A. N. Parkhurst,

Pump Stand

No. 52,070. Patented Jan. 16, 1866.

Fig: 1.

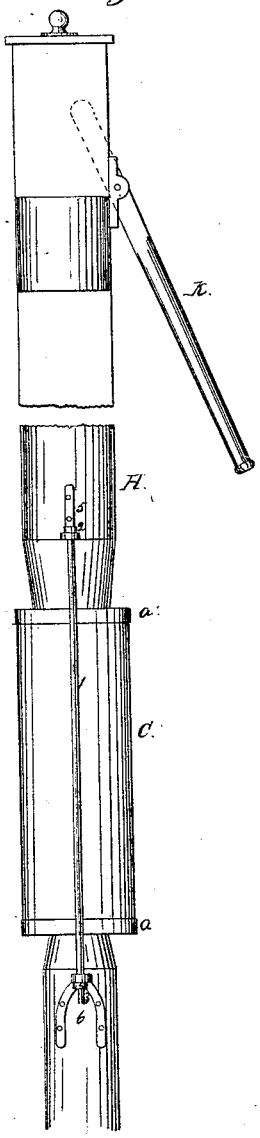


Fig: 2.

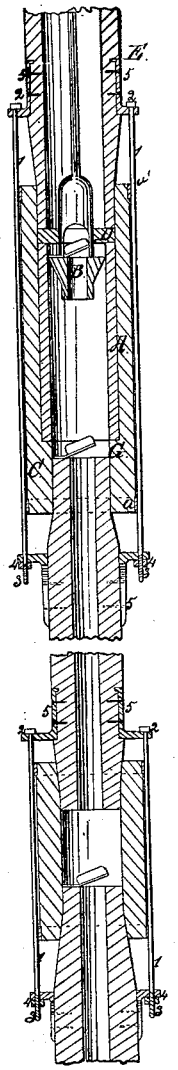
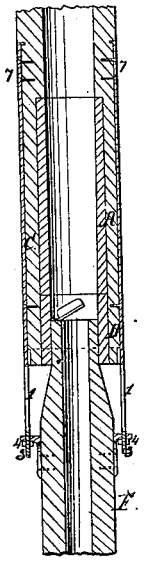


Fig: 3.



Witnesses:
J. L. Peyton
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Inventor:
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UNITED STATES PATENT OFFICE.

A. N. PARKHURST, OF PEORIA, ILLINOIS.

IMPROVEMENT IN PUMPS.

Specification forming part of Letters Patent No. **52,070**, dated January 16, 1866.

To all whom it may concern:

Be it known that I, A. N. PARKHURST, of Peoria, in the county of Peoria and State of Illinois, have invented a new and useful Improvement in Pumps; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is an outside view of a pump made of wooden pipes, to which one feature of my improvement is applied. Fig. 2 is a vertical central section of a wooden pump having my invention applied; and Fig. 3 is a vertical central section, showing a modification of the same, each of the figures being broken at parts where the invention is not shown.

Like letters refer to like parts in all the figures of the drawings.

It is the object of my invention to render the wooden pump effective by securing permanently in place a glass or porcelain valve-chamber, and so fastening one pipe to the other that they will always keep the joints perfectly tight; and to this end my invention consists in fitting glass, porcelain, or vitrified valve-chambers in wooden pumps with washers, flanges, or guard-rings, to keep them always in place and preserve them from fracture from the motions of the valve or from the hygrometric and atmospheric changes to which the parts are liable; and also in uniting the pipes of wooden pumps by screw-rods and nuts, so that the joints can be always held firmly together when in place, or easily released when it becomes necessary to remove them from the well.

To render the wooden pump as nearly perfect as possible, I inclose a glass, porcelain, or vitrified chamber A, for the sucker or lifting-valve B, in a suitably-reamed stock, C, guarded at both ends with proper metal bands *a* and *a'* in the most approved manner; and to preserve this glass, porcelain, or vitrified chamber from breakage and keep it under all circumstances securely in place, I turn a ring, D, of wood, of the required length and bore to fill the reamed portion of the stock not occupied by the lining, and of a diameter to fit the internal diameter of the reamed portion of the stock, so that when the connecting-pipe E or F is inserted, whether above or below, the chamber A will rest against the flange G, left in the stock at one end of its reamed portion, and be held by the wooden ring or washer D at the other immovably. It is obvious that being thus held the chamber A cannot be disturbed by the friction of the bucket or sucker, or by the changes to which the stock is liable from both varying atmospheric and hygrometric conditions, for as the grain of the wooden washer is in line with the pipes they will contract and expand together equally, and hence the washer will keep the porcelain tube firmly in place, though the joint of the pipes should not be tight, and the washer will protect the porcelain from the direct pressure of the pipes when one or more may rest upon the washer.

The wooden pipes to form the top and bottom of the pump are coupled by the usual taper joints, but kept in place by my improved tie-rods, constructed and applied in either of the following modes: Metal rods 1 are formed of the proper length, with heads 2 at their upper ends and screws 3 at their lower ends, carrying nuts 4. Brackets 5, of cast metal, are fastened to the upper joints, H or E, (the former carrying the spout and the handle K,) in which holes are left or bored on one side of the bracket to fasten it by screws or nails to the pump, and on the other side of the bracket to secure the bolt. On the lower pipe the bracket may be of the same construction, or it may be bifurcated at one side to render the fastening stronger, as shown at 6 in Fig. 1; or flat metal straps may be nailed at one end directly to one pipe, as at 7 in Fig. 3, and at the other end terminate in a screw; and it is obvious that by either arrangement the connection between the pipes will always be kept rigid when the bolts are screwed tight, and at the same time the connection can easily be separated, when required, by removing the bolts.

I have described the heads of the bolts as supported in the upper brackets and the screw ends in the lower; but of course these rods and brackets can be reversed without altering the fastening or affecting my invention.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. Securing glass, porcelain, or vitrified valve-chambers in wooden pumps by wooden rings or washers arranged and operating substantially in the manner described.

2. In combination with the foregoing, forming and securing the connections of wooden pipes for pumps with stay-rods of metal arranged and operating substantially in the manner described.

In testimony whereof I have hereunto subscribed my name.

A. N. PARKHURST.

Witnesses:
E. A. SWAN,
HENRY STORY.