

(No Model.)

M. SHOLL.
LUBRICATOR.

No. 413,873.

Patented Oct. 29, 1889.

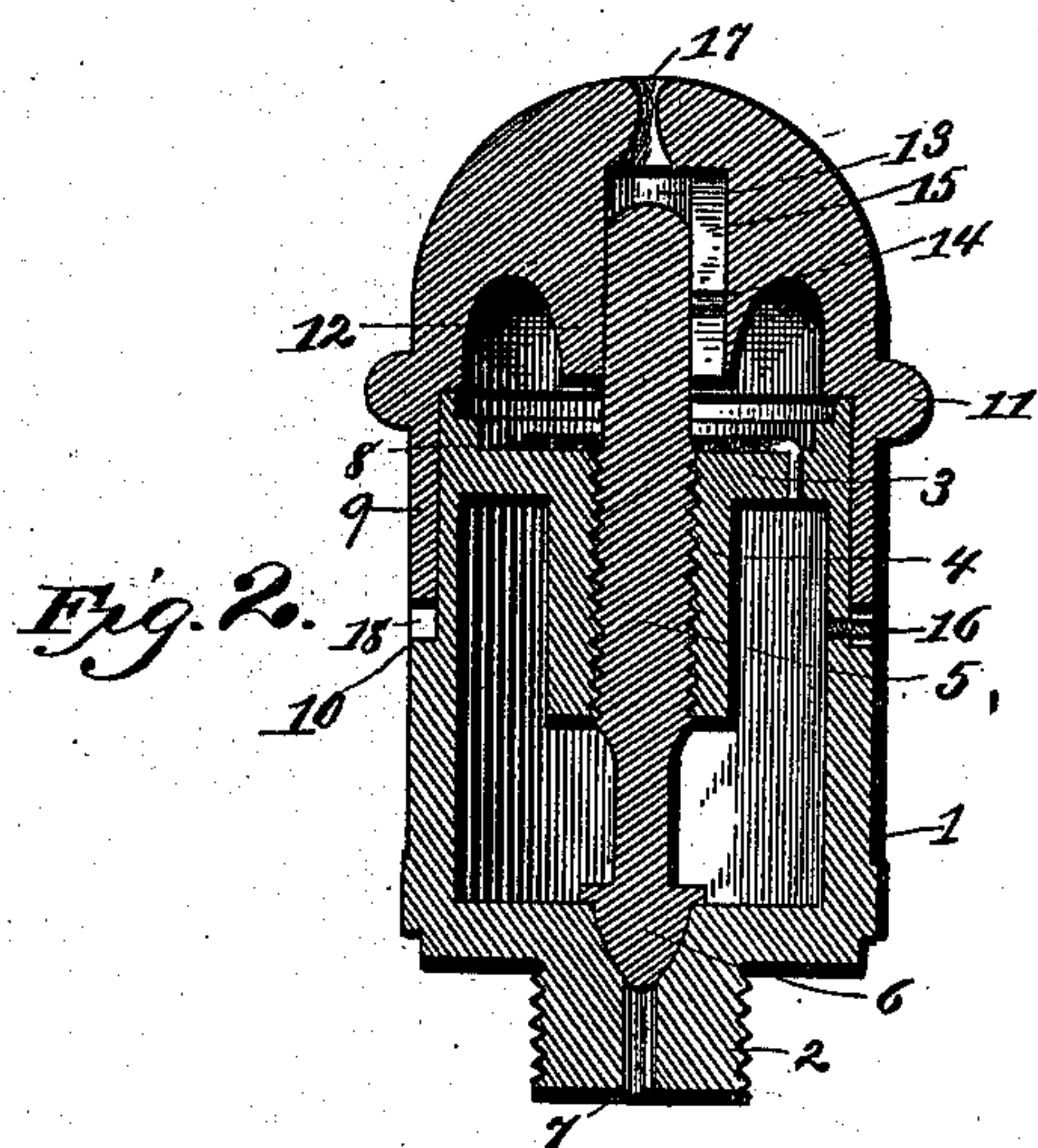
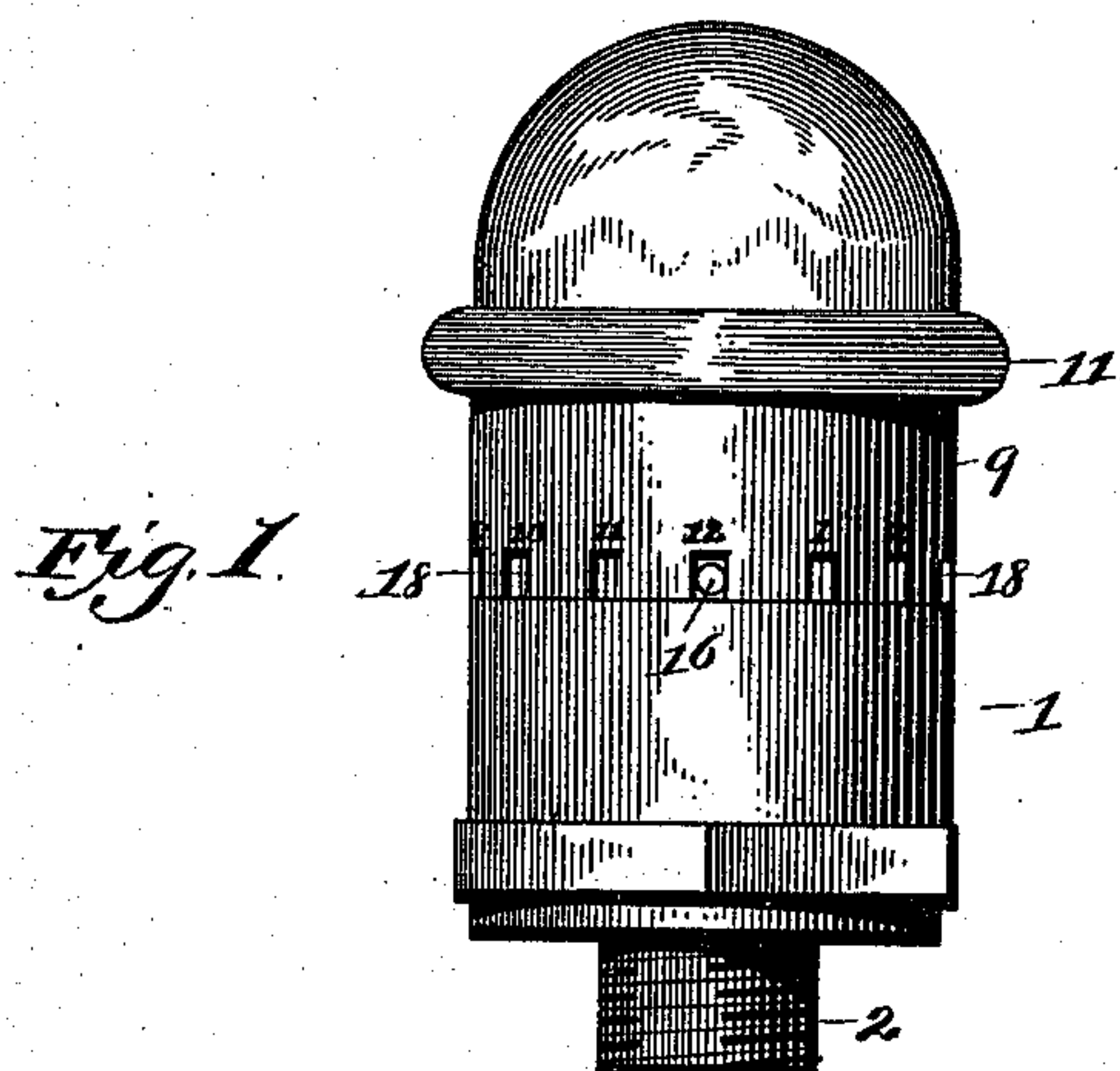


Fig. 3.

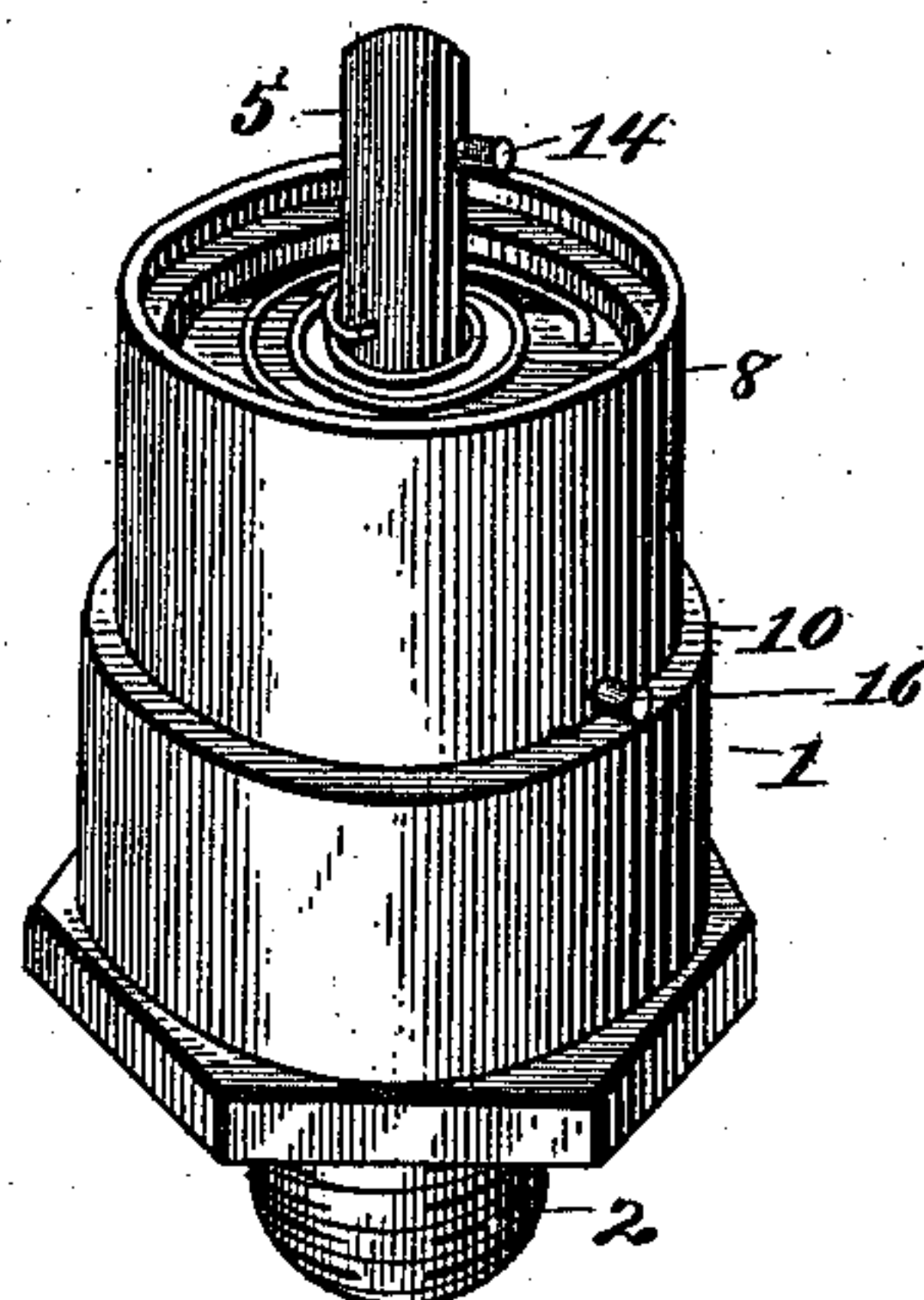


Fig. 4.

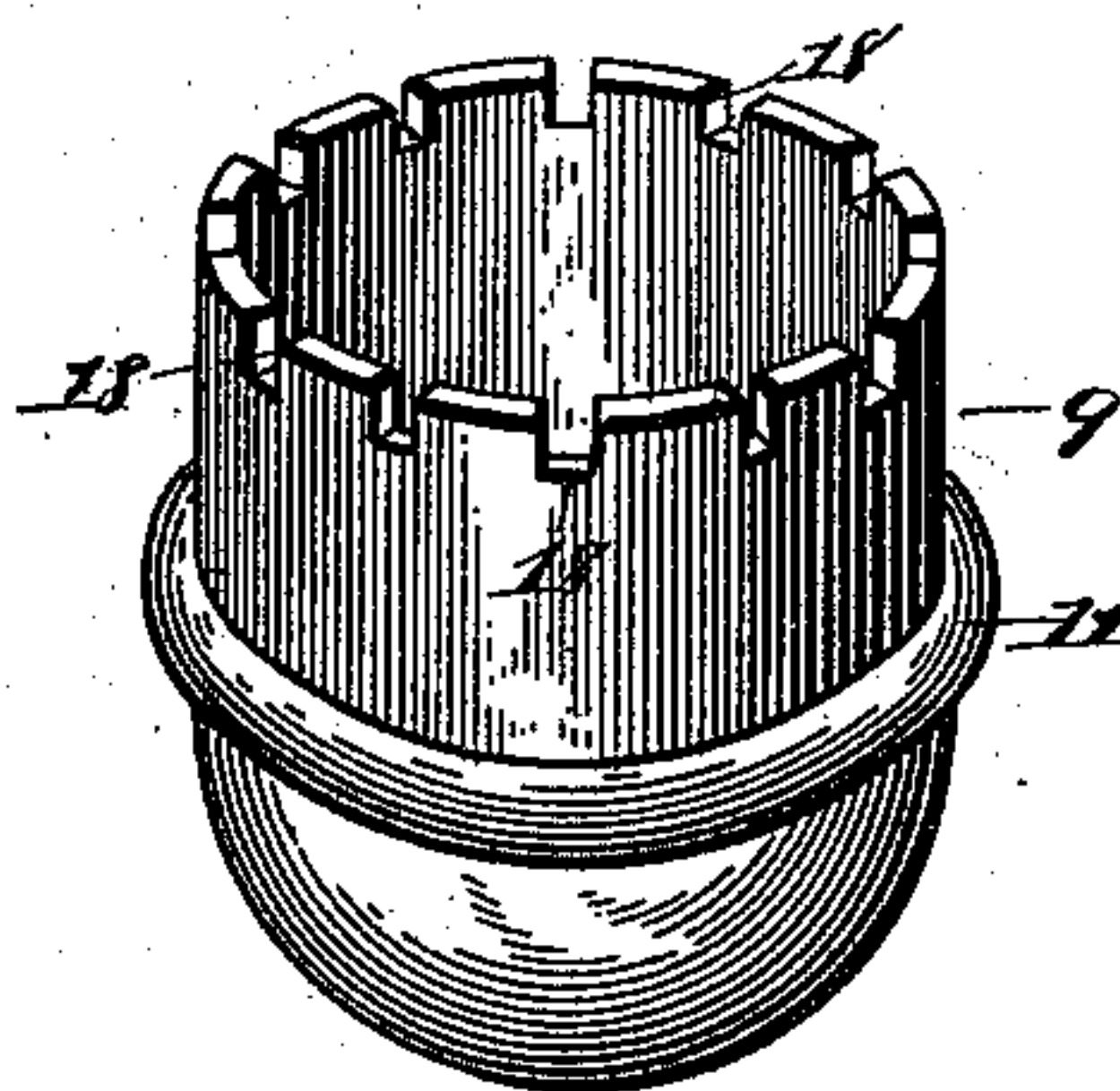
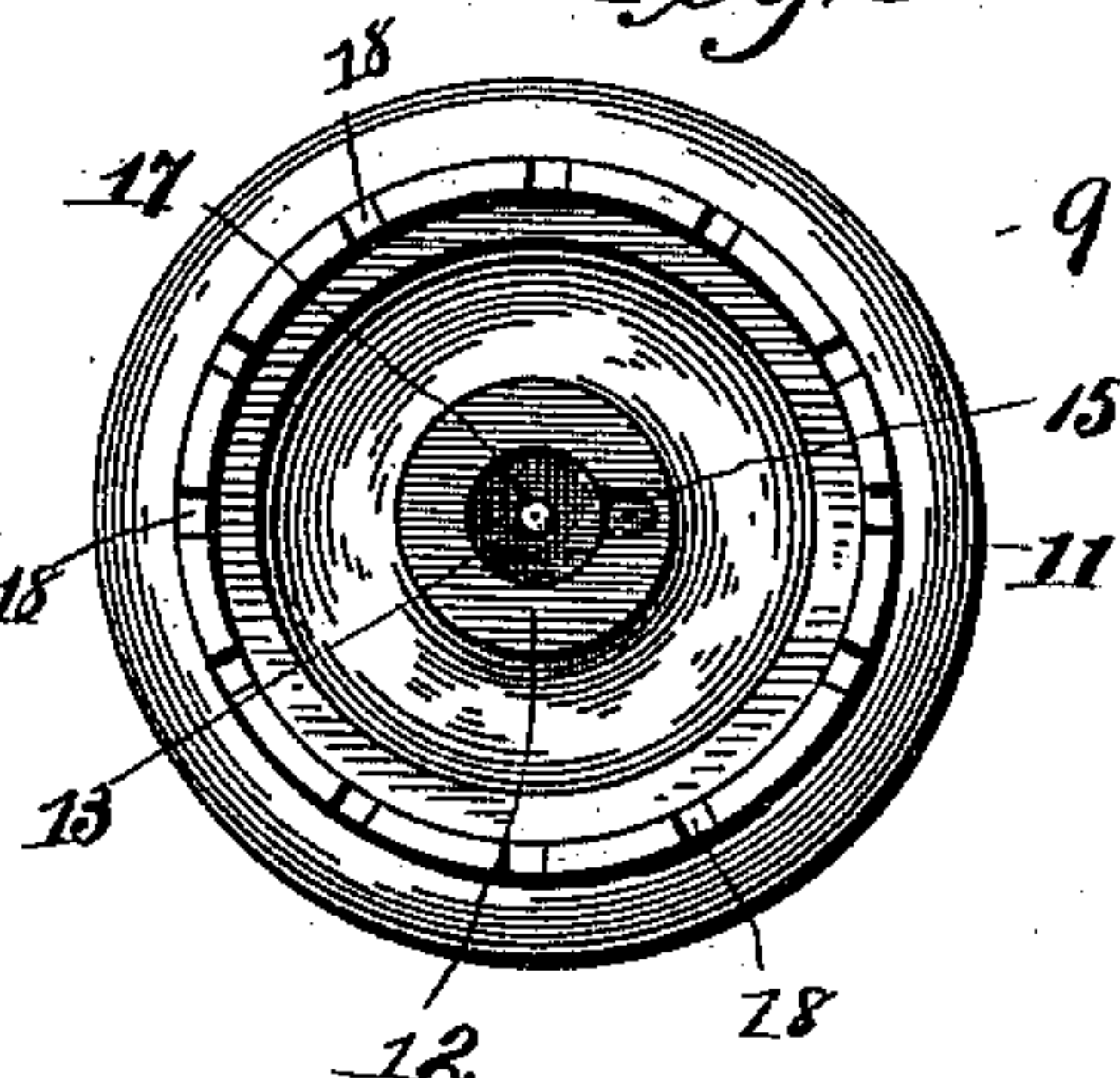


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

MELVIN SHOLL, OF TERRACE, UTAH TERRITORY.

LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 413,873, dated October 29, 1889.

Application filed June 20, 1889. Serial No. 314,934. (No model.)

To all whom it may concern:

Be it known that I, MELVIN SHOLL, a citizen of the United States, residing at Terrace, in the county of Box Elder and Territory of Utah, have invented a new and useful Lubricator, of which the following is a specification.

This invention relates to lubricators; and it has for its object to provide a device of this class by means of which the quantity of oil to be fed may be regulated with perfect uniformity and certainty, and which shall be especially adapted for use on locomotives and high-speed machinery, such as electric dynamos and the like.

The invention consists in the improved construction, arrangement, and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings hereto annexed, Figure 1 is a side view of my improved lubricator. Fig. 2 is a vertical sectional view of the same. Fig. 3 is a perspective view of the lubricator with its cap or cover removed. Fig. 4 is a perspective view showing the cap or cover in an inverted position. Fig. 5 is a plan view showing the cap or cover in an inverted position.

Like numerals of reference indicate like parts in the several figures.

1 designates the cup or reservoir of my improved lubricator, which is provided at its lower end with a screw-threaded teat 2, for its attachment to the machinery which is to be lubricated. The cup or reservoir 1 is provided near its upper end with a cross-piece 3, having a screw-threaded operative bearing 4 for a valve-stem 5, carrying at its lower end a valve 6, a seat for which is formed in the bottom of the cup at the upper extremity of the channel or perforation 7, which extends through the teat 2. The supply of oil passing through the channel 7 may, it will be observed, be regulated by properly adjusting the valve-stem in its screw-threaded bearing. Said valve-stem is kept in a lowered and the valve in a closed position by the action of a spring 8, which is coiled around the said valve-stem, and the ends of which are secured,

respectively, in the latter and in the cross-piece 3, as will be clearly seen by reference to Fig. 3 of the drawings.

The cup or reservoir 1 is provided with a closely-fitting cover 9, which, when in position, may rest upon a shoulder 10, formed annularly upon the said reservoir. The said cover is provided with a milled rim or flange 11, to enable it to be conveniently manipulated and adjusted, and it has an interiorly-located boss or projection 12, having a recess 13, adapted to receive the upper end of the valve-stem. The latter is provided with a laterally-extending lug or stud 14, adapted to enter a groove 15, formed in one side of the recess 13 of the boss 12. It will thus be seen that by turning the cover while in position the valve-stem may be unscrewed against the tension of the spring, thus raising the valve and permitting the lubricating material to flow in any desired quantity through the channel or passage 7. To retain the cover, and consequently the valve-stem, in any position to which it may be adjusted, I provide the lower edge of the said cover with an annular series of notches 18, adapted to engage a lug or stud 16, projecting laterally from the cup or casing 1. These notches are numbered, as will be seen in the drawings hereto annexed, so as to indicate the position of the valve, and consequently the quantity of lubricating material which is permitted to escape. The top of the cover is to be provided with a vent-opening 17.

The operation of my invention will be readily understood from the foregoing description, taken in connection with the drawings hereto annexed.

When the cover or cap is removed for the purpose of filling the reservoir 1, the tension of the spring 8 automatically closes the valve. When the cover is restored, it may be turned so as to adjust the valve-stem to the desired position, and one of the notches is then caused to engage the lug or stud 16, thereby retaining the cover and the valve-stem in the position to which they have been adjusted. This position may be easily and quickly changed when it shall be desired to increase or decrease the supply

of lubricating material, and when the machine is at rest the flow of lubricating material may be stopped by simply raising the cover sufficiently to disengage it from the valve-stem, which is then instantaneously and automatically operated by the coil-spring 8, so as to close the valve.

In the construction of my improved lubricator various changes might be made without changing the principle of its operation, and I reserve the privilege of making any such changes and modifications as may be resorted to without departing from the spirit of my invention.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a lubricator, the combination of a reservoir having an escape-opening provided with a valve-seat and a cross-bar having a vertical screw-threaded perforation, a screw-threaded stem working in the latter and having a valve at its lower end, and a spring arranged to so bear against the said stem as to hold the valve in a closed position, substantially as set forth.

2. In a lubricator, the combination of a reservoir having an escape-opening, a valve to close the said escape-opening, and a spring to hold the said valve in a closed position, substantially as set forth.

3. In a lubricator, the combination of a reservoir having an escape-opening, a valve to close the latter, said valve being mounted upon a screw-threaded stem working in a screw-threaded bearing, and a spring arranged to so rotate the said valve-stem as to keep the valve in a closed position, as set forth.

4. In a lubricator, the combination of a reservoir having an escape-opening, a screw-threaded stem working in a suitable bearing and having a valve adapted to close the said opening, a spring arranged to so rotate the valve-stem as to keep the valve in a closed position, and a cover for the said reservoir,

having an interiorly-located boss or projection provided with a recess to receive the upper end of the valve-stem and a groove to accommodate a stud extending laterally from the latter, substantially as set forth.

5. In a lubricator, the combination of a reservoir having an escape-opening, a screw-threaded stem working in a suitable bearing and having a valve adapted to close the said opening, a spring arranged to so rotate the valve-stem as to keep the valve in a closed position, a cover for the said reservoir, having an interiorly-located boss or projection provided with a recess to receive the upper end of the valve-stem and a groove to accommodate a stud extending laterally from the latter, a series of notches formed in the lower edge of the cap or cover, and a stud extending laterally from the cup or reservoir to engage the said notches, substantially as set forth.

6. In a lubricator, the combination of a reservoir having an escape-opening, a screw-threaded stem working in a suitable bearing and having a valve adapted to close the said bearing, a spring arranged to so rotate the said valve-stem as to keep the valve in a closed position, a lug or stud extending laterally from the cup or reservoir, a lug or stud extending laterally from the valve-stem, and a cap or cover having a series of notches at its lower edge, a vent-opening at its upper end, and an interiorly-located boss or projection having a recess to receive the upper end of the valve-stem and a groove to accommodate the lug or stud of the latter, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

MELVIN SHOLL.

Witnesses:

GEO. A. INGOLS,
R. W. SHIELDS.