No. 683,816. Patented Oct. 1, 1901.

J. H. TOWERS.

TANK.

(Application filed Aug. 3, 1900.)

(No Model.)

Fig. 1.

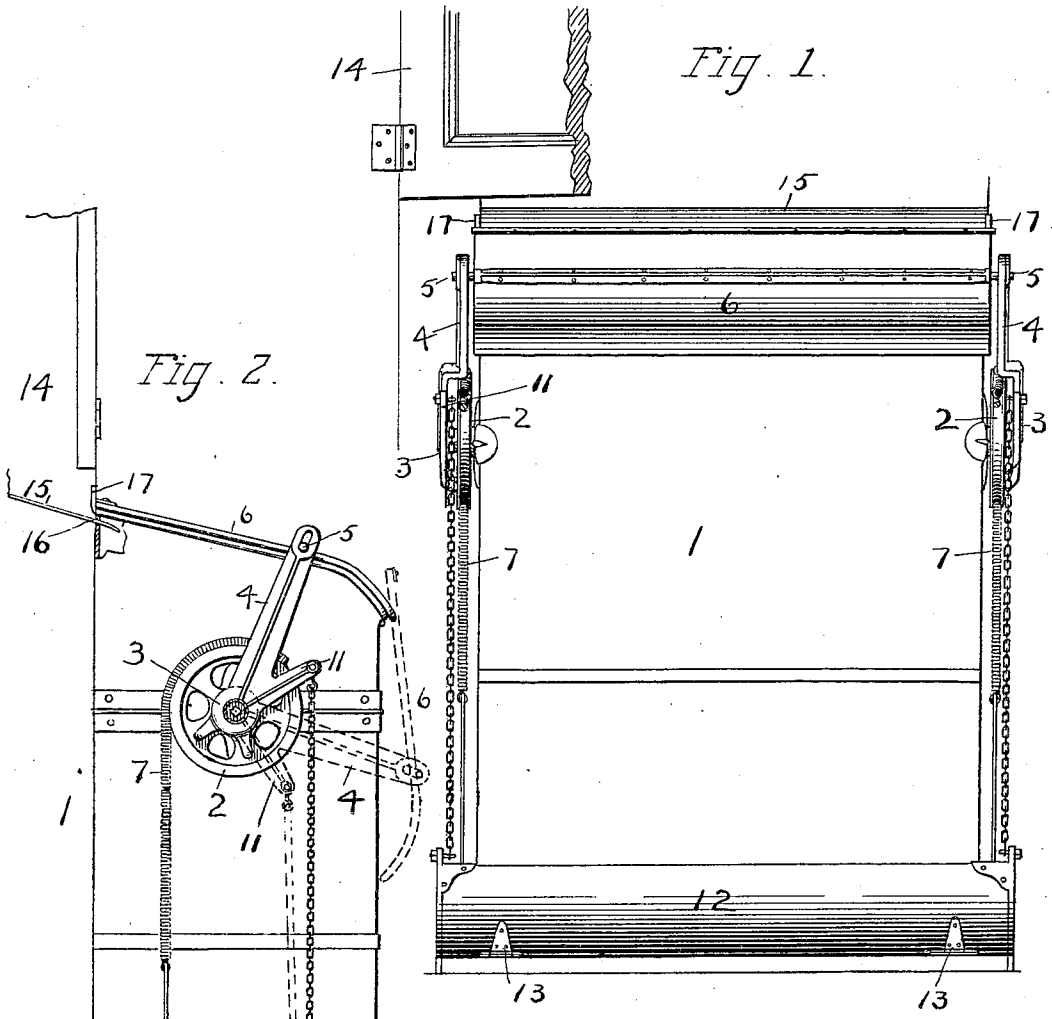


Fig. 2.

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UNITED STATES PATENT OFFICE.

JAMES H. TOWERS, OF NEW BRITAIN, CONNECTICUT, ASSIGNOR TO P. & F. CORBIN, OF SAME PLACE.

TANK.

SPECIFICATION forming part of Letters Patent No. 683,816, dated October 1, 1901.

Application filed August 3, 1900. Serial No. 25,809. (No model.)

To all whom it may concern:

Be it known that I, JAMES H. TOWERS, a citizen of the United States, and a resident of New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Tanks, of which the following is a specification.

My object in developing this invention has been to construct a tank adapted for holding perishable or dangerous materials and to provide it with a cover operated automatically to uncover and cover the tank.

My invention is clearly illustrated in the drawings, in which—

Figure 1 is a front view of the tank. Fig. 2 is a side view of same, showing the cover in its extreme positions.

My invention has especial reference to the plating and lacquering business, in which the solutions used are kept in open tanks in order that access to them can be had readily. Many of these solutions are made up of ingredients some of which are very volatile and give off fumes which are very unhealthful and injurious to those working near them. The constant and rapid evaporation of some of the ingredients of the solution also results in a very considerable loss to the consumer and makes it necessary to continually add a thinner to keep the solution at its proper consistency. Dust and dirt also collect rapidly in the solution and soon make it unfit for use on the finer grades of work, so that it must be discarded before it is nearly used up. Some of these solutions are very inflammable, especially those used in lacquering, and the lives of the workmen and property are in constant danger so long as these tanks are open. Heretofore all of these disadvantages and dangers have been submitted to for the reason that the tanks are in quite constant use and too much time would be consumed in taking off and putting on the covers every time they are used. By my invention the tanks are kept tightly closed all the time they are not in use, thus preventing evaporation and keeping out the dirt and dust and eliminating the danger from fire, and the cover and its operating mechanism are so arranged that the very act of the workman taking a position in front of the tank to use it removes the cover automatically, and on stepping away from the tank the cover is returned to its original position.

Referring to the drawings, 1 denotes a tank, of any suitable size or shape, having journaled at each side a grooved wheel 2, to which is attached a spider 3, having an arm 4, slotted to receive pins 5, which are attached to the cover 6 at points between its front and rear edges. Attached to the grooved wheel is a spiral spring 7, connected at its other end to the floor, as at 10. Another arm 11 of the spider is connected with the free end of a treadle 12, which is connected with the floor, as by means of a hinge 13. The stop 17 limits the movement of the cover when closing.

The operation of the parts is readily understood. The treadle is so placed that a person must stand on it when using the tank, thus depressing it and by means of the connection between the treadle and the arm 11 of the spider turning the wheel. The spider being rigidly attached to the wheel, the arm 4 will carry the cover down in front of the tank, as shown in Fig. 2, entirely out of the way. The parts are so arranged that the cover while moving to its open position is always close up to the front of the tank, thus enabling the workman to step up close to the tank and yet not be in the way of the cover while it is moving. The spring 7 returns the parts to their original positions when the pressure on the treadle is removed.

Although I have described and illustrated my invention with especial reference to the plating and lacquering business, it must be evident that in the practice of any of the arts a tank of this kind will often be found useful for holding either solid or liquid materials, and my invention is intended to include the use of a tank of this kind for any purpose whatever. It will also be evident that many changes in the details of construction can be made without departing from the spirit of my invention, the mechanism shown and described being merely the preferred embodiment.

I claim as my invention—

1. In combination, the tank, the removable cover therefor, a treadle, arms journaled at the sides of the tank connected at their ends

with said cover, and connections between the treadle and said arms on the front side of the journal, substantially as described.

2. A tank, a cover therefor carried by arms journaled at the sides of the tank, said cover being capable of a limited amount of movement away from the journals, and a treadle connected with said arms.

3. A tank, arms journaled at the sides thereof, slots in the ends of the arms, a cover, pins on the cover resting in the slots in the arms, and a treadle connected with said arms.

4. A tank, a cover therefor, arms journaled at the sides thereof, a treadle connected with said arms, and connections between the arms and the cover to allow it a limited movement away from the journals, the parts being so arranged that the cover is carried to the same side of the tank as the treadle when said treadle is under pressure.

5. A tank, a cover therefor carried by arms journaled at the sides of the tank, a treadle located in front of the tank, said treadle being connected with said arms in front of the journal whereby when pressure is placed on the treadle, the arms will move the cover to the front of the tank, substantially as described.

Signed this 12th day of July, 1900, at New Britain, Connecticut.

JAMES H. TOWERS.

Witnesses:
A. W. UPSON,
H. E. HART.