

No. 689,208.

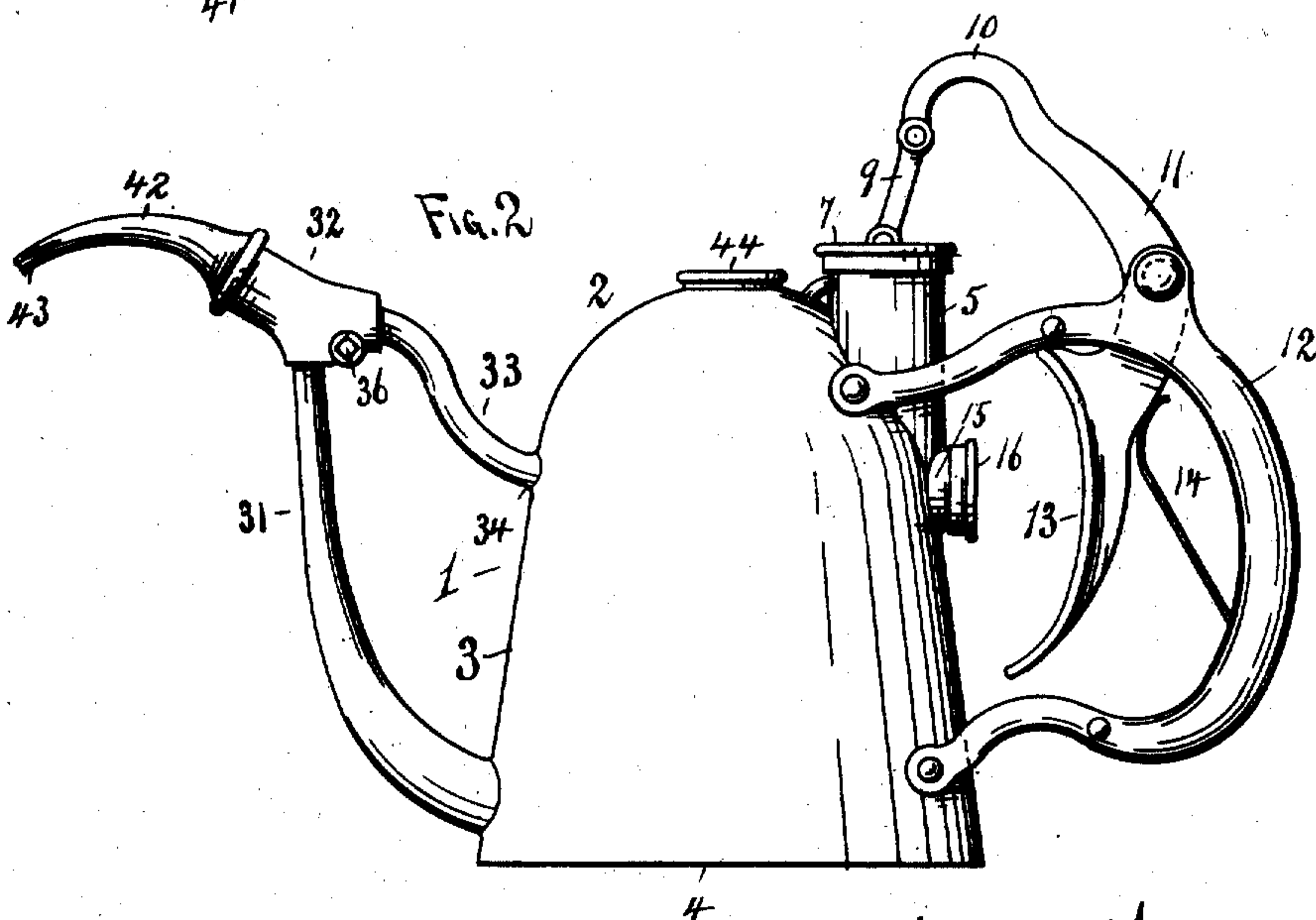
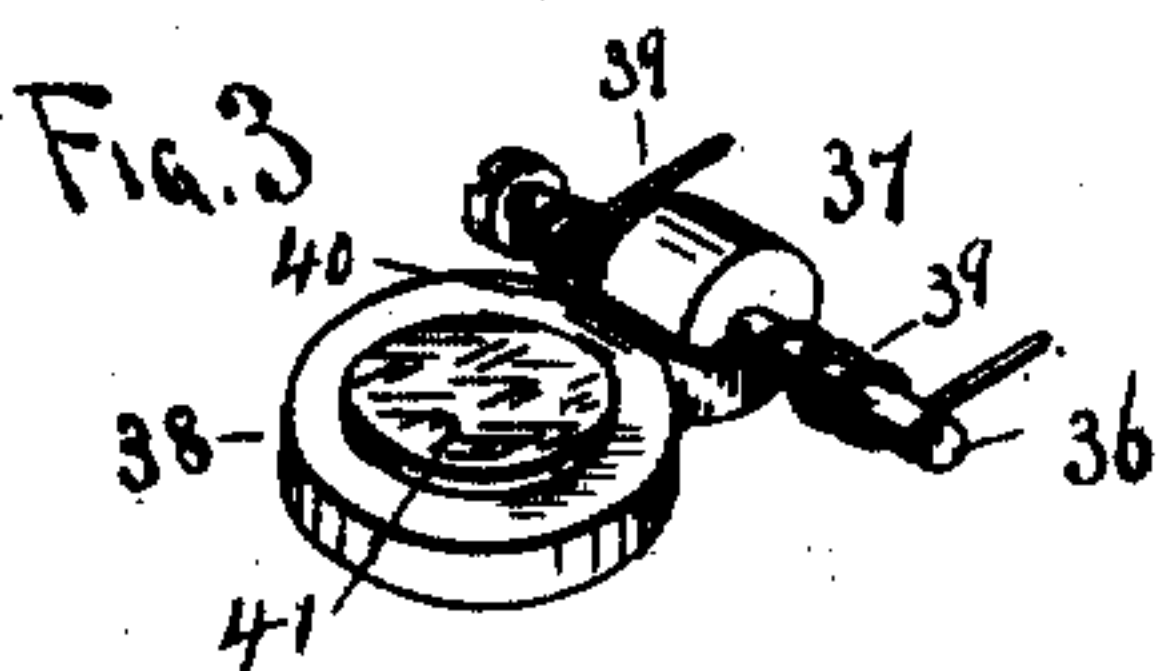
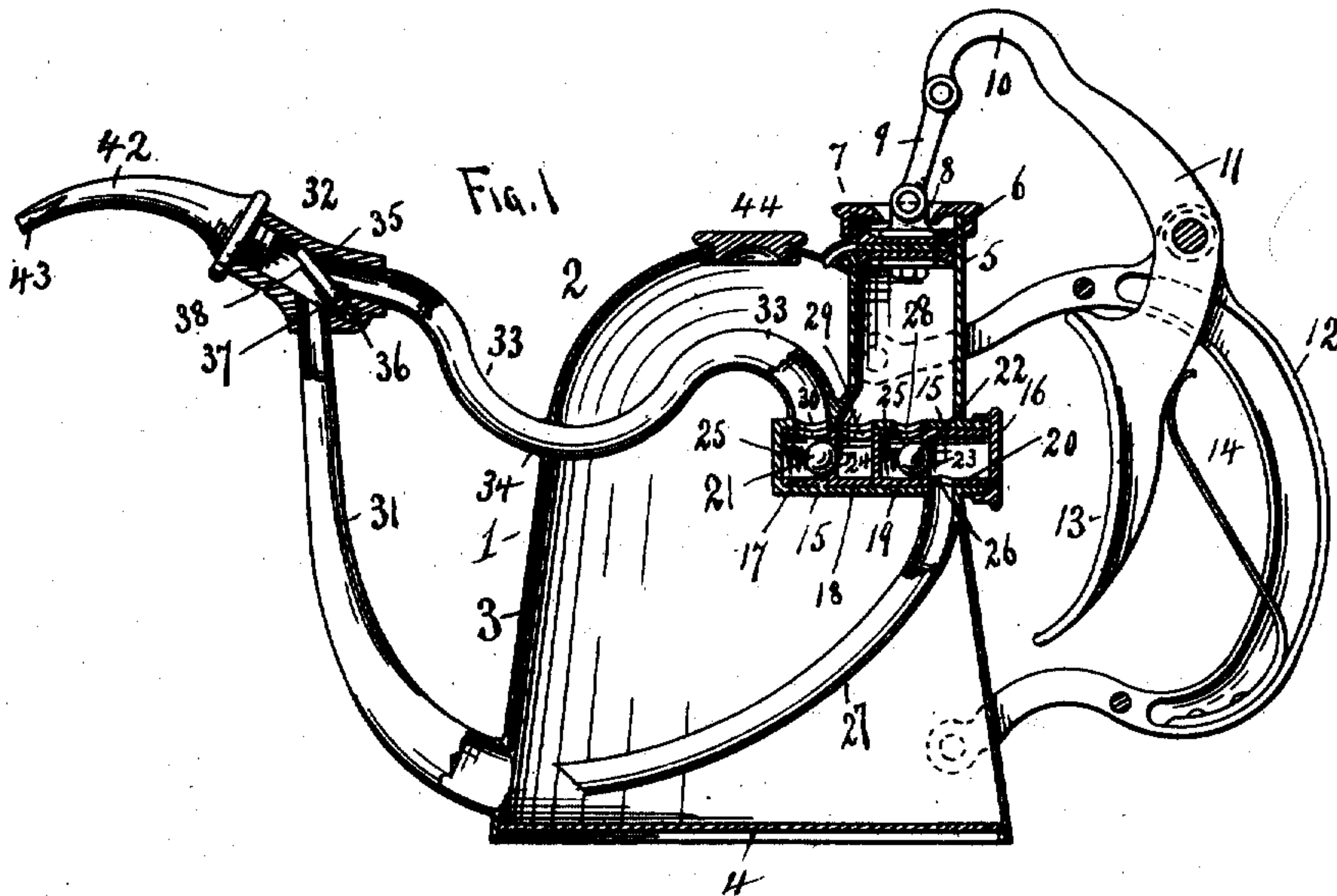
Patented Dec. 17, 1901.

M. MASTERSON.

OIL CAN.

(Application filed Apr. 12, 1901.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

MECKLEY MASTERSON, OF CRIPPLECREEK, COLORADO, ASSIGNOR OF ONE-HALF TO SIMON MASTERSON, OF TONKAWA, OKLAHOMA TERRITORY.

OIL-CAN.

SPECIFICATION forming part of Letters Patent No. 689,208, dated December 17, 1901.

Application filed April 12, 1901. Serial No. 55,522. (No model.)

To all whom it may concern:

Be it known that I, MECKLEY MASTERSON, a citizen of the United States, residing at Cripplecreek, in the county of Teller and State of Colorado, have invented a new and useful Oil-Can, of which the following is a specification.

This invention relates to oil-cans, and particularly to that class which are used for oiling machinery; and the object in view is to provide a simple and effective can embodying means for either pouring the oil therefrom in the usual manner or forcefully expelling it, whereby time is materially saved in oiling operations and spilling and wasting the oil will be avoided, the several parts being strong and durable and of such nature as not to readily become disarranged or inoperative, and in the event of a slight disorder can be easily repaired from the exterior of the can, as all parts are interchangeable from the can exterior.

The invention consists in the construction and arrangement of the several parts, which will be more fully hereinafter described and claimed.

In the drawings, Figure 1 is a view of the improved can partially in section and partially in elevation. Fig. 2 is a side elevation of the same. Fig. 3 is a detail perspective view of one of the valves.

Similar numerals of reference are employed to indicate corresponding parts in the several views.

The numeral 1 designates an oil-can which is formed with a circular top 2, conical side portion 3, and a cupped bottom 4. In the upper rear portion of the can a pump-cylinder 5 is secured and exteriorly accessible and provided with a piston 6, which is of a suitable tight character in relation to the wall of the cylinder to prevent leakage and insure a positive operation of the same at all times. The upper end of the pump-cylinder stands above the plane of the top of the can and is provided with a removable cap 7, with a central opening 8 therethrough, and movably connected to the upper part of the piston and movable through the said opening 8 of the cap is a link 9, having its upper ends movably attached to the forward curved or crooked end 10 of an operating-lever 11, which

is fulcrumed on the upper fixed portion of a handle 12, secured to the can, as shown. The lever 11 is partially movable through the handle 12 and below the fulcrum thereof is formed with a broad grip or pressure-receiving extremity 13, which is grasped by the fingers of the hand of the operator holding the device by the handle 12. The rear edge or back portion of the grip or extremity 13 is loosely engaged by the forwardly-projecting free extremity of a spring 14, which is held in the rear slotted portion of the handle 12 and is strong enough to automatically return the piston in the pump-cylinder to its normal position after it has been compressed by the rearward draw on the grip or handle to force the said piston downwardly into the cylinder. On the lower end of the pump barrel or cylinder and disposed at a right angle thereto is a valve-seat casing 15, preferably of cylindrical form and opening out at the rear of the can-body, the rear projecting end of the said casing being closed by a removable cap 16. Within this casing four valve-chambers 17, 18, 19, and 20 are removably mounted, the chambers 17 and 19 having spherical valves 21 and 22 respectively mounted therein to engage valve-openings 23 and 24 in adjacent end walls of the chambers 18 and 20, the said valves being forced into normal closed position by springs 25, arranged in operative relation thereto. The inner lower portion of the chamber 20 and the adjacent portion of the valve-seat casing are formed with openings 26, and therewith connects the upper end of an elongated curved feed-pipe 27, which terminates close to the lower front portion of the can, so as to cause the oil to be almost fully drawn out of the can before replenishment is necessary by locating said oil around the inlet end of said pipe when the can is tilted forwardly, as in the act of pouring. The upper portions of the valve-chambers 18 and 19 and the adjacent portions of the valve-seat casing respectively have openings 28 and 29 therein to provide means of communication with the lower end of the pump-cylinder, and in the upper part of the valve-chamber 17 and portion of the casing adjacent thereto which projects inwardly beyond the said cylinder

openings 30 are formed, which constitute the outlet means from the pump mechanism.

From the front lower exterior portion of the can a pouring-spout 31 extends and gradually reduces toward an upper valve-chamber 32, held in advance of the can and with which said spout communicates. The upper spout-terminal is attached to the lower or bottom portion of the said chamber 32, and connecting with the rear of said chamber above the plane of the point of attachment of the spout thereto is the outer terminal of a conveying-pipe 33, projecting through and fastened to the body of the can and also attached at its rear terminal to the front extremity of the valve-casing over the openings 30 in the latter and the valve-chamber 17. The conveying-pipe 33 has an intermediate drop 34 of curved form to provide a retention means for a portion of the oil that will always remain therein similar to a trap and adapted for use in priming the pump should such operation become necessary. The outer extremity of the pipe 33 extends some distance into the valve-chamber 32 and is beveled off at an upward and outward angle of inclination, as at 35, and in the rear portion of the valve-chamber a trunnion-bolt 36 is movably mounted in a plane between the ends of the spout and conveying-pipe connecting with said valve-chamber. The neck 37 of a valve 38 is mounted on the trunnion-bolt 36, and surrounding the latter is a spring 39, which has the extremities engaging the rear portion of the valve-chamber, and a central loop 40 caught over the said neck to thereby hold the valve normally elevated and closed against the front beveled extremity of the conveying-pipe 33 in the said chamber 32. The valve 38 is preferably of circular disk form and has opposite leather or other packing-disks 41 thereon, and when the oil is forced through the conveying-pipe 33 by the operation of the pump the said valve is pressed or moved downwardly close over the upper end of the spout 31 to prevent the oil from passing back into the can. When the can is used for ordinary pouring purposes, the oil will be prevented from running back through the conveying-pipe by the valve 38 closing the outer extremity of the conveying-pipe, as clearly shown. In the outer end of the valve-chamber 32 a nozzle 42 is removably mounted, and that shown is intended to be replaced at any time by one having a greater length, the outer extremities of the nozzles being longitudinally corrugated, as at 43, to permit the air to pass outwardly from the cups or other devices into which the oil is introduced for obvious reasons. The can is adapted to be replenished with a charge of oil at any time desired and necessary by means of an opening in the top thereof covered by a removable screw-cap 44.

It will be seen that the attachments to the can are all exteriorly accessible and occupy very little space within the body of the can,

and the capacity of the latter is not materially affected. In the operation of the device to forcefully expel the oil by means of the pump the piston is first pushed down in the cylinder 5 by operating the lever connected to said piston, as heretofore set forth, and by releasing the said lever the spring 14 is free to restore it to normal position and cause the said piston to be drawn upwardly through the cylinder, and the suction created by the upward movement of the piston affects the valve 22 in the chamber 19 through the openings 29 and opens said valve to thereby permit the force of such suction to be conveyed into the chamber 20 and create an updrawing of the oil through the pipe 27 into said chamber 20 and from the latter through the opening 24 into the chamber 19 and from the latter into the pump-cylinder. The next downstroke of the piston forces the oil from the pump-cylinder through the openings 28 into the chamber 18, forcing the valve 21 open and permitting the oil to pass into the chamber 17 and from the latter out through the conveying-pipe. This operation will be regularly repeated as long as the forceful flow of the oil is desired, and the time employed in oiling can thus be materially reduced, as oil-cups can be filled with one or a few pressures of the operating-lever, and, furthermore, the oil can be placed directly at the point desired without spilling or wasting the same. Moreover, the can may be used for ordinary pouring operations when desired without requiring the adjustment or setting of any part or parts for such purpose, and in the construction of the device stuffing-boxes are particularly avoided. The valve-chambers 17, 18, 19, and 20 can be easily drawn out of the valve-seat casing at any time desired by the use of a suitable implement, and the device as an entirety will be found exceptionally useful and beneficial for the purpose for which it is designed.

A curved return-pipe 45 connects the upper part of the cylinder 5 and the top of the can to permit any oil that leaks through and gets above the piston 6 to return to the can, and the cap 7 has the wall around the opening 8 inwardly directed to prevent the oil that may work through and get above the piston from splashing out through the said opening 8 on the upstroke of the piston.

Having thus described the invention, what is claimed as new is—

1. The combination with a can for holding oil, of a force-feeding attachment, a separate pouring-spout for ordinary pouring operations, and a connecting device for the outlet extremities of said spout and a portion of the said feeding attachment and provided with a single outlet.

2. The combination with a can for holding oil, of a force-feeding attachment, a separate pouring-spout, a valve-chamber with which the outer extremities of the conveying means of the feeding attachment and the spout con-

nect and provided with a valve, and a nozzle detachably connected to said chamber.

3. The combination with a can for holding oil, of a force-feeding attachment provided with a conveyer, a pouring-spout, and a chambered connecting device for the outer extremities of the conveyer and spout provided with a single detachable nozzle.

4. The combination with a can for holding oil, of a force-feeding attachment provided with a conveyer, a separate pouring-spout, a chambered device connecting the outer extremities of the conveyer and the spout, a single valve alternatively operative to close the conveyer and spout extremities, and a single nozzle or outflow device attached to the said chambered device.

5. The combination with a can for holding oil, of a force-feeding attachment therefor having the parts exteriorly accessible and comprising a pump-cylinder with a piston therein, an operating-lever for said piston, a valve-seat casing at the bottom of the cylinder and in a plane at a right angle to the latter, valve-chambers removably mounted in said casing a curved feed-pipe connected ex-

clusively to one of said chambers, valves in a part of the chambers, two of the chambers communicating with the cylinder, and a conveyer running from another of said valve-chambers and connecting to an outer chamber with a valve therein normally closing the end thereof, the said outer chamber having a nozzle.

6. The combination with a can for holding oil, of a force-feeding mechanism, a curved feed-pipe extending from the interior front lower portion of the can-body to a part of said mechanism, a conveyer extending from another portion of said feeding mechanism, an exteriorly-located spout for ordinary pouring operations, a chambered device having a valve therein and connected to the outer extremities of the conveyer and spout, and a nozzle attached to said chambered device.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

MECKLEY MASTERSON.

Witnesses:

JAMES H. PARKS,
ELMER J. CHUTE.