T. DOWLING.

Pump.

No. 213,281. Patented Mar. 18, 1879.

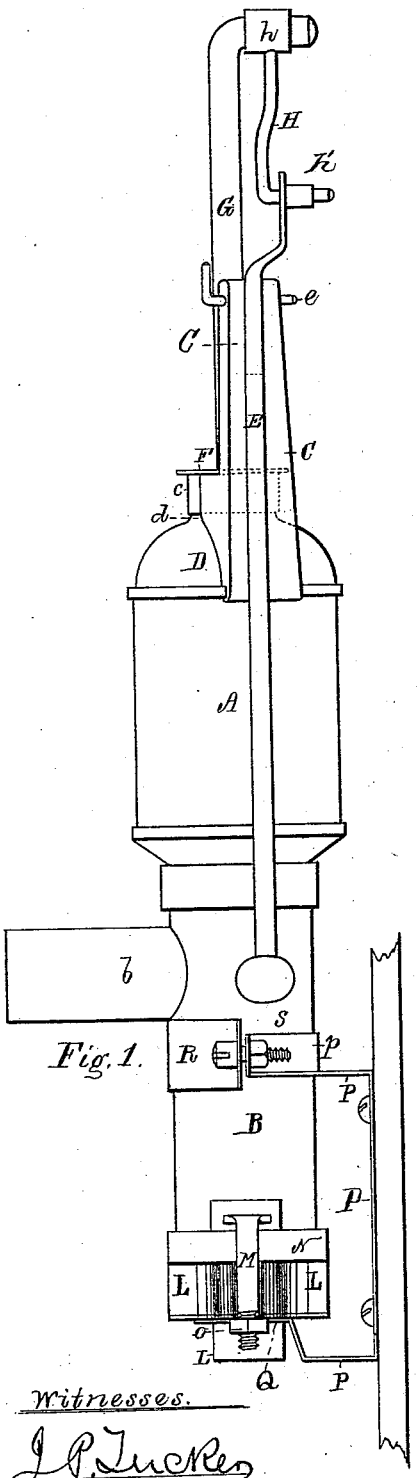

Fig. 1.

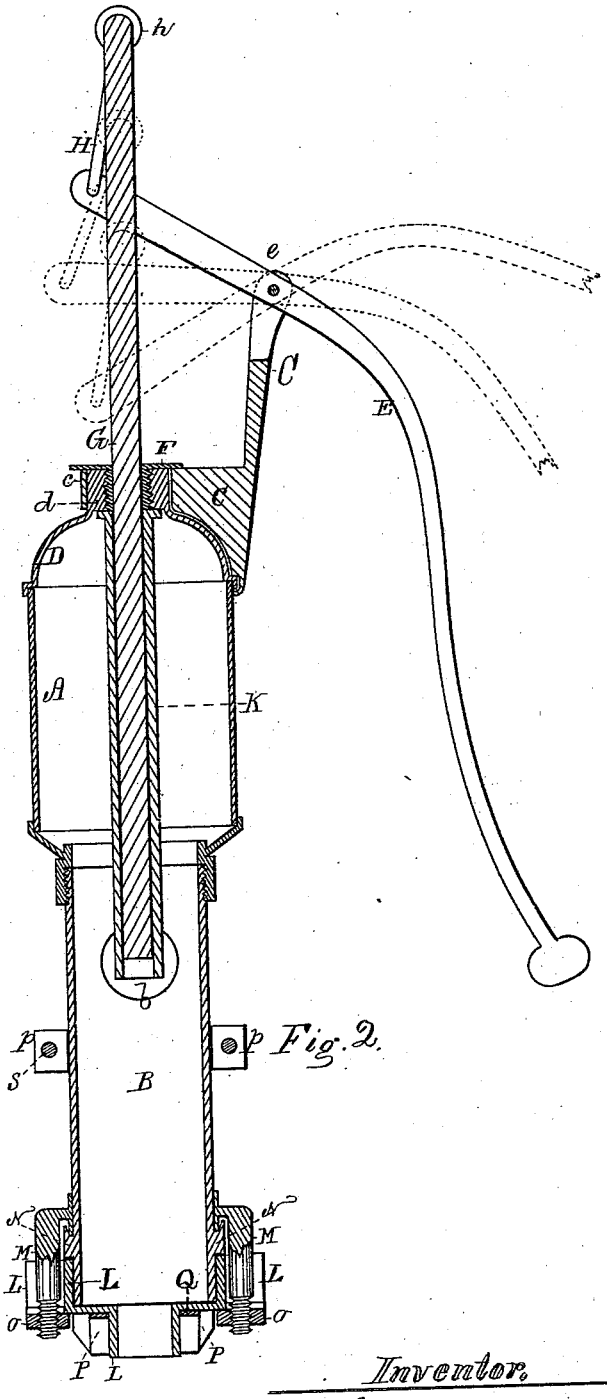

Fig. 2.

Witnesses.

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UNITED STATES PATENT OFFICE.

THOMAS DOWLING, OF GLOUCESTER, MASSACHUSETTS.

IMPROVEMENT IN PUMPS.

Specification forming part of Letters Patent No. **213,281**, dated March 18, 1879; application filed January 22, 1878.

To all whom it may concern:

Be it known that I, THOMAS DOWLING, of Gloucester, Massachusetts, have invented certain Improvements in Pumps; and that the same are fully described in the following specification and illustrated in the accompanying drawings.

My improvements relate to means of rotating and adjusting a pump-handle and its supporting-standard upon an air-chamber fixed upon the top of a pump-barrel, in combination with a push-rod or outward pitman-connection of the handle and plunger-rod and a central tube as a guide for the plunger-rod; to a connecting device by which the pump-barrel may be adjusted by rotation upon the top of the base-piece without drilling bolt-holes or removing the bolts; and to a metallic stand for fastening the pump to a plank, post, or wall.

My invention consists in the new devices and combinations of devices described and recited in the several claims.

The drawings represent a pump embodying the several features of my invention—

Figure 1 being a side view thereof, and Fig. 2 a vertical central section, taken in a plane at a right angle to that indicated in Fig. 1.

A is an air-chamber, secured upon the upper end of the pump-barrel B. C is a standard, mounted upon the dome D of the air-chamber, and supporting the handle E, pivoted to the standard at *e*. The standard has an annular part, *c*, which surrounds the apex *d* of the dome, and the standard may be revolved on the air-chamber, carrying with it the handle E, by loosening the nut F, which screws into the top of the dome, and has a central aperture, through which the pump-rod G reciprocates.

When the nut F is screwed down upon the annulus *c* the standard is securely held in place, and thus the pump-handle may be adjusted and held in any desired position with relation to the spout *b*.

The handle E is connected with the plunger-rod by means of a stiff pitman, H, which pushes up the piston-rod G on the lifting stroke instead of pulling it, as is customary. The effect of this is to double the length of stroke without requiring undue height in the standard C, and also to avoid a severe lateral strain upon the plunger-rod, which would follow if the position of the pitman were reversed. I provide a sleeve, *h*, at the upper end of the pitman to receive the upper end of the pump-rod, bent horizontally to enter it, and I bend the lower end of the pitman similarly to enter a corresponding sleeve, *h'*, at the upper end of the handle E. Such a connection of the parts distributes the wear over a large surface, requires no screw and nut, and has the merit of cheapness and durability. With this construction I usually make the handle with an offset just above the fulcrum *e*, so as to bring the upper part into proper relation to the pitman.

Within the air-chamber I employ, as a guide for the plunger-rod in its movements, a central tube, K, secured at the top to the dome D, and extending downward into the barrel. This guide insures a true vertical movement to the rod G, and prevents any lateral strain upon the plunger under the action of the pitman.

I connect the bottom of the pump-barrel with a base-piece, L, by means of two or more hooked screw-bolts, M, the curved ends of which, of arc form, embrace the barrel and engage with an annular flange, N, thereon. The bolts then pass downward through recesses in the base-piece, and are tightened or loosened by nuts O. Slackening the nuts slightly permits the rotation of the barrel upon the base, and the bolts may be removed without entirely unscrewing the nuts, since they pass through apertures in the base-piece, which are merely open recesses. The base L is mounted upon the top of the stand-pipe, which communicates with the water-supply.

To facilitate attachment of this pump to a post or plank, I provide a stand or frame, P, constructed, preferably, of iron, and having a seat, Q, for the base-piece or bottom of the barrel to rest on, and arms *p* to receive the pump-barrel and to engage with a semicircular band, R, which, with the arms, embraces the barrel B. The arms *p* and band R are united by screws S, and the band is preferably recessed downwardly from the bolt-holes, so that when the screws are slackened it may be removed by an upward movement, and the

pump may be taken from the stand without entirely withdrawing the screw-bolts S.

It is obvious that recesses may be made in the arms *p* to engage with projections upon the pump itself, and thus that the band R and screws S may be dispensed with.

In matters of detail each of my improvements herein described may be considerably varied without departing from the spirit of my invention.

I claim as of my invention—

1. A pump-barrel and an adjustable rotary standard supporting the pump-handle, in combination with a plunger-rod, a central guide-tube therefor, and an upright pitman or push-rod, substantially as set forth.

2. The barrel B, provided with the annular flange N, in combination with the recessed base-piece L and the crescent-headed bolts M, with their nuts O, substantially as set forth.

3. A stand for pumps, provided with arms *p* and seat Q, adapted to receive and support the pump, substantially as set forth.

THOMAS DOWLING.

Witnesses:
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