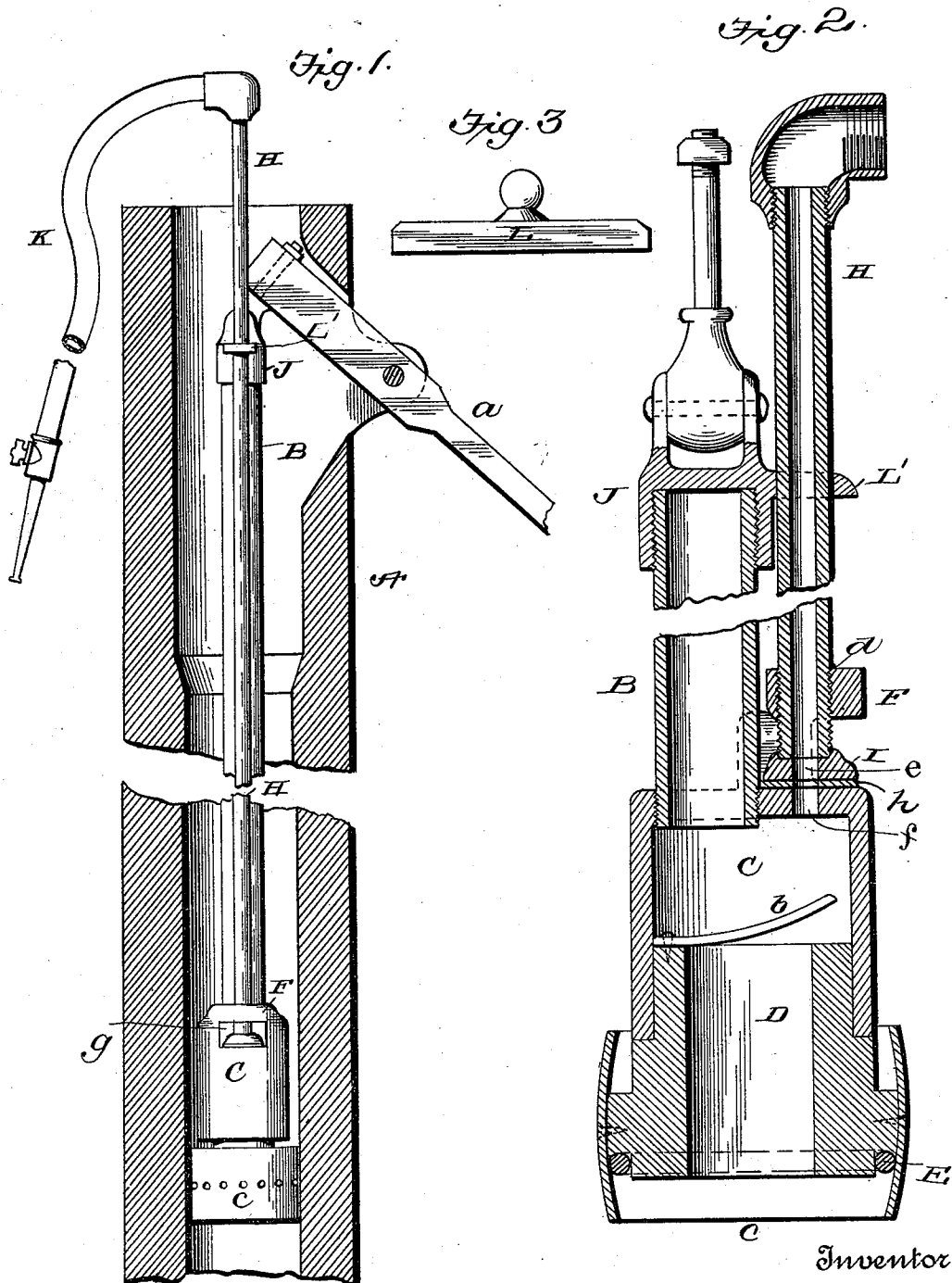


(No Model.)

J. WOOCK.
LIFT PUMP.

No. 518,981.

Patented May 1, 1894.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN WOCK, OF CANTON, OHIO.

LIFT-PUMP.

SPECIFICATION forming part of Letters Patent No. 518,981, dated May 1, 1894.

Application filed December 8, 1891. Serial No. 414,437. (No model.)

To all whom it may concern:

Be it known that I, JOHN WOCK, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Lift-Pumps; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon, in which—

Figure 1 is a longitudinal section of a portion of an ordinary pump stock, showing the valve rod, valve chamber, and the water pipe properly located. Fig. 2 is a longitudinal section of the valve chamber, and the water pipe, showing the location of the valve-rod or pipe. Fig. 3 is a detached view of the cap.

The present invention has relation to lift pumps and it consists in the different parts and combination of parts hereinafter described, and particularly pointed out in the claims.

Similar letters of reference indicate corresponding parts in all the figures of the drawings.

In the accompanying drawings, A represents the pump stock which may be that of a common wood pump, such as is in common use. To the pump stock A is pivotally attached the pump handle *a*, the inner end of which is attached to the top or upper end of the valve rod or pipe B. The bottom or lower end of the valve-rod or pipe B is securely attached to the valve chamber C, which valve chamber is substantially of the form shown in the drawings, and as shown, it is provided with the sucker-head D, which sucker-head extends a short distance into the valve chamber C, and the top or upper end of said sucker-head is provided with the flap-valve *b*. Around the sucker-head D is located and attached the leather *c* or its equivalent. For the purpose of preventing the sucker-head D from splitting or cracking, the metallic band E is placed around said sucker-head substantially as shown in Fig. 2.

To one side of valve chamber, and upon the upper side thereof is located the flange F, which flange is provided with the screw-threaded aperture *d*, said screw-threaded aperture being for the purpose of receiving

the lower screw-threaded end on the water pipe H. Directly below the screw-threaded aperture *d* is located the valve I, which valve is provided with the aperture *e*, said aperture being so located that when the valve is placed in proper position, it will come in line with the aperture *f*, which aperture is formed in the top or upper end of the valve chamber C, substantially as shown in Fig. 2. The flange F is provided with the opening *g*, which opening is for the purpose hereinafter described.

When it is desired to use the pump proper as a force pump, the water pipe H is placed in the position illustrated in the drawings, and screwed down until the valve I is securely seated on the top of the valve chamber C, as illustrated in Fig. 2, and for the purpose of making a water tight joint between the top of the valve chamber C, and the bottom of the valve I, the packing *h* is provided, which packing may be attached to the valve I, and is provided with an aperture, thereby providing a continuous water passage from the valve chamber C to the water pipe H.

For the purpose of providing an air chamber, the valve rod or pipe B is formed hollow and its top or upper end closed by means of the cap J or its equivalent.

It will be understood that when the valve I is securely seated on the top of the valve chamber C, the aperture or opening *g* is closed, and the water forced up through the water pipe H, thereby forming a force pump.

When it is desired to use the pump as an ordinary lift pump the water pipe H is removed, which frees the valve I, and the water passes up through the aperture *f*, and the opening *g* into the bore of the stock A, and passes out at an ordinary spout.

For the purpose of providing a means for conducting or throwing the water which passes through the water pipe H the flexible hose K is attached to the top or upper end of the water pipe H, which water pipe extends a short distance above the top of the pump stock A, substantially as illustrated in Fig. 1. If desired an aperture may be formed in the cap L or the cap may be removed.

For the purpose of steadying the water pipe H the arm L' is provided, which arm is located substantially as shown in Fig. 2. It

will be understood that an ordinary seat valve is to be located below the sucker-head, which valve may be constructed in the ordinary manner, and attached in the usual way.

5 It will also be understood that the valve-chamber moves back and forth in the stock A, carrying with its movements the water pipe H.

Having fully described my invention, what I claim as new, and desire to secure by Letters

10 Patent, is—

1. The combination of the stock A, the hollow pump rod or pipe B, the valve chamber C provided with the flange F, and the aperture *f*, the removable water-pipe H, and the

15 valve I, provided with the aperture *e*, substantially as and for the purpose set forth.

2. The combination of the stock A, the hollow valve rod or pipe B provided with the cap J, the valve chamber C, having attached

20 thereto the hollow rod or pipe B, the sucker-head D fixed to the valve chamber C, and

provided with the flap valve *b*, the removable water-pipe H, the valve I, and the apertures *e* and *f*, substantially as and for the purpose set forth.

3. The combination of the stock A, the valve rod or pipe B, fixed to the valve-chamber C, the valve-chamber C, having located on the top or upper side of said valve chamber the valve I the water-pipe H, located directly above the valve I, and communicating with the valve chamber C, a sucker-head fixed to said valve chamber, and provided with the flap-valve *b*, and the arm *L'*, substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JOHN WOCK.

Witnesses:

F. W. BOND,
E. A. C. SMITH.