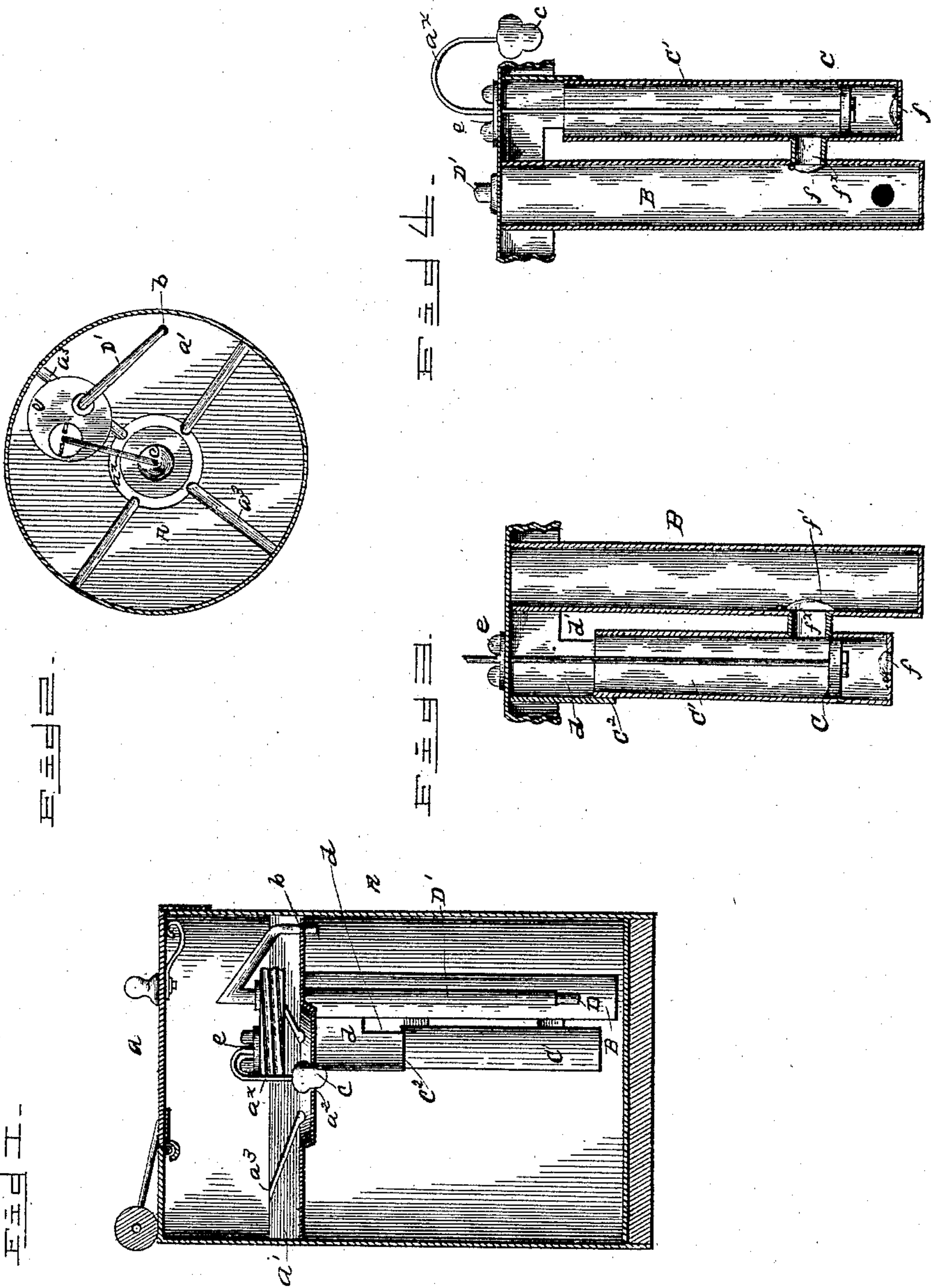


(Model.)

F. S. BELCHER.
FLUID CAN AND PUMP.

No. 413,162.

Patented Oct. 22, 1889.



Witnesses
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UNITED STATES PATENT OFFICE.

FRANK S. BELCHER, OF CHARLOTTE, MICHIGAN.

FLUID CAN AND PUMP.

SPECIFICATION forming part of Letters Patent No. 413,162, dated October 22, 1889.

Application filed May 15, 1889. Serial No. 310,806. (Model.)

To all whom it may concern:

Be it known that I, FRANK S. BELCHER, a citizen of the United States of America, residing at Charlotte, in the county of Eaton and State of Michigan, have invented certain new and useful Improvements in Fluid Cans and Pumps, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention is directed to certain improvements in oil or liquid pumps; and it consists of the novel combination of parts and their construction, as will fully appear from the following description and illustration, in
15 which—

Figure 1 is a partly sectional and partly side elevation of my invention. Fig. 2 is a plan view of the same. Figs. 3 and 4 are opposite detailed sectional views, certain portions being broken away.

20 In the embodiment of my invention I employ a can or tank A, as usual, for holding the oil or liquid, which is provided upon the inside some distance below the cover a of the can or tank with a supplemental cover or top a' , which slightly inclines toward the center, having a central aperture a^2 therein, as also radial channels or gutters a^3 , for the return of the drippings through said aperture to the
25 can or tank. The central aperture or opening a^2 is designed, also, for the filling-point instead of having a separate opening for that purpose, and a separate smaller opening for the return of the drippings or spilled oil or
30 liquid.

35 B is the pump-cylinder; C, the plunger, and C' the pump-barrel; and D D' is the sectional outlet or discharge pipe, all being assembled together. The pump-barrel C' has in its bottom an upwardly-opening valve f and is connected, near its lower end, with the pump-cylinder B by a short passage f^x , over the end of which connecting with the cylinder B is hung a valve f' , opening away from said
40 end of the passage. The pump-barrel C' does not extend to the cap e , being shortened, as at C², to permit of the overflow or discharge within the tank of such of the liquid as may rise above the plunger, thereby preventing
45 said liquid from being forced out around the plunger rod and cap e . The cylinder B serves

to receive and permit of the storage therein of the fluid, as the latter is lifted into the barrel C' by the plunger, and then forced through the passage f' by the downstroke of the plunger, as before stated, giving the oil sufficient height of column during the action of the plunger to effect the ready discharge or overflow of the fluid through the discharge-pipe. The discharge-pipe has its upper or outer section D' telescoped and sliding upon the inner or lower section D, whereby the discharge end of spout is adapted to enter a pocket or well b in the top of the can or tank, the purpose of which will appear farther on. The plunger C has its upper or handled end extended horizontally and curved goose-neck fashion, as at a^x , and provided with a plug c , preferably of acorn shape, which enters and closes the opening a^2 for both filling and vent purposes when the same is out of use. This arrangement, taken in connection with the letting of the discharging end or spout of the discharge-pipe into a pocket or well of the can-top, renders the can perfectly air-tight, to prevent evaporation of the contents of the can or tank.

50 Instead of extending the upper end of the pump-barrel B to the cap e , up through which the plunger-rod passes, as before stated, I secure to said end of the barrel B a supplemental closure d , opening at one side, as at d' , thus permitting the overflow to discharge thereat into the can during the pumping operation, consequently preventing the liquid from rising or being carried to the cap and escaping around the plunger-rod through the opening in said cap. The supplemental closure d provides for the connection of the cylinder B to the cap e , serving in that respect the same purpose as would be effected if the ordinary barrel were used.

55 It will be seen that upon the upstroke of the plunger C the valve f will open and admit liquid into the barrel C', and that upon the downstroke of said plunger the valve f will close, and the admitted liquid will be forced through the passage f^x , the valve f' opening under the pressure to which it is thus subjected, thus permitting the liquid to enter the cylinder B and be discharged through the pipe D D'.

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

- 5 1. In a liquid-pump, the combination, with the can or tank having a central filling and vent opening, of the plunger having its handled or outer end provided with a plug entering or closing said opening, substantially as set forth.
- 10 2. The liquid-pump having the discharge-pipe adapted to enter at its discharge or out-

let end, a pocket or well in the can cover or top, and the plunger having its outer or handled end provided with a plug entering or filling an opening in the can or tank, substantially as set forth. 15

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

FRANK S. BELCHER.

Witnesses:

ROLLIN C. JONES,
W. P. LACEY.