

P. T. PERKINS.
Lift-Pump.

No. 228,383.

Patented June 1, 1880.

Fig. 1.

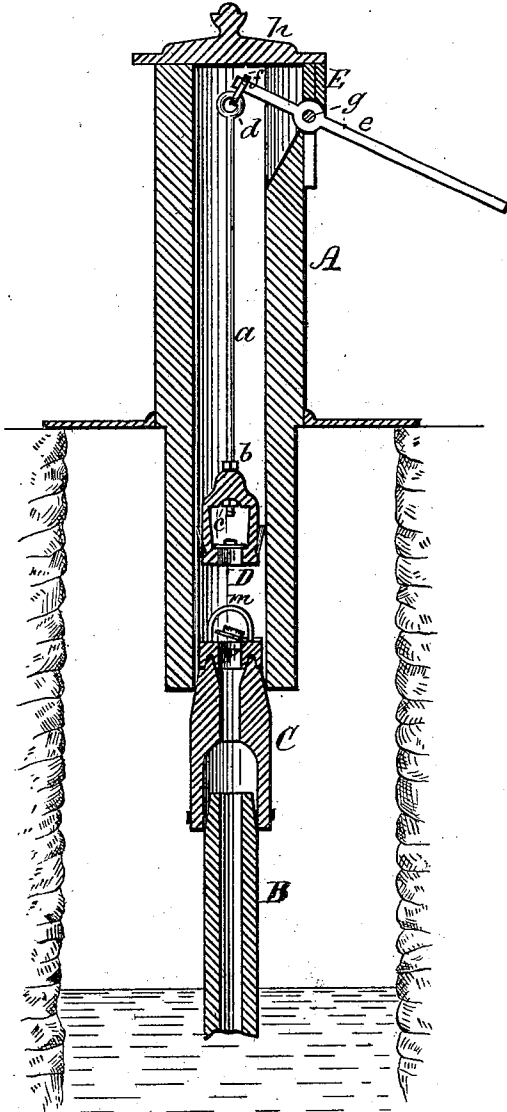


Fig. 2.

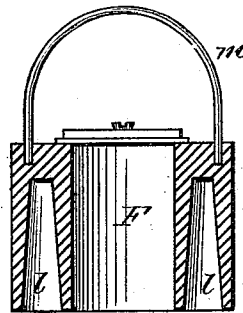
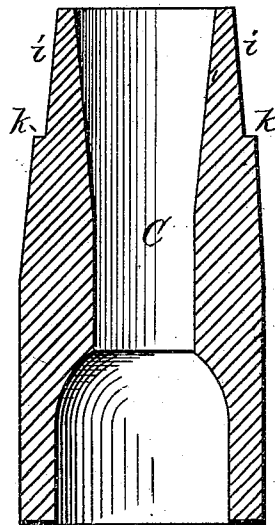


Fig. 3.



WITNESSES

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LIFT-PUMP.

SPECIFICATION forming part of Letters Patent No. 228,383, dated June 1, 1880.

Application filed March 29, 1879.

To all whom it may concern:

Be it known that I, PARDON T. PERKINS, of Oswego, in the county of Oswego and State of New York, 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 accompanying drawings, and to the letters of reference marked thereon, in which—

Figure 1 is a sectional view of a pump embodying my invention. Fig. 2 is a sectional view of the valve-bucket; Fig. 3, a similar view of the section of pump-tubing which forms a seat for the valve-bucket.

The object of the present invention is to so construct the working parts of a lift-pump as to render them easily removed from the pump-tube without the necessity of tearing up the platform or curb and removing the pump from the well or cistern to repair the bucket, rod, or valves.

The invention consists in the peculiar construction of the valve-bucket and section of pump-tubing to form a seat for the same, as will be hereinafter described, and subsequently pointed out in the claim.

In the accompanying drawings, A represents the pump-stock, which extends down into the well or cistern and connects with the tube B by a coupling-tube section, C.

The valve-bucket D is of the usual construction, and is detachably connected to the pump-rod *a* by nuts *b c* or other suitable means, the upper end of the rod *a* being formed with a hook or eye, *d*, by which it is connected to the pump-handle *e* by a link, *f*, so as to admit of the rod being disconnected from the pump-handle when required.

The pump-handle *e* is pivoted to a removable bracket, E, by a bolt, *g*, which passes through an eye in said handle and through the bracket. This bracket E is beveled upon its lower edge, and fits against a corresponding bevel upon the pump-stock, and is held in place on the pump-stock by suitable bolts and nuts, after which the top *h* is secured in place upon the end of the stock A.

The coupling-section C is formed with wedge-shaped end *i*, an annular shoulder, *k*, to receive the valve-bucket F, said bucket having an annular wedge-shaped groove, *l*, to fit over the wedge-shaped end *i*, the outer periphery of the bucket resting on the annular shoulder *k*.

The bucket F is provided with a bail, *m*, to admit of its being readily withdrawn from the pump-tube when desired.

When it is found necessary to withdraw the valve-buckets the top *h* is removed, also the bolt *g*, which will admit of the pump-handle being elevated at its upper end sufficiently to disconnect the pump-rod from the handle, when the rod may be withdrawn with its valve-bucket D.

The valve-bucket F is withdrawn by inserting in the pump-tube a hooked rod or chain with hook attached, which is made to engage with the bail *m*, when the bucket can be drawn up off its seat.

The valve-bucket F, when dropped down the pump-stock A, will readily find its seat, as the groove *l* is tapering or wedge-shaped, its largest diameter being at its open end.

It should be noticed that the groove *l* is of greater depth than the wedge-shaped end *i*, to allow room for the expansion of the wood from its being wet.

A further provision is made to prevent the danger of the bucket being locked to its seat by the expansion or swelling of the wood, and that is the shoulder *k*, which forms a stop for the bucket, to prevent it from being forced too tightly onto its seat, but sufficiently to form a water-tight joint without the necessity of packing.

I am aware it is not new to construct the lower tubing or coupling section at its upper end with an annular V-shaped groove to receive a wedge-shaped or correspondingly formed shoulder or flange upon the under side of a cast-metal valve seat or bucket, such construction being shown in the patent to William M. Hamilton, May 31, 1870, No. 103,738; and I therefore wish to be understood as laying no claim to the construction set forth in said patent; but

What I do claim as new, and desire to secure by Letters Patent, is—

In a lift or other pump, the combination, with the coupling-section C, formed with shoulder *k* and wedge-shaped end *i*, of the removable valve-bucket F, formed with annular and wedge-shaped groove *l*, and provided with the bail *m*, substantially as and for the purpose set forth.

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Witnesses:

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