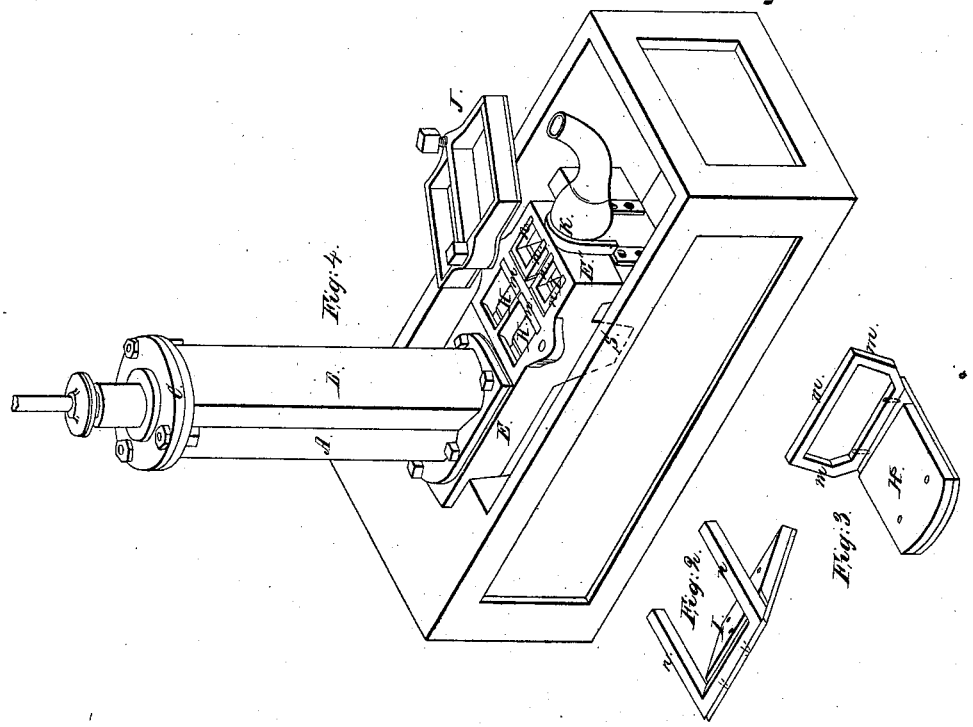
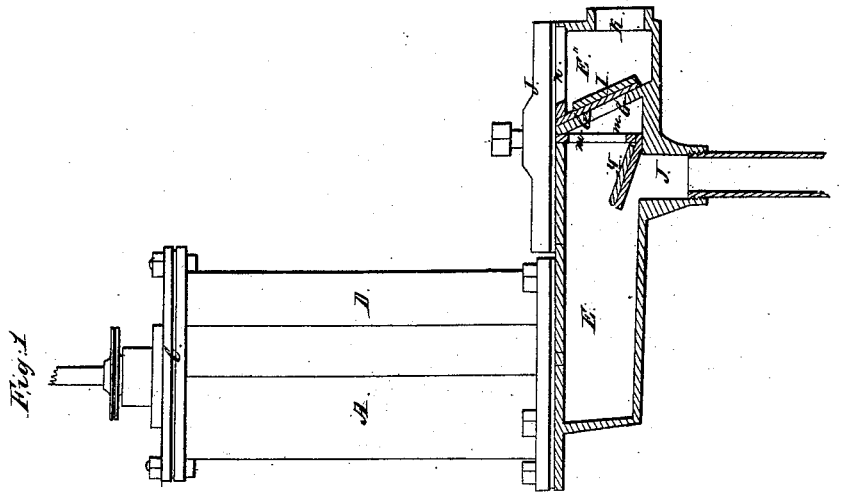
W. D. Taber,

Force Pump,

No. 5,046. Patented Apr. 3, 1847.





UNITED STATES PATENT OFFICE.

WM. D. TABER, OF BUFFALO, NEW YORK.

ARRANGING VALVES, &c., FOR PUMPS.

Specification of Letters Patent No. 5,046, dated April 3, 1847.

To all whom it may concern:

Be it known that I, WILLIAM D. TABER, of the city of Buffalo, in the county of Erie and State of New York, have invented an Improvement in the Mode of Constructing Force-Pumps; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, making part of this specification.

Figure 1, in the accompanying drawing represents a double acting force pump. I have selected it for a better illustration of my improvement, although that is applicable to other kinds.

In this drawing A, denotes the cylinder closed at the top with a "head" through which at C, the piston rod passes. D is a pipe opening near the top of one side with the upper part of the cylinder, and communicating at its bottom, like that of the cylinder with the water chamber E, E″, on which they are placed. That part of the chamber designated as E, is divided by a longitudinal partition into two compartments in one of which is the passage way to the cylinder and the suction valve H, and in the other the passage way to the side pipe with a suction valve like that at H, and placed opposite to it, both being directly over the suction pipe S, which at its junction with the two valve seats is expanded sufficiently to occupy all the space below them. The chamber E″ is separated from E by a transverse partition G, placed on an angle for the easier closing of the valve I, which is placed on it at the side of a similar one at the end of the other compartment. Each of these being raised by the expulsion of the water from the cylinder at the same time that the suction valve is forced down, it passes off through the pipe K, thus rendering the operation of the pump complete.

J is a covering (which may be in one or more parts, and on which the air chamber or the eduction pipe or both may if desired be placed) which can be very readily removed by unscrewing two or four bolts, and access be had to the valves to replace such as may need it to make repairs—or remove obstructions—this being done without touching or in any way disturbing the suction or eduction pipes.

The bottom of the valve I is enough lower than the valve seat at H, to allow all the water to pass off freely when the valve is forced open. In this way the liability of the valves to become frozen down is materially lessened.

In Fig. 2 *n*, *n*, represent a contrivance to which the eduction valve I is attached or against which it is pressed, and which serves to keep that valve in its place in the chamber, being held down by the bonnet or covering J.

In Fig. 3, *m*, *m*, *m*, represent a contrivance for holding down the suction valve H, in its place, being pressed upon by the covering J, and kept from moving laterally by grooves or guides in the walls of the water chamber.

Fig. 4, affords a perspective view of the pump of which Fig. 1 is a transverse plan. The same characters apply to both figures.

What I claim as my invention and desire to secure by Letters Patent, is—

The employment of a cover to the valves of a pump, by the removal of which the valves will be released and access had to them combined with a contrivance that, by the bearing of the cover, may serve to keep the valves in their places, whether this cover and contrivance for holding the valves be in one or in several parts.

WILLIAM D. TABER.

Witnesses:
T. C. DONN,
J. F. WOLLARD.