2 Sheets—Sheet 1.

J. M. BEAN.

OIL-TANKS.

No. 180,317. Patented July 25, 1876.

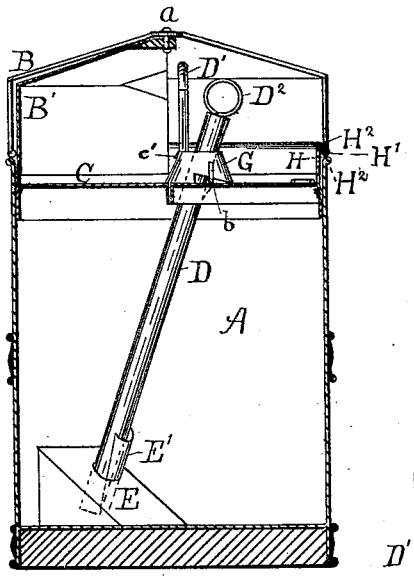

Fig. 1

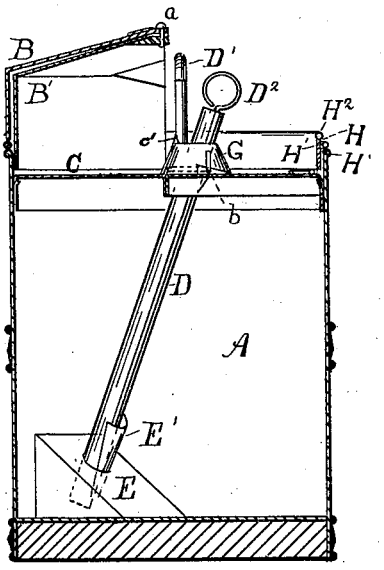

Fig. 3.

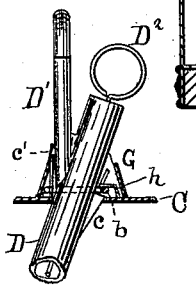

Fig. 5.

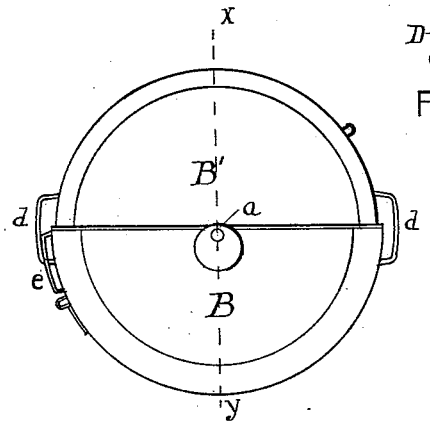

Fig. 2.

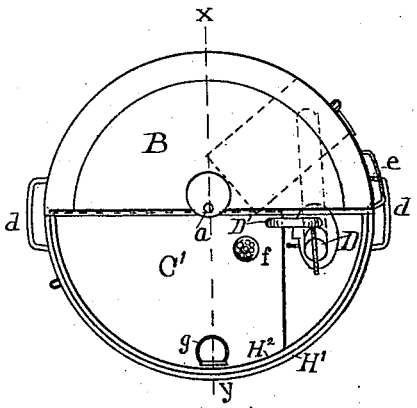

Fig. 4.

WITNESSES

J. L. Newton

J. S. Sanford

INVENTOR

James M. Bean

2 Sheets—Sheet 2.

J. M. BEAN.

OIL-TANKS.

No. 180,317. Patented July 25, 1876.

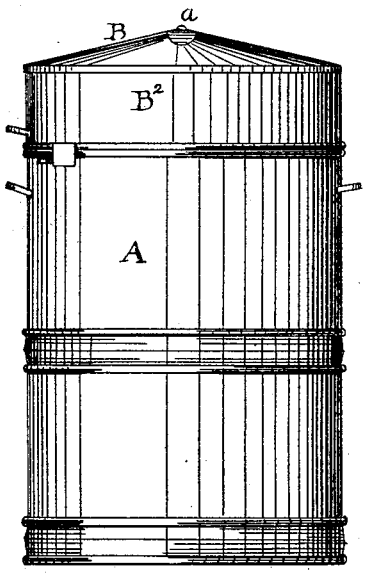

Fig. 6.

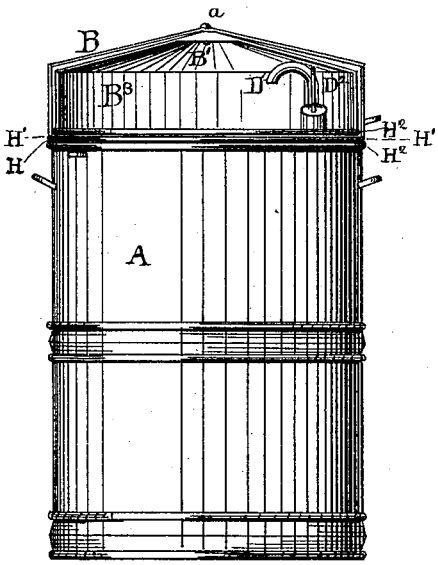

Fig 7.

WITNESSES

A. M. Hooton.

Thos Burroughs

INVENTOR

James M. Bean

by his attorney

J. L. Nicolet

UNITED STATES PATENT OFFICE.

JAMES M. BEAN, OF WATERTOWN, MASSACHUSETTS.

IMPROVEMENT IN OIL-TANKS.

Specification forming part of Letters Patent No. **180,317**, dated July 25, 1876; application filed January 13, 1876.

To all whom it may concern:

Be it known that I, JAMES M. BEAN, of Watertown, in the county of Middlesex and State of Massachusetts, have invented an Improved Oil-Tank, of which the following is a specification:

The invention relates to an improved arrangement of the pump for pumping oil from the tank, an improved floor in connection with the pump and its fixtures, and an improvement in opening the front part of the tank at and near the top.

The tank is circular in form, and is divided into two apartments by a horizontal floor near the top of the tank; and said floor has a trap-door, being a part of the floor, and removable when the tank is to be filled; and said floor is so arranged that the oil overflowing from the pump or measures will run back into the body of the tank. There is also arranged around the tank a support fastened to the inside of the tank, upon which the floor rests, and that part next the trap-door has a groove in it into which a lip of the trap-door fits, and is thereby held secure. The pump, instead of passing perpendicularly through the floor into the tank, as has always been done, is arranged at an angle in respect to the floor and tank, thereby rendering the pumping much easier, the piston being drawn outward instead of being lifted up.

The upper part of the tank, including the covering, is in two parts. One part, represented in Fig. 2 as B^1, is a covered sectional extension of the body A, the same being fixed and rigid; the other part, represented in said Fig. 2 as B, is a sectional can or tank cover, having a sloping top and a side (see B^2, Fig. 6) which is a portion of a cylinder with its base in the same horizontal plane with the body of the extension B^1. This part B revolves horizontally over and from the said extension B^1. B and B^1 are pivoted together at *a*, (see Figs. 1 and 3,) near the central part of the top covering of the tank, the edge of the part B on the top overlapping the edge of the part B^1, and upon this pivot B turns or revolves. H is a groove running half-way around the tank, or as far as the open part of the covering, and is formed by two beads or wires, H^2 H^2, one of which passes horizontally around the cylinder, and the other passes half-way around the cylinder, forming the top edge of the front part of the open tank. (See Fig. 4.) In the groove H is a wire, H^1, attached to the edges of and running around the base of the sectional covering B. The wire H^1 and the pivoting keep the said sectional covering B in its place, and, by the aid of which, B is made to revolve. *e* is a handle or any projection upon the side of the sectional covering B, by which the revolution of the same is facilitated.

Figs. 2 and 6 show top and side views of the tank closed.

Figs. 4 and 7 show the tank half uncovered, the trap-door C′, the perforations, Fig. 4, of the floor *f*, the handle of the trap-door *g*, and the top of the pump, &c.

Figs. 1 and 3 show vertical sections of the tank, a section of the floor, the pump, its inclination, fastenings, and supports at the top and bottom.

Fig. 5 is a part of the pump, with front of the conical support G removed; and Fig. 7 shows a section, B^2, of the tank removed, the same having been slid around from the position seen in Fig. 6, over the back part B^3 of the tank.

It will be observed, in Figs. 1 and 3, that the pump inclines with its top toward the operator; that the floor C separates the space for the oil in the lower part from the space above, which is of only sufficient height to set measures for drawing the oil; also, that there is space sufficient in the back part to set measures. D is an ordinary force or lifting pump, passing down through the floor C, as shown in Fig. 4, and its lower part passes through a brace or support, E, said brace having a semicircular sheath, E′, which keeps the lower part firm and steady.

G is a truncated cone resting upon a part of the floor C. At the side of G is seen the end of a spring, *b*. This spring coils around the base of the truncated cone. (More clearly seen in Fig. 5.) Upon the pump is seen a hook, *c*, and, upon the nozzle of the pump, the hook *c′*. When the pump is passed down into its place the hook *c* is under the spring *b*, and the hook *c′* passes into a notch in the top of the truncated cone G. There is also a brace or bar, *h*, within the truncated cone, seen in said Fig.

5, which prevents the spring *b* from being displaced. By these devices the pump is kept perfectly steady when operated.

When the tank is to be filled, the oil-barrel is rolled to the side of the tank; the trap-door C′ is removed and the pump taken from the tank, its lower end is inserted into the barrel and with the nozzle over the side, and that part, opened by the trap-door, the oil is pumped into the tank.

All patented oil-tanks have much waste room above the floor for conveniences in filling and for storing away measures, &c., on account of the openings at the top required. In this respect some of them require nearly one-third of the capacity of the tank in order to uncover the tank to operate it in filling and discharging. In place of the floor in this invention, most if not all of the patented oil-tanks have shelves and dripping-pans. There must be space between the shelves and the top high enough to set measures, and the dripping-pans must set low, and the oil in the tank must be below the dripping-pans, and thus much unnecessary space is taken up.

In this invention the floor is level, having any convenient perforations to allow the waste-oil to flow back into the tank; and, in regard to the arrangement of the pump, all the patented inventions for this purpose known to the applicant are placed perpendicularly to the bottom of the tank. Pumping in this position of the pump is laborious. In this invention, as shown in Figs. 1 and 3, the pump is placed at an angle to the bottom of the tank, so that the pumping is easier and much more convenient, and the operator is less liable to besmear himself with oil by any sudden overflow, or by oil from the side of the tank, being obliged to stand close to the tank in working the pump.

I do not claim in this invention the semi-revolving of the top part B, that having been patented heretofore; but I do claim the semi-revolving covering of a tank, said covering having a side part, which is a portion of the cylinder revolving in a plane horizontal with the body of the tank.

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

1. The combination of the tank-body A, having a covered sectional extension, B^1, as a rigid part thereof, with the sectional tank-cover B, having a sloping top and a side which is a portion of a cylinder with its base in the same horizontal plane with the body of the extension B^1, said covering revolving horizontally over and from said extension, as and for the purpose set forth.

2. In an oil-tank, A, the combination and arrangement of the circular floor C C′, the truncated cone G, having within it a spring, *b*, and a bar, *h*, the inclined pump D having hooks *c c′*, the brace E and its semicircular sheath E′, substantially as shown and described.

JAMES M. BEAN.

Witnesses:
J. L. NEWTON,
J. S. LAMPRY.