

No. 745,435.

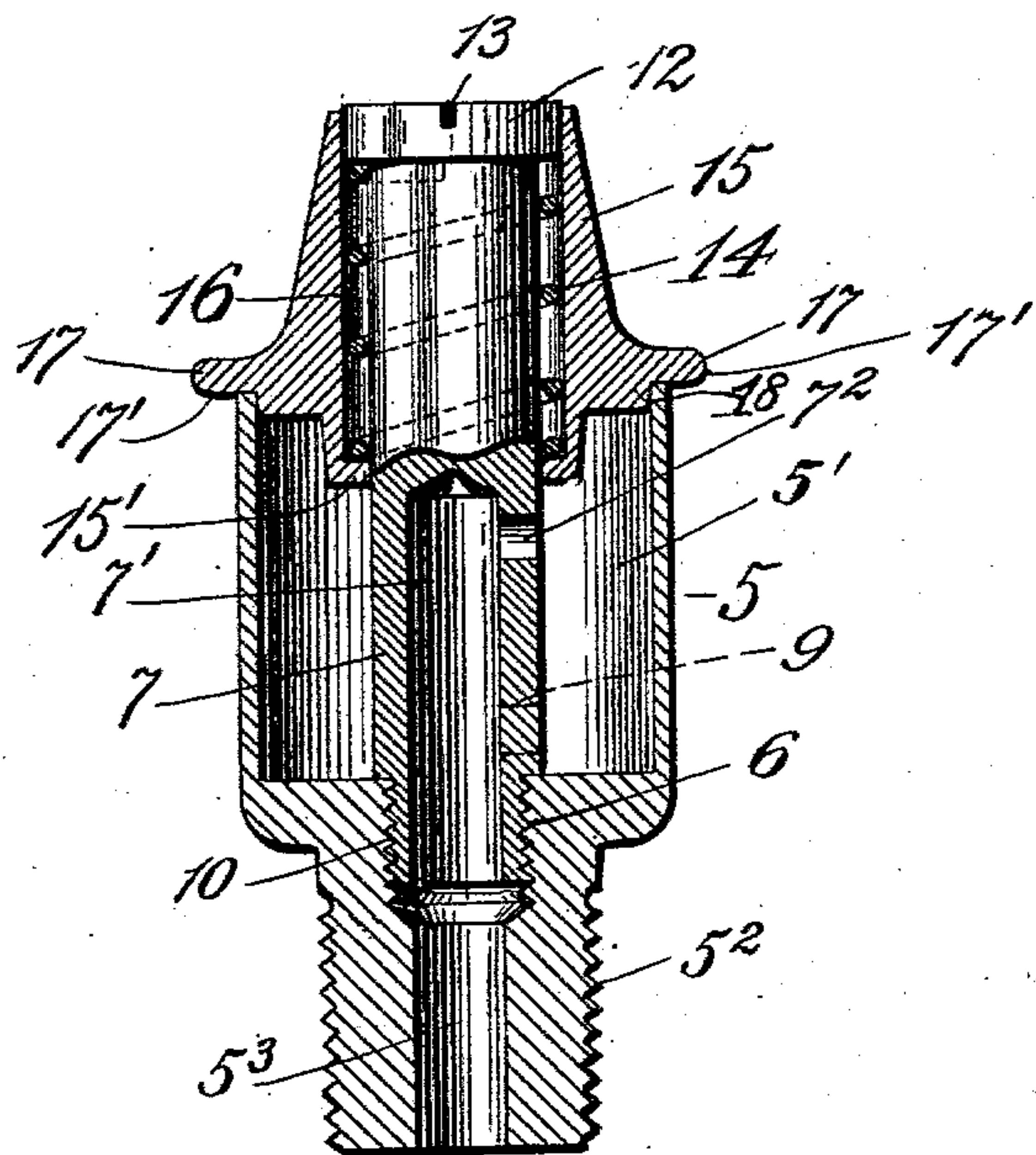
PATENTED DEC. 1, 1903.

B. M. W. HANSON.  
LUBRICATOR.

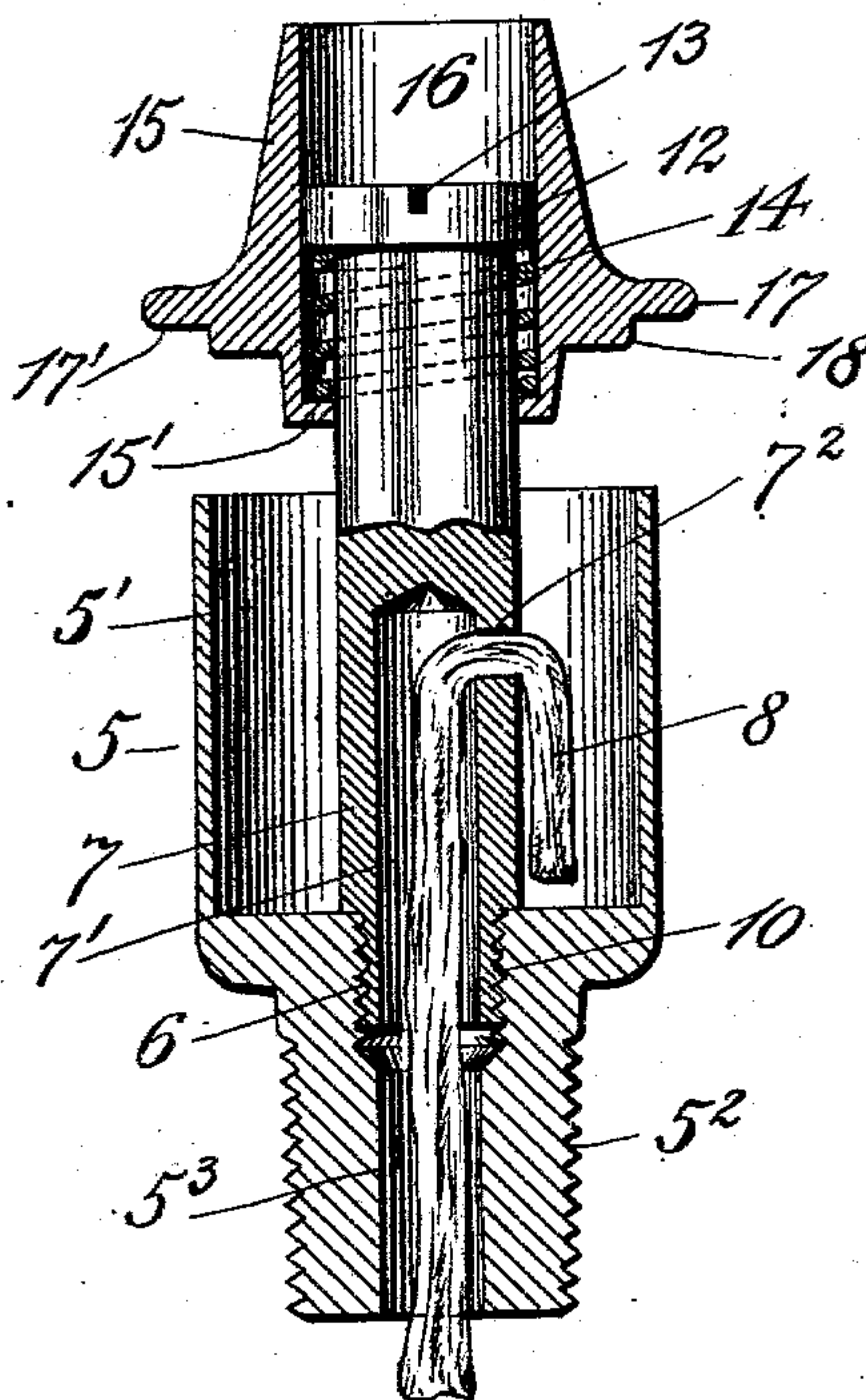
APPLICATION FILED APR. 11, 1903.

NO MODEL.

*Fig. 1.*



*Fig. 2.*



Witnesses:

*Wm. J. Church*  
*W. H. Blodgett Jr.*

Inventor:

*B. M. W. Hanson,*

By his Attorney

*W. H. Blodgett Jr.*



# UNITED STATES PATENT OFFICE.

BENGT M. W. HANSON, OF HARTFORD, CONNECTICUT.

## LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 745,435, dated December 1, 1903.

Application filed April 11, 1903. Serial No. 152,107. (No model.)

*To all whom it may concern:*

Be it known that I, BENGT M. W. HANSON, a citizen of Sweden, residing at Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Lubricators, of which the following is a specification.

My invention relates to lubricators of the oil-cup variety, and has for its object the provision of an improved oil-cup composed of few parts and one that may be cheaply manufactured either by hand or by machinery, as may be desired.

A further object of the invention is the provision of a closure for the cup containing the lubricant and in connection with said closure improved means for normally causing it to cover the mouth of said cup, and thus exclude grit, dust, and other foreign matter.

In the accompanying drawings, Figure 1 is an enlarged view, in longitudinal vertical section, of my improved lubricator with the parts in normal position; and Fig. 2 is a view similar to Fig. 1 with the closure raised to open the cup and a web of wicking in place in the bore of the bolt upon which said closure is mounted.

Like numerals designate similar parts in the several views.

Referring to the drawings, the numeral 5 designates in a general way the cup part of my improved lubricator, which comprises a receptacle 5' for oil or other lubricant and a tubular stem 5<sup>2</sup>, which may be either plain or threaded, as shown, to enable it to be seated in an opening leading to the part to which the lubricant is to be supplied. This cup part is preferably formed from an integral piece of metal and may be readily made from a rod of brass or other material by what are known as "automatic metal-working machines;" but the mode of its production is immaterial, for it may be made either integral or sectional, and the tubular stem may be externally threaded or have a plain periphery, if desired, as above stated. In the base of the cup and upper part of the tubular stem 5<sup>2</sup> is formed an internally-threaded seat 6, the latter being an enlargement of the bore 5<sup>3</sup> of said stem.

Designated by 7 is a bolt having a bore 7' and a port 7<sup>2</sup>, through which wicking 8, fitted in the bore, may extend and dip into the lu-

bricant in the cup 5', as indicated in Fig. 2, when the lubricator is employed as a reservoir-cup. When said lubricator is employed as an ordinary oil-cup, the position of this port will be changed to a point near the bottom of the cup, as shown by dotted lines 9 in Fig. 1. At its lower end the bolt 7 is reduced and threaded externally at 10 to engage the seat 6 and at its upper extremity is provided with a flanged head 12, preferably having a kerf or slot 13 for the reception of a screw-driver, although said head may be of other shape to be readily engaged by a tool for inserting and withdrawing the bolt without departure from the invention. Surrounding the upper part of the bolt is a spiral spring 14 for a purpose hereinafter described.

Designated by 15 is a cap or closure having a central bore 16 and at its lower end a circumferential inwardly-extending flange 15'. This cap is provided with a horizontal flange 17, knurled or roughened upon its periphery to form a convenient grasping-surface, and with a circumferential shoulder 18, such shoulder fitting within the upper end of the cup 5' and the flange serving to prevent the entrance of dust, grit, or other foreign substances to the lubricant in the cup. Preferably the edge of the flange 17 is rounded or beveled at 17' to enable the nose of the oil-can spout to be readily inserted between the flange and upper wall of the cup.

Like the body portion of the lubricator, the cap just described is preferably made of but one piece of metal and can be shaped and bored from stock of suitable proportions in the common automatic machines. As shown, the tubular part of the cap above the flange 17 is of conical shape to present a symmetrical appearance, but it may be of a different form, if desired.

In assembling the parts of my improved lubricator the spring 14 is slipped upon bolt 7, and said bolt is then inserted in the bore 16 of the cap 15, and after this has been done the assembled cap and bolt are respectively placed over and within the cup 5', and the bolt is turned to cause its threaded stem to engage the internally-threaded seat 6 of the cup, and thus secure the parts in place.

Should it be necessary to replenish the supply of lubricant, the closure is raised either



by hand or by the spout of the oil-can to the position illustrated in Fig. 2, thereby compressing the spring 14 between the flange 15' and the under side of the head 12 of bolt 7, and after the cup has been filled said spring will react and immediately close the cap upon the top of the cup, as shown in Fig. 1.

From the above description it will be seen that my improved lubricator is composed of but few parts, any and all of which may be readily made by the usual automatic machinery, that it is not only simple in construction, but is also efficient in action, and that it can be produced and its elements assembled at minimum expense.

My invention is not limited to the exact devices shown and described, nor to parts of the proportions and contours illustrated, nor is it limited to any specific kind of spring for closing the cap upon the cup.

Having thus described my invention, what I claim is—

1. A lubricator comprising a cup having an outlet; a headed bolt projecting from said cup, and having a bore; a cap loose upon the bolt, and surrounding the head thereof; and means for forcing the cap to close the mouth of said cup.

2. A lubricator comprising a cup having an outlet; a bolt projecting from the cup, said bolt having a bore communicating with the cup; a flanged cap surrounding the head of the bolt; and a spring for seating said flanged cap upon the mouth of the cup.

3. A lubricator comprising a cup having an outlet; a headed bolt projecting from and secured to the cup, said bolt having a longitudinal bore, and a port leading from said bore to the interior of the cup; a tubular cap having an inner, circumferential flange, said cap inclosing the bolt-head; and a spring located between the head of the bolt and said inner flange.

4. A lubricator comprising a cup provided with an outlet, and having a stem adapted to be inserted in an opening leading to a bearing; a headed bolt having a bore and a port communicating with said bore; a flanged cap having a bore of length to receive and surround the head of the bolt; and a spring for normally forcing said cap to close the mouth of the cup.

5. A lubricator comprising a cup having an outlet and a threaded seat; a partially-tubular, headed bolt having a stem engaging said threaded seat and also having a port communicating with the bore of the bolt and with the cup; a tubular cap for closing the mouth of the cup, the barrel of the cap surrounding the head of the bolt, and said cap having an inner flange; and a spring surrounding the free end of the bolt and located between the head thereof and said inner flange.

6. A lubricator comprising a cup having an outlet and a threaded, tubular stem adapted to be inserted in an opening leading to a bearing, and also having an internally-threaded seat; a headed bolt having a bore and a threaded portion adapted to be engaged with said seat, said bolt having a port leading from its bore to the interior of the cup; a flanged, tubular cap inclosing the bolt-head; and a spring for normally closing said cap upon the mouth of the cup.

7. In a lubricator, the combination, with a cup having a tubular stem adapted to be inserted in an opening leading to a bearing, of a headed bolt seated in said stem and having a bore and a port leading from said bore to the interior of the cup; an externally and internally flanged cap inclosing the bolt-head; and a coiled spring located between the internal flange of said cap and the head of the bolt, said spring serving to close the cap upon the mouth of the cup.

8. In a lubricator, the combination, with a cup having an externally-threaded, tubular stem integral therewith, of a headed bolt seated in the cup and having a bore communicating with the bore of the stem, and a port leading to the interior of the cup; a tubular cap inclosing the bolt-head and having an external, circumferential flange and an inner flange embracing the barrel of the bolt; and a spring located between the head of the bolt and said inner flange.

9. In a lubricator, the combination, with a cup having an externally-threaded, tubular stem and an internally-threaded seat, of a headed bolt having a thread to engage said seat, a bore extending a portion of its length, and a port leading from said bore to the interior of the cup; a cap loosely mounted on the bolt and surrounding the head thereof; and means for normally closing said cap upon the mouth of the cup.

10. In a lubricator, the combination, with a cup having a tubular stem, of a bolt seated in and projecting from said cup, said bolt having a flanged head and a bore leading to the tubular stem; a tubular cap having an inner, circumferential flange, and surrounding the head of the bolt, and also having an external, circumferential flange with a rounded or beveled surface; a coiled spring located between the inner, circumferential flange of the cap and the head of the bolt; and means for conveying lubricant from the cup to the bolt and tubular stem.

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

BENGT M. W. HANSON.

Witnesses:

G. E. BUTLER,  
H. E. BAILEY.