(No Model.) 2 Sheets—Sheet 1.

M. C. RICHARDS.

OIL CAN AND LAMP FILLER.

No. 315,552. Patented Apr. 14, 1885.

FIG. 1.

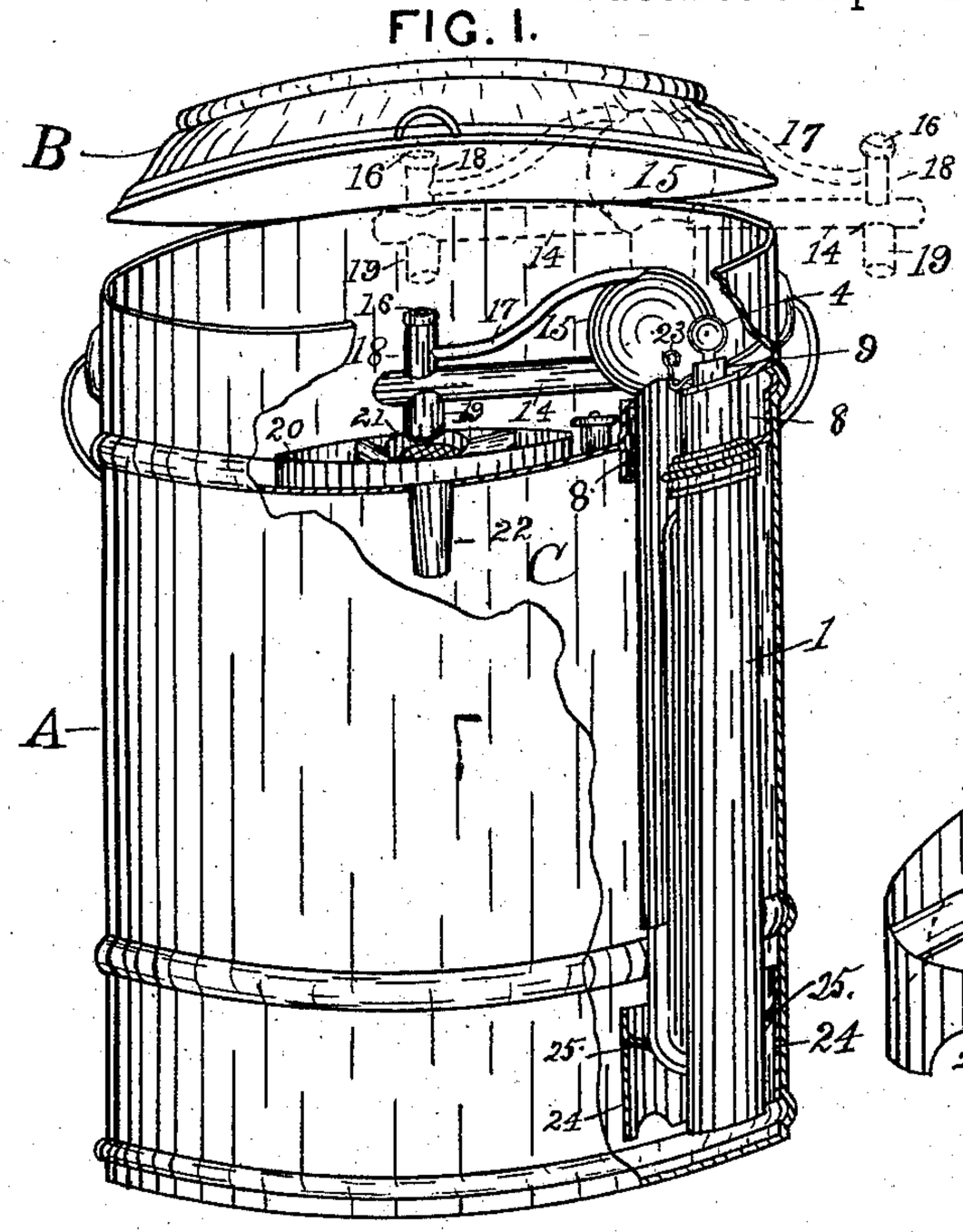


FIG. 4.

FIG. 3.

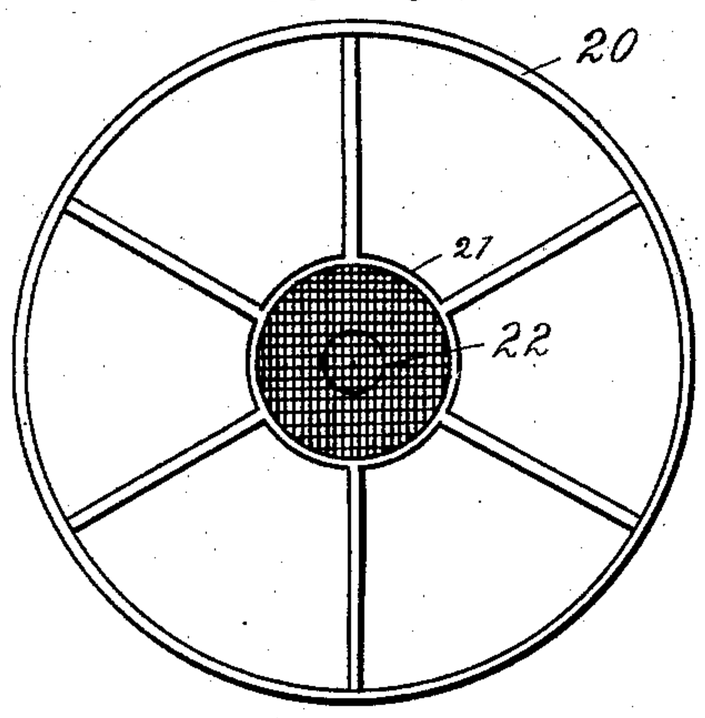
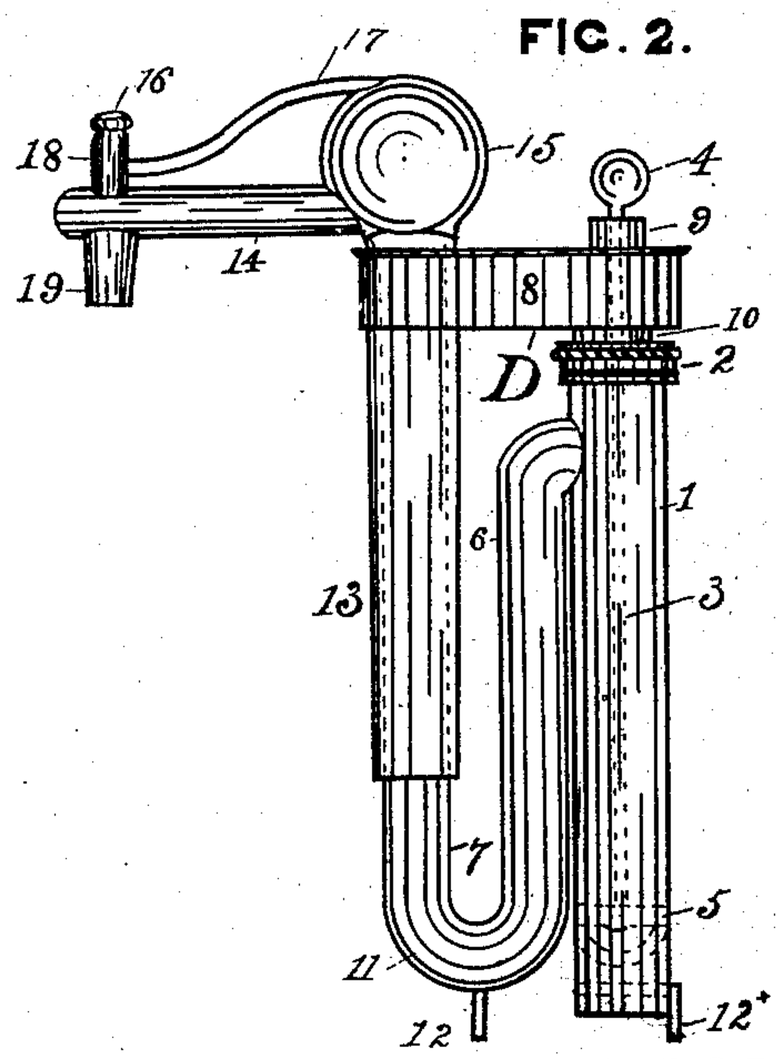


FIG. 2.



WITNESSES:

Percy White.

G. L. DeMotte.

INVENTOR:

Marcius C. Richards.

By John J. Halsted & Son
his Attys

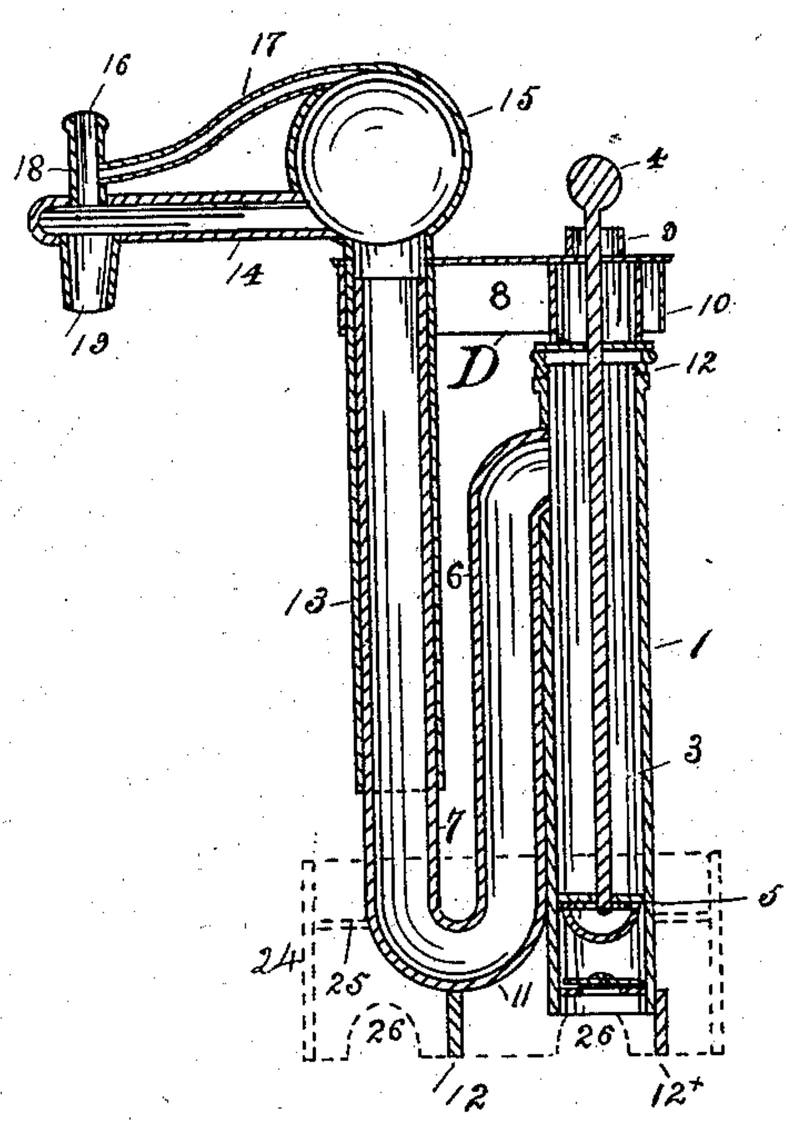
(No Model.) 2 Sheets—Sheet 2.

M. C. RICHARDS.

OIL CAN AND LAMP FILLER.

No. 315,552. Patented Apr. 14, 1885.

FIG. 5.



WITNESSES

Percy White.

G. L. DeMotte.

INVENTOR

Marcius C. Richards.

by John J. Halsted & Son

his Attys

UNITED STATES PATENT OFFICE.

MARCIUS C. RICHARDS, OF OSWEGO, ASSIGNOR OF ONE-HALF TO JOHN B. CHASE AND WILLIAM C. BUDLONG, BOTH OF AURORA, ILLINOIS.

OIL-CAN AND LAMP-FILLER.

SPECIFICATION forming part of Letters Patent No. 315,552, dated April 14, 1885.

Application filed August 28, 1884. (No model.)

To all whom it may concern:

Be it known that I, MARCIUS C. RICHARDS, of Oswego, in the county of Kendall and State of Illinois, have invented certain new and useful Improvements in Oil-Cans and Lamp-Fillers; 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 letters of reference marked thereon, which form a part of this specification.

My invention, while more especially designed for filling lamps in which kerosene or other liquid hydrocarbons or dangerous fluids are used, is also applicable for any kind of fluid.

It consists in a special combination, with the pump, of a siphon extending downward and upward, and of a distributing-pipe; of a telescopic tube in connection with the discharging-pipe and with the siphon; of a reservoir or chamber surmounting the telescopic tube, and an arrangement of air-inlet and oil-outlet; in an arrangement for raising or lowering or turning the discharging-tube, and connecting this discharging-tube and the pump with a removable cap or cover; in combining with this cover a means for releasing or holding it to place; in a novel method whereby any excess of oil pumped out shall be siphoned back into the can or vessel, and in combining together the pump, siphon, air-chamber, air-inlet, and discharging-spout, all as more fully now to be set forth.

Figure 1 represents the apparatus complete, a part of the can being broken away the better to display the devices, the discharging-spout being also shown in dotted lines both in a raised position and in a position when turned to one side; Fig. 2, the pumping apparatus detached; Fig. 3, a plan of the lamp-support and drip-cup; and Fig. 4, a detail enlarged, showing the bottom guide-rest for the pump and siphon. Fig. 5 is a vertical section through the pumping apparatus.

The can A may be of any desired shape or size, and is preferably made with a hinged cover, B, which, when closed, covers all the apparatus which appears above the partition C. The pump is shown at D, and it is so made and applied that it and its attached parts may be readily removed from or inserted in the can, and its construction is as follows: The body 1 of the pump has a tight-fitting cap or top, 2, through which plays the plunger-rod 3, having an appropriate handle, 4, and a suitable valve, 5, at its lower end, this valve of course opening upward, and adapted to raise liquids. At a side opening made in the body 1 and near its top is tightly connected a pipe, 6, which extends thence downward parallel with said body and nearly to its bottom. It is then bent so as to extend upward and parallel with itself, as shown at 7, and terminates near the top of the pump-body. A cap or cover, 8, is provided as a cover for the opening in the top of the can, through which the pump apparatus is inserted, and the pipe 7 projects into or through this cap, which is provided with a tubular projection, 9 10, extending both above and below the top of this cover 8, and through which tube the plunger-rod plays. The bend 11 may have a leg or support, 12, and the body 1, which is open at its bottom, may either be slightly raised above the bottom of the can by a short leg or support, 12*, in order to admit the fluid freely to the valve, or it may have side openings serving the same purpose. A telescopic tube, 13, fits snugly over the pipe 7, inclosing it for a sufficient distance to permit it to be raised or lowered to any desired degree to adapt the position of its spout 14 to suit the height of the particular lamp or other vessel to be filled from the pump. This tube may be removed entirely from the siphon and through the cover 8 by simply lifting it high enough. The cover 8 is also removable from the top of the can. This spout projects from the lower portion of a chamber or reservoir, 15, which surmounts this telescopic tube, and the latter, capable as it is of being turned around on the pipe 7, permits the spout 14 to be turned around or swung so as to bring its discharging-mouth 16 over or away from the lamp or other vessel, as occasion may require, and

whether such vessel be a tall or short one. The chamber or reservoir 15 may be of any suitable form, and its object is to insure a steady flow when pumping. It is so constructed that it may be, as hereinafter stated, used as an open or as a closed reservoir, at the option and convenience of the operator, and also as a means for removing from the lamp or other vessel being filled any excess or surplus of fluid. To effect this a small pipe, 17, is attached to the reservoir or chamber 15 (which also contains air) at or near its top, and it thence extends outward and over the spout-pipe 14, and there terminates in a tube, 18, which is fastened to and extends to the inside of the spout-pipe near its end, this tube 18 being open also at its top 16, and the spout-pipe 14 being closed at its end, but provided with a downward-discharging mouth or tube, 19, which is preferably directly under the tube 18. The bottoms of the pump and siphon are kept steady by any suitable device, 24, in the bottom of the can, and on or in which they may rest.

I have shown the rest 24 as consisting of an open-topped shell or cup having parallel inclined ledges 25 within it, leaving a clear open space between these ledges, into which the tube 3 and the bend 7 of pipe 6 may enter sufficiently to keep them in proper position when in use. This rest may have legs or feet, or it may have parts cut out from its bottom edge, as shown at 26, that it may offer no impediment to the free flow of liquid to the pump.

Should the lamp or other vessel to be filled be found, after pumping, to be too full, the excess may be drawn back from such lamp or vessel by means of the devices above described, as follows: By placing the thumb or finger upon or by otherwise closing the opening 16 in the top of tube 18, a siphonic action takes place, whereby the liquid is sucked up from the lamp (or vessel) to the depth or extent to which the discharging mouth or tube 19 may have been immersed or projected into the liquid. This action may be hastened by lifting the plunger-rod just before closing the opening 16.

The pipe 14 may be in some cases connected directly to the tube 13, in such case dispensing with the chamber 15.

For convenience in removing the pump and its attached tubes or pipes from the can, I use the cover 8, to which the pump is attached in any suitable manner. I have shown the plunger as passing through this cover. The cap or cover 8 fits snugly on a corresponding rim projecting upward from the partition C, and this partition preferably droops slightly toward or at its center or toward a drip-cup communicating with the interior of the can. The cap 8 is held down to its place by a wire rod or spring, 23, which is arranged to be turned to one side to release the cap.

At 20 is shown a rest or support on which the vessel to be filled is placed. It has a circular rim, like a wheel, and radial arms connecting such rim to a drip-cup, 21, at the center of this support. This cup 21 has an opening in its bottom, from which depends a pipe, 22, reaching down to any desired distance within the can. The object of the drip-cup is to return to the can any liquid which may be spilled on the partition C, and the pipe 22 also serves to hold the support and the cup to place. Wire-gauze 23 covers the cup at its bottom, thus also covering the top of pipe 22.

I claim—

1. In an oil-can, the combination, with a pump, of a siphon-tube, 6 7, extending downward and upward, and connected at its part 7 with the discharging-pipe, substantially as and for the purpose described.

2. In an oil-can, the combination of a pump, the siphon-tube 6 7, telescopic tube 13, and a discharging-pipe communicating with the telescopic tube, substantially as and for the purposes set forth.

3. In combination, the pump, siphon-tube 6 7, telescopic tube 13, reservoir or chamber 15 surmounting the same, discharging-pipe 14, small pipe 17, and tubes 18 and 19, the combination being and operating substantially as and for the purposes set forth.

4. In combination with the pump and with its described siphon, a discharging-spout receiving the oil from the siphon, and arranged to be raised, lowered, or turned around upon the siphon-tube, as and for the purposes set forth.

5. In combination, the pump, siphon, discharging-spout, reservoir 15, tubes 13, 14, 17, 18, and 19, and the removable cap 8, the combination permitting all these parts to be together inserted in or removed from the can.

6. In combination with the removable cap 8 and with the removable tube 13, the wire rod or spring 23, serving to hold or release this cap, all substantially as shown and described.

7. In combination with the pump and siphon, an air-chamber communicating by a pipe with an air-inlet opening into the discharging-spout, such spout serving, as described, for carrying back into the can an excess of liquid pumped into the lamp or other vessel.

MARCIUS C. RICHARDS.

Witnesses:
N. F. NICHOLS,
D. W. CLAPSADDLE.