

No. 663,712.

T. W. ALEXANDER.
OIL CAN.

Patented Dec. 11, 1900.

(Application filed Aug. 2, 1900.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 2.

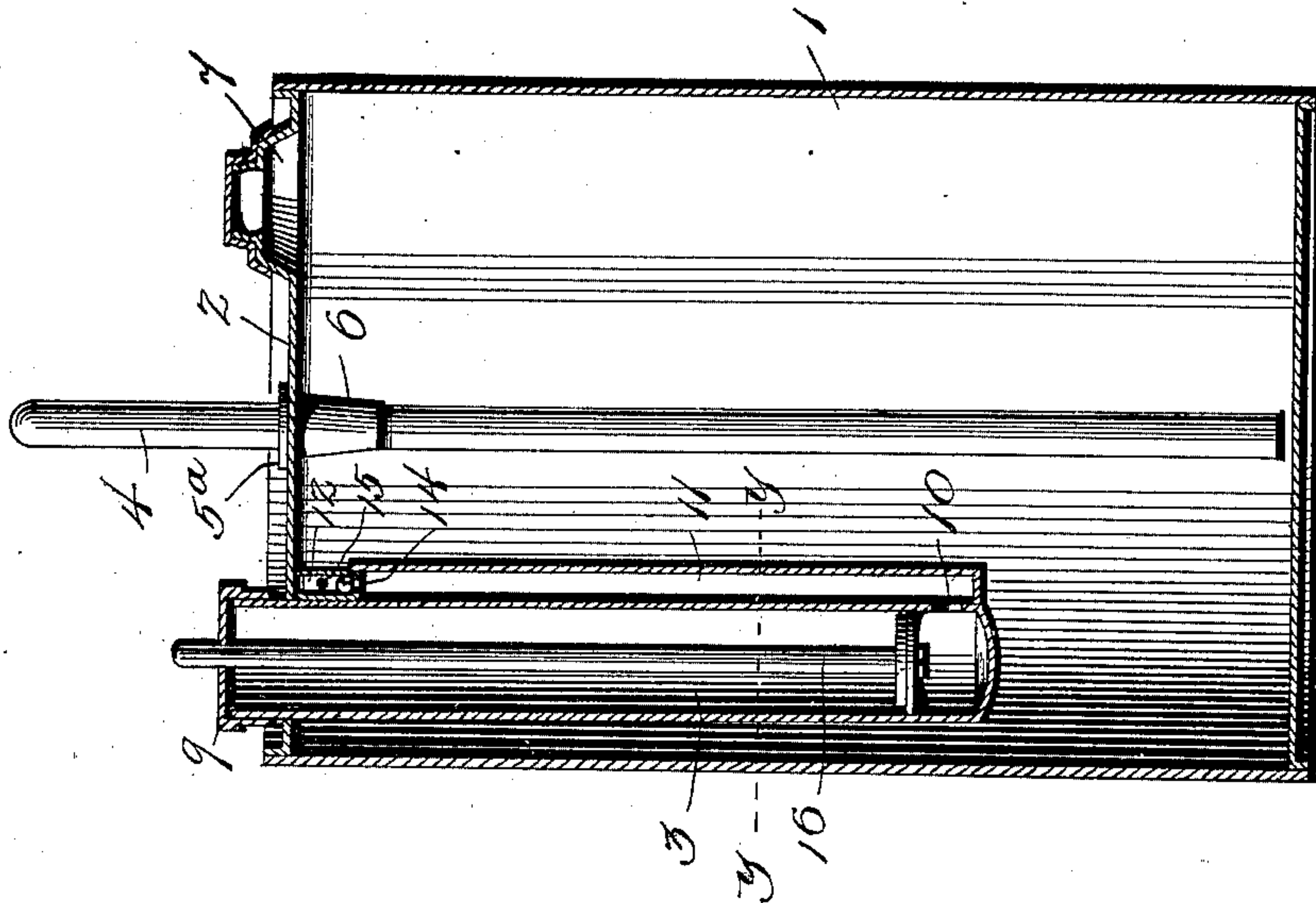
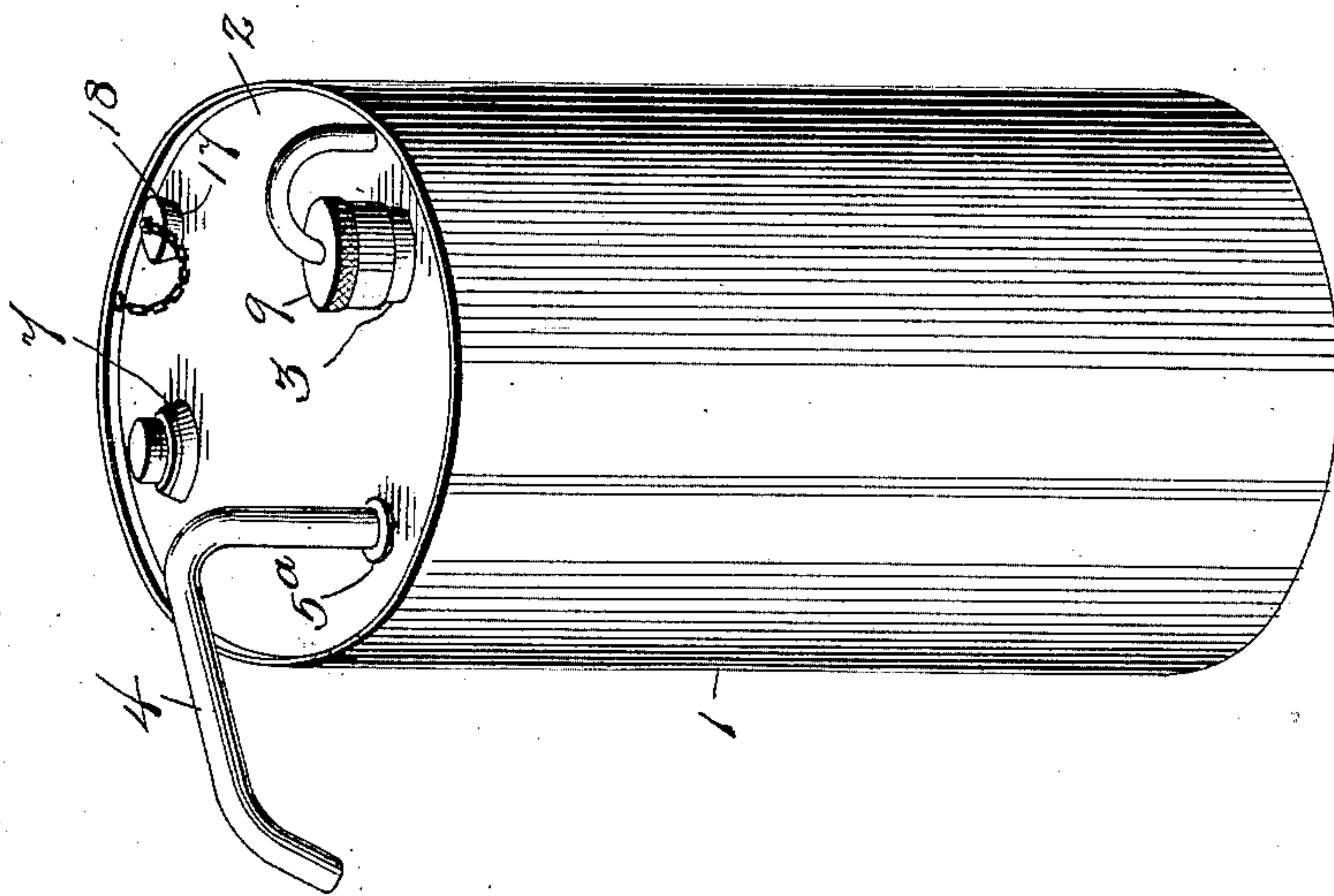


Fig. 1.



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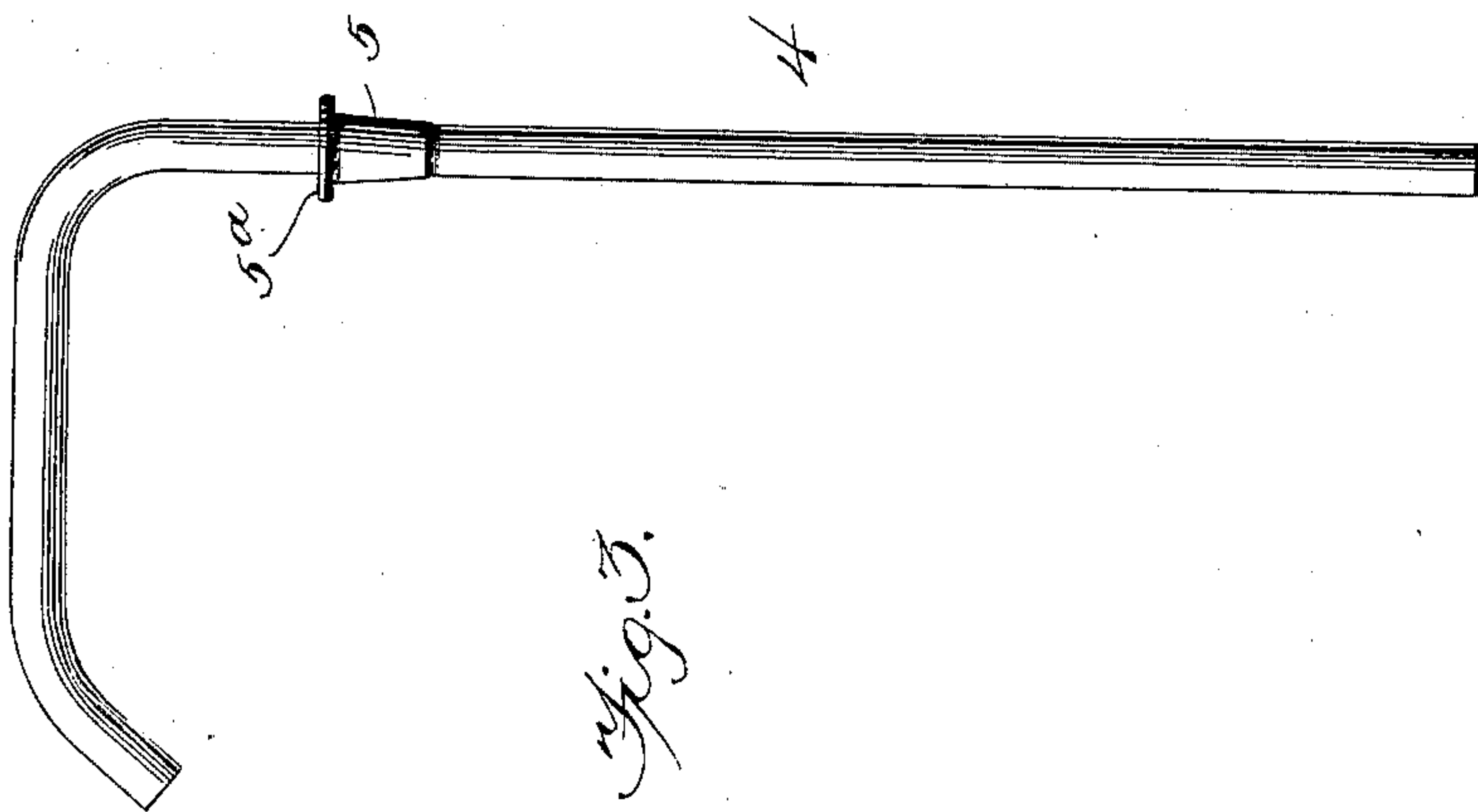
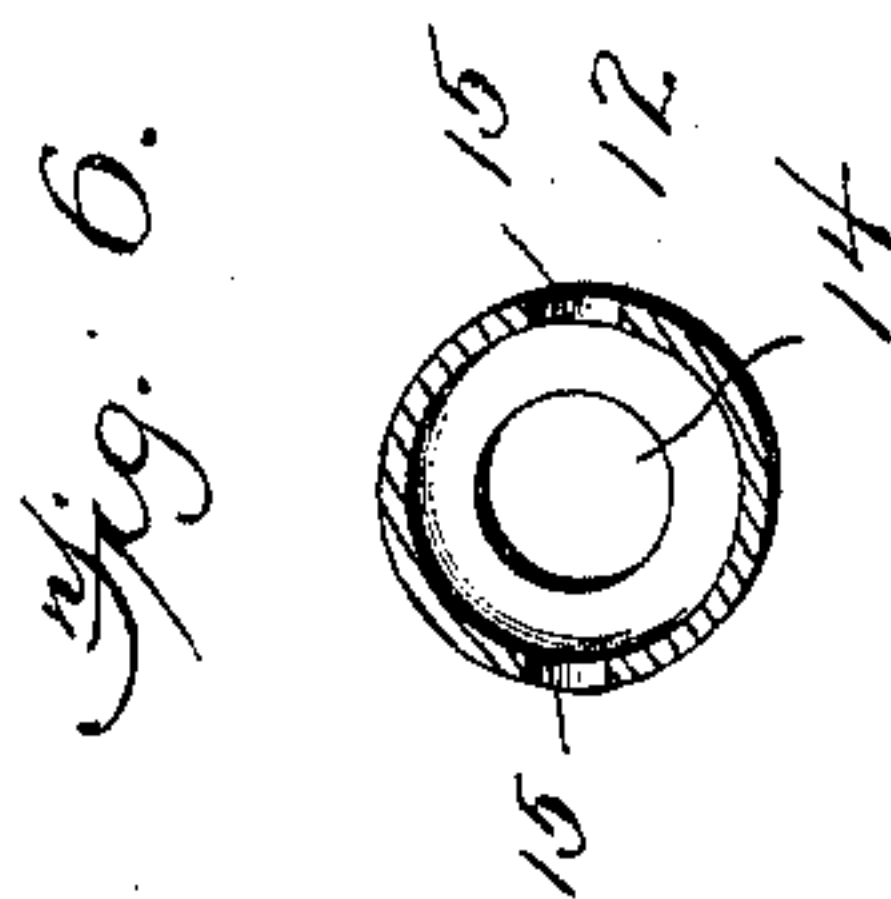
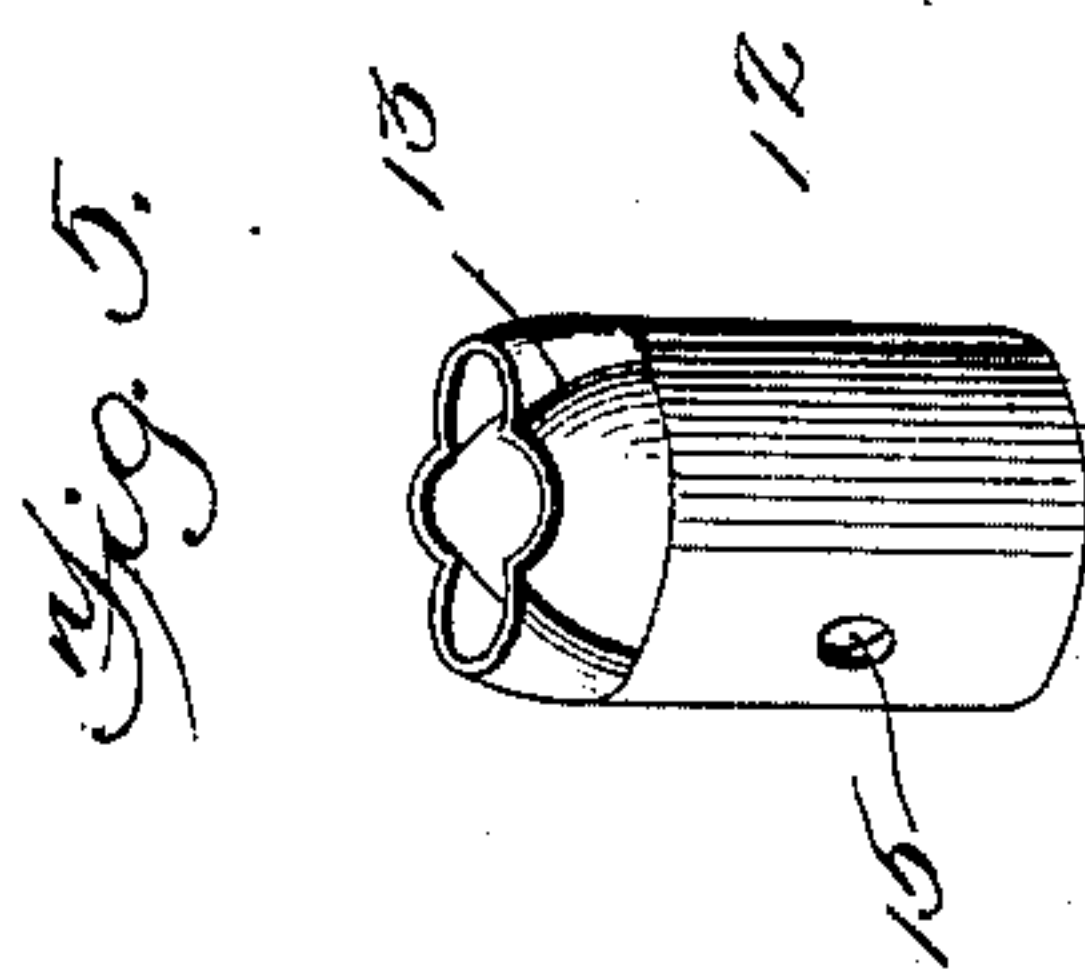
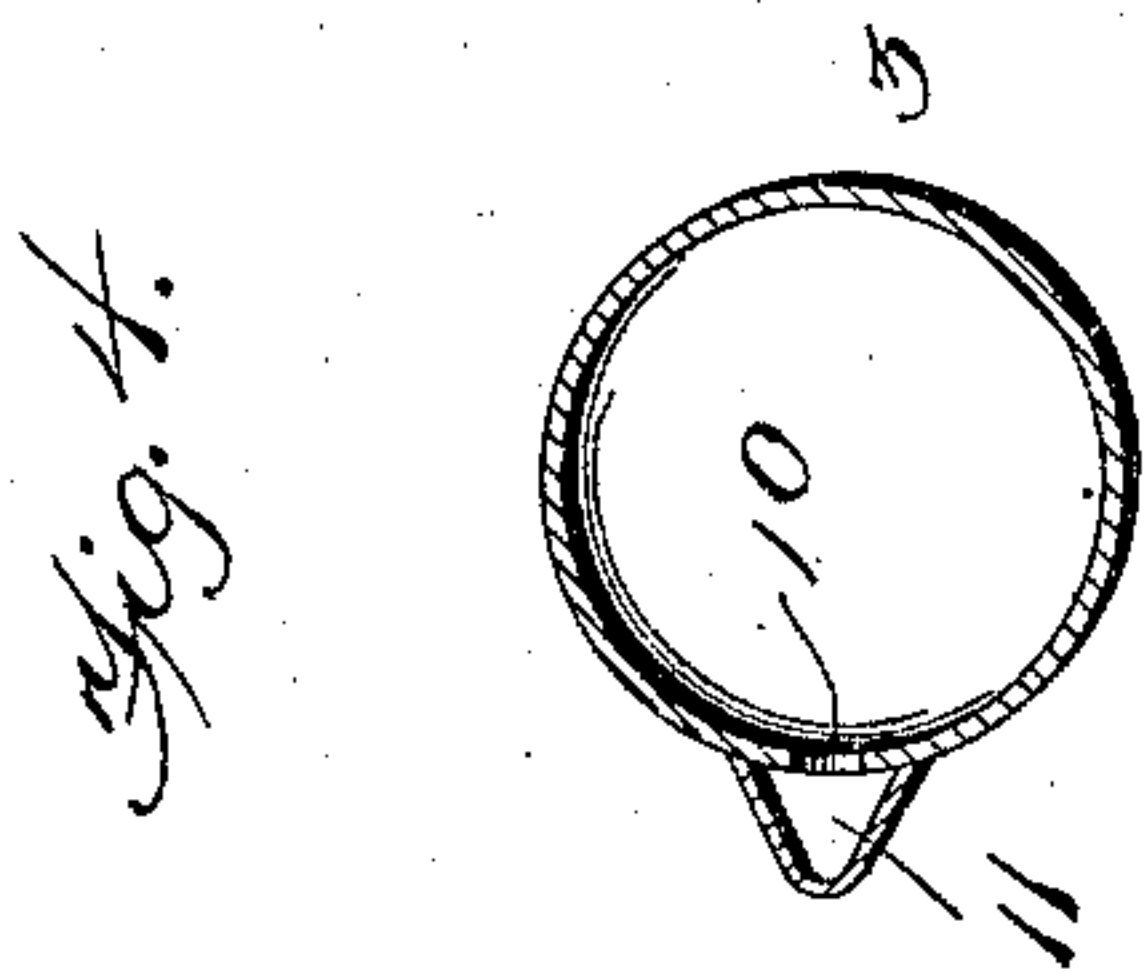
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UNITED STATES PATENT OFFICE.

THEOPHILUS W. ALEXANDER, OF BURLINGTON, IOWA.

OIL-CAN.

SPECIFICATION forming part of Letters Patent No. 663,712, dated December 11, 1900.

Application filed August 2, 1900. Serial No. 25,678. (No model.)

To all whom it may concern:

Be it known that I, THEOPHILUS W. ALEXANDER, a citizen of the United States, residing at Burlington, in the county of Des Moines and State of Iowa, have invented certain new and useful Improvements in Oil-Cans; 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 appertains to make and use the same.

My present invention is designed to improve the construction of pneumatic oil-cans wherein air-pressure is employed for forcing the fluid from one vessel to another—as, for example, from an oil-can to a lamp.

The objects of the invention are to simplify the construction, reduce the cost of manufacture, and promote convenience of the operator in using my device.

My invention consists in the construction and combination of parts, as hereinafter more fully described, and pointed out in the claims.

A structure embodying the essential feature of my invention is represented in the accompanying drawings, in which—

Figure 1 is a perspective view. Fig. 2 is a vertical section through the can and its inclosed pump. Fig. 3 is a detailed view of the discharge-pipe with attached sleeve or stopper. Fig. 4 is a cross-section on the line $y y$ of Fig. 2. Fig. 5 is an enlarged perspective view of the valve 12. Fig. 6 is a cross-section of the valve on a line with the lateral ports.

Referring to the drawings, showing a preferred embodiment of my invention, 1 is an oil-can or other suitable vessel; 2, the top; 3, the pump, and 4 a detachable combined discharge-tube and handle. The discharge-tube is provided with a tapering sleeve or stopper 5 at such a position that it will become seated air-tight in the thimble 6 when the lower end of said tube is at the proper distance from the bottom of the can, &c. The stopper is of the usual tapering form and is preferably made with a flange 5^a to indicate the maximum depth to which the discharge-tube can be lowered and to serve as a stop. This tube comprises the ordinary discharge-tube and a discharge-nozzle all in one part, the nozzle portion thereof serving as a handle in withdrawing and replacing the tube.

I attach importance to my construction of a discharge-tube, comprising, as it does, the discharge-tube and the nozzle combined with a sleeve or stopper 5, which is soldered or otherwise permanently attached thereto, so that in withdrawing the tube for the purpose of repair or in sending the can to market to be filled the said tube is readily removed and replaced and there are no loose parts to be mislaid or lost.

7 is the usual opening in the top of the can for filling the same.

3 is the pump, preferably provided with a removable cap 9 and having an opening 10 at its lower end, which communicates with an air-chamber 11, which is provided with my improved valve 12. This valve 12 is so attached to the air-chamber 11 that its upper end, having crimps or indentations 13, rests just below the cover and is preferably of tubular form and has an opening 14 in its lower end and two lateral ports 15 at such a distance from the upper indented end that the ball-valve when in its elevated position will occupy the space above said ports, thus leaving them free for the passage of air to the can under pressure of the piston in the pump from the chamber. The indented portions of the upper crimped end of the valve-casing provide additional air-outlets, as shown, and for limiting the upward movement of the valve or ball as the air escapes through the ports 15, opened by such upward movement of valve. The piston-rod 16 has a piston-head composed of a metallic section and a flexible or leather section. The diameter of the two is such that on the downward stroke the leather will close the space between the metallic section and the inner wall of the pump, whereas on the upper stroke the outer edge of the flexible section will drop away from the metallic or rigid section to allow the air to pass below the piston.

17 is an opening in the cover having a stopper 18. By withdrawing the stopper the air-pressure upon the liquid is at once removed and the discharge of the liquid is thereby immediately stopped.

The operation is obvious. Air is pumped into the can, under the top thereof, until the desired pressure is obtained to secure the discharge of liquid through the discharge-tube.

This pressure can be maintained until any part or the entire contents of the can are discharged.

I am aware that slight changes may be made in the details of construction herein shown without departing from the spirit of my invention—as, for example, instead of two lateral ports one can be used, and in lieu of the indentations notches could be substituted having insufficient space between the top of the can and tube to permit the ball or other-shaped valve to be forced out of its chamber.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a vessel of the character described, the combination of a pump depending within said vessel and having a communicating lateral air-delivery chamber, discharging at its upper end, and a valve, with its casing communicating with said discharging end of said chamber and provided with a lateral air-outlet, above its lower end, the upper end of said casing having indentations adapted to form

stops to limit the upward movement of said valve and to form additional air-outlets above said valve, substantially as set forth.

2. In a vessel of the character described, the combination of a pump depending within said vessel and having a communicating lateral air-delivery chamber, discharging at its upper end, and a valve, with its casing communicating with said discharging end of said chamber and provided with a lateral air-outlet, above its lower end, the upper end of said casing having indentations adapted to form stops to limit the upward movement of said valve and to form additional air-outlets above said valve, and a tube fitted to said vessel to deliver the liquid or oil therefrom, acted upon by the pump-piston, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

THEOPHILUS W. ALEXANDER.

Witnesses:

J. W. TRESSEL,
A. L. MCGRAW.