No. 750,053. PATENTED JAN. 19, 1904.

S. M. HALL.

LUBRICATOR.

APPLICATION FILED FEB. 11, 1903.

NO MODEL.

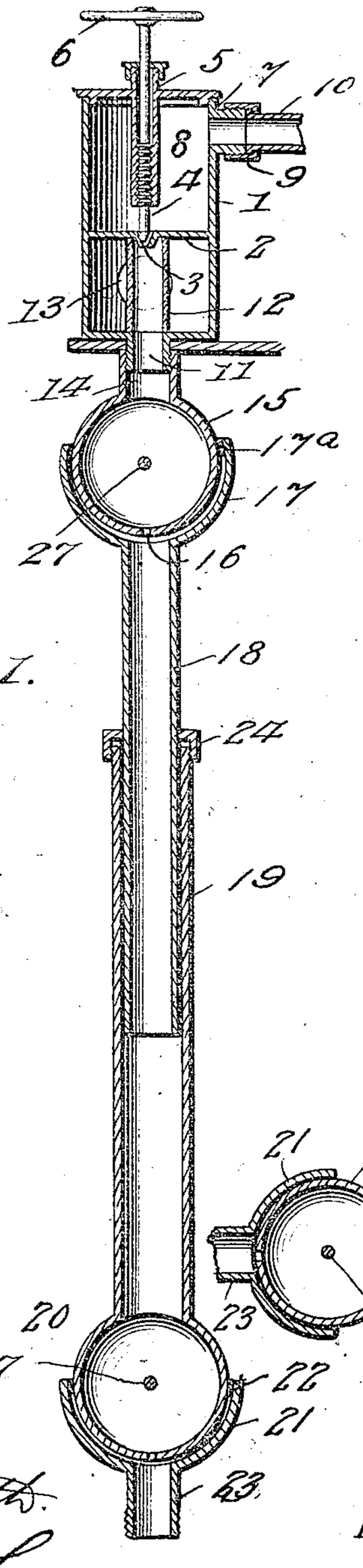

Fig. 1.

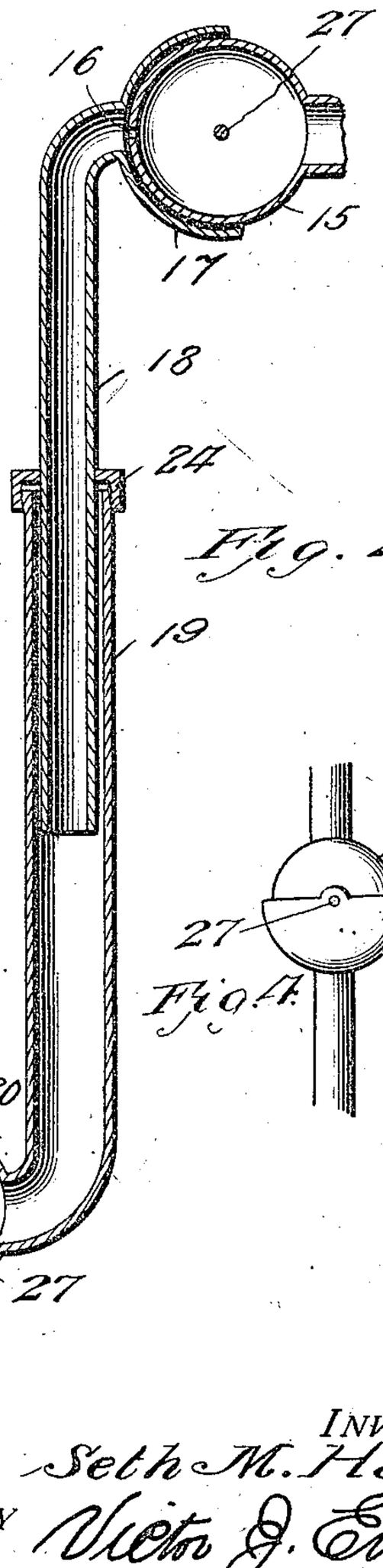

Fig. 2.

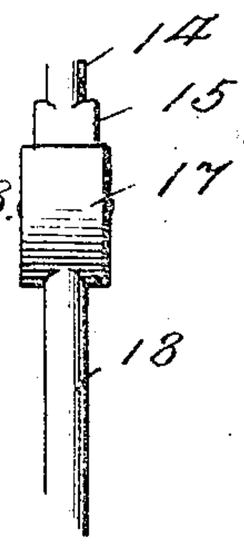

Fig. 3.

Fig. 4.

WITNESSES:

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No. 750,053. Patented January 19, 1904.

UNITED STATES PATENT OFFICE.

SETH M. HALL, OF AKRON, NEW YORK.

LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 750,053, dated January 19, 1904.

Application filed February 11, 1903. Serial No. 142,914. (No model.)

To all whom it may concern:

Be it known that I, SETH M. HALL, a citizen of the United States, residing at Akron, in the county of Erie and State of New York, have invented new and useful Improvements in Lubricators, of which the following is a specification.

My invention relates to new and useful improvements in lubricators especially adapted for lubricating journals in oscillating or reciprocating parts of machinery; and its object is to provide a device of simple and inexpensive construction which obviates the necessity of employing oil-cups and makes it possible to simultaneously regulate the quantity of oil supplied to all of the bearings.

The invention consists in providing a receptacle which may be connected to a suitable supply, and said receptacle has a valve therein for regulating the flow of oil therefrom. A system of telescoping pipes and movable joints therebetween is provided whereby oil is conducted without waste from the receptacle directly to the bearing which it is desired to lubricate.

With the above and other objects in view the invention consists in the further novel construction and combination of parts, which will be more fully hereinafter described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a longitudinal sectional view through my improved lubricator. Fig. 2 is a similar view through a modified form. Fig. 3 is a side elevation of one of the joints used in connection with this lubricator, and Fig. 4 is a side elevation of a modified form of joint.

Referring to the figures by numerals of reference, 1 is a receptacle having a partition 2 extending transversely thereof and provided with an outlet 3. This outlet is adapted to receive the tapered end of a valve-stem 4, which is screw-threaded and revolubly mounted within a stuffing-box 5, which is arranged in the top of the receptacle. A hand-wheel 6 is located at the outer end of the stem to enable the same to be readily turned. An inlet 7 is arranged adjacent to the top of the compartment 8, between partition 2 and the top of the receptacle, and this inlet is adapted to be connected, by means of a union 9 or any other suitable device, to a pipe 10, extending from an oil-container of any desired form. (Not shown.) An outlet 11 is arranged within the bottom of receptacle 1, and a tube 12, preferably of glass, incloses said outlet, as well as outlet 3, before referred to, and serves to direct the oil from one of said outlets to the other. An aperture 13 is formed in one side of receptacle 1, so as to permit the glass tube 12 to be readily inspected. A pipe 14 is detachably secured to the bottom of receptacle 1 and around the outlet 11 therein, and at the lower end of this tube is arranged a cylindrical extension 15, the axis of the cylinder being horizontal, having an outlet 16 therein at a point opposite to the inlet-pipe 14. This extension rests within a semicircular cup 17, and a washer 17ª of suitable material is interposed between the curved surface of said extension and the inner surface of the cup. An outlet-pipe 18 projects downward from the center of cup 17 and extends into the end of a pipe 19, having an extension 20 at its other end which is similar in construction to the extension 15, before referred to. This extension is seated within a semicylindrical cup 21, having a washer 22 therein at its edge, and an outlet-pipe 23 extends from the center of the cup and is adapted to be secured to that portion of a machine which it is desired to lubricate.

Oil is admitted to the receptacle 1 through pipe 10, and said pipe may have a valve therein at the point where it is connected to the supply, and said valve may be so arranged as to control a series of pipes, each of which is connected to a receptacle similar to the one herein described. As the oil passes into the compartment 8 it flows downward through the outlet 3, tube 12, and outlet 11 into the extension 15. It then passes through the outlet 16 into cup 17 and down through the pipes 18 and 19 to extension 20 and cup 21. As spaces are formed between the adjoining surfaces of the extensions and cups, the oil will be free to flow from the extensions into the cups whether or not the outlets therein are directly above the pipes, which are normally in position there-

under. The flow of oil from each receptacle 1 may be regulated by means of the valve-stem 4.

In Fig. 2 I have shown a construction similar to that illustrated in Fig. 1; but the extensions and cups are illustrated in positions at right angles to the pipes 18 and 19. If desired, a stuffing-box 24 may be connected to the lower pipe 19 and be slidably mounted upon pipe 18. This is especially adapted to be used where the pipes are arranged horizontally. In lieu of providing a cylindrical extension 15 a hollow spherical extension 25 may be used and fitted and adapted to work within a hemispherical cup 26. I have illustrated this construction in Fig. 4.

In both forms of lubricators described and shown the hollow extensions are mounted upon pivot-pins 27, which are journaled within the cups in any suitable manner. As shown in the drawings, these pins can either extend through the side walls of the cups or through ears forming extensions thereof.

In the foregoing description I have shown the preferred form of my invention; but I do not limit myself thereto, as I am aware that modifications may be made therein without departing from the spirit or sacrificing the advantages thereof, and I therefore reserve the right to make such changes as fairly fall within the scope of my invention.

Having thus described the invention, what is claimed as new is—

1. In a device of the character described, the combination with a receptacle having a transverse partition therein with an outlet therethrough; of a valve within said outlet, a transparent tube extending from said outlet to the bottom of the receptacle, an outlet in the bottom of the receptacle and below the tube, a hollow extension communicating with said outlet, a cup for the reception of the extension, a pivot-pin for supporting the extension in the cup, a washer within the cup, a pipe projecting from the cup, and an outlet in the extension.

2. The combination with a receptacle having an outlet and an inlet; of a transverse partition therein having an outlet, a valve in the latter outlet, a transparent tube inclosing and connecting the two outlets, telescoping pipes, a cup at one end of one of the pipes, a hollow extension communicating with the first-mentioned outlet and projecting into the cup, means for spacing apart the adjoining surfaces of the extension and cup, a hollow extension at the free end of the other pipe, a cup adapted to receive the same, means for spacing apart the adjoining surfaces of said extension and cup, a securing-pipe extending from said cup, pivot-pins for supporting the extensions in the cups and an outlet within each of the extensions.

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

SETH M. HALL.

Witnesses:
HOWARD HALL,
JOS. J. GEGGIS.