J. Patrick

Pump.

No. 94,507. Patented Sept. 7, 1869.

Fig. 3.

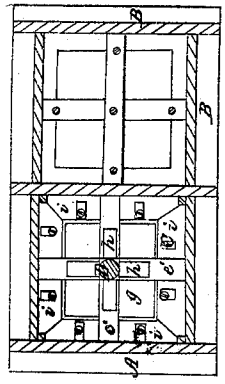


Fig. 4.

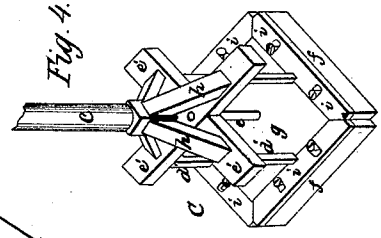


Fig. 2.

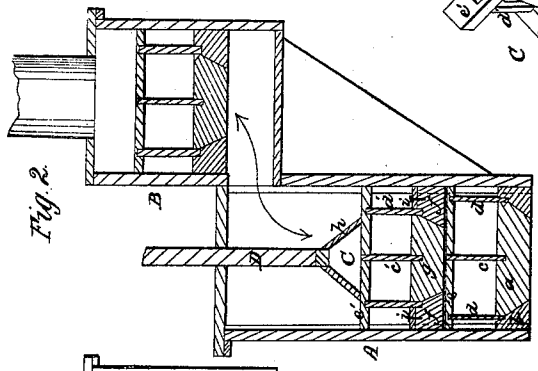
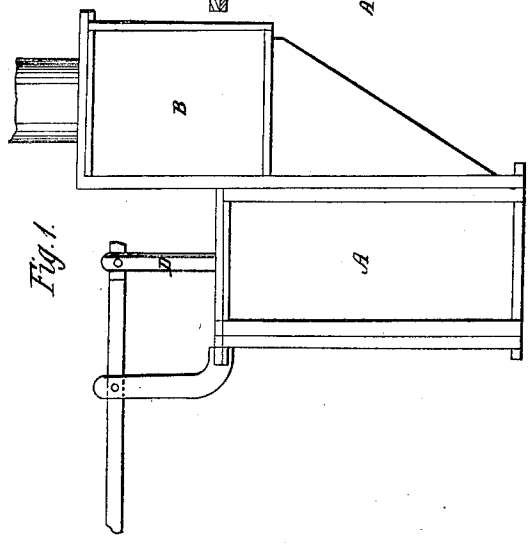


Fig. 1.



Witnesses
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JOEL PATRICK, OF PITT COUNTY, NORTH CAROLINA.

Letters Patent No. 94,507, *dated September* 7, 1869.

IMPROVEMENT IN PUMPS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JOEL PATRICK, of Pitt county, North Carolina, have invented a new and useful Improvement in Pumps; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing, making a part of this specification, and to the letters of reference marked thereon, in which like parts are indicated by like letters in the several figures.

The nature of my invention consists in a peculiar construction of my valves, to be hereafter described, so as to allow for wear, and also a combination of the same.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

In the drawings—

Figure 1 represents an elevation of my pump, having two compartments, A and B, one alongside of and above the other;

Figure 2 is a vertical section of the pump; and

Figure 3, a top view of the same, the tops or lids of the two compartments being removed.

A represents the lower compartment, which may rest on another section, so as to be in or near the water, so that the same can be drawn up through it.

a is a tapering valve, fitted in an opening in the bottom *b*, and having a guide-stem, *c*, rising from its centre, and passing through two cross-bars, *e*, at such height as to give the valve sufficient upward play.

These cross-bars are secured to the bottom *b* by uprights, *d*, which serve as guides for the outer sides of the valve.

Above the fixed cross-bars *e* there is the "sucker" or plunger C, having a bottom piece, *f*, fitting snugly the chamber it moves in; also a tapering valve, *g*, which is intended to rise and fall the same as *a*, when C moves down or up; and attached to bottom *f* are the uprights *d'* and cross-bars *e'*.

D is a piston, secured to the cross-bars *e'* by diagonal braces, *h*, leaving enough room under C to permit *e'* to rise up when the valve *g* opens.

On the top of *f* are adjustable pieces, *i*, having slots in the same, and secured to *f* by screws. The object of these pieces is to keep a close packing to the sides of the chamber by moving them outward as they wear away, which is easily done by means of the slots and screws.

It will readily be seen that when C is raised in the ordinary way, the valve *a* will rise and water pass above it; and the valve will close, leaving water above it, when C is pushed downward. This being repeated, the top part of the chamber in it is filled, and it passes over into the lower part of B. In this chamber is arranged a valve and seat, the same as the one at the bottom of A, and a continuation of operating D will finally force the water out of the top of B through any suitable opening and pipe.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent of the United States, is—

The square piston C, (having a tapering seat for valve *g*,) when made adjustable expansively by means of pieces *i*, their slots and set-screws, as shown and described, and for the purpose set forth.

JOEL PATRICK.

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