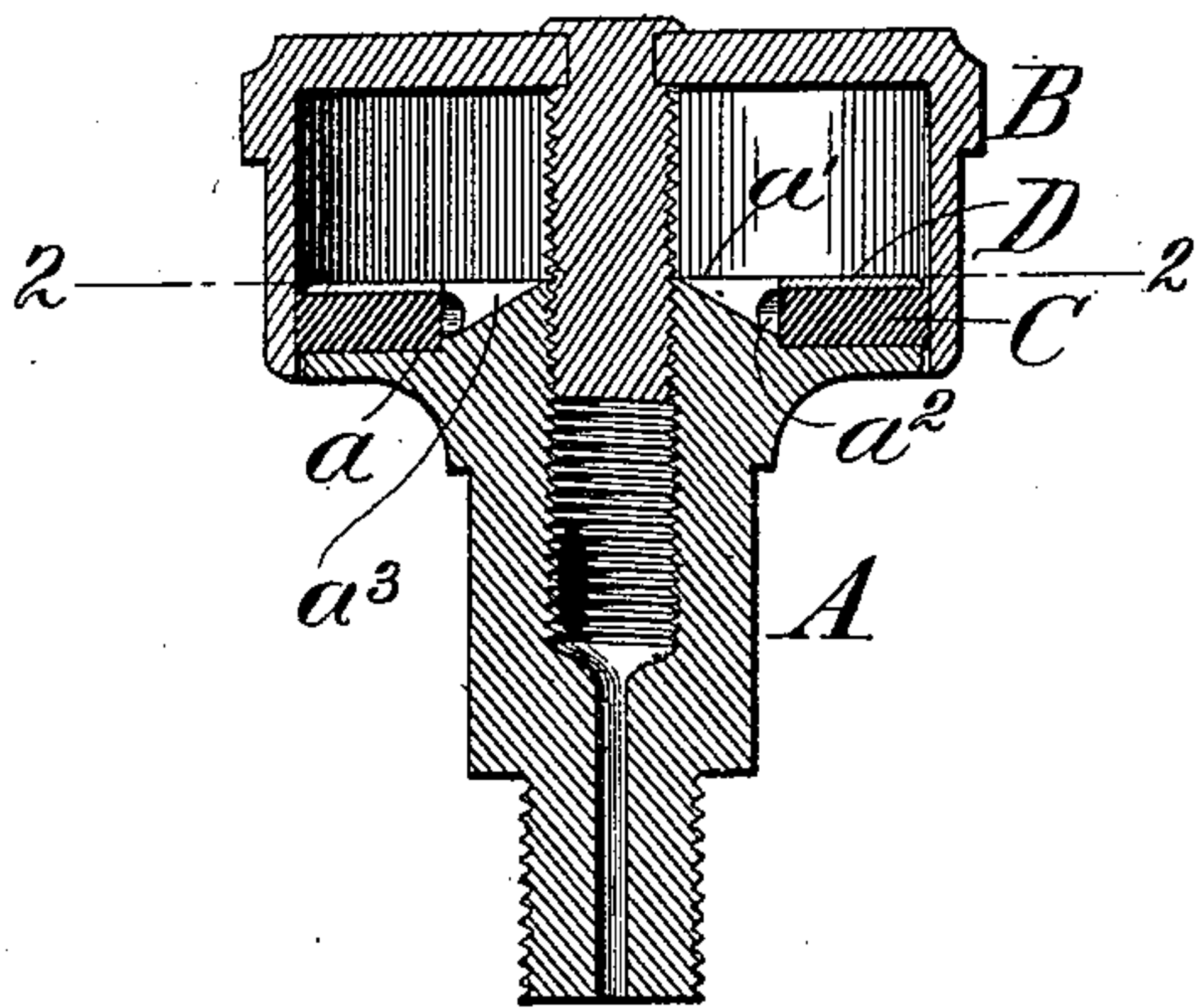


Fig. 3.

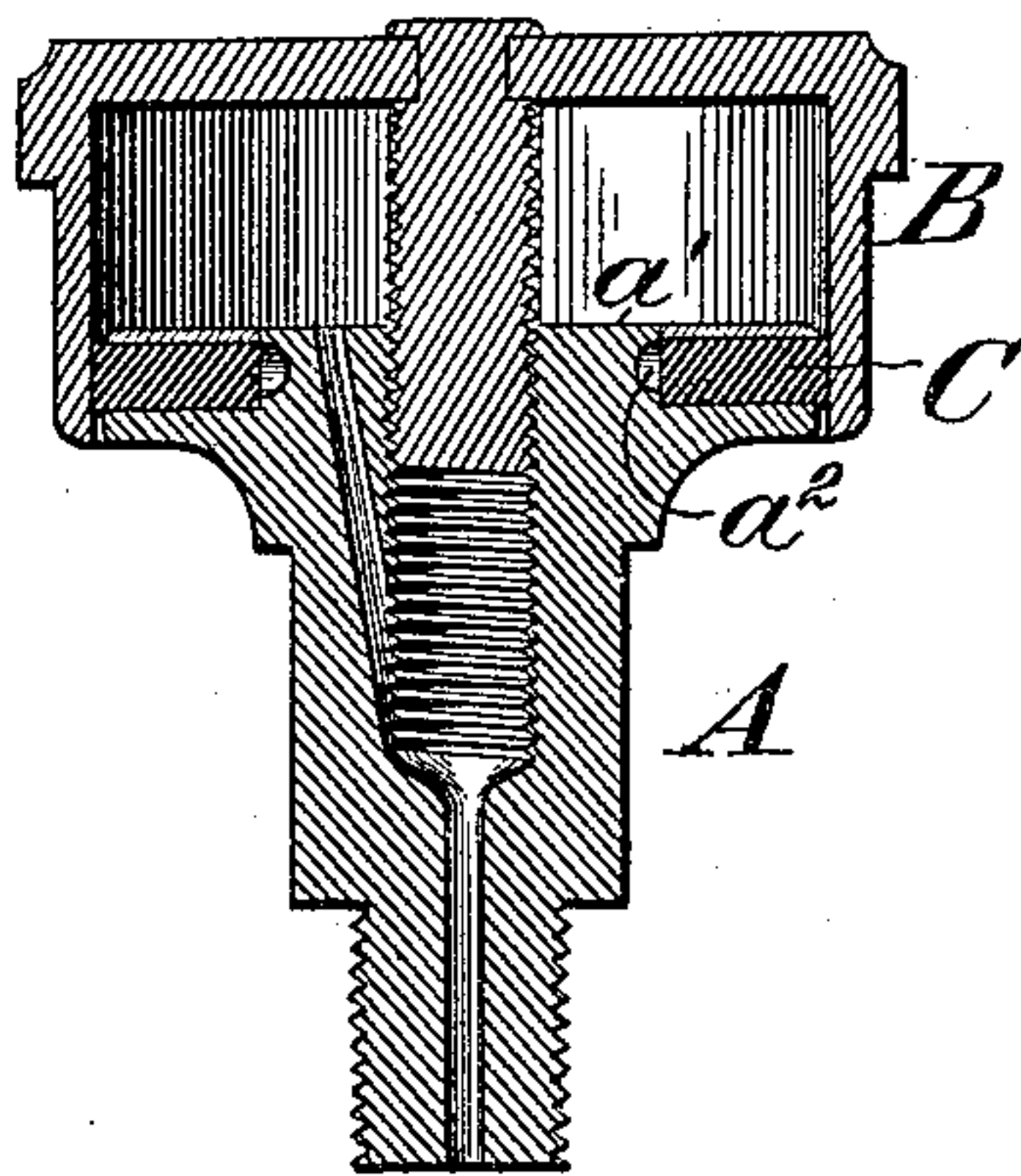


Fig. 2.

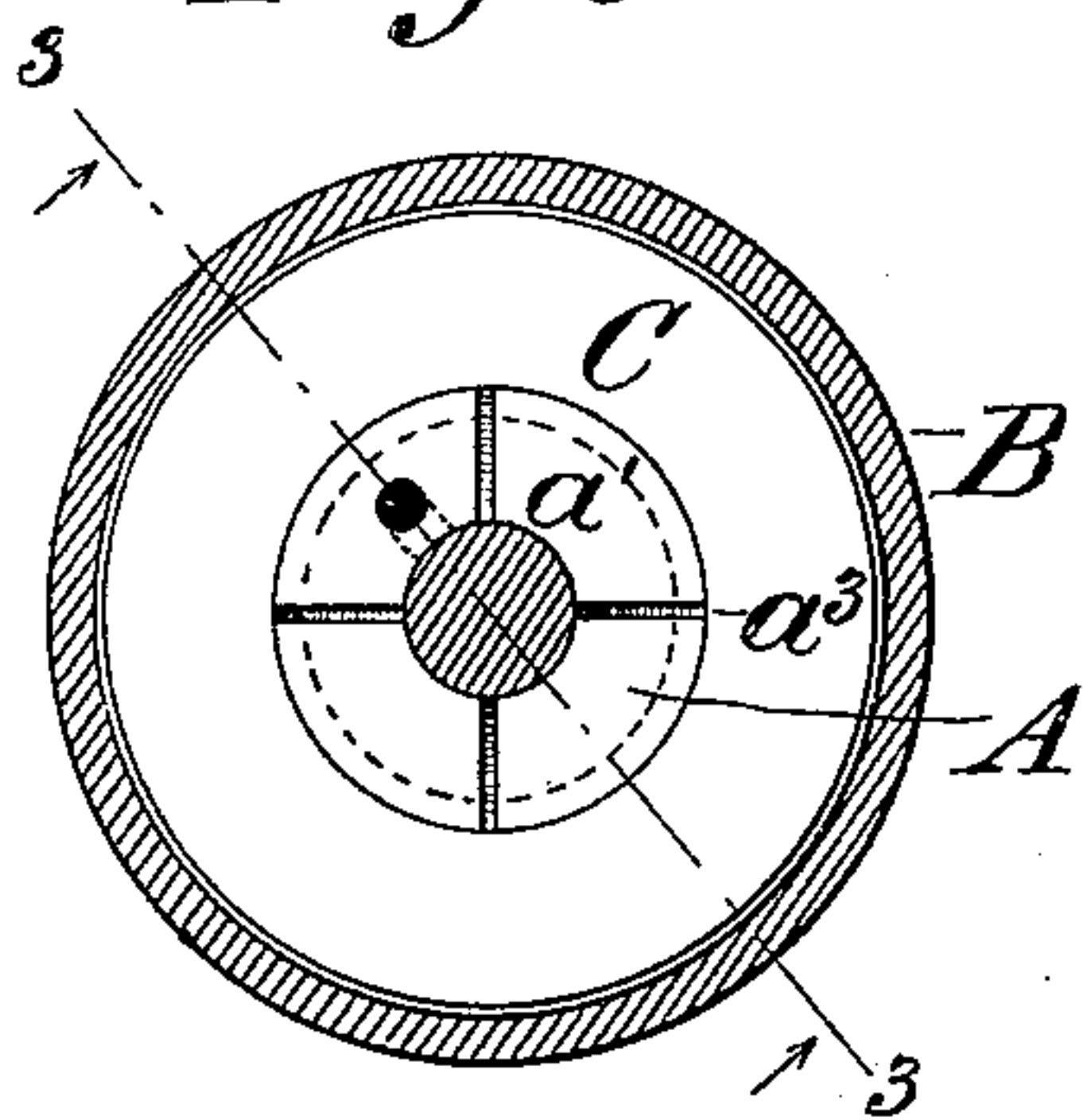


Fig. 4.

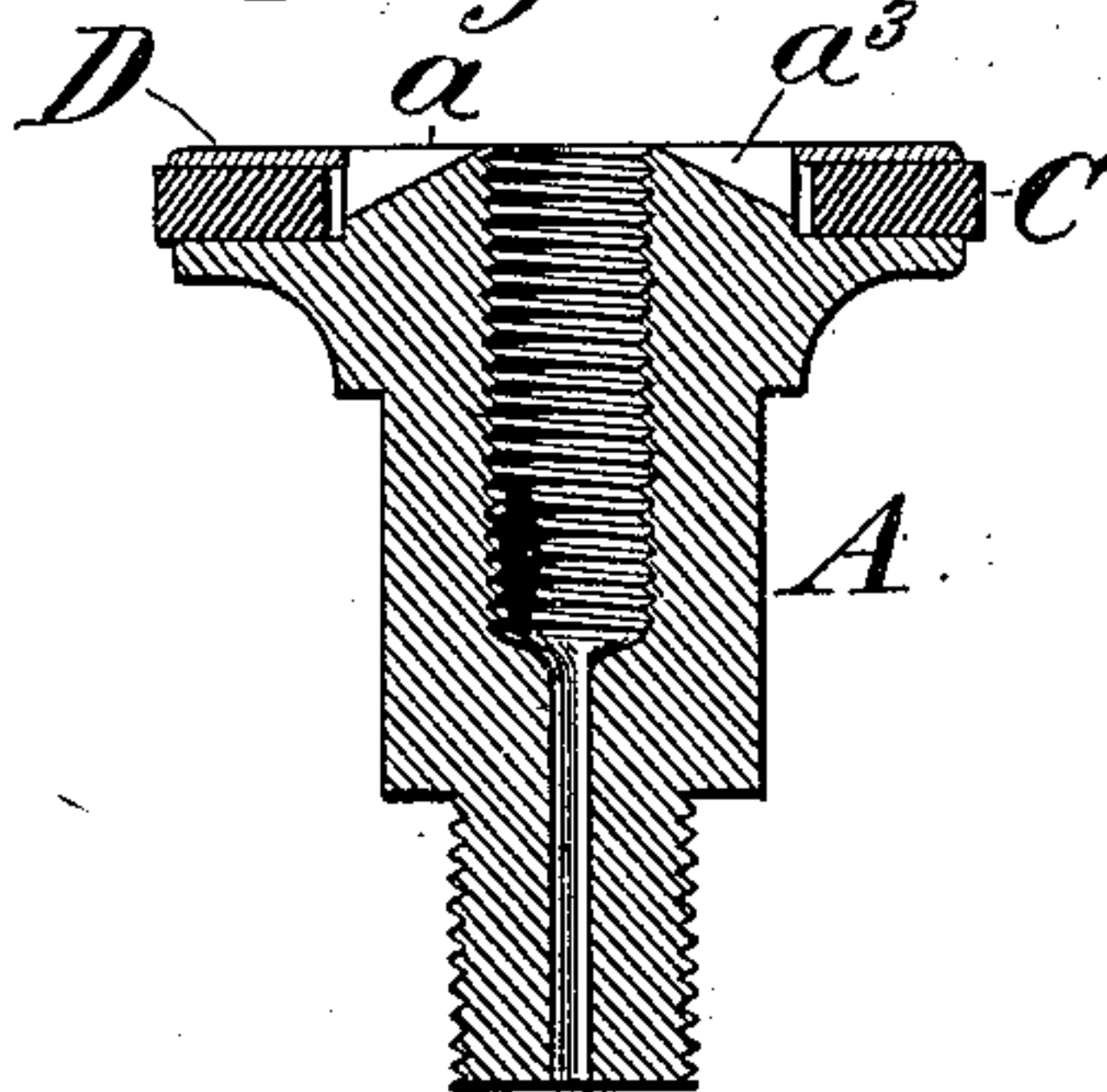


Fig. 5.

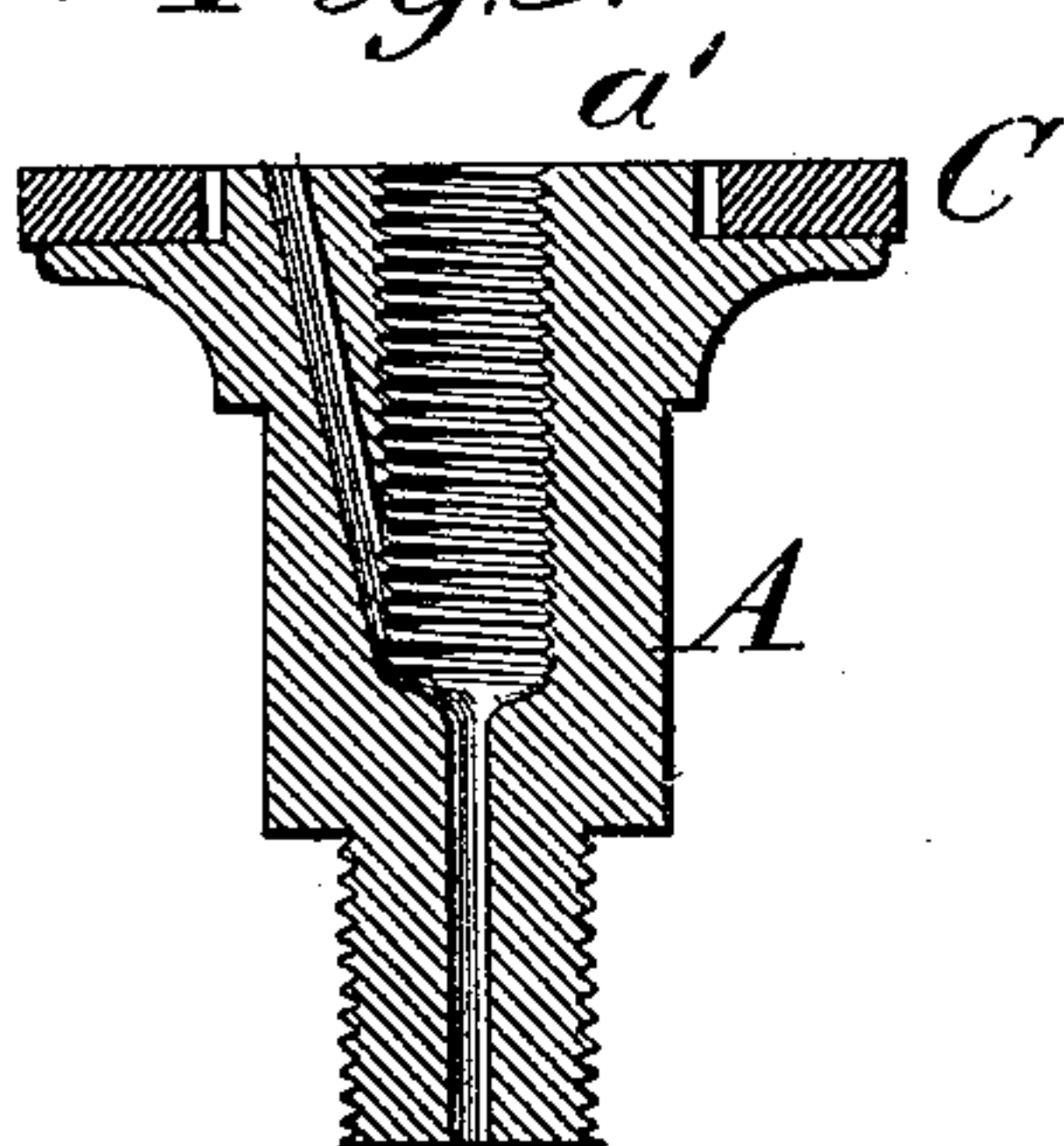
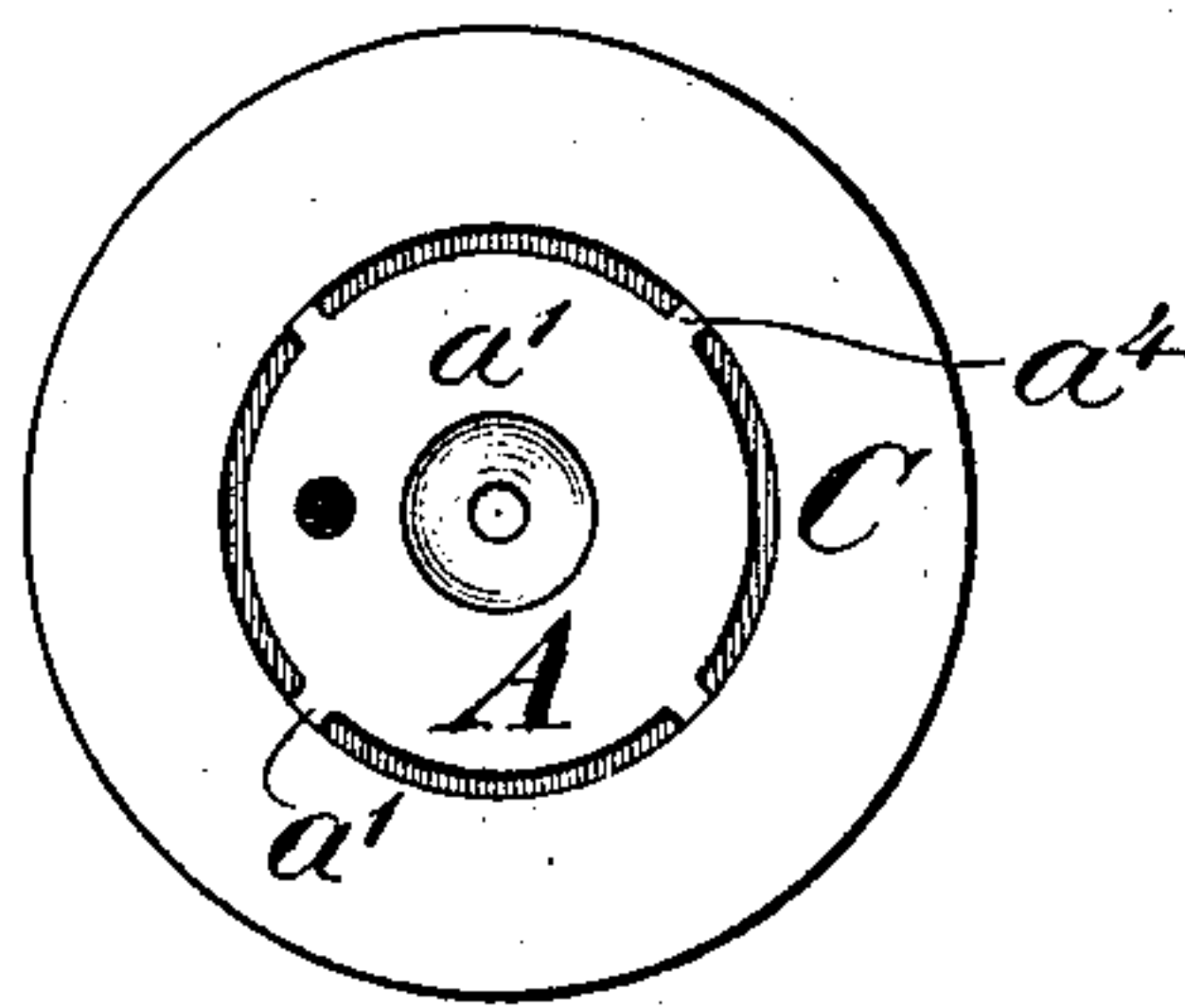


Fig. 6.



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UNITED STATES PATENT OFFICE.

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FORCE-FEED LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 467,273, dated January 19, 1892.

Application filed March 24, 1891. Serial No. 386,182. (No model.)

To all whom it may concern:

Be it known that we, CHARLES H. BESLY, of Chicago, county of Cook, and State of Illinois, and FREDERICK N. GARDNER, of Beloit, in the county of Rock and State of Wisconsin, have invented certain new and useful Improvements in Compression Oil or Grease Cups; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to the packing of compression grease-cups, and has for its object to render the packing which is applied to the piston of such cup subject to the pressure upon the contents of the cup, and to thereby cause it to press more forcibly against the interior of the rotative cap and more effectively prevent the escape of the contents of the cup past the packing.

In the accompanying drawings, illustrative of our invention, Figure 1 is a central vertical section of a compression lubricator or grease-cup illustrating one form of our invention. Fig. 2 is a horizontal section taken in the line 2 2 of Fig. 1. Fig. 3 is a central vertical section of the grease-cup, taken in the line 3 3 of Fig. 2. Fig. 4 is a central vertical section of the piston and packing detached from the cap of the lubricator and illustrating a modification of the construction shown in the preceding figures. Fig. 5 is also a central vertical section of the piston and packing and illustrating another modification. Fig. 6 is a top view of the piston and packing shown in Fig. 5.

A represents the piston of a compression lubricator or grease-cup, of which B is the cap, having the central screw-threaded shank entering the piston in the ordinary manner.

C is an annular packing, of leather or other suitable and somewhat expansible material, applied to the piston, intended to make a tight joint with the inner circumference of the cap B.

For the stated purpose of our invention the inner periphery of the packing-ring C is exposed to the pressure of the contents of the cup, which may be done in several ways.

As shown in Figs. 1, 2, and 3, the packing occupies an annular recess a , cut in the outer upper angle of the piston, which has a central circular boss or prominence a' . Over the packing and secured to this boss is a plate D, which operates to hold the packing down to the piston when the cap is removed to be replenished. In the periphery of the boss is cut a continuous groove a^2 , affording a space within the packing-ring, and this space is made to communicate with the grease-space of the cup by passages a^3 , which may be sawed, as shown, or otherwise formed. Screwing the cap B down will therefore force the grease into the groove a^2 and outwardly against the packing-ring, causing it to press more firmly against the cap.

In Fig. 4 the inner circumference of the packing-ring C is larger than that of the boss a' , giving, also, an annular space within the packing communicating with the interior of the cup through the passages a^3 .

In Figs. 5 and 6 the plate D is omitted and an annular space between the packing-ring and the boss is provided, the boss being provided with peripheral projections a^4 , which serve to center the ring and the contents of the cup having direct communication with the inner periphery of the ring. Obviously the boss may in this case be also omitted or cut away, leaving the projections a^4 only as studs rising from the plane upper surface of the piston and centering the annular packing, while having its inner periphery exposed to the pressure of the contents of the cup.

The piston A is provided with the usual hole or conduit a^5 for conducting the lubricant to the point of discharge, the same being shown as extending diagonally from the face of the piston to the threaded socket thereof and from the socket centrally through the shank of the piston to the end thereof.

We claim as our invention—

1. In a compression-lubricator, a grease-cup comprising a piston and cap, the piston provided with an annular packing having inner and outer cylindric edges and having its outer cylindric edge bearing against the cap and its inner cylindric edge exposed to contact with the contents of the lubricator, whereby said packing will be subject to the pressure

applied to the said contents and will be expanded edgewise against the cap.

2. In a compression lubricator or grease-cup comprising a piston and cap, the combination, with the piston having a central boss, of an annular packing surrounding the said boss, a space being provided between the boss and the packing open to the contents of the lubricator.

10 3. In a compression lubricator or grease-cup comprising a piston and cap, the combination, with the piston having a central boss, of an annular packing surrounding the boss and a plate covering the packing and attached to
15 the boss, a space being provided between the boss and the inner periphery of the packing,

which space is in communication with the interior of the lubricator.

In testimony that we claim the foregoing as our invention we affix our signatures in presence of two witnesses.

CHARLES H. BESLY.
FREDERICK N. GARDNER.

Witnesses to the signature of Charles H. Besly:

M. E. DAYTON,
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Witnesses to the signature of Frederick N. Gardner:

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GEO. C. RATHBER.