

W. & B. Douglas

Pump Lift,

N^o 2,895.

Patented Dec. 31, 1842.

Fig. 1.

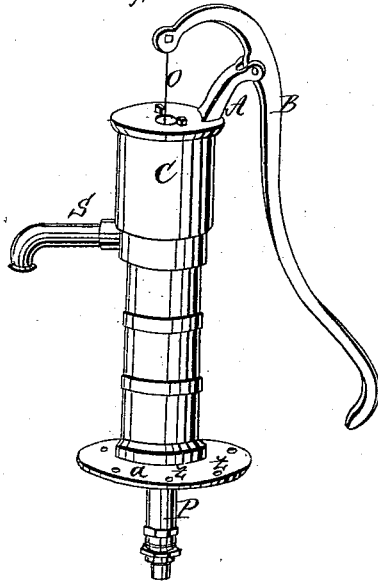


Fig. 2.

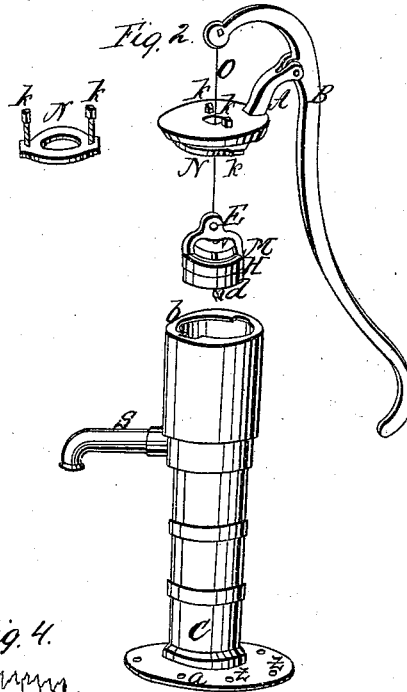


Fig. 4.

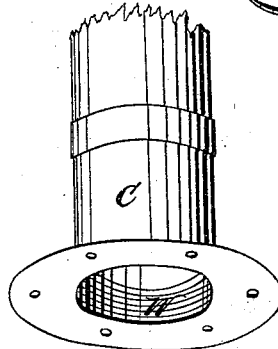
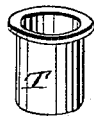
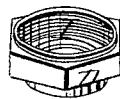
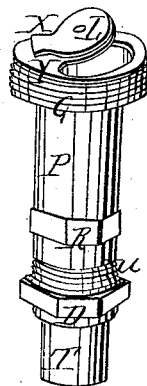


Fig. 3.



UNITED STATES PATENT OFFICE.

WM. DOUGLAS AND BENJN. DOUGLAS, OF MIDDLETOWN, CONNECTICUT.

PUMP.

Specification of Letters Patent No. 2,895, dated December 31, 1842.

To all whom it may concern:

Be it known that we, WILLIAM DOUGLAS and BENJAMIN DOUGLAS, both of Middletown, in the county of Middlesex and State of Connecticut, have jointly invented a new and Improved Suction or Lift Pump, called "W. & B. Douglas Revolving-Stand Pump;" and we do hereby declare that the following is a full and correct description thereof.

The nature of our invention consists in constructing a pump in such a manner that it may be conveniently adapted to any part of a dwelling or other place where the room is cramped, also so that the lower box or valve may be got at with much less difficulty than in the old and ordinary way, and in having the stand to which the brake is attached permanently secured by set screws uniting with a stirrup beneath a projection in the cylinder, and also the manner of securing the lower valve in its place, as will be hereinafter described.

To enable others skilled in the art to make and use our invention, we proceed to describe its construction and operation.

The pump is constructed in a neat and compact form, and adapted to the purposes of raising water in dwellings and other places, from wells, cisterns, &c.

In the accompanying drawings we have shown our improved pump of which—

Figure 1, is a perspective view of the whole. Figs. 2, 3 and 4 are sectional parts of the same.

We construct the pump of iron excepting the valve to the piston, and the tube for soldering to the suction pipe which are of brass and the packings which are of leather. Any other metal may be used in the construction of this pump in place of the iron.

C, represents the cylinder which we make for a common and ordinary size pump 16 inches long with a bore $2\frac{3}{4}$ inches diameter, other parts in due proportion to the same.

A, the stand by which the brake B, is suspended and held in its place is so made, as to form a cover to the pump cylinder C, and also to revolve around. Thus the brake B, may be shifted around to either side as the situation for the same may require, thus adapting the pump to any situation. This stand is secured to the cylinder C, by means of the two set screws K, K, which pass through the stand into the cross piece or stirrup N, drawing the same up again at the

under side of the projection b, within the upper end of cylinder C. In putting the stand A, on to the cylinder in its place, the ends of the stirrup N, are passed through two slots or small openings seen in the projection b, within the upper end of the cylinder C.

O, the piston rod passes through a slot in the bottom part of the stand A, (which forms the cover to the cylinder,) and connects at the upper end with the brake B, and at the lower end with the piston or bucket at E, making but two joints, one where it unites with the brake and the other where it unites with the piston. The piston is in two parts E the bale and H the valve seat which screws into the bale and compresses the leather packing M, against the end of the bale E, thus securing the leather firmly in its place. This leather which forms the packing for the bucket or piston is crimped into the cylinder so that as it wears it will expand, thus working air tight until it is worn entirely out. V is the valve in the piston which is brass. This is taken out by screwing the piston apart.

d, is the end of the stem to the brass valve in piston.

P, represents the lower valve seat on which rests the leather Y, which forms the lower valve.

L, is a piece of iron which is riveted on to the top of the valve lid to prevent it from being pressed into the hole beneath it.

X, is a rocker on the lower valve lid, the object of which is for the piston to strike when the brake B is raised to its extreme height causing the lower valve to open and at the same time to strike the lower end of the brass valve in the piston at d, opening that and thus letting the water back and avoiding freezing.

Q is a thread or screw on the outer edge of the lower valve P, which screws into the thread W, within the lower end of cylinder C, which compresses the outer edge of the leather valve Y, against a shoulder at the termination of thread W, thus securing the valve in a very tight, simple and substantial manner, and rendering it very easy of access. R, is a square on the lower part of valve seat on which a wrench may be placed to screw and unscrew the same.

u, is a thread or screw on which screws coupling D, in which coupling is inserted the

brass tube T, for the purpose of soldering to the suction pipe.

I, is the thread in coupling D, which screws on to thread *u*.

5 T, the brass tube to which the suction pipe is soldered will swivel around in its place. Thus the pipe being soldered to it, it may be screwed up to its place without turning the pipe around, in order to make the joint air
10 tight a ring of leather is inserted between the upper end of the brass tube T, and the lower end of the iron pipe P.

z, represents the screw holes in the flange at the lower end of the cylinder C, for the
15 purpose of fastening the pump in its place.

S, is the spout or discharge pipe to the pump.

The advantage which this pump possesses over every other pump in use is its perfect
20 adaptedness to any cramped place in a dwelling, as the brake may be shifted around and firmly secured at any point where it will be

least in the way, also the ease and facility it possesses of getting at the lower box of valve, which is done without taking up the : 5 pump, by having the hole through the platform on which the pump stands cut of sufficient size to pass through the valve seat from the under side, and further of having the lower valve very permanently secured 30 in its place.

What we claim as our invention and desire to secure by Letters Patent is—

The revolving stand to which the brake is attached, and the mode of securing the lower 35 valve in its place, as above described, all in connection with a pump.

Dated at Middletown the 15th day of March A. D. 1842.

WM. DOUGLAS.
BENJAMIN DOUGLAS.

Witnesses:

JAMES E. WILCOX,
S. W. GRISWOLD.