

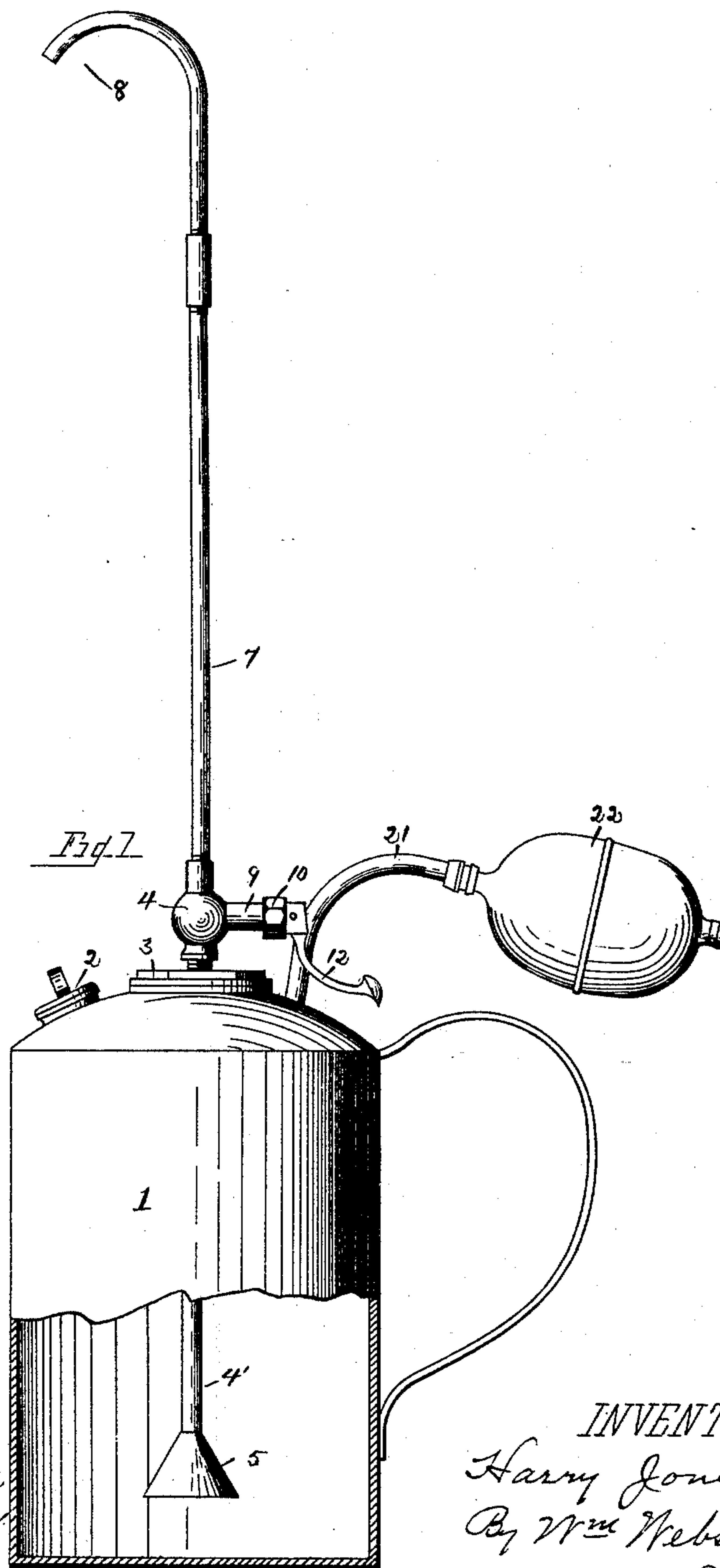
(No Model.)

2 Sheets—Sheet 1.

H. JONES.
FORCE FEED OILER.

No. 483,690.

Patented Oct. 4, 1892.



WITNESSES

Carroll J. Webster
Grace C. Lehaney

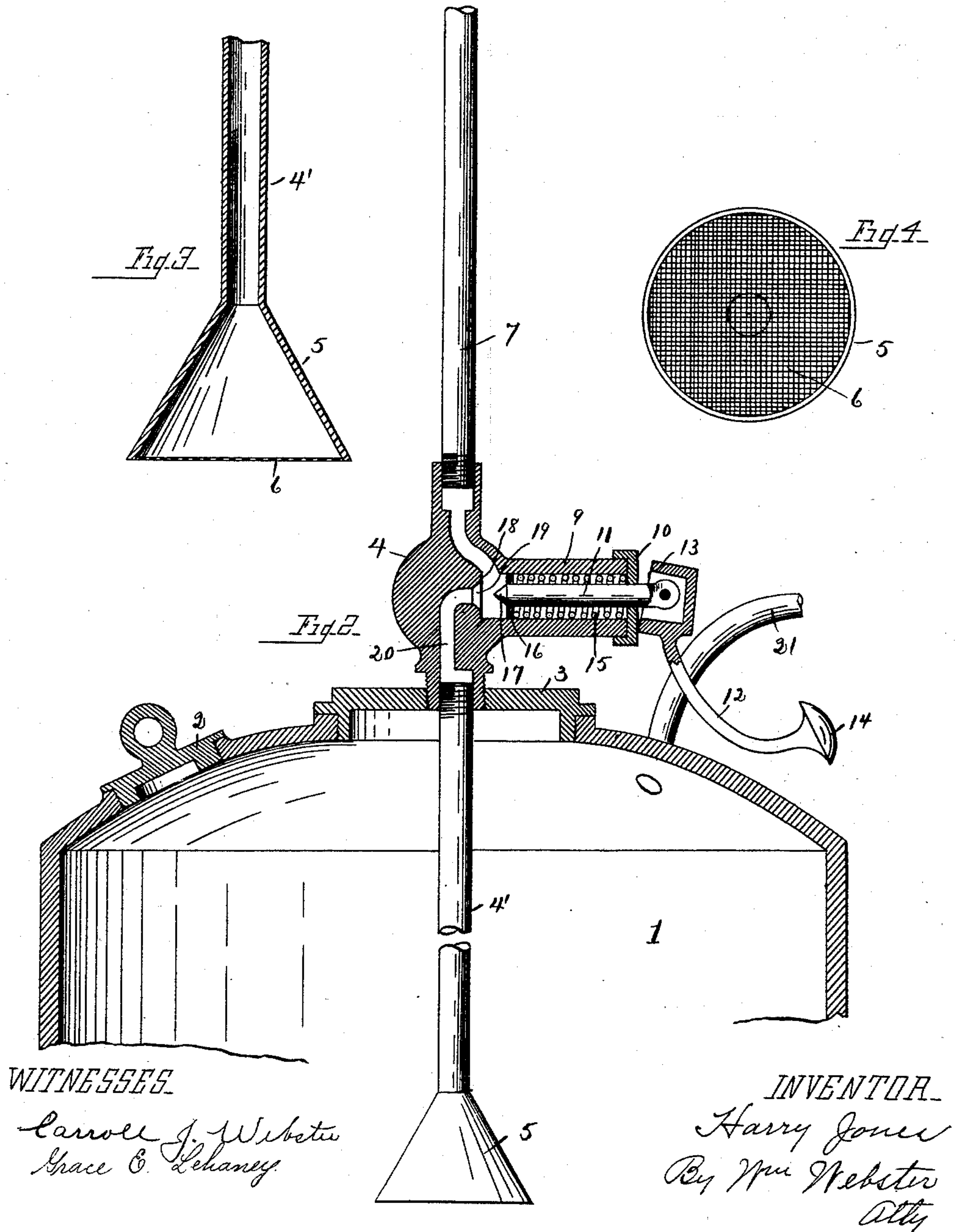
INVENTOR

Harry Jones
By Wm Webster
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UNITED STATES PATENT OFFICE.

HARRY JONES, OF YPSILANTI, MICHIGAN.

FORCE-FEED OILER.

SPECIFICATION forming part of Letters Patent No. 483,690, dated October 4, 1892.

Application filed October 8, 1891. Serial No. 408,085. (No model.)

To all whom it may concern:

Be it known that I, HARRY JONES, of Ypsilanti, county of Washtenaw, and State of Michigan, have invented certain new and useful Improvements in Force-Feed Oilers; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form part of this specification.

My invention relates to a force-feed oiler, and has especial relation to that class wherein the lubricant is forced from the can by atmospheric pressure.

The object of the invention is to provide means whereby a determinate amount of pressure may be made within the can and the outflow cut off or regulated by means of a convenient valve mechanism.

A further object is to provide means for straining the lubricant before it passes to the parts to be lubricated.

The invention consists in the parts and combination of parts hereinafter described, and pointed out in the claim.

In the drawings, Figure 1 is an elevation of an oil-can constructed in accordance with my invention, a part of the shell being broken away to disclose the pipe and strainer. Fig. 2 is a longitudinal vertical sectional view of the same, drawn on an enlarged scale. Fig. 3 is a longitudinal vertical sectional view of the pipe and strainer, and Fig. 4 is a bottom plan view of the same.

1 designates the can, preferably of the ordinary form for oiling machinery and provided with a removable stopper 2 to allow of filling the same and a screw-cap 3, into which is secured a valve-casing 4, preferably by being tapped therein to allow of removability, the valve-casing being interiorly screw-threaded at each end, the lower end to allow of screwing an interiorly-screw-threaded pipe 4' therein, which is provided at its lower end with a cone-shaped portion 5, in which is secured a foraminous diaphragm 6 for the purpose of straining the oil as it passes into the pipe. At the upper end of the valve-casing there is inserted the screw-threaded end of a

pipe 7, either formed with an integral or detachable nozzle 8. Valve-casing 4 is formed with a lateral tubular extension 9, closed by a screw-cap 10, which is perforated centrally to allow of passing a valve-stem 11 therein, the outer end of which is pivotally secured in the chambered thumb-lever 12, having a squared face 13 to the chambered end to act as a fulcrum by bearing upon the cap when the lever end 14 is depressed to withdraw the valve-stem sufficiently to open the valve, hereinafter described.

15 designates a coiled spring, which surrounds the valve-stem within the tubular extension and bears upon the inner side of the cap 10 at one end and upon the side of a flat valve 16, through which the pointed end 17 of valve-stem 11 passes, the spring tending to normally seat the flat valve-face 18 in the valve-casing and the needle-valve or pointed end 17 into a valvular recess 19 in the valve-casing, whereby there is a duplex valve formed which not only regulates the flow to a minimum by means of the needle-valve, but by reason of the two valve-seats and valves positively seals the same from the possibility of a flow of oil unless the valves are opened or the escape of air when forced into the can to act as an expeller of oil, as will be hereinafter described.

In order to adapt the valve-casing to the duplex valve, I preferably form the same with a tortuous conduit for the oil, the lower portion 20 of which is turned at right angles with the casing to coincide with the center of the tubular extension and at the point of its termination within the casing is countersunk to form the seat 19 for valve 17, the casing being squared to form the valve-face 18, from which point the oil-conduit curves upwardly to coincidence with pipe 7. Upon the upper portion of can 1 there is a perforation, into which a flexible tube 21 is secured, the outer end being secured to a bulbous air-compressor 22, by which air is forced into the can to act as an expeller of the lubricant when thumb-lever 12 is depressed to open the duplex valve.

It will be understood from the foregoing description that I have provided a conveniently-operating can for oiling parts of machinery difficult of access by reason of the fact that the operator may place the nozzle at

the point to be lubricated and by depressing lever 12 allow the air within the can to force the oil directly to the place. Should there not be sufficient pressure within the can at any time, the operator may force a sufficient amount into the can by using the left hand, while the right hand holds the can, thereby dispensing with the necessity of withdrawing the can and nozzle to replenish the air-pressure.

It will be apparent that I may form the valve-casing and pipes integral and that I may otherwise vary the construction without departing from the spirit of my invention.

What I claim is—

In a force-feed oiler, a can, a cap secured therein, a valve-casing secured in the cap, formed with a longitudinal duct and a right-angular tubular boss, a spring-actuated valve

located in the boss and normally closing the duct, a lever secured to the valve-stem at one end, said lever bearing against the tubular boss, the opposite end extending in close proximity to the handle of the can, said lever being adapted to be pressed in to operate the valve, a compressible bulb located near the handle and connected with the interior of the can, and a depending pipe and nozzle secured to the cap and valve-casing, respectively, said depending pipe extending to near the bottom of the can and provided with a strainer.

In testimony that I claim the foregoing as my own I hereby affix my signature in presence of two witnesses.

HARRY JONES.

Witnesses:

GREGORY H. SCHARF,
D. E. WILBER.