

No. 730,482.

PATENTED JUNE 9, 1903.

G. SCHNEIDER.

LUBRICATOR.

APPLICATION FILED NOV. 10, 1902.

NO MODEL.

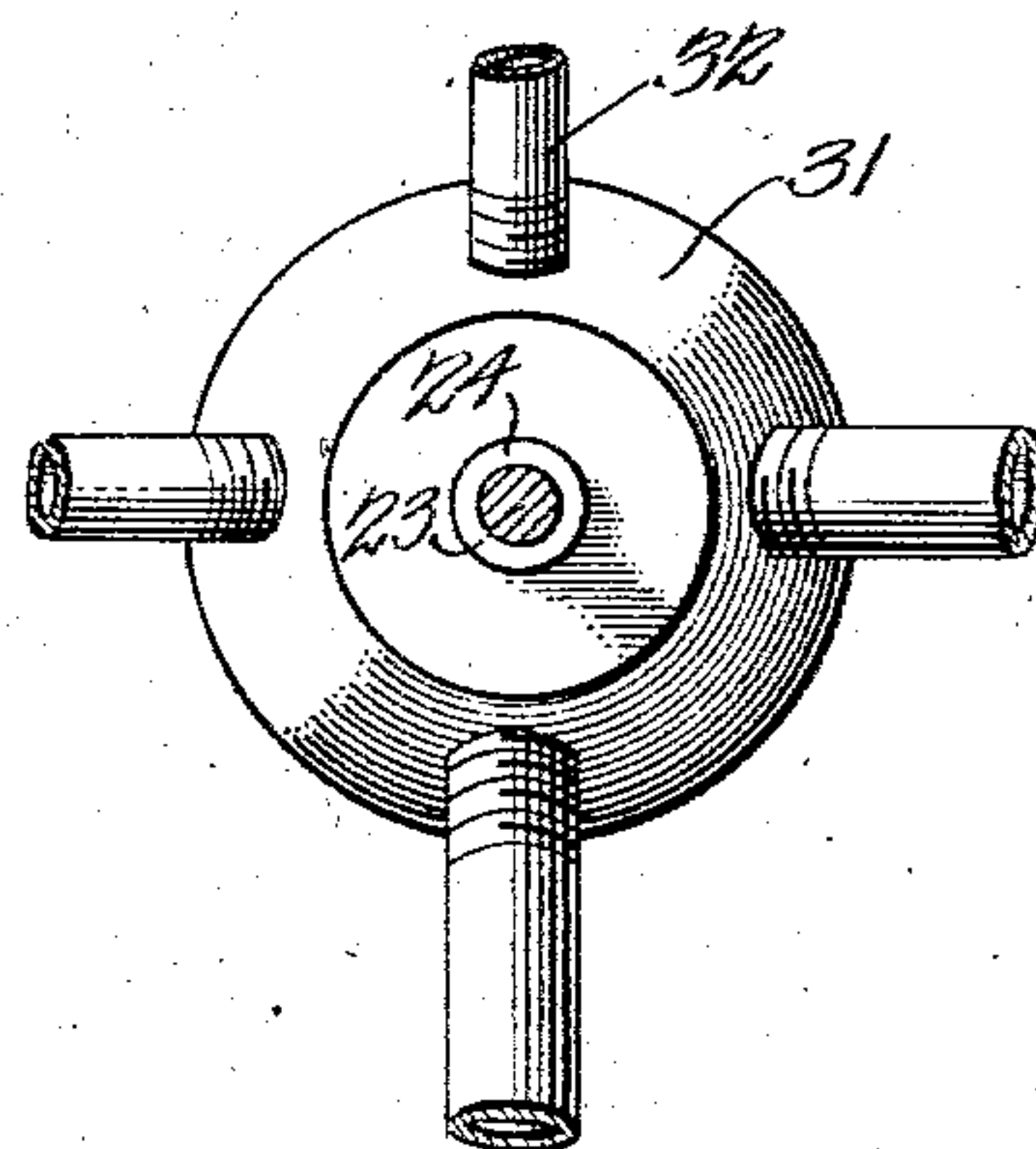
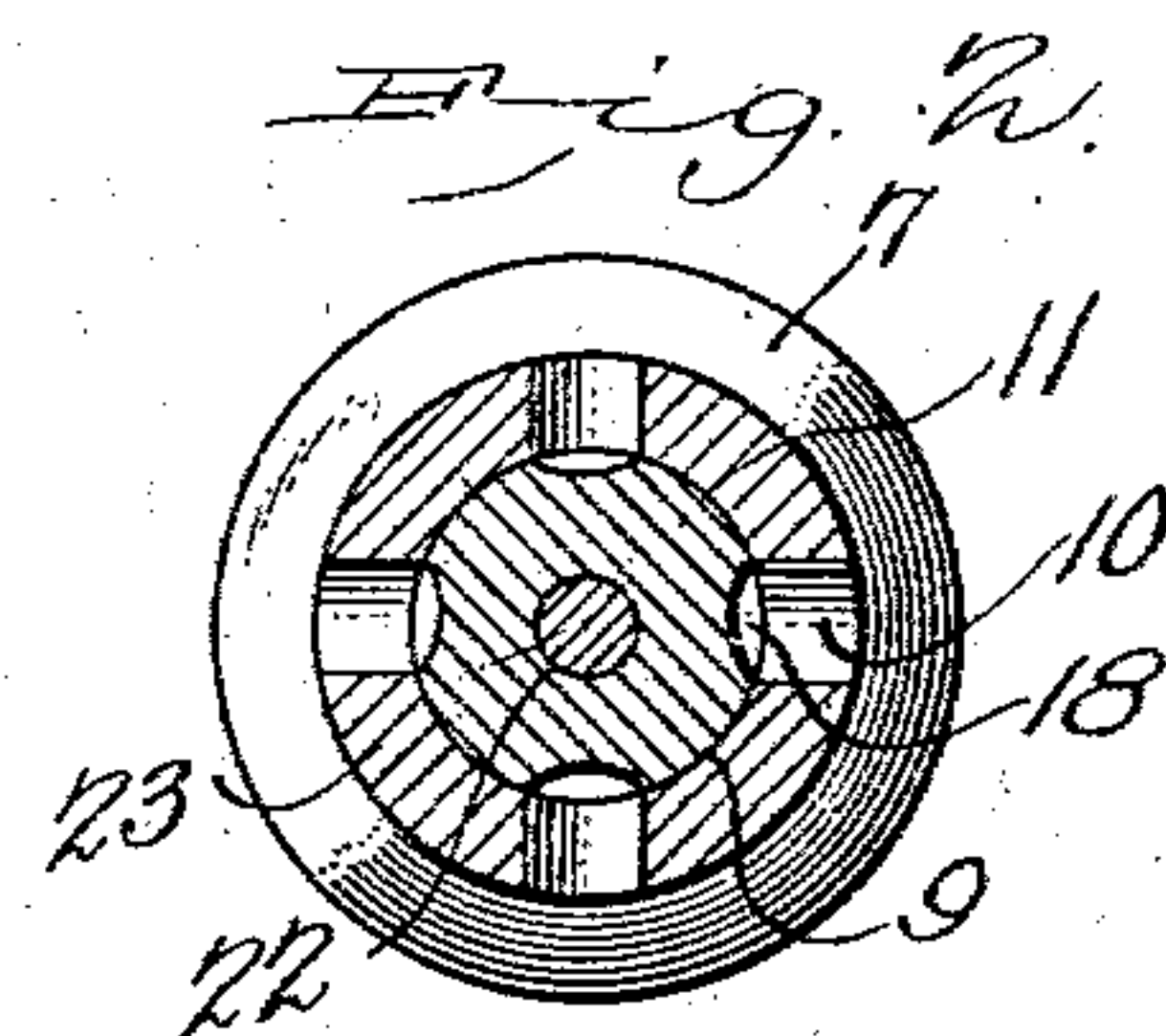
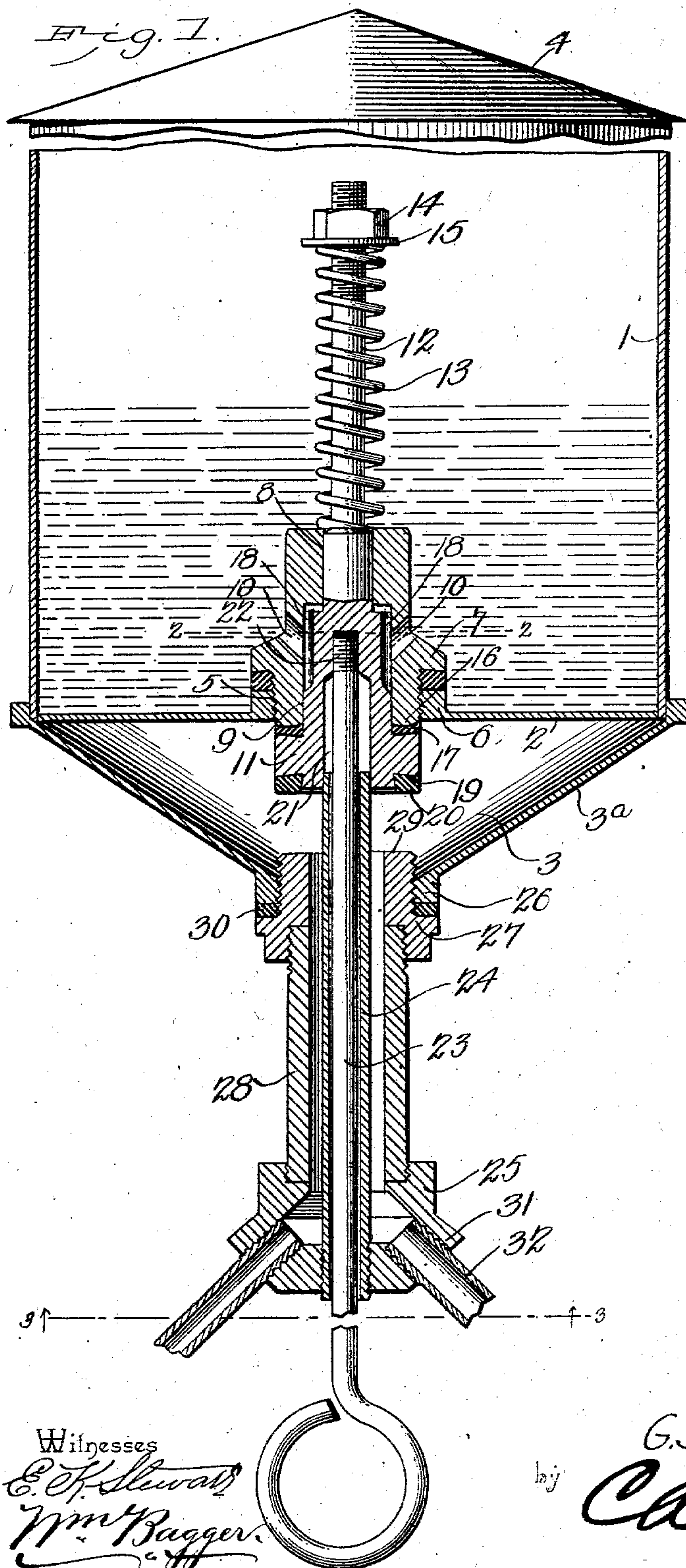
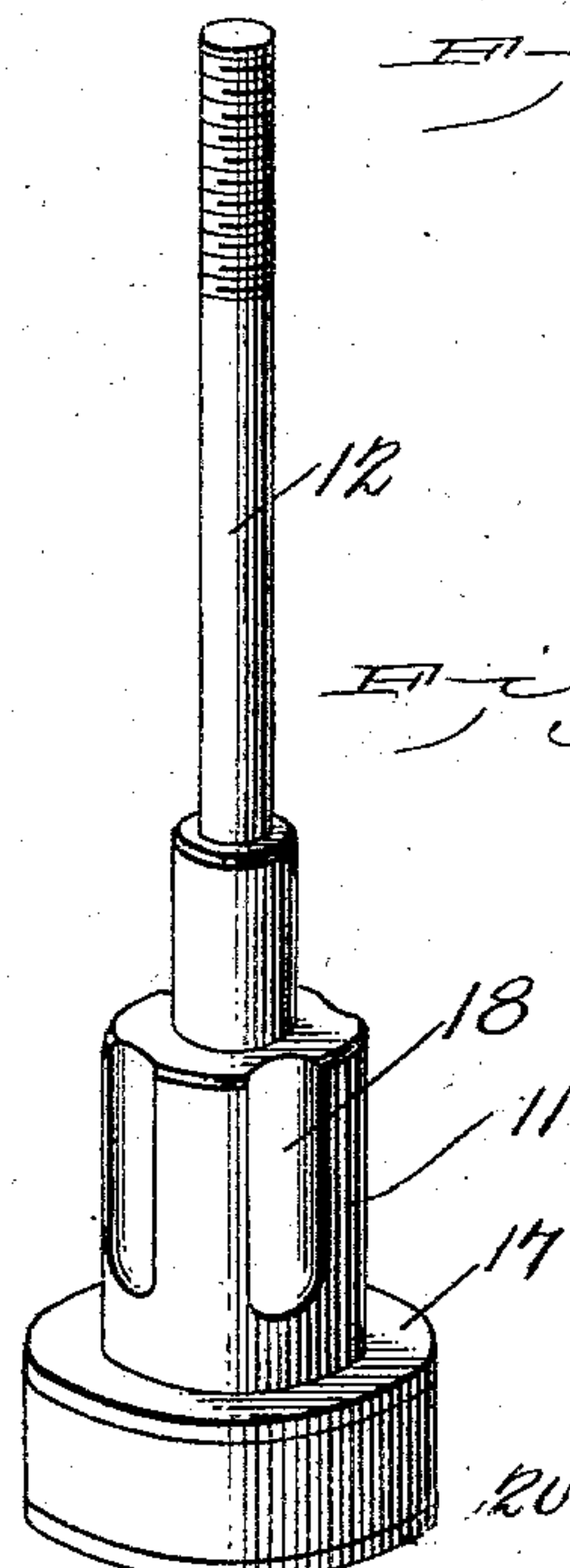


Fig. 3.



Witnesses
E. F. Stewart
Wm. Bagger

by

G. Schneider, Inventor.
Chas. H. Snow & Co.
Attorneys

UNITED STATES PATENT OFFICE.

GOTTLIEB SCHNEIDER, OF BLUFFTON, INDIANA, ASSIGNOR TO R. G. MARCY MANUFACTURING COMPANY, OF BLUFFTON, INDIANA.

LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 730,482, dated June 9, 1903.

Application filed November 10, 1902. Serial No. 130,729. (No model.)

To all whom it may concern:

Be it known that I, GOTTLIEB SCHNEIDER, a citizen of the United States, residing at Bluffton, in the county of Wells and State of Indiana, have invented a new and useful Lubricator, of which the following is a specification.

This invention relates to lubricators adapted especially to be used for the purpose of oiling machinery, such as windmills, where the individual oil-cups are not conveniently accessible. This class of lubricators are usually constructed with a measuring device by means of which the quantity of oil or lubricant permitted to pass at any one time from the storage-reservoir to the oil-cups of the machinery may be accurately gaged or regulated, thereby insuring the supply of the necessary quantity of oil required at any one oiling and at the same time avoiding the wasteful use of the lubricant.

The object of my invention is to construct a lubricator of this class which shall possess superior advantages in point of simplicity, durability, ease and certainty of operation, and general efficiency, in which, moreover, the working parts of the device, as well as the lubricant, shall be protected from the weather, thus avoiding the annoyances oftentimes caused by dust, rust, and the like.

With these and other ends in view my 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 accompanying drawings, Figure 1 is a vertical sectional view of a lubricator constructed in accordance with the principles of my invention. Fig. 2 is a sectional view taken on the line 2 2 in Fig. 1. Fig. 3 is a sectional view taken on the line 3 3 in Fig. 1. Fig. 4 is a perspective view showing the valve detached.

Corresponding parts in the several figures are indicated by similar numerals of reference.

1 designates a storage tank or reservoir which is provided with a horizontal partition 2, whereby it is separated from the measuring-chamber 3, the bottom of which, 3^a, is preferably

funnel-shaped, as shown. The tank 1, which is preferably cylindrical in shape, is provided with a cover 4, tightly fitting, so as to exclude foreign matter. The partition 2, which constitutes the bottom of the tank, is provided with a central screw-threaded opening 5, which may be surrounded by a strengthening-flange 6 and which receives the valve-casing 7. The latter is provided with a bore 8, the lower end of which is enlarged to form a chamber 9, which is connected with the exterior of the valve-casing by inclined perforations 10. The valve 11, which is mounted in the casing, is provided with an upwardly-extending stem 12, upon which is coiled a spring 13, capable of being compressed by means of a nut 14 and washer 15 against the upper side of the valve-casing, so as to force the valve in an upward direction against the seat 16 at the lower edge of the casing, a washer 17 being placed on the valve to form a tight joint with the seat. The walls of the valve-body are provided with vertical grooves or oil-ducts 18. The lower edge of the valve has an annular groove 19, in which is seated a washer 20. A recess 21, extending from the bottom upwardly into the valve, terminates in a reduced screw-threaded portion 22, engaged by the threaded end of the operating-rod 23, which extends downwardly through a stand-pipe 24, rising from the feed-head 25 and extending into the lower end of the recess 21 in the valve. This stand-pipe serves to prevent overflow and waste of oil adjacent to the operating-rod, and it also serves to guide the valve, as will be presently more fully described. The bottom 3^a of the measuring-chamber has a screw-threaded flanged opening 26 to receive the casing 27, which constitutes the lower valve-seat and which is connected by a pipe 28 with the feed-head 25, from which the aforementioned stand-pipe 23 extends through said pipe 28 upwardly into the recess 21 of the valve. It will be seen that by exerting downward pressure upon the operating-rod 23 the valve will be pulled downwardly and will be guided by the stand-pipe 23, engaging the recess 21, to a seat 29 at the upper edge of the casing 27. A washer 30 is interposed to make a tight joint between

the latter and the flange 31, surrounding the threaded opening 26 in the bottom of the measuring-chamber.

The feed-head 25 is simply a chambered casing forming an enlargement at the lower end of the pipe 28 and provided with a plurality of screw-threaded openings 31 of varying diameters, in which are fitted the upper ends of feed-pipes 32, likewise of varying diameters and through which the oil is conducted to the oil-ducts. Thus a large conducting-pipe 32 may be connected with a group of small oil-cups, while a large oil-cup may be fed by an individual pipe. In this manner the quantity of oil fed to the different oil-cups may be regulated, as will be readily understood.

The operation and advantages of this invention will be readily understood from the foregoing description, taken in connection with the drawings hereto annexed. It is obvious, in the first place, that the measuring-chamber may be made of any desired size to hold the exact quantity of oil required to be conveyed at one time to the oil-cups of the machinery in connection with which my improved lubricator is used. To operate the device, the operating-rod 23 is pulled downwardly against the tension of the spring 13 until the valve 11 engages the seat 29. While the valve is held in this position the contents of the tank or reservoir will pass through the openings 10 of the upper valve-casing and through the grooves 18 of the valve into the mixing-chamber. While the valve is held in this position it is obvious that no oil will be permitted to escape through the pipe 23 to the feed-head, the upper end of said pipe being closed by the valve engaging the seat 29 of the lower valve-casing. By making the openings 10 and ducts or grooves 11 of the proper size only a few moments will be occupied in the filling of the measuring-chamber, after which the operating-rod is released. The tension of the spring 13 will restore the valve to its normal position, as illustrated in Fig. 1 of the drawings, when the communication between the reservoir and the measuring-chamber will be cut off by the engagement of the valve with the seat 16 of the upper valve-casing. When the valve occupies this position, the contents of the measuring-chamber will pass through the pipe 28 to the feed-head, whence it is distributed through the pipes 32 to the oil-cups of the machine. The stand-pipe 24, as hereinbefore stated, serves as a guide to the valve and also to prevent overflow adjacent to the operating-rod of the device.

It will be seen that in this improved lubricator none of the working parts are exposed, the valve, as well as all of the working parts, being inclosed within the outer casing of the device. My improved lubricator may therefore be used in the most exposed positions without the least danger of getting out of

order or of any of its parts being injuriously affected by the weather.

The device is exceedingly simple in construction, and it may be easily operated with satisfactory results. With the exception of the valve the entire device and the parts thereof are stationary, and it is therefore easy of operation and not liable to get out of order.

I have in the foregoing described the preferred form of my invention; but I desire it to be understood that I do not limit myself with regard to the exact mode of construction herein shown and described, but reserve the right to any structural changes and modifications that come within the spirit and scope of my invention and which may be resorted to without sacrificing the utility of the same.

Having thus described my invention, I claim—

1. In a device of the class described, a tank having a measuring-chamber, a valve-casing in the bottom of said tank provided with openings in the walls thereof and with a vertical bore, a valve seated in said casing and having a cylindrical portion engaging the bore thereof and an upwardly-extending stem carrying a nut and washer, a spring coiled upon said stem between the washer and the valve-casing, a casing in the bottom of the measuring-chamber having an oil-outlet and a valve-seat adapted to be closed by the valve when operated against the tension of the spring, and valve-operating means.

2. In a device of the class described, a valve having a recess, reduced and screw-threaded at its inner end, an operating-rod engaging said reduced, screw-threaded portion, and a stand-pipe surrounding the operating-stem and engaging the recess of the valve.

3. A device of the class described having a lubricant-chamber, a feed-head and a valve controlling the passage of lubricant thereto from the chamber, said valve having a recess, in combination with a stand-pipe connected with the feed-head and engaging said recess, and an operating-rod extending through said stand-pipe and connected with the valve.

4. In a device of the class described, a tank having a measuring-chamber, a casing in the bottom of said tank having oil-passages and a valve-seat, a spring-pressed valve engaging said seat and having oil-ducts communicating with the measuring-chamber when the valve is operated against the tension of the spring, a casing in the bottom of the measuring-chamber having an oil-outlet and a seat adapted to be engaged by the valve to close said oil-outlet, a feed-head connected with the casing and a stand-pipe rising from said feed-head and engaging a recess in the under side of the valve.

5. In a device of the class described, a tank having a measuring-chamber, a casing in the bottom of said tank having oil-passages and a valve-seat, a spring-pressed valve engaging

said seat and having oil-ducts in the walls thereof and provided in its under side with a recess reduced and screw - threaded at its inner end, a casing in the bottom of the
5 measuring-chamber having an oil-outlet and a seat adapted to be engaged by the valve to close said oil-outlet, a feed-head connected with the casing, a stand-pipe rising from said feed-head and engaging the recess in the un-
10 der side of the valve, and an operating-rod

extending through said stand-pipe and engaging the reduced screw-threaded inner end of said recess.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in 15 the presence of two witnesses.

GOTTLIEB SCHNEIDER.

Witnesses:

PIERRE E. KING,
JAMES P. HALE.