J. B. WALLACE.

BEER-PUMPS.

No. 183,086. Patented Oct. 10, 1876.

Fig. 1.

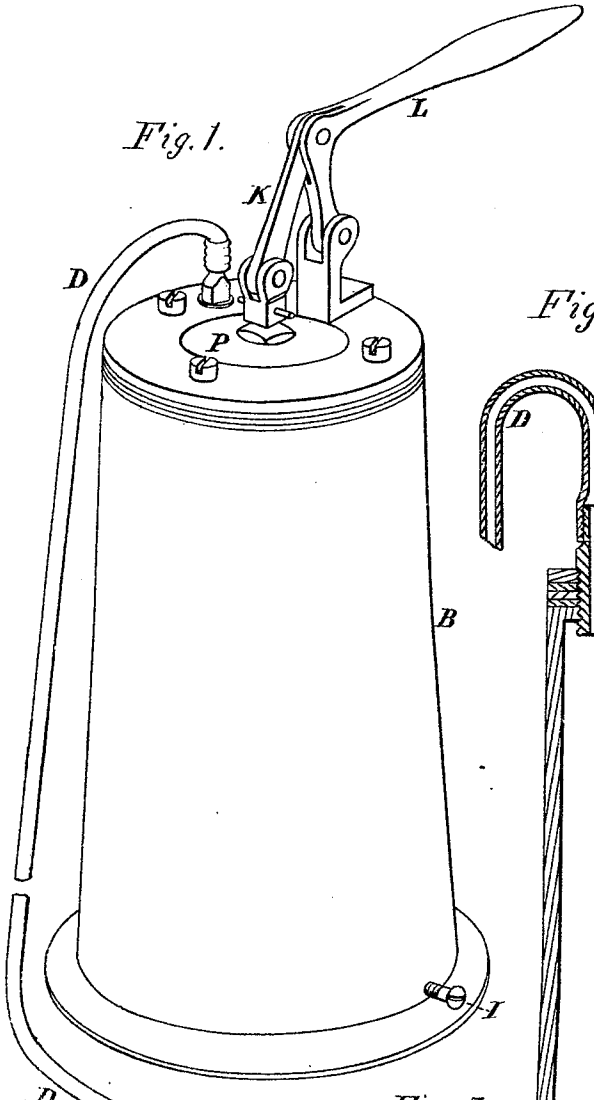


Fig. 2.

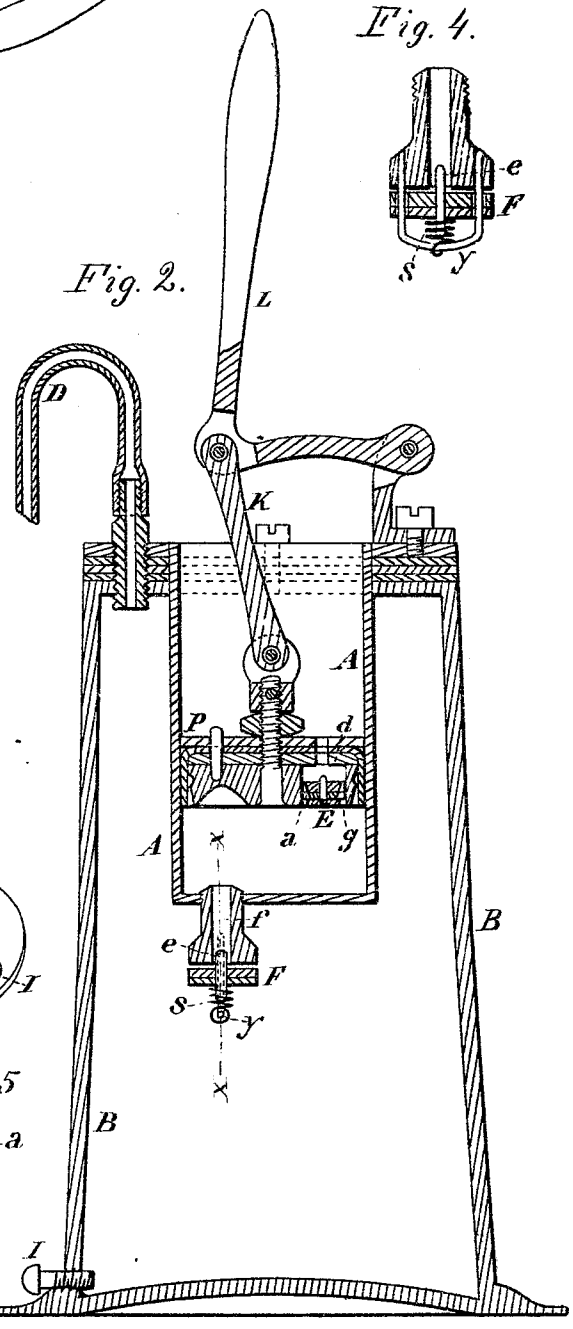


Fig. 4.

Fig. 5

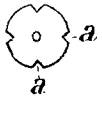
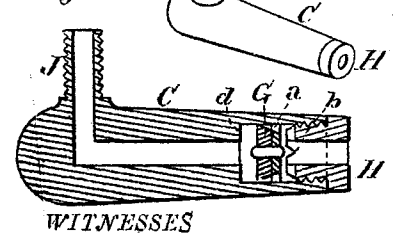


Fig. 3.



WITNESSES

Villette Anderson.

Stacy B. Ladd

Jacob Bennett Wallace INVENTOR

By Paine & Grafton Attorneys

JAMES R. OSGOOD & CO. BOSTON

UNITED STATES PATENT OFFICE.

JACOB B. WALLACE, OF CANTON, OHIO.

IMPROVEMENT IN BEER-PUMPS.

Specification forming part of Letters Patent No. **183,086**, dated October 10, 1876; application filed August 26, 1876.

To all whom it may concern:

Be it known that I, J. B. WALLACE, of Canton, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Beer-Pumps; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention belongs to that class of machines made to force air into liquor-casks, especially beer and ale kegs, either to keep a constant pressure in the cask, and preserve the quality of the liquor after the cask is tapped, or to force the liquor from the cask through a pipe by increasing the pressure; and consists in the improved arrangement and combination of the air-pump, air-receiver, valves, and bung-plug, as hereinafter described.

I am aware that pumps somewhat similar in construction have been made, but none to my knowledge have the same combination of parts or equal simplicity of arrangement with my invention.

A perspective view of my improved beer-pump is shown by Figure 1 of the accompanying drawings. Fig. 2 is a vertical section through the center of the air pump and receiver, showing the working parts in section. Fig. 3 is a section through the center of the bung-plug. Fig. 4 is a section of the valve F in the bottom of the pump-cylinder, taken on the line X X of Fig. 2; and Fig. 5 is a view of the upper face of the valves G and E.

The cylinder A, which is open at the top, is placed within the air-receiver B B, and is surrounded by it on all sides except the top. The valve F in the bottom of the cylinder opens directly into the receiver B B. It is held against its seat by the coiled spring S, which is fastened to the yoke *y*, and coiled around the lower end of the spindle *e*. The upper end of the spindle plays in the short tube *f*. The piston is operated by the bent lever L and connecting-link K, and it has a valve, E, admitting the air to the cylinder. The valve E is the same in construction as the valve G in the bung-plug. (Shown in section in Fig. 3.) It is a disk with a leather facing on the upper side, and has grooves *a a* cut in the edge. These grooves are not as deep as the width of the upper seat *d*; and when the valve is against it no air can pass, but when it is against its lower seat, as when the piston is being raised, the air passes through the grooves *a a* cut in the disk, and through the holes *g* in the lower seat of the valve E, or, in the case of the valve G, through the grooves *b*.

This arrangement of the cylinder, receiver, and valves reduces to a minimum the chances of leakage, and gives a very simple and compact machine.

A flexible tube, D, is attached to the receiver, and connects the same with the bung-plug C. The bung-plug is made tapering, so as to fit any bung-hole.

The connection with the flexible tube D is made on the side at J, so that the large end of the bung plug is left unbroken, and it can be firmly driven into the bung-hole. It has the valve G, which permits the air to pass into the cask, and prevents the liquor from being forced back through the tube to the receiver B B. The small end H unscrews, so that the valve G can be reached and cleaned, if necessary. Close to the bottom of the receiver B B is a tap-hole, stopped by a screw, I, so arranged that the receiver can be drained, if by accident any fluid should enter it.

I claim as my invention—

1. The combination of the air-pump, surrounded by the receiver B B, flexible tube D, and bung-plug C, substantially as herein described.

2. The bung-plug C, constructed with side connecting-tube J, a valve, G, removable end H, and the outer end solid, substantially as described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

J. B. WALLACE.

Witnesses:

JOHN MCCLINTOCK,

E. W. PAGE.