2 Sheets—Sheet 1.

J. S. PARMALEE.

Barrel-Filler.

No. 208,332.

Patented Sept. 24, 1878.

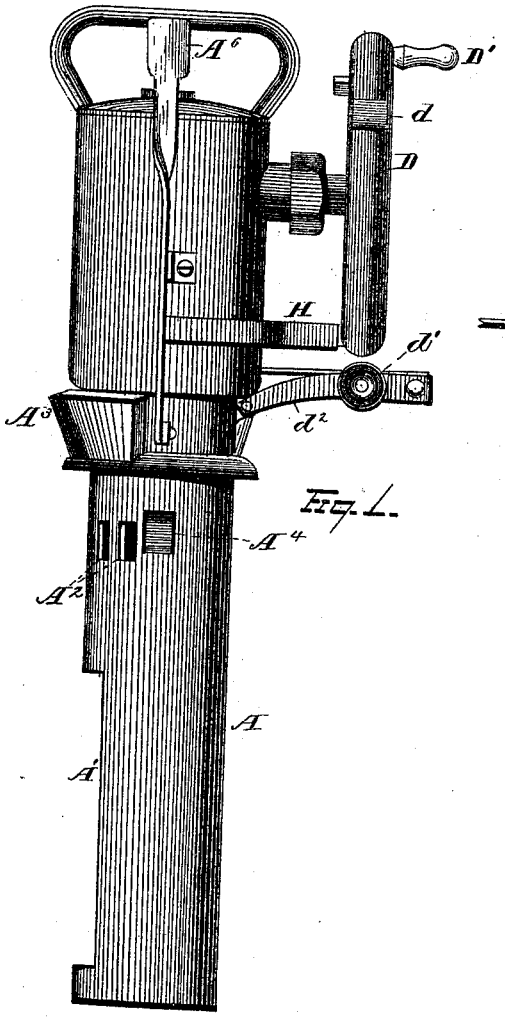

Fig. 1.

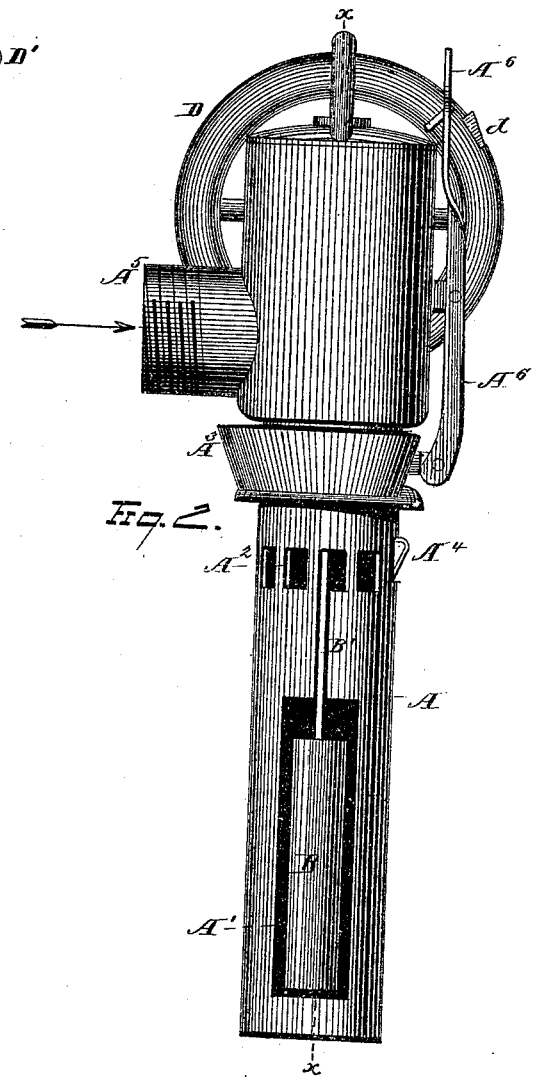

Fig. 2.

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2 Sheets—Sheet 2.

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Fig. 3.

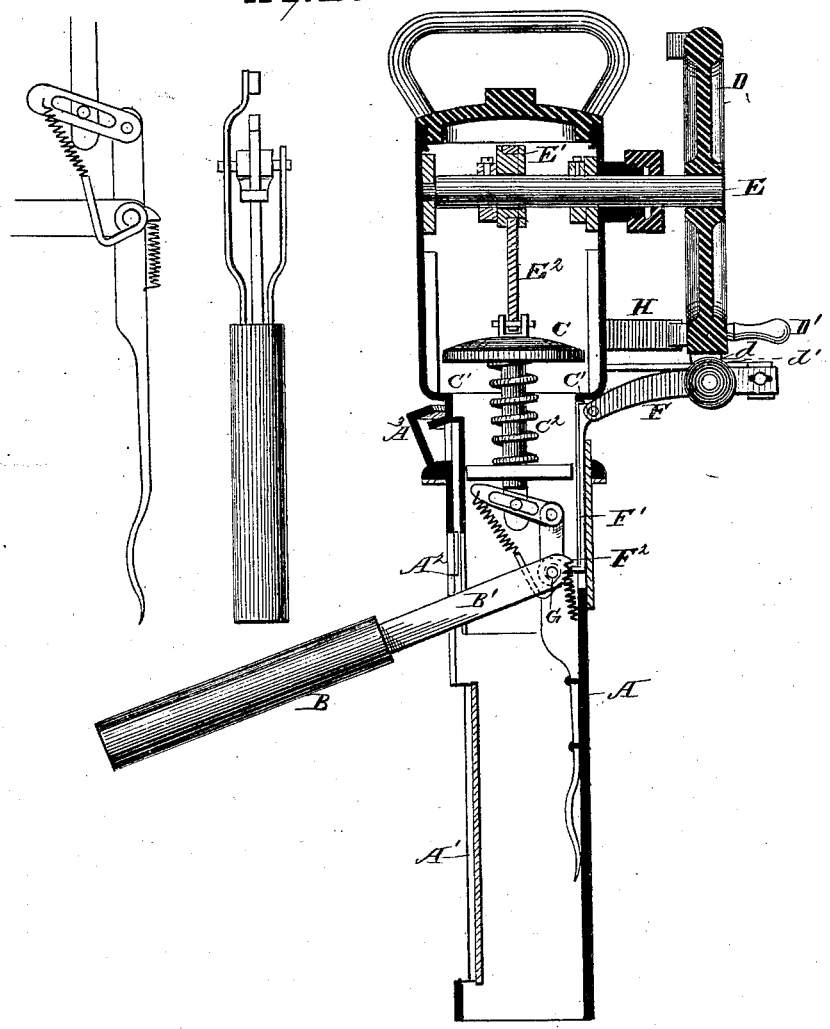


Fig. 4.

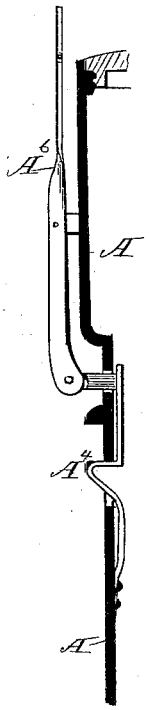
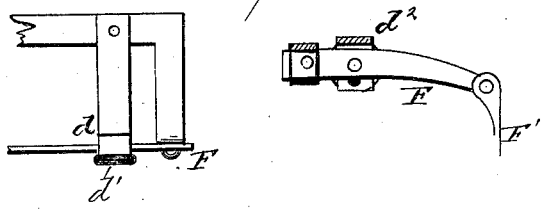


Fig. 5.



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UNITED STATES PATENT OFFICE.

JOHN S. PARMALEE, OF CLEVELAND, OHIO.

IMPROVEMENT IN BARREL-FILLERS.

Specification forming part of Letters Patent No. **208,332,** dated September 24, 1878; application filed July 17, 1878.

To all whom it may concern:

Be it known that I, JOHN S. PARMALEE, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Barrel-Fillers; 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 improvement in barrel-fillers; and it consists in combinations and construction that will more fully hereinafter appear.

In the drawings, Figure 1 shows one form of my device. Fig. 2 is another view of the same, showing the inlet-pipe and other features not shown in Fig. 1. Fig. 3 is a vertical sectional view of the same, taken through the line *x x* of Fig. 2. Fig. 4 is a detached view, showing the manner of attaching the device to a barrel during the operation of filling, and liberating it after the barrel is filled. Fig. 5 is a detached view of one form of mechanism by which the amount of fluid admitted to the barrel may be regulated.

A is the casing or spigot through which the fluid passes from the tank or reservoir to the barrel. This spigot is supplied with an aperture, A^1, through which the float B passes. The float B is attached to a lever, B′, which is suitably connected with the valve C. D is a crank hand-wheel, permanently attached to the shaft E. To this shaft E is also attached the eccentric E^1, which is connected with the valve C by the eccentric-rod E^2. A^2 are air-passages, through which the air from the barrel during the operation of filling may pass.

Heretofore in most barrel-fillers the spigot has been made to fit loosely in the bung-hole of the barrel, and thus permit the escape of air to the outside. I have found by actual experiment that more or less oil is forced out with the air when used for filling oil-barrels, and allowed to escape in the manner above described. This oil would run over the barrel, and more or less injure the paint upon the outside, besides wasting the oil. To obviate this I make the spigot of my filler to fit closely the bung of the barrel, and hold it firmly in position by means of the spring-latch A^4.

Air-passages connecting the inside of the barrel with the outside are provided, through and connecting the apertures A^2 and the crown, head, or dripping-pan A^3. The dripping-pan A^3 is provided with double cover, projecting from and attached to opposite sides of the drip-pan, as shown in Fig. 3, thus permitting the easy escape of air, but retaining the oil or other liquid that may be forced up by the air in the shape of froth or foam, and returning it to the barrel through the spigot A as the bottom of the drip-pan is connected by a fluid-passage directly with the interior of the spigot.

The operation of my device is as follows: The inlet-port A^5, Fig. 2, is suitably connected with the reservoir or supply, preferably by elastic hose. The filler A is inserted in the bung-hole of the barrel until the crown A^3 rests upon the outside of the stave, and is held securely in position during the operation of filling by means of the spring catch or latch A^4. The valve C is raised by turning the crank D partially around until the catch *d* engages the spring-lever or slotted catch d^2 before regulated by the set-screw d^1. By this operation the valve C is raised from its seat C^1, and being connected, as shown in Fig. 3, with the float B, carries the said float B through the aperture A^2 in the spigot A into the barrel, as shown in the same figure.

The aperture A^1 may or may not be supplied with a door that will close automatically by means of a spring after the float B has passed out.

The valve being open the barrel is now filled rapidly, as the passage is clear from the reservoir to the interior of the barrel. During the operation of filling, the air within the barrel, as it is displaced by the fluid, escapes through the apertures A^2, carrying with it more or less of the fluid in the shape of froth or foam. The air readily escapes through the passages already described; but the fluid is intercepted by the coverings to the drip-pan A^3. As the barrel is filled the float B will be carried upward upon the surface of the fluid. At the desired point, which has before been deter-

mined, and the device regulated accordingly by means of the slotted catch d^2 and the set-screw d^1, the catch or lug d on the crank D is tripped by the float through the lever-connections, as shown in Fig. 3, or in any other suitable manner.

The catch d^2 is adjustably attached to the lever d^3 by means of the thumb set-screw d^1. As this catch d^2 is raised or lowered more or less fluid will be admitted to the barrel before the valve is released, and at pleasure it can be so set that the valve will be closed when the barrel is filled to any point desired.

The crank D set free, the valve C will resume its seat C^1 by the force of the weight of the fluid above it, or it may be assisted by the coil-spring C^2; and, if desired, further assistance may be given it to insure its promptly resuming its seat by means of the spring H, operating upon the crank D. As the valve closes the float B will return to the interior of the spigot, and by operating the lever A^6 the spring-latch A^4 is forced back within the casing and the filler easily removed from the barrel and ready to be inserted in the next.

In the drawings I show one manner of connecting the float B with the crank D, the tripping of which releases the valve and closes it.

The arm B′ of the float B is pivoted at G. The float B is raised by the fluid in the barrel, thus causing the short arm F^2 of the float lever-arm B^1 to bear upon the arm F^1 of the spring-lever F, thereby depressing and tripping the lock d^2, releasing the crank, and thereby closing the valve.

The mechanical construction of my device may be variously modified, and I do not limit myself to any particular mechanism by means of which the valve is closed by raising the float.

What I claim is—

1. In a barrel-filler, a float working on the inside of the barrel and on the outside of the filler-tube, substantially as described and shown.

2. The combination, with air-passage within a barrel-filler, of a drip-pan, provided at its upper end with deflectors to prevent the escape of liquid, substantially as set forth.

3. In a barrel-filler, the spring-latch A^4, substantially as and for the purposes shown.

4. The combination, with an oscillating float of a barrel-filler, of a lever, F, provided with an adjustable catch, d^2, an arm, F^1, and a crank or hand wheel attached to the valve-operating shaft, and provided with a catch, d, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN S. PARMALEE.

Witnesses:

JNO. CROWELL, Jr.,

W. E. DONNELLY.