No. 816,741. PATENTED APR. 3, 1906.

C. C. RIOTTE.

LUBRICATING MECHANISM.

APPLICATION FILED NOV. 14, 1905.

2 SHEETS—SHEET 1.

Fig. 1.

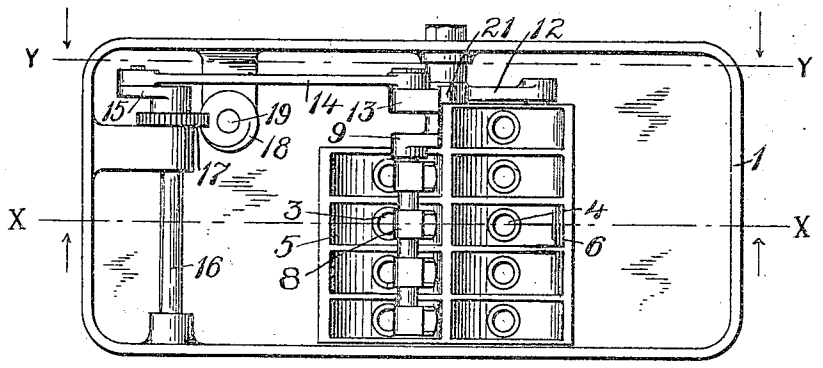
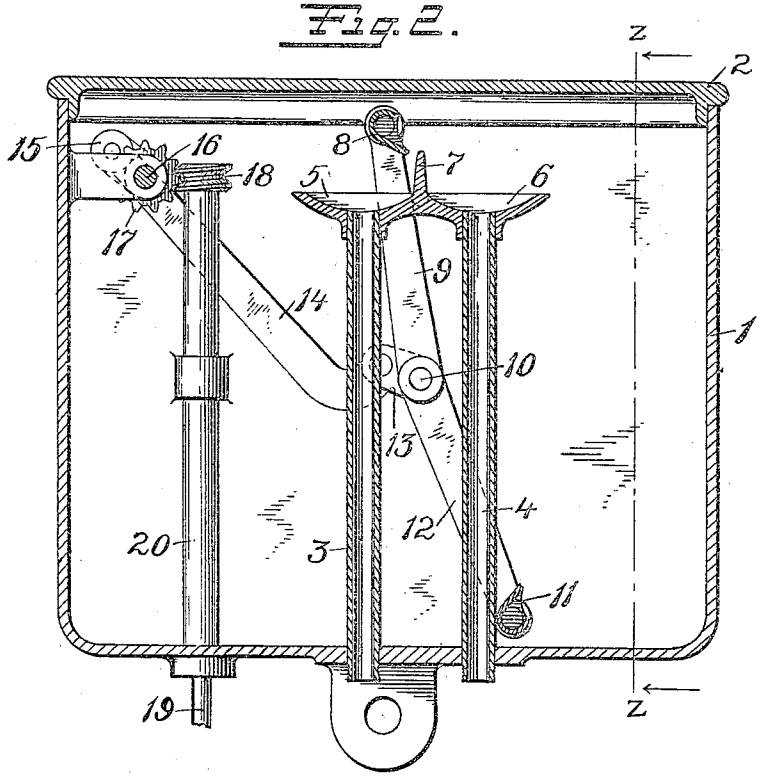


Fig. 2.



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2 SHEETS—SHEET 2.

Fig. 4.

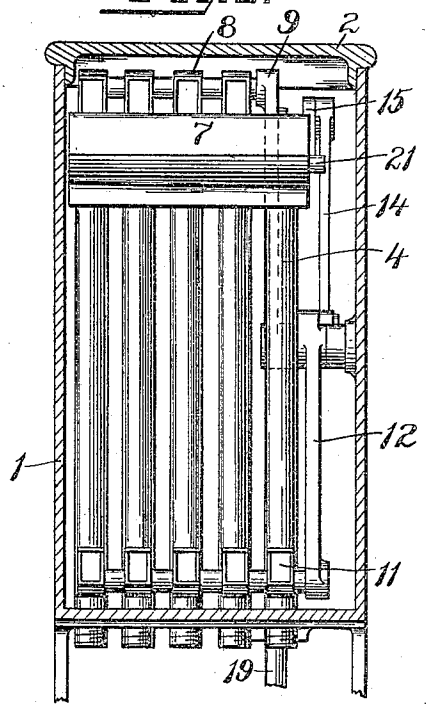
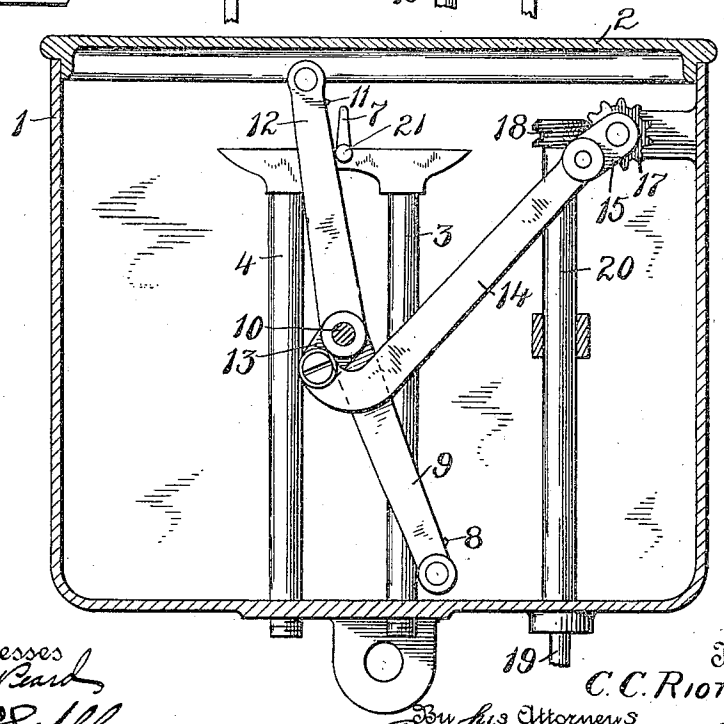


Fig. 3.



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UNITED STATES PATENT OFFICE.

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LUBRICATING MECHANISM.

No. 816,741. Specification of Letters Patent. Patented April 3, 1906.

Application filed November 14, 1905. Serial No. 287,232.

To all whom it may concern:

Be it known that I, CARL C. RIOTTE, a citizen of the United States, residing at 172 Whiton street, Jersey City, Hudson county, New Jersey, have invented certain new and useful Improvements in Lubricating Mechanism, of which the following is a full, clear, and exact description.

My invention relates to improvements in mechanism for distributing lubricants.

The object of the invention is to provide a simple and reliable mechanism for distributing a lubricant, such as oil, to a plurality of pipes. I have particularly sought to construct an apparatus so that the feed will be definite and capable of proportionment to the speed of the motor or moving part to be lubricated. I have also sought to construct the mechanism so that the feed will be controlled, preferably, by gravity and the lubricant distributed intermittently.

The invention consists in improvements the principles of which are illustrated in the accompanying two sheets of drawings. Briefly, it comprises a casing adapted to contain the principal body of the lubricant. Inside the casing and above the normal level of the oil are located a series of pockets having discharge-pipes leading outside the casing, which pockets are intermittently supplied with oil from a series of buckets which are dipped down into the body of the lubricant and are lifted up by means of mechanism driven from the exterior of the casing. The construction is such that the series of buckets, while dipped and lifted quickly, are nevertheless made to hesitate or remain substantially stationary when over the pockets for a sufficient length of time to permit substantially all of the lubricant contained in the buckets to run out into said pockets. The number of buckets and pockets and the particular construction is unimportant to the principles of the invention, but are shown and will be described in the preferred form.

Figure 1 is a plan view of an apparatus embodying my invention, the cover being removed. Fig. 2 is a vertical section on the plane of the line X X, Fig. 1, looking in the direction of the arrows. Fig. 3 is a similar section on the plane of the line Y Y, Fig. 1, looking in the direction of the arrows. Fig. 4 is a vertical section on the plane of the line Z Z, Fig. 2, looking in the direction of the arrows.

1 is a casing or receptacle forming a chamber adapted to contain a lubricant. This is adapted to be secured to any convenient place in any well-known manner.

2 is the cover of the receptacle, making an inclosure from which the oil cannot be accidentally thrown.

3 and 4 are discharge-pipes at the lower ends of which the usual distributing-pipes (not shown) are adapted to be attached. Any number of these discharge-pipes may be employed; but, as shown, they are preferably arranged in two series across the casing for the sake of compactness. 5 and 6 are pockets for pipes 3 and 4, respectively, into which the oil is adapted to be dropped. The pockets for all of the discharge-pipes may very conveniently be formed in a single casting. I have shown the two series of pockets 5 and 6 separated by the rib 7, which assists in preventing the oil from being spilled from the buckets in one series over into the other.

8 represents a bucket. A series of these buckets 8 are carried by a lateral extension from the arm 9, which latter is pivoted at 10. A series of buckets 11 are carried by a lateral extension from the arm 12. The two arms 9 and 12 may be formed by a single casting with an eccentric or short crank-arm 13.

14 is a rod connecting the crank-arm 13 with the crank-arm 15.

16 is a shaft carrying an eccentric or crank-arm 15 and a worm-wheel 17.

18 is a worm meshing with the wheel 17 and carried by the shaft 19 above the normal oil-level.

20 is a bearing and packing tube carried by the casing.

21 is a stop-shoulder which is preferably provided so that should the parts become worn the momentum cannot carry the arms 9 and 12 beyond the proper discharge positions over their pockets.

The distance between the centers 10 and 16 is slightly less than the length of the connecting-rod 14, so that there is no danger of the cranks 13 15 ever getting on a dead-center.

The shaft 19 may be connected to any source of power, so that it will be driven at a rate corresponding thereto. The rotation of the shaft 19 transmits motion to the arms 9 and 12, so that said arms will oscillate or rock on their common axis. By this motion first one set of buckets and then the other is

brought into the discharge position above the pockets 5 6. Each time that the end of the crank 15 passes the line of center of the shafts 10 and 16 the frame changes its direction of movement, and its motion is delayed or retarded with one or the other set of buckets above the discharge-pockets, so that a sufficient time is given for the oil to drip from the buckets. This results in substantially the complete discharge of all the lubricant contained in the bucket, even though the oil be somewhat viscous. As the crank 15 moves from the center line on one side to the center line on the other side it will cause the relatively quick ascent and descent of the buckets.

This invention is particularly directed to a gravity-feed oiler; but it is obvious that pressure might be applied within the casing to aid in forcing the oil or lubricant to its destination, thus to a certain extent combining the advantages of the force-feed oiler without its disadvantages.

What I claim is—

1. In a lubricating device, a casing, a plurality of distributing-pockets with discharge-outlets, a series of buckets, a frame carrying said buckets, and means for oscillating said frame to bring said buckets alternately into position over said pockets.

2. In a lubricating device, a casing, two series of discharge-outlets, each of said series including a plurality of distributing-pockets, two series of buckets for said distributing-pockets, a frame carrying said buckets, and means for oscillating said frame to bring said buckets alternately into position over said pockets.

CARL C. RIOTTE.

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