

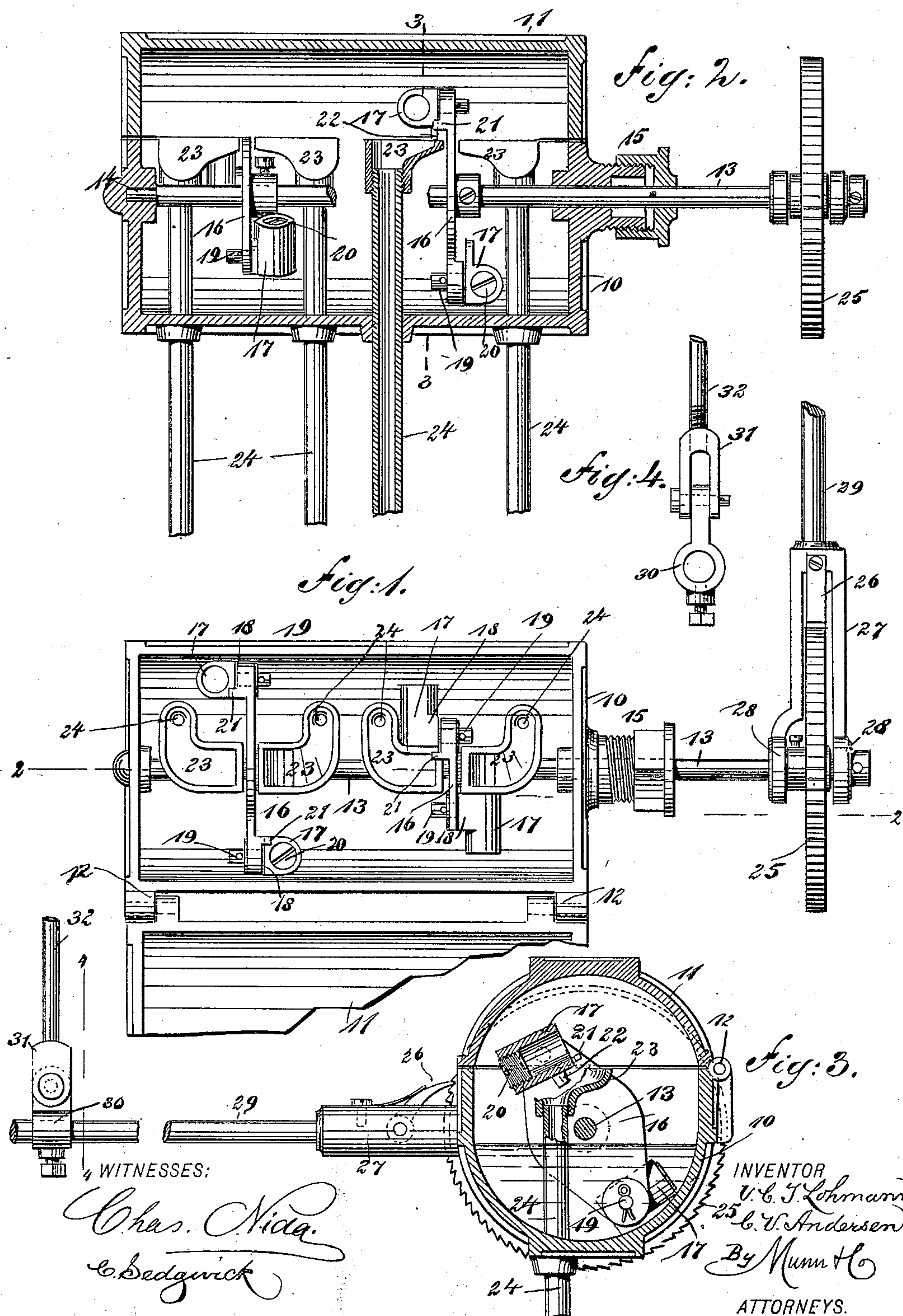
(No Model.)

V. C. T. LOHMANN & C. V. ANDERSEN.

LUBRICATOR.

No. 494,106.

Patented Mar. 21, 1893.



UNITED STATES PATENT OFFICE.

VILHELM C. TH. LOHMANN AND CARL V. ANDERSEN, OF COPENHAGEN,
DENMARK.

LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 494,106, dated March 21, 1893.

Application filed October 4, 1892. Serial No. 447,820. (No model.) Patented in Denmark November 10, 1891, No. 467.

To all whom it may concern:

Be it known that we, VILHELM C. TH. LOHMANN and CARL V. ANDERSEN, at present residing at Copenhagen, Denmark, have invented a new and Improved Lubricator, (for which we have obtained Letters Patent in Denmark, No. 467, dated November 10, 1891,) of which the following is a full, clear, and exact description.

Our invention relates to improvements in lubricators such as are adapted to deliver automatically a required quantity of oil to moving parts of machinery; and the object of our invention is to produce an extremely practical lubricator which is also durable and cheap, which may be operated by the machinery which it lubricates, and which may be easily and nicely adjusted so as to deliver just the required quantity of oil.

To this end our invention consists in certain features of construction and combinations of parts, which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a broken plan view of the lubricator, with the cover thrown back. Fig. 2 is a longitudinal section on the line 2—2 in Fig. 1. Fig. 3 is a cross section on the line 3—3 in Fig. 2; and Fig. 4 is a detail view of the coupling connecting with the operating arm, on the line 4—4 in Fig. 3.

The lubricator has a main reservoir 10, with a swinging cover 11, which is hinged to the reservoir on one side, as shown at 12, and extending longitudinally through the reservoir is a shaft 13, one end of which is journaled in the end of the reservoir, as shown at 14, and the other end portion of which projects through a stuffing box 15, at one end of the reservoir. The shaft 13 carries oblong plates 16, which are secured to it near the center and are held to turn within the reservoir, and these plates have pivoted to their opposite ends and opposite sides, buckets 17, the buckets having flattened sides 18, to enable them to lie snugly against the plates and trunnions 19, which are journaled transversely in the plates and held in place by split pins or equivalent devices.

The bottom of each bucket consists of a screw plug 20, which screws into the bucket, and by adjusting the plug the bucket may be made to hold the desired quantity of oil. The buckets are prevented from tipping over too far as they pass above the shaft 13 by stops or studs 21, which project from the plates 16, and the buckets have on one side a short arm 22, which when the buckets are raised, is adapted to engage a funnel 23, which is held stationary and in the path of the buckets, and the movement of the buckets will cause them to be tipped up, when the arms strike the funnels, and the oil will be poured from the buckets into the funnels. The funnels 23 are arranged in pairs, there being two buckets to each plate 16, and the buckets are supported in a horizontal position above the shaft 13 and have their inner ends made flat so as to bring them near to the plates. Opening from the deeper ends of the buckets are pipes 24 which extend downward through the bottom of the reservoir 10 and carry the oil to the parts which are to be lubricated. The shaft 13 has on its outer end a ratchet wheel 25, which is engaged by a spring-pressed pawl 26 on a yoke 27, and the yoke straddles the ratchet wheel and has its arms journaled, as shown at 28, on the shaft 13. Extending outward from the end of the yoke 27, is an arm 29 which carries a clamping ring 30, to which is pivoted a coupling 31, and to this coupling is secured a rod 32, which extends at right angles to the arm 29 and is adapted to connect with any suitable driving mechanism, but the connection should be such as to reciprocate the rod 32. It will be seen that when the rod is reciprocated it will move the arm 29 back and forth, and this acting on the pawl 26 and ratchet wheel 25, will turn the ratchet wheel 25 and the shaft 13 in a constant direction, and the rotation of the shaft carries the plates 16 and lifts the buckets one by one, and as the buckets are lifted, they deposit their loads of oil in the funnels 23 in the manner already described, and thus a uniform supply of oil is fed to the parts which are to be lubricated.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. A lubricator comprising the reservoir 10 having a cover or lid 11, the shaft 13 mounted in bearings in the ends of the reservoir and provided with means for rotating it, a cross arm on the shaft within the reservoir, a bucket pivoted to said arm and provided with a lug 22, a lug 21 on the arm in the path of the upper edge of the bucket, a discharge pipe leading from the reservoir to the part to be lubricated and provided at its upper end with a funnel 23 the upper edge of which is in the path of the lug 22 to cause the bucket to dump its contents into the funnel, substantially as set forth.

15 2. The combination with the oil receptacle

and two funnels placed side by side therein and provided with discharge pipes, of a shaft extending below the funnels and having a cross arm, the ends of which pass between the adjacent sides of the funnels, buckets pivoted 20 to the ends of the cross arm and at opposite sides thereof and each having a projecting portion to engage the respective funnel and tip or dump it, substantially as set forth.

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Witnesses:

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