J. W. WHITAKER.

Pumps.

No. 133,278. Patented Nov. 19, 1872.

Fig 1.

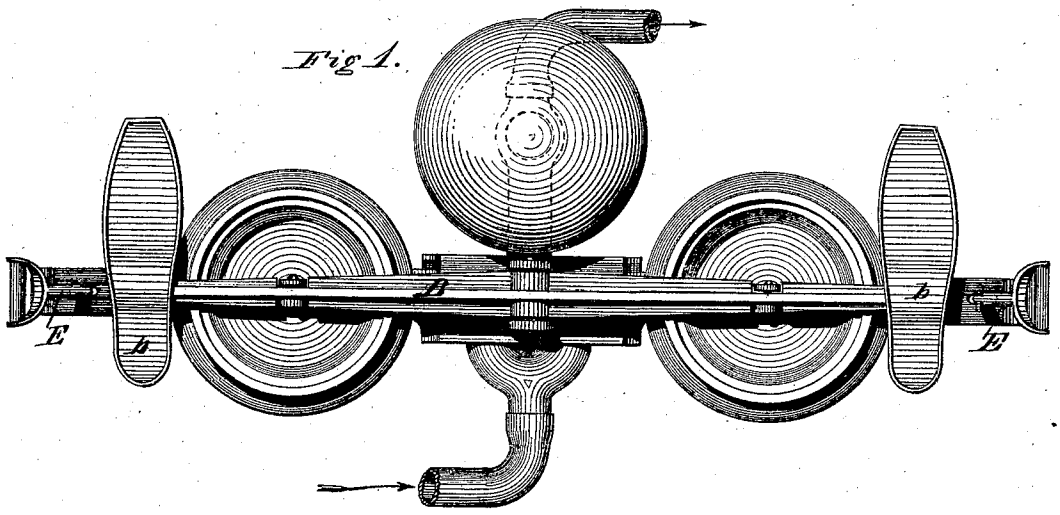
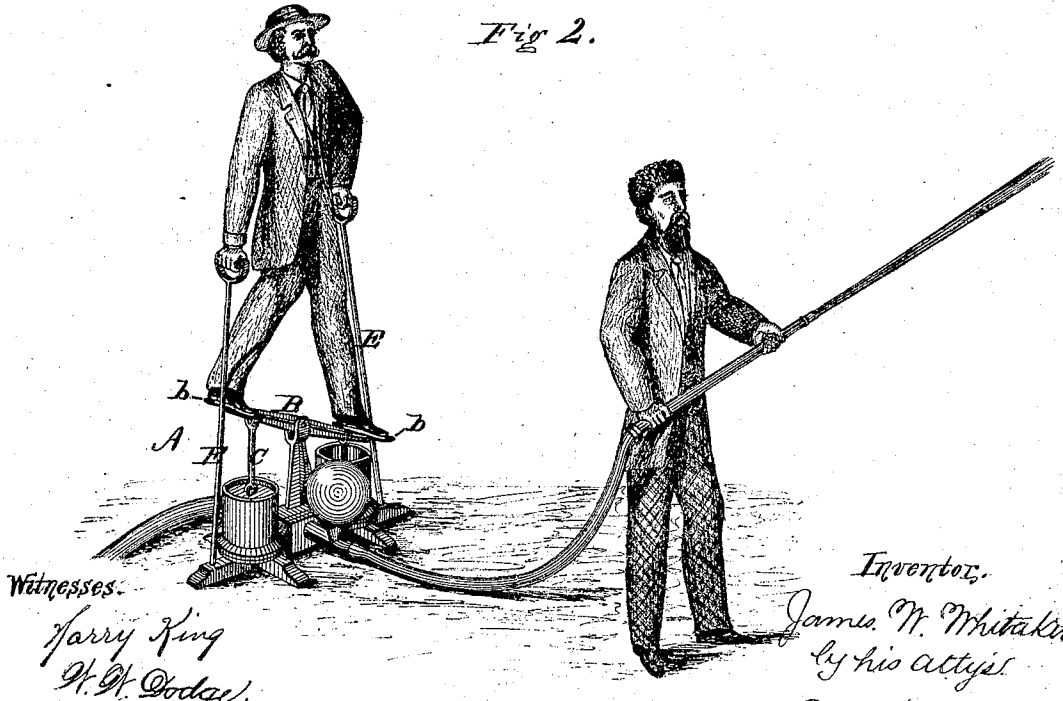


Fig 2.



Witnesses.
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UNITED STATES PATENT OFFICE.

JAMES WILLIAM WHITAKER, OF KENOSHA, WISCONSIN.

IMPROVEMENT IN PUMPS.

Specification forming part of Letters Patent No. 133,278, dated November 19, 1872.

To all whom it may concern:

Be it known that I, JAMES WILLIAM WHITAKER, of Kenosha, in the county of Kenosha and State of Wisconsin, have invented certain Improvements in Pumps, of which the following is a specification, reference being had to the accompanying drawing.

My invention relates to a novel arrangement of operating devices applicable to small pumps of all kinds; and it consists in the combination of a vibrating lever, for the operator to stand upon, with two stationary handles to be grasped by him.

Figure 1 is a top-plan view of a double-cylinder pump having my devices applied, and Fig. 2 is a perspective view of the same in use.

In the drawing, A represents an ordinary double-cylinder pump, between the cylinders of which I mount a standard, *a*, supporting a tipping or vibrating lever, B, to the opposite ends of which the two plunger or piston rods C are connected, as shown. On each end of the lever I secure a foot-plate, *b*, so that the operator can stand with one foot on each plate, and, by throwing his weight first on one foot and then on the other, depress the ends of the lever alternately. To the ends of the pump I attach two rods, E, which extend upward and have their upper ends provided with handles at such height that they can be readily grasped by the operator while standing on the lever. As the operator throws his weight on either end of the lever he, at the same time, pulls strongly on the corresponding rod, so as to pull himself downward, and thus apply the muscular force of his arm in addition to his weight toward forcing the end of the lever down. When operating in this manner his legs are kept straight, or nearly so, and his arms bent at each stroke; but, when his arms become fatigued, he may hold them stiff and operate the lever by bending his legs. By thus changing the mode of operation from time to time, so as to throw the work upon the arms and legs alternately, the operator is relieved from fatigue and enabled to work the pump for a long time.

The rods E I make detachable, so that they may be removed when the pump is not in use in order to prevent them from being bent and to admit of the pump being stowed in a small space.

By means of the foot-lever and handles the operator is enabled to apply his weight and muscular force to great advantage, so as to work a much larger pump than otherwise, and to continue the operation for a great length of time.

While the devices are especially adapted for application to the form of pump shown, because the plungers can be connected directly to the foot-lever, they may be applied to pumps of all forms and styles by making a suitable connection between the foot-lever and the proper moving parts of the pump. In such cases the foot-lever will be a separate independent part from the pump proper and not a constituent part, as in the present case.

The foot-lever and handles may be mounted on a frame or stand by themselves, and put into the market as an article of trade so as to be applied to pumps already in use.

It is obvious that the handles may be dispensed with and the treadle alone used, in which case a bar or support of some kind should be provided for the operator to take hold of in order to balance and steady himself.

Having thus described my invention, what I claim is—

In combination with a pump provided with a vibrating foot-lever, B, the handles E, arranged substantially as described.

JAMES WILLIAM WHITAKER.

Witnesses:

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