

J. LOVELL.
LUBRICATING SYSTEM.
APPLICATION FILED SEPT. 8, 1911.

1,043,853.

Patented Nov. 12, 1912.
2 SHEETS—SHEET 1.

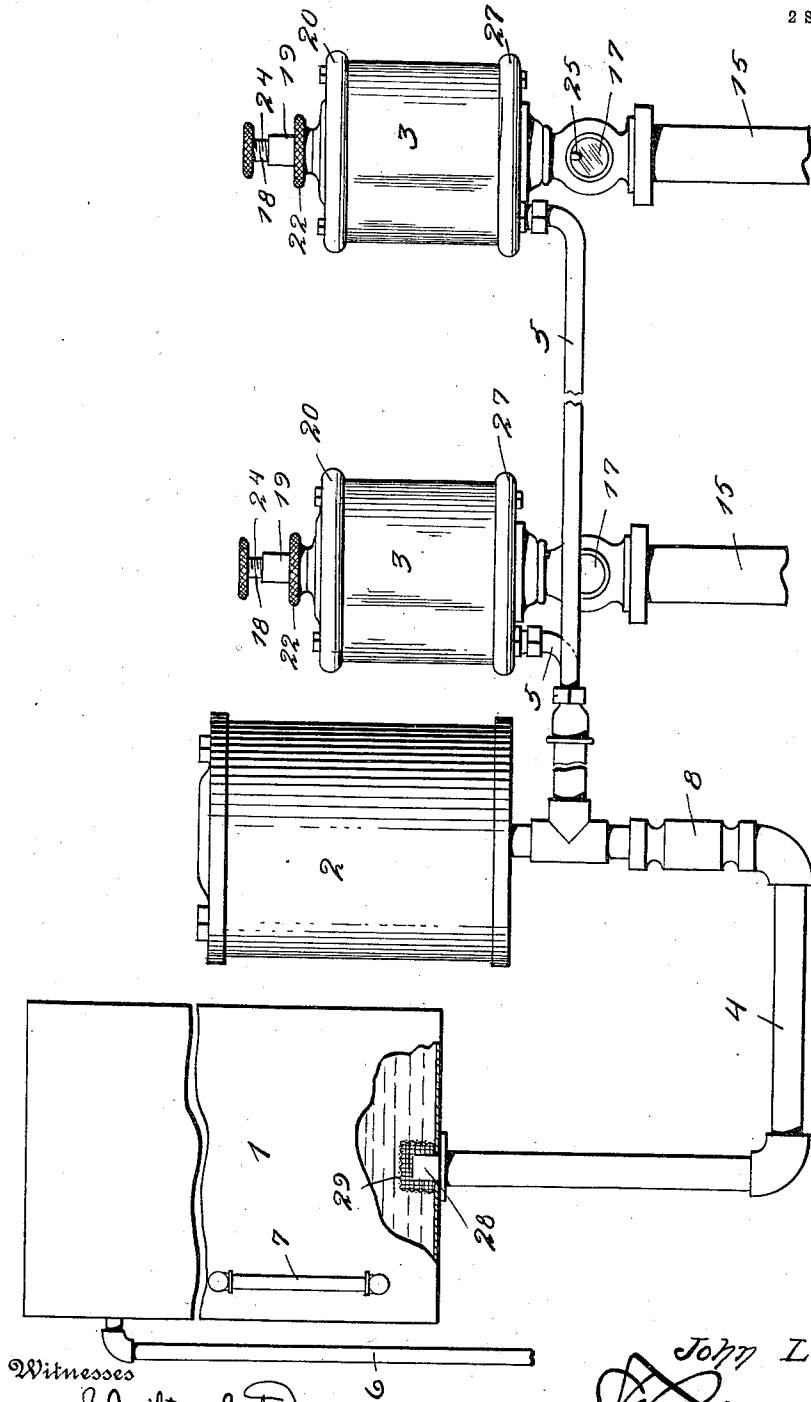


Fig. 1.

Witnesses

J. Milton Foster.
D. M. Dwyer

Inventor

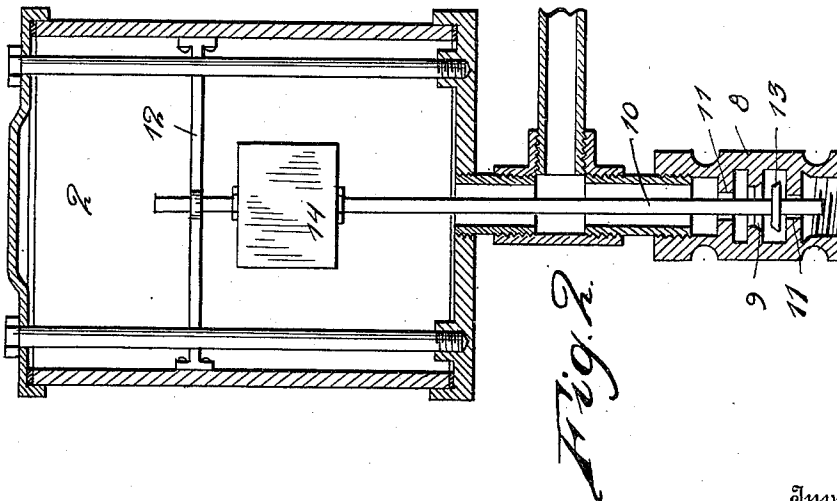
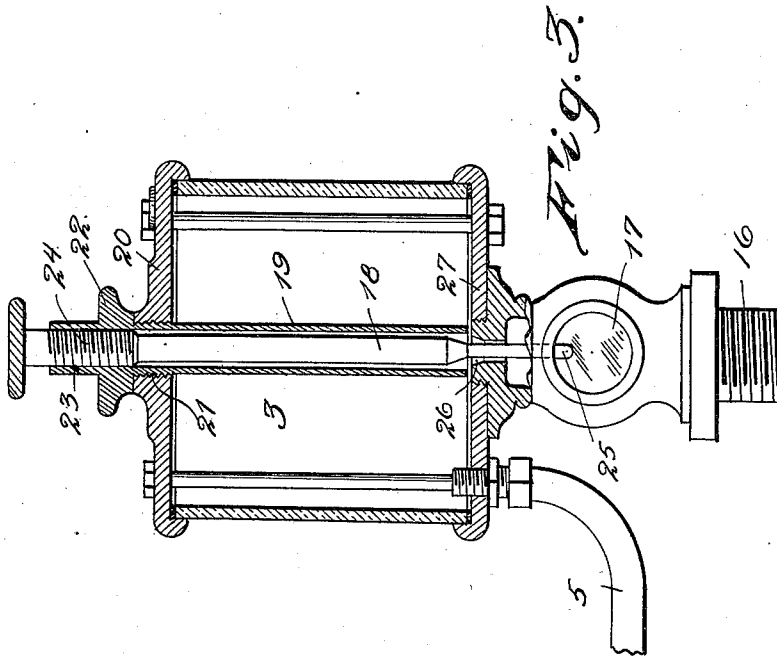
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UNITED STATES PATENT OFFICE.

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LUBRICATING SYSTEM.

1,043,853.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN LOVELL, a citizen of the United States, residing at Conneaut, in the county of Ashtabula and State of Ohio, have invented certain new and useful Improvements in Lubricating Systems, of which the following is a specification.

My invention relates to lubricating systems for machinery and has for its object the provision of means for supplying the various oil cups for the several journals, and other parts to be lubricated, from a common supply station that is furnished with a float controlled valve arranged in a pipe connected to main supply tank, this construction securing a common level in the supply stations and the several oil cups at all times and enabling the engineer at all times to know whether the several oil cups are supplied with oil, and to dispense with the necessity for manually handling the oil.

My invention will be described in detail hereinafter and illustrated in the accompanying drawings in which—

Figure 1 is a view of the several component parts of my system in an assembled position, Fig. 2, a view in section of the auxiliary or common supply tank and controller valve in elevation, Fig. 3, a view on an enlarged scale of one of the oil cups.

In the drawings similar reference characters will be used to designate corresponding parts in the several views.

My improved system comprises a main supply tank 1, an auxiliary or common supply tank 2 and any number of oil cups 3, supply tank 1 and auxiliary tank 2 being connected by a pipe 4 and auxiliary tank 2 and oil cups 3 being connected by pipes 5.

The main supply tank 1 is filled from a suitable filter (not shown) through a pipe 6 and is furnished with a sight gage 7 of conventional type.

8 indicates a valve casing tapped into pipe 4 and having a valve seat 9 therein, 10 designating a valve stem slidably mounted in guide members 11 in casing 8 and a guide member 12 secured in tank 2; valve stem 10 having a valve piston 13 mounted thereon that is adapted to engage valve seat 9, and a float 14 secured thereto and located in tank 2.

Each of the oil cups 3 is connected with the part to be lubricated by means of a pipe 15 that is connected with a nipple 16 on the

bottom of the cup, said nipple being furnished with a sight glass 17.

18 indicates a needle valve stem that is slidably mounted in tube 19 adjustably mounted in the cap plate 20 of each cup 3, said tube having threaded connection with said cap plate 20, as shown at 21, and a milled wheel 22. The interior of tube 19 is also threaded as shown at 23 and the valve stem 18 is also threaded as shown at 24 and engages threads 23.

25 indicates a reduced end of stem 18 and constitutes a dropper on the end of said stem that extends into nipple 16 through opening 26 in the bottom plate 27 of each valve cup 3.

Supply pipe 4 extends upwardly in the main tank 1 an appreciable distance above the bottom of the tank as shown at 28, and 29 indicates a hood of fine wire gauze that covers the inlet to said pipe 4 to prevent sediment from getting into the system.

In operation the main tank 1 being filled with oil, through the pipe 6, it flows by gravity therefrom through pipes 4 and 5 into the auxiliary tank 2 and cups 3 until the oil is sufficiently high in tank 2 to lift the float 14 and with it valve stem 10 and piston 13 into engagement with valve seat 9. The flow of oil through pipe 4 will be discontinued when the piston 13 is in engagement with valve seat 9 but the feed of oil will continue through pipes 5 from the auxiliary tank 2 to cups 3 and maintain the oil on a common level in said tank 2 and cups 3. As soon as enough oil has flowed from cups 3 and tank 2 to lower the level of the oil in tank 2 sufficiently to open the valve 13, the flow from main tank 1 through pipe 4 will be resumed and continue until the valve is again closed by raising the level of the oil.

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

A lubricating system comprising a main supply tank, an auxiliary supply tank, a plurality of oil cups in the same horizontal plane with the auxiliary tank and each having a valve controlled outlet, a main pipe connection between the bottoms of the main supply and auxiliary tanks, said pipe connection having an unobstructed interior to permit free passage of oil therethrough, a guide in the auxiliary tank, a stem therein, a float secured to the stem and located in the

auxiliary tank, branch pipes between said
main pipe connection and the bottoms of the
oil cups, said branch pipes having unob-
structed interiors to permit the free pas-
5 sage of oil therethrough, a valve casing in
the main pipe connection and between the
auxiliary tank and the branch pipes, and a
valve in the casing and secured to the stem,

said valve normally closing communication
between the main and auxiliary tanks, said 10
auxiliary tank and the oil cups being con-
stantly in communication.

JOHN LOVELL.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
