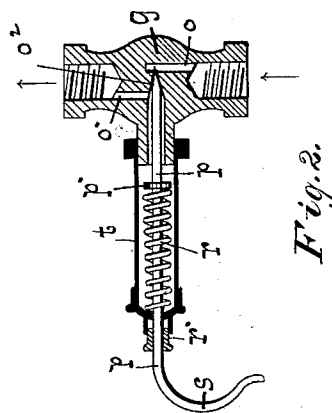
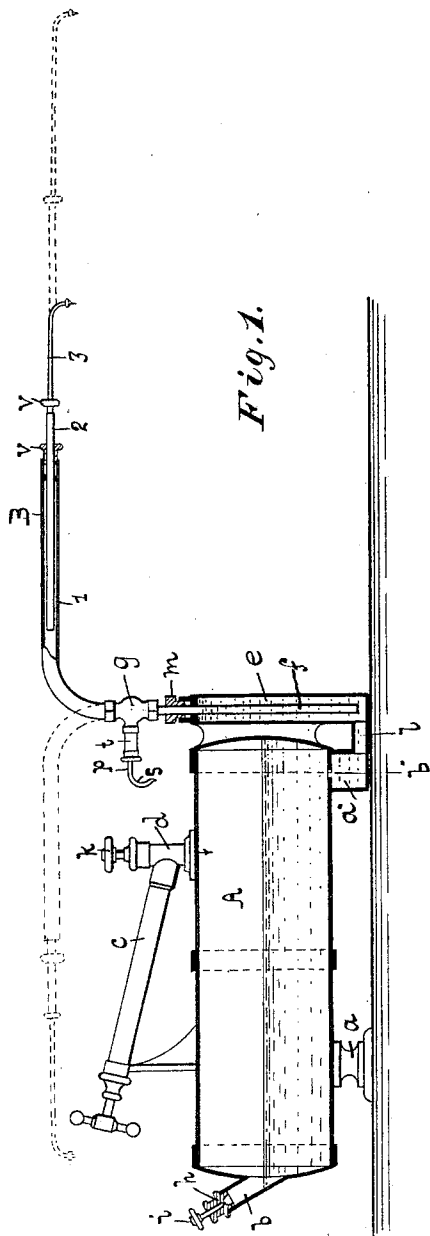


J. S. HULL.
LUBRICATING OIL CAN.

Patented Aug. 25, 1885.



Wilson Ringle
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INVENTOR:
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UNITED STATES PATENT OFFICE.

JOHN S. HULL, OF BALTIMORE, MARYLAND.

LUBRICATING OIL-CAN.

SPECIFICATION forming part of Letters Patent No. 325,087, dated August 25, 1885.

Application filed February 26, 1885. (No model.)

To all whom it may concern:

Be it known that I, JOHN S. HULL, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented new and useful Improvements in Lubricating Oil-Cans, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to improvements in lubricating oil-cans in which the oil is ejected therefrom by pneumatic pressure; and the object of my improvements are, first, to have the lubricant or oil under pneumatic pressure, whereby it may be ejected at the desired time and on the proper place; second, to use a spring ejection-valve, that the same will be quick in its action; third, having the nozzle telescopic, that it may be extended when so desired; fourth, having the same swiveled, that it may be turned back over the oil-receptacle when not in use, and, fifth, devices arranged to successfully operate the whole. I attain these objects by mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a vertical section through the device with parts shown in full, and Fig. 2 an enlarged detail view of the discharge-valve in section.

Similar letters refer to similar parts throughout the several views.

The letter A designates the oil-receptacle, which may be formed in any desired shape, and is supported on the legs *a* and *a'*, and is provided with a filling-port, *b*, an exit-port, *b'*, in the leg *a'*, the air pump *c*, which communicates with the oil-receptacle, and having a cut-off valve, *d*, an auxiliary chamber, *e*, with the pipe *f* extending to the bottom thereof, the spring-valve *g*, and the telescopic nozzle B, the whole described hereinafter in detail, with their respective functions, as follows: The legs *a* and *a'* are secured to the receptacle A in any suitable manner, and upon them the receptacle is held to its proper position when not in use. The leg *a'* is hollow, by which communication is formed with the auxiliary chamber *e*, thereby forming a passage for the oil from the receptacle A to the discharge-nozzle B.

The filling-port *b* consists of a neck secured at an angle to one of the heads of the receptacle A, and is provided with a screw-cap, *h*, in which is a needle-valve, *i*, the stem of which

is threaded into the cap, the function of the latter being to permit the air to escape from the receptacle A when so desired, and that of the former to provide an opening by which to fill the receptacle with oil.

The air-pump *c* may be of any well-known construction, and, as here shown, consists of a single-acting piston-pump arranged and placed on top of the receptacle A at an angle thereto, with a port connecting the two with an intervening cut-off valve, *d*, therein, which is governed by the wheel *k*, the pump being used to generate the pressure in the receptacle A, and the valve *d* to prevent any escape of air through the check-valve in the pump after the pumping operation ceases. The auxiliary chamber *e* is attached rigidly to the receptacle A, and communicates therewith at the bottom through the passage *l*, and is provided with a stuffing-box, *m*, and the discharge-pipe *x*, the latter extending downward to the bottom of the same, by means of which all the oil is exhausted, and by which it is directed to the discharge-valve *g*, and the former forming a packing for the said pipe, whereby it may be drawn up or down, or the nozzle B, which is attached thereto, turned back over the receptacle A.

The cut-off valve *g* consists of the casing provided with the ingress port *o* and the egress-port *o'*, with a connecting-passage, *o²*, which forms the seat for the needle *p*, that makes the cut-off therebetween. The needle is provided with a collar, *p'*, the spring *r*, and the bent ends *s*, by which it is drawn back by the finger, and the spring *r*, bearing against the cap of the casing *t* and the collar *p'* on the needle, forces it to and holds it against the seat in the passage *o²*. The casing *t* is attached to the casing of the valve *g* with a tight joint, and is provided with a stuffing-box *r'*, which prevents any oil from escaping around the needle *p*. The whole is shown in Fig. 2, and its function is to quickly open and close the port *o²*, thereby allowing a small quantity of oil to be ejected when so desired, or if a greater quantity is needed it may be supplied by holding the needle back longer.

The nozzle B, as herein shown, consists of three sections, 1, 2, and 3, (but a greater or less number may be used,) with each section made with a stuffing-box V, whereby the oil is prevented from escaping. By this construction

the nozzle may be drawn out to any desired length (within its limits) which is necessary for marine engines, locomotives, and other purposes where long nozzles are required, or may be closed, thus providing a single oiler, with a long or short nozzle, and, as before stated the same may be turned around and placed over the receptacle, which permits the oiler to be conveniently handled, advantageously packed, &c.

The operation is as follows: The receptacle A is filled with oil through the port *b* and the cap *h* screwed down. The valve *d* is then opened and the pump *c* put in operation and continued until sufficient pressure is accumulated, (ordinarily from five to twenty pounds per square inch.) The valve *d* is then closed, which confines the pressure on the oil and forces it downward and through the passage *l* to the pipe *n* in the chamber *e*, through which it is directed to the spring-valve *g*, where it is checked and confined ready for use.

When it is desired to use the device, the nozzle is thrown around, as shown in Fig. 1, and the egress end of the same is placed where it is desired to apply the oil, and the needle *p* drawn back, which permits the air-pressure to act, and which forces the oil out at the egress end of the nozzle B. The quantity of oil ejected is governed by the number of times the needle is operated or the length of time it is held open. The nozzle B, when once filled with oil, will always remain so, as it is therein

held by the atmospheric pressure. By this device the oil is quickly deposited at the desired spot, thus saving oil and also time, as the instant the valve *g* is opened the oil is ejected.

Having fully described my invention, what I claim and wish to secure by United States Letters Patent, is—

1. In an oil-can, the combination of the receptacle A, the air-pump *c*, the nozzle B, and a cut-off valve, *g*, placed in the nozzle, whereby the oil is ejected.

2. In an oil-can, the combination of the air-pump *c*, the receptacle A, the spring cut-off valve *g*, and the telescopic nozzle B, as herein shown.

3. In an oil-can, the combination of the air-pump *c*, the receptacle A, the cut-off valve *g*, and the nozzle B, attached to the receptacle A by a swivel-joint, whereby it may be placed over the same, as herein specified.

4. In an oil-can, the combination of the receptacle A, the pump *c*, the telescopic nozzle B, and the cut-off valve *g*.

5. In a lubricating oil-can, the combination of the pump *c*, the receptacle A, the spring-valve *g*, and the nozzle B, as herein set forth.

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

JOHN S. HULL.

Witnesses:

JNO. MADDOX,

G. A. BOYDEN.