W. W. STETSON.

Pump.

No. 206,496. Patented July 30, 1878.

Fig. 1.

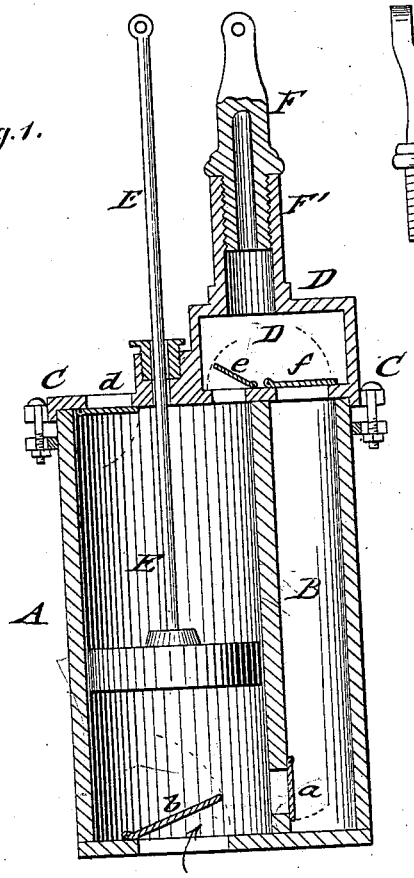
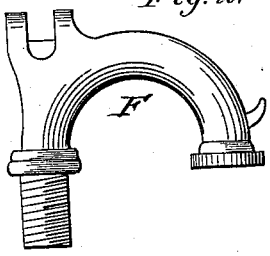



Fig. 2.




WITNESSES:

Henry N. Miller

C. Sedgwick

INVENTOR:

W. W. Stetson

BY Munn & Co

ATTORNEYS.

# UNITED STATES PATENT OFFICE.

WILLIAM W. STETSON, OF HENRY, ILLINOIS.

## IMPROVEMENT IN PUMPS.

Specification forming part of Letters Patent No. **206,496**, dated July 30, 1878; application filed May 25, 1878.

*To all whom it may concern:*

Be it known that I, WILLIAM W. STETSON, of Henry, in the county of Marshall and State of Illinois, have invented a new and Improved Pump, of which the following is a specification:

In the accompanying drawings, Figure 1 represents a vertical central section of my improved pump, and Fig. 2 a detail side view of the goose-neck discharge-spout of the same.

Similar letters of reference indicate corresponding parts.

This invention relates to such improvements in double-acting force-pumps that a large amount of water can be raised in connection with a simple and durable construction of the pump.

The invention will first be described in connection with the drawing, and then pointed out in the claim.

Referring to the drawing, A represents the main barrel of my improved double-acting force-pump, and B a side chamber, which is extended along the entire length of the main barrel, connected therewith by a flap-valve, *a*, near the bottom of the side chamber.

The top plate or cap-piece C of the pump is cast in one piece with a top valve-chamber, D, the cap-piece and valve-chamber being tightly screwed down to the main barrel and side chamber.

The piston-rod E is guided in a suitable stuffing-box of the barrel and operated by a lever that is fulcrumed to projecting ears or bearings cast in one piece with a goose-neck spout, F, that is screwed down into a vertical extension, F′, of the top valve-chamber, D.

The main barrel is provided with a bottom valve, *b*, and with two top valves, *d* and *e*, of which valve *d* is outside of the top valve-chamber, and the other valve, *e*, inside of the same.

The side chamber communicates also with the top valve-chamber by a valve, *f*.

The upward motion of the piston opens the bottom valve of the main barrel, so as to draw in the water from below, and forces it at the same time through the top valve, *e*, into the top valve-chamber, D.

The remaining valves, *a*, *d*, and *f*, are kept closed during the upward motion of the piston. The downward motion of the piston closes the bottom valve, *b*, and top valve, *e*, but opens the top valve, *d*, and side valve, *a*, and interior top valve, *f*, so as to draw in the water at the top, and force it out through the side and top chamber to the spout. In this manner, by means of the alternating working of the valves of the main barrel, side chamber, and top chamber, the regular working of the pump is kept up and a continuous flow of water forced through the spout.

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

The combination, with the main barrel, having side chamber and top valve-chamber, communicating with the main barrel by alternately working by top, bottom, and side valves, of a goose-neck discharge-pipe screwed into a tubular extension of the top valve-chamber, and having projecting ear or bearings for the operating-lever of the piston-rod, substantially as set forth.

WILLIAM WALLACE STETSON.

Witnesses:

J. D. CULTEN,

FRED. S. POTTER.