2 Sheets—Sheet 1

E. F. WILDER.

OIL TANK.

No. 180,512. Patented Aug. 1, 1876.

Fig. 1.

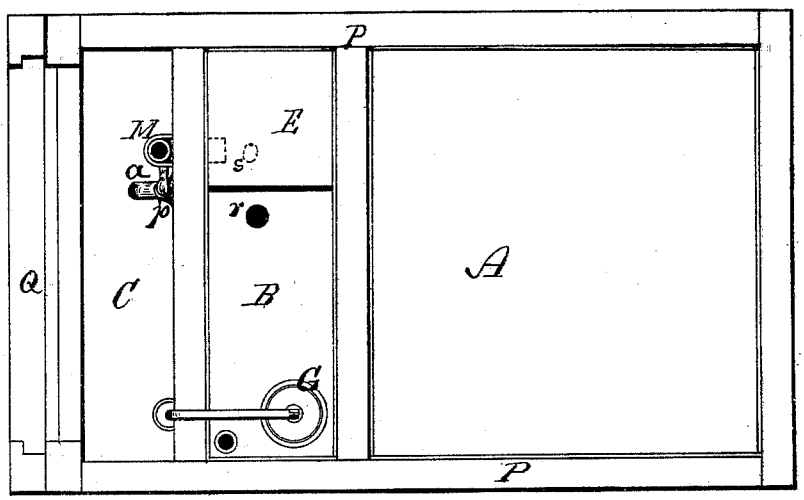
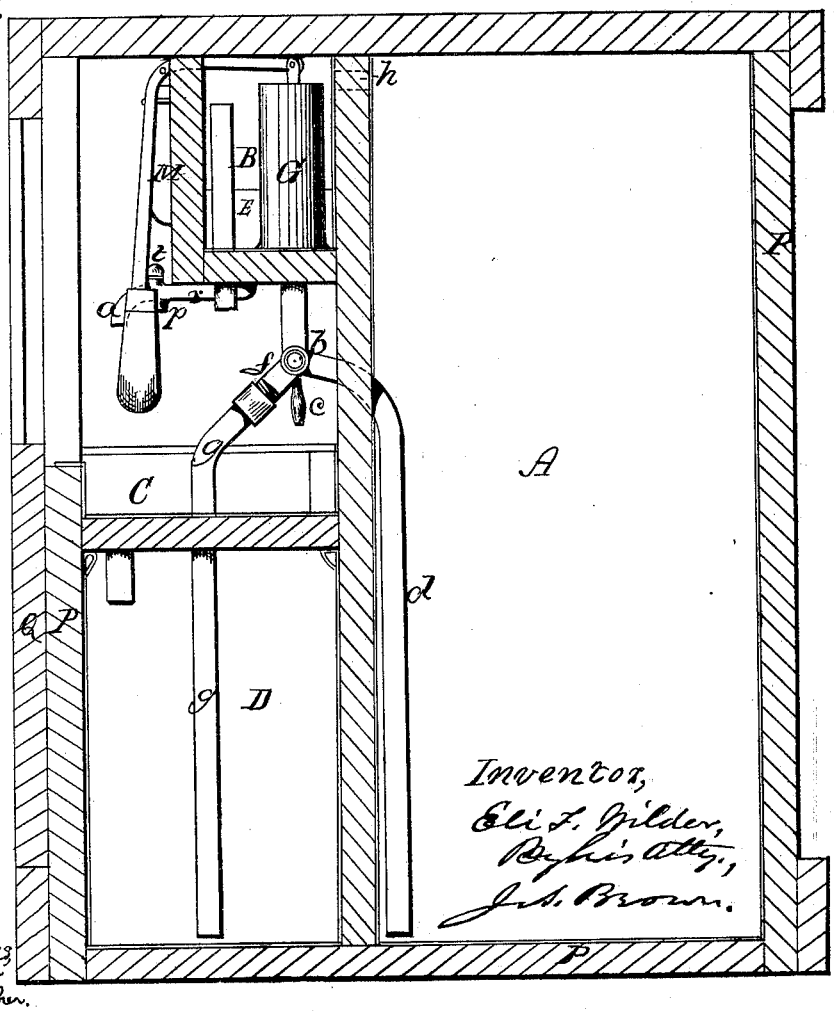


Fig. 2.



Witnesses
R. D. Smith
E. M. Gallaher.

Inventor,
Eli F. Wilder,
By his Atty's,
Jas. Brown.

2 Sheets—Sheet 2.

E. F. WILDER.

OIL TANK.

No. 180,512. Patented Aug. 1, 1876.

Fig. 3.

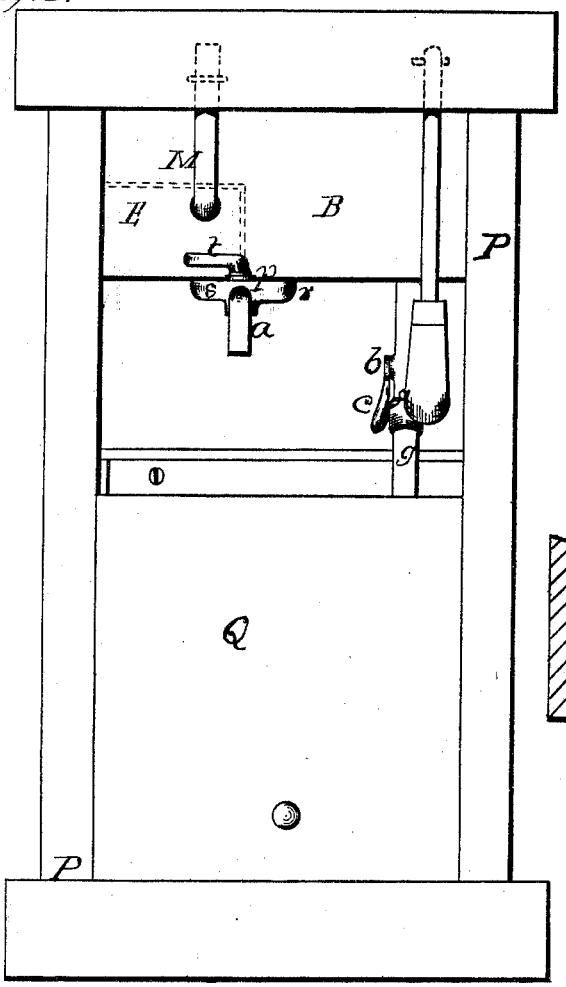


Fig. 5.

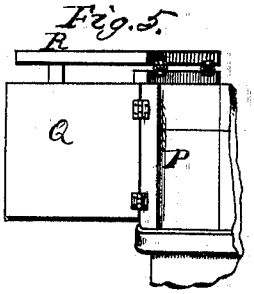
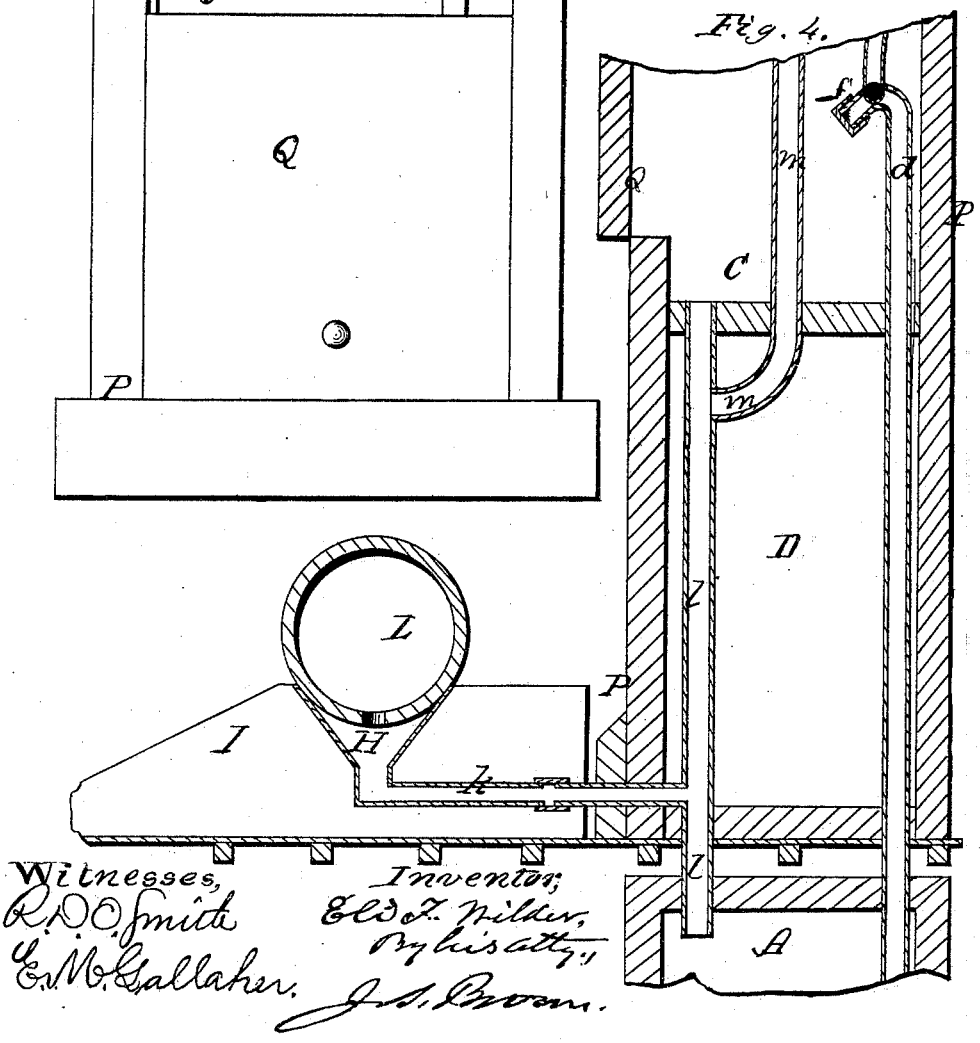


Fig. 4.



Witnesses,
R. D. C. Smith
E. M. Gallaher.

Inventor;
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UNITED STATES PATENT OFFICE.

ELI F. WILDER, OF LOWELL, MASSACHUSETTS.

IMPROVEMENT IN OIL-TANKS.

Specification forming part of Letters Patent No. **180,512**, dated August 1, 1876; application filed June 2, 1874.

To all whom it may concern:

Be it known that I, ELI F. WILDER, of Lowell, in the county of Middlesex and State of Massachusetts, have invented an Improved Apparatus for Containing and Drawing Oils and other Liquids; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

Figure 1 being a top view of the apparatus constructed to contain the oil or other liquid in the same story as that in which it is drawn; Fig. 2, a vertical section of the same, cutting from the front to the rear; Fig. 3, a front view of the same; Fig. 4, a vertical section, cutting from front to rear, showing the construction for containing oil or other liquid in a story below the one in which it is drawn; Fig. 5, a view showing a modification of the construction.

Like letters designate corresponding parts in all of the figures.

My invention is for the purpose of storing liquids in quantity, particularly oils, in stores and manufactories, wherein the same may be stored in safety, and without waste or deterioration, and from which the same may be drawn in small quantities, and measured with accuracy, ease, and convenience.

The apparatus is constructed so that the oil or other liquid may be stored either in the same story as that in which it is drawn, or in a story below; and the same pumping device used therein is applied to both arrangements, and is used for filling the containing-tanks from barrels and other vessels, as well as for drawing the liquid from the tanks to be used or delivered to purchasers.

My improvements will be specified in order in the following description of the apparatus, beginning with the description of the construction for storing and drawing the oils or other liquids in the same story or on the same floor of the building.

I employ in this apparatus a tank or reservoir, A, in which the oil or other liquid is kept in quantity; an elevated reservoir or standing fountain, B, into which a limited quantity of the oil is pumped from the main tank A, to be drawn from for use or sale; a sink, C, into which any oil or liquid that may drip from the drawing-off spigot falls and is caught; and a drip-reservoir, D, into which the drippings descend from the sink, and are kept without exposure and deterioration. I also connect with the standing fountain B a measuring compartment or chamber, E, from which a determined quantity may be drawn without separate measuring.

The standing fountain B is located at a sufficient height to draw from conveniently through the spigot *a* by the gravity of the liquid, the can or vessel into which the liquid is drawn resting or being held over the sink C. The tank or reservoir A extends upward back of the standing fountain B, wholly or partially, and reaches down to the floor of the room, or as far as convenient. It is preferably made of sheet metal, set in a wooden case, as represented. The pump G, by which the oil or other liquid is drawn from the tank A and elevated into the standing fountain B, is located, as represented, in the standing fountain itself, although this location is not essential. Its handle is of bent form, extending first horizontally over the top of the fountain, and thence downward in front thereof, so that working the same backward and forward horizontally produces a vertical movement of the pump-piston, it being pivoted at or near the bend. Its barrel is connected by a three-way cock, *b*, with a pipe or tube, *d*, which reaches back into, and down nearly to the bottom of, the tank A, and with a short coupling-tube, *f*, to which may be coupled either a pipe, *g*, reaching down into the drip-receiver D, for again elevating the drippings into the fountain, or to a flexible pipe, (not shown in the drawings,) connecting with a barrel or other vessel containing oil or other liquid to be pumped into the tank A. This three-way cock is so constructed that, when its handle *c* is in a vertical position, as shown in Fig. 2, both communications with the pipes below are closed, and the liquid is retained in the standing fountain. When the handle is drawn forward into an oblique position communication is opened with the pipe *d*, leading from the tank A, and when the handle is pushed back into an oblique position, communication is opened with the coupling tube or pipe *f*, to

draw either from the drip-receiver D, or to fill the tank A from a barrel or other containing-vessel.

The same pump thus serves all the purposes of the apparatus for supplying and emptying the tank A, for supplying the standing fountain B, and for emptying the drip-receiver D.

To fill the tank A from a barrel, a flexible pipe leading therefrom is coupled to the tube *f* of the pump, and the handle *c* of the three-way cock is thrown back. On working the pump, the liquid is drawn from the barrel into the standing fountain B, and from that it flows through an aperture, *h*, in the separating-partition, and descends by its gravity into the tank A. This aperture, opening from the top of the standing fountain to the top of the tank, serves also for the passage of air from the one to the other as the fountain is filled and the tank is correspondingly emptied.

When, however, the reservoir or tank A is located in the story below the drawing apparatus, as represented in Fig. 4, I prefer to employ another device, to avoid the necessity of pumping, since the oil or other liquid can be caused to flow by its own gravity into the tank. For this purpose I employ a large receiving-funnel, H, Fig. 4, located between inclined ways I, whereon the barrel L is brought into position over the funnel, and opened with bung downward, so that the contents will run directly into the same, and from this funnel a pipe, *k*, extends horizontally, and is connected with a vertical pipe, *l*, leading down into the tank A below. The pipe *l* also may extend up through the drip-receiver D into the sink C, where connection may be formed between it and the pump. This pipe *l* may be used to return the drippings from the sink to the tank or to the drip-receiver, and be sealed at the top. An air-tube, *m*, may form communication between the tank A through the pipe *l*, as shown, and the top of the standing fountain. If the drippings are drained into the drip-receiver D, this air-tube will also communicate therewith. In the arrangement shown in Fig. 4 the pipe *d* leads directly up from the tank A through the drip-receiver D to the pump. The measuring-chamber E is connected with the standing fountain B by means of a three-way cock, *p*, located in, or communicating with, the drawing-spigot *b*, so that one spigot serves both to draw from the standing fountain and from the measuring-compartment. A pipe or passage, *r*, leads from the standing fountain to the three-way cock, and another pipe or passage, *s*, leads from the measuring-chamber thereto. The three-way cock also forms thereby the communication between the standing fountain and measuring-chamber for filling the latter. When the handle *t* of the three-way cock reaches directly forward, this communication between the fountain and chamber is made, and the spigot is closed. When the handle is turned to the left, as shown in the drawings, communication is made directly from the standing fountain to the spigot; and when the handle is turned to the right, communication is opened from the measuring-chamber to the spigot.

The measuring-chamber is formed to hold an accurately-measured quantity of liquid—such as a quart, a gallon, or just enough to fill a small oiler; also, the liquid can be drawn unmeasured directly from the standing fountain in any desired quantity. A glass tube, M, is connected with, and reaches up in front of, the measuring-chamber, to show whether the chamber is full or empty. The whole apparatus is inclosed in a wooden case, P, and the chamber over the sink C is closed by a sliding door, Q, which is slid down to open the apparatus for use.

A modified construction is shown in Fig. 5. Here the front door Q swings out sidewise on hinges, and the lid R, covering the standing fountain, also swings over to the same side, and rests on the outwardly-swung door, as shown. Thus a supported shelf is formed by the lid, on which an oiler-tray may rest while filling the oilers, or on which any other vessel may for the time be placed.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of the drip-reservoir D with the tank A, standing fountain B, and sink C, substantially as and for the purpose herein specified.

2. The combination of the measuring-chamber E with the standing fountain B, connecting-passages *r s*, and spigot *a*, substantially as and for the purpose herein specified.

3. The partition separating the tank A and standing fountain B, and provided with the passage *h*, substantially as and for the purpose herein specified.

4. The combination of the tank A with the standing fountain B, the former arranged to extend upward back of, or opposite to, the latter, so that when the tank is filled the oil will gravitate to the standing fountain, and vice versa, substantially as and for the purpose herein specified.

ELI F. WILDER.

Witnesses:
T. C. DAY,
O. DILLINGWORTH.