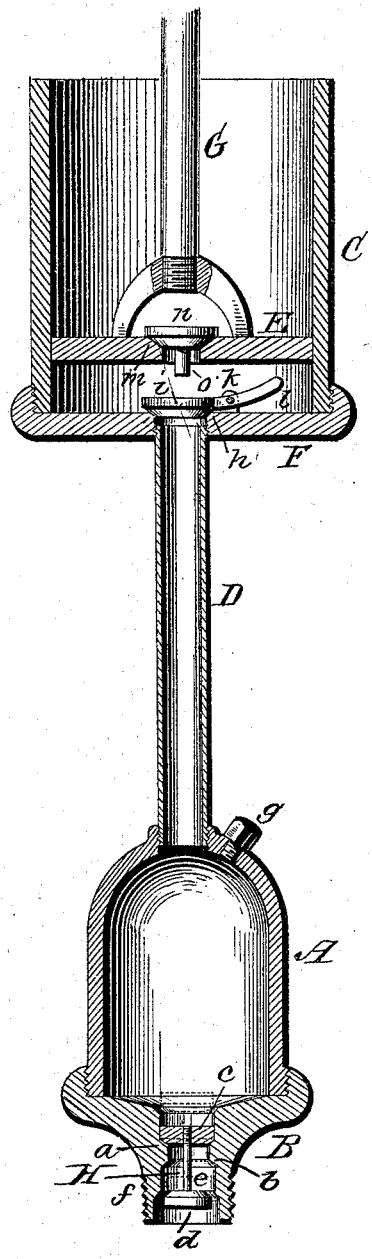
(No Model.)

H. PENNINGTON.

LUBRICATOR.

No. 526,816. Patented Oct. 2, 1894.



Witnesses
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UNITED STATES PATENT OFFICE.

HUMBOLT PENNINGTON, OF MACON, MICHIGAN.

LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 526,816, dated October 2, 1894.

Application filed February 19, 1894. Serial No. 500,686. (No model.)

To all whom it may concern:

Be it known that I, HUMBOLT PENNINGTON, a citizen of the United States, residing at Macon, in the county of Lenawee and State of Michigan, have invented certain new and useful Improvements in Lubricating Devices; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawing, making a part of this specification, and to the letters of reference marked thereon.

The present invention has for its object to provide a simple and effective means for oiling or lubricating the journals or bearings of machinery, and consists in a device constructed substantially as shown in the drawing and hereinafter described and claimed.

The accompanying drawing shows a sectional elevation of my improved oiling or lubricating device, in which A represents the cup for containing the oil of any suitable shape and capacity and having connected to its lower end a screw cap B. The screw-nipple on the cap B connects with a screw hole made in the journal-box directly over the journal and a small hole is drilled through the box to form a communication with the outer atmosphere and the space between the journal and screw nipple so as to allow the air to pass therein in order to operate the lower one of the valves. This however is no part of the invention and is consequently not shown in the drawing, the lubricating device being complete in itself and left to the mechanic or other person to fit it to the journal-box over the journal and drill therein the necessary passage for the air. This screw cap B has a central opening communicating with the interior of the oil cup A, which opening has two valve seats *a b* for the valves *c d* respectively. These valves are connected to a single stem *e* thus forming a double or compound valve operating in connection with the upper and lower valve-seats.

The screw cap B may be of any suitable shape and has a screw neck *f* whereby it may be connected to any part of the machinery located over the journal or bearing to be oiled or lubricated. The cup A has an opening at its upper end which is closed by a screw-plug *g* and through this opening the cup may be filled with the lubricating material.

The cup A is connected with a pump cylinder C through the medium of an air tube D, thus forming a communication between the cup and cylinder by the action of a piston E operating in the cylinder.

The lower end of the cylinder C has connected to it a screw cap or head F which cap has a central opening provided with a valve seat *h*, the tube D being connected to this head on line with the opening thereof, as shown in the drawing.

A valve *i* engages with the seat *h* to close communication between the pump cylinder and the tube and oil cup, which valve is pivoted to a projecting lug *k* upon the cylinder head F and has a trip-lever *l* whereby the valve may be operated by the action of the piston coming in contact with the trip-lever in the downward stroke of the piston.

The piston E has a central opening in which is a valve-seat *m* for the valve *n*, said valve being located above the piston and having a downwardly projecting stem *o*, said piston having the usual rod G connecting with any suitable mechanism for operating it.

The oil cup being supplied with oil and the piston operated by a lever or other power, the air will be exhausted from the cup and tube and the pressure of the atmosphere on the valve *d* will force it against the seat *b* and at the same time force upward off the seat *a* the valve *c*, as the two valves are connected to a single stem and consequently operate simultaneously. Raising the valve *c* off its seat to the position shown in dotted lines, will allow the oil from the cup to pass down to fill the chamber H formed by the space between the two valves. At the downward stroke of the piston E it will come in contact with the trip-lever *l* and by pressure open the valve *i* which valve as it is forced up off its seat will strike the stem *o* of the valve *n* and raise it off its seat, thus opening the two valves and allowing air to pass down into the tube which will cause the valve *c* to close and the valve *d* to open for the discharge of the oil remaining in the space or chamber H upon the journal or bearing.

It should be understood that when the

pressure of the atmosphere is removed from above the oil in the cup, the pressure of the atmosphere below the body of oil and against the lower one of the valves will be sufficient to overcome the weight of the oil against the upper one of the valves which will be raised off its seat and the lower valve closed, thereby allowing a given quantity of oil to pass into the space between the valves, which oil will be discharged when the upper and lower valves are closed and opened respectively.

Any suitable air pump may be employed in connection with the oil cup and valves as found most desirable, and any number of cups may be used located over the several journals or bearings of any piece of machinery and the cups being connected with each other by suitable tubes and said tubes connected with an air pump, whereby the several devices may be operated simultaneously.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a lubricating device, the combination with a suitable air pump, of an oil cup having double valve seats a tube connecting it with the pump, a chamber for the oil between the seats, and two valves connected to a single stem and operating simultaneously by the action of the pump to close and open the chamber respectively for the supply and discharge of the oil, substantially as and for the purpose set forth.

2. In a lubricating device, the combination with a pump cylinder and an oil cup communicating with each other by means of a tubular connection, a piston working in the cylinder carrying an upwardly opening valve over the tubular connection and having a valve stem, and a pivoted valve upon the head of the cylinder having a trip-lever adapted to be operated by the piston and which strikes the valve stem, a chamber for the oil in the lower end of the cup having two valve-seats and a double valve operating in connection therewith, substantially as and for the purpose described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

HUMBOLT PENNINGTON.

Witnesses:
NOEL A. COUGER,
CHARLES BURRIDGE.