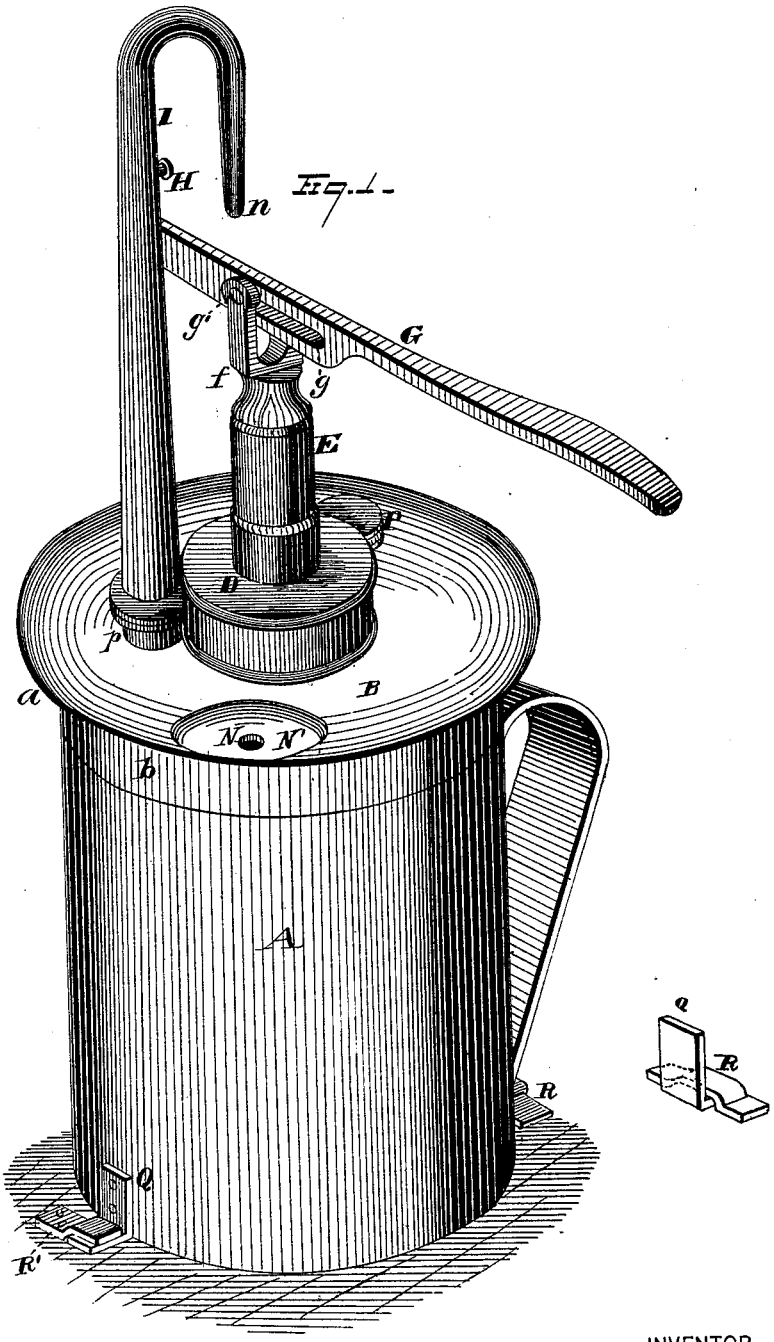
2 Sheets—Sheet 1.

S. H. RHOADES.

Apparatus for Storing and Discharging Oil.

No. 204,610. Patented June 4, 1878.



WITNESSES

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2 Sheets—Sheet 2.

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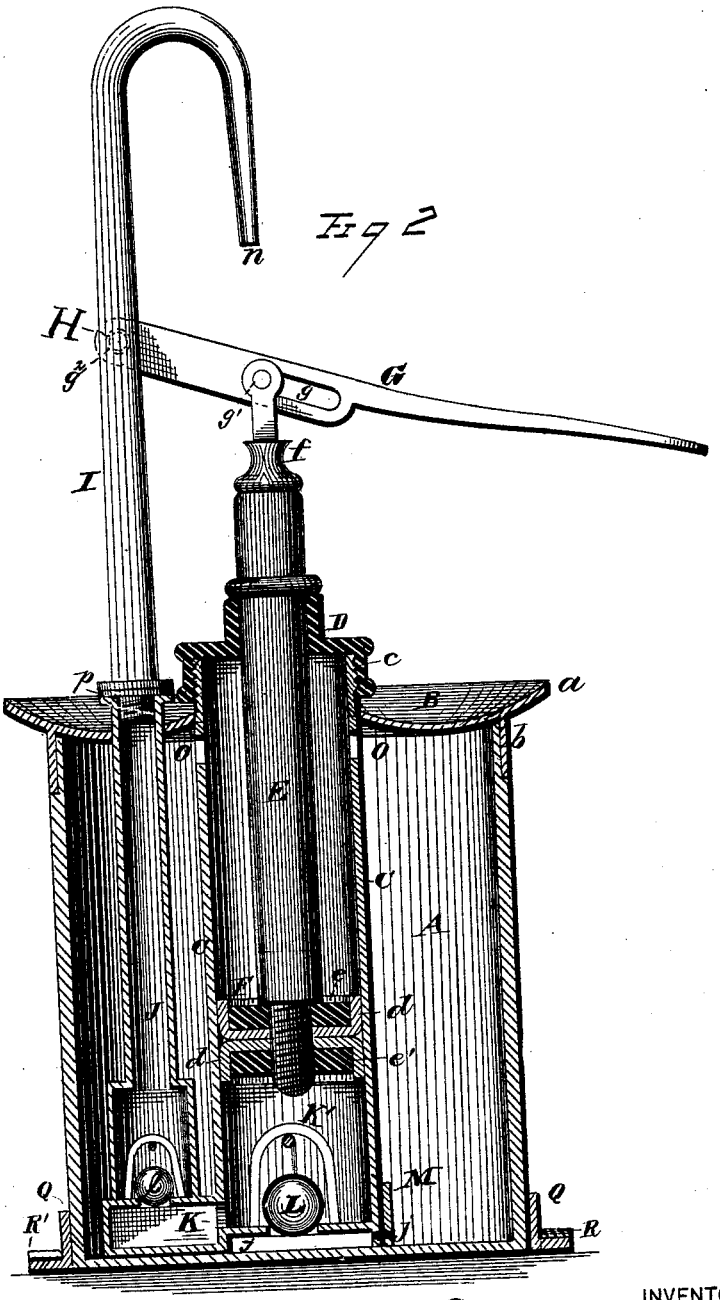
Fig 2



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UNITED STATES PATENT OFFICE.

STEPHEN H. RHOADES, OF PITTSTON, PENNSYLVANIA.

IMPROVEMENT IN APPARATUS FOR STORING AND DISCHARGING OIL.

Specification forming part of Letters Patent No. **204,610**, dated June 4, 1878; application filed May 3, 1878.

To all whom it may concern:

Be it known that I, STEPHEN H. RHOADES, of Pittston, in the county of Luzerne and State of Pennsylvania, have invented certain new and useful Improvements in Apparatus for Storing and Discharging Oil, &c.; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improved apparatus for storing and discharging oils and other fluids; the object being to provide a receptacle for oils or other fluids, with a pump so constructed and arranged that the contained fluid can be forced above the top of the can or receptacle and discharged through a spout or nozzle into a bottle or other vessel, said nozzle being located over a drip-hole in the can, in order that the drippings may flow back into the main storing-receptacle.

My invention consists in certain improvements on an improved apparatus for storing and discharging oils patented to me April 30, 1878, as will more fully appear from the following description and claims.

In the accompanying drawings, Figure 1 is a view, in perspective, of my improvement. Fig. 2 is a side elevation, partly in section, showing the construction of the pump-cylinder and valves located therein.

A represents a can, of any desired size, provided with a cover, B, the upper edge *a* of which is preferably extended above the top *b* of the cover, to form a drip-basin for receiving any drippings from the discharge pipe or nozzle. C is a pump-cylinder, secured at its upper end to the cover B. The upper end of cylinder C projects above the top of the cover, and is screw-threaded at *c*, to receive a correspondingly screw-threaded cap, D, through which passes the piston-rod E. A slip-cap may be employed in lieu of a screw-threaded cap, if desired. Piston F is of any desired construction, although the form shown in the accompanying drawings is well suited for the purpose, the same consisting of the cup-shaped leather packing-rings *d*, of proper size to snugly fit the bore of the pump-cylinder C, said rings being held in place by the piston-head *e* and follower *e'*. To the upper end of the piston-rod is secured a socket, *f*, which is provided with a bifurcated upper end for the reception of the pump-lever G, the latter having an elongated slot, *g*, for the reception of the bearing-pin g^1. The end of pump-lever G is provided with a hole, g^2, whereby it may be adjustably secured to the studs H, attached to the discharge pipe or nozzle I.

The construction of the lever and method of attaching it to the piston-rod are such that the rod may be reciprocated in vertical line; and this result may also be accomplished in several different ways, as, for instance, the piston-rod may be supported by a link resting on the top of the pump-lever, or by a link or rod pivoted thereto.

To the lower end of the pump-cylinder is connected a discharge-pipe, J, by means of conduit K. The pump-cylinder is supported by lugs *j* or equivalent means, in order that oil or other fluid may circulate freely beneath the same. A check-valve, L, is placed in the lower end or side of the pump-cylinder, and retained in position by the valve-cage K'.

In the lower end of the discharge-pipe J is placed a check-valve, *l*. These valves are represented as ball-valves; but it is evident that other forms of valve will answer the same purpose.

When the piston or plunger is raised, oil is drawn up into the pump-cylinder. When the piston is depressed or forced through its down-stroke, it operates to close the check-valve L in the pump-cylinder, thus preventing the oil or other liquid from escaping from the cylinder back into the can, and causing the liquid to flow through the conduit K, past the check-valve *l*, into the discharge, from which latter the fluid is ejected as the pump is being operated. The lower end of the pump-cylinder is retained in place by means of a perforated flange, M, secured to the bottom of the can.

In the top of the cover B is formed a drip-opening, N, in a cup-shaped cavity, N', which is located in vertical line with the downwardly-bent end *n* of the discharge-pipe, in order that all drippings may flow back into the can.

The upper portion of the pump-cylinder is provided with slots or openings O, located

beneath the cover, and in close proximity thereto, whereby the fluid that accumulates on top of the piston may escape through said openings and flow back into the can.

P is a screw-threaded cap attached to the filling-opening of the cover.

The upper end of the discharge-pipe may be made separate, and secured to a screw-threaded nipple, *p*, attached to the cover, as shown in the accompanying drawings; or the pipe may be rigidly connected to the cover, as desired.

Any suitable brace may be attached to the upper end of the discharge-pipe and to the can, so that the pipe may not be seriously weakened at its point of connection with the cover by the operation of the pump-lever.

The discharge-pipe, instead of being placed within the can, may lead to the outside thereof and extend upwardly on the outside of the can, and be firmly secured thereto by suitable straps or clamps.

The following means are employed for securing the can to a shelf or table, so that it shall be retained in its place while the pump is being operated: To the lower edge of the can two angle-pieces, Q, are secured diametrically opposite each other. One of said pieces is inserted in a loop, R, which is fastened to the shelf, and the other piece Q is then forced beneath the catch-piece R′ by giving the can a slight turn. This method of securing the can to the shelf prevents any tipping of the can when the pump is being operated, and allows the can to be lifted from the shelf by first giving it a slight turn, sufficient to detach the angle-pieces from the fastenings on the shelf.

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

1. The combination, with an oil-can, of pump and discharge cylinders attached to the removable cover of the can, said cylinders provided with check-valves, substantially as set forth.

2. The combination, with an oil-can or other vessel, of a removable cover, having pump and discharge cylinders attached thereto, and a discharge-pipe leading from said discharge-cylinder and extending above the cover of the can, substantially as set forth.

3. The combination, with an oil-can or other vessel, of a cover having pump and discharge cylinders attached thereto, of a discharge-pipe extending above the cover, and a pump-lever fulcrumed on said discharge-pipe, substantially as set forth.

4. The combination, with an oil-can or other vessel, of a removable cover provided with a drip-opening, and having pump and discharge cylinders secured thereto, and a discharge-pipe extending above the can, the downwardly-turned end of said discharge-pipe being located vertically above said drip-opening in the cover, substantially as set forth.

5. The combination, with an oil-can or other vessel, of pump and discharge cylinders attached to the removable cover of the can, and a flange secured to the bottom of the can to retain said cylinders in position, substantially as set forth.

6. The combination, with an oil-can or other vessel, of a removable cover, having pump and discharge cylinders attached thereto, and a perforated flange attached to the bottom of the can, substantially as set forth.

7. An oil-can or other vessel provided with angle-pieces secured diametrically opposite each other to the lower edge of the can, in combination with a closed loop and a catch-piece adapted to be secured to a shelf or other support for the can, substantially as set forth.

8. The combination, with an oil-can or other vessel the cover of which has pump and discharge cylinders attached thereto, of a discharge-pipe extending above the cover, a piston-rod provided with a bifurcated end, a slotted pump-lever, and two or more studs attached to the discharge-pipe, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 27th day of April, 1878.

STEPHEN H. RHOADES.

Witnesses:
ROBERT SHARP,
THOMAS D. YOUNG.