A. B. PROUTY.

Pump.

No. 209,513. Patented Oct. 29, 1878.

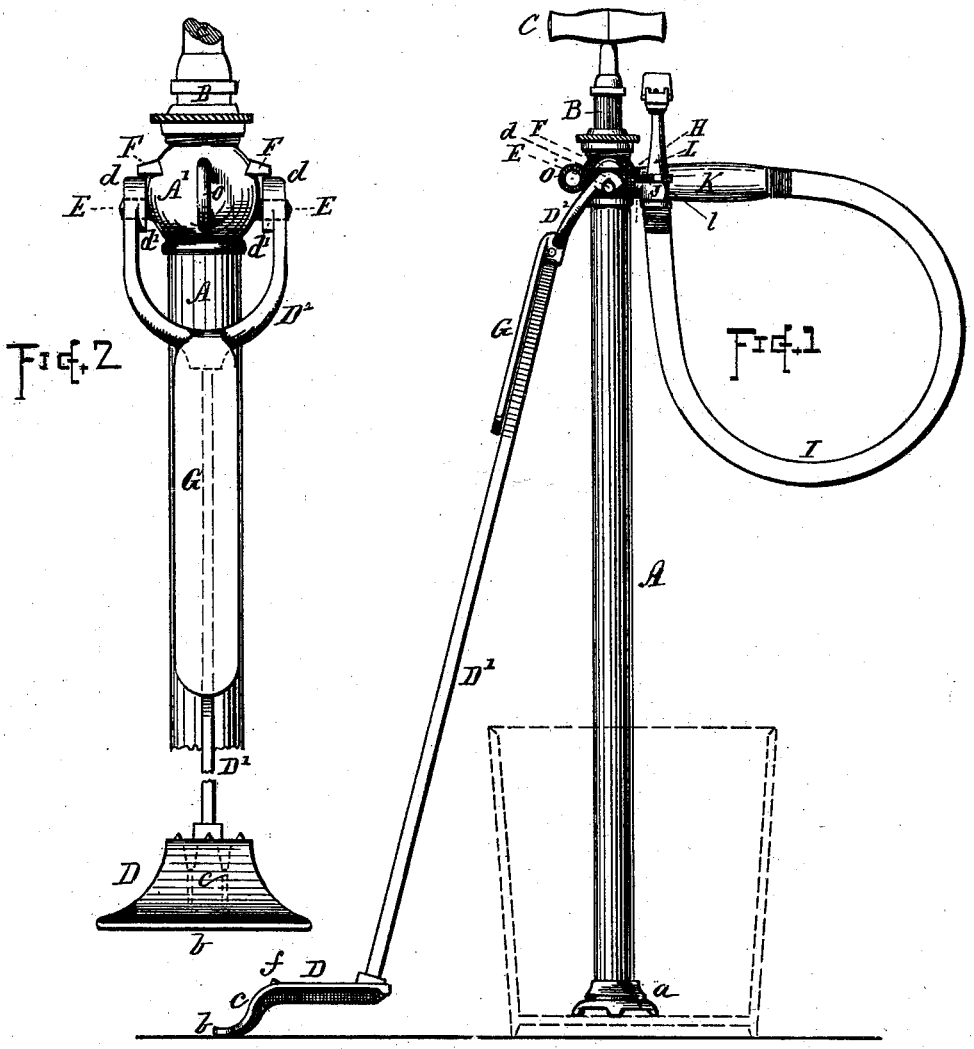

Fig. 2

Fig. 1

Fig. 3

Witnesses,

Geo. M. Reed

S. K. Barton

Inventor.

Augustus B. Prouty

By Chas. H. Dunleigh

Atty.

UNITED STATES PATENT OFFICE.

AUGUSTUS B. PROUTY, OF WORCESTER, MASSACHUSETTS.

IMPROVEMENT IN PUMPS.

Specification forming part of Letters Patent No. **209,513**, dated October 29, 1878; application filed March 28, 1878.

To all whom it may concern:

Be it known that I, AUGUSTUS B. PROUTY, of the city and county of Worcester, and State of Massachusetts, have invented certain new and useful Improvements in Portable Pumps; and I declare the following to be a description of my said invention sufficiently full, clear, and exact to enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 represents a side view of a portable pump constructed to embrace the features of my invention. Fig. 2 represents a front view of certain portions of the same, drawn to somewhat larger scale. Fig. 3 represents a plan view, with certain parts shown in section.

One feature of my invention consists in a foot-stirrup of peculiar construction, and in the manner of connecting it to the head of the pump-cylinder by a yoke and hinge or hinge-lock, as hereinafter explained, whereby the stirrup can be swung toward or from the foot of the cylinder and the pump held at any desired position without other adjustment than the swinging of the stirrup-rod, as hereinafter set forth.

Another feature consists in the combination, with the head of the pump-cylinder and its discharge-pipe, of a rotating hand-piece provided with a loop or catch device for retaining the hose-pipe, as hereinafter described.

Minor features of my invention and the details of construction and operation will be understood from the following description, the particular features claimed as my invention being hereinafter definitely specified.

In the drawings, A denotes the pump-cylinder, having a foot-piece, *a*, and valve at its lower end. B indicates the hollow piston, worked by the handle C, and provided with suitable valves and packing, all of which parts may be of ordinary construction, and are not therefore herein shown and described in detail.

D indicates the foot-pad or stirrup, attached to the lower end of the long slender rod D^1, the upper end of which is furnished with a furcated yoke, D^2, that embraces the enlarged upper end or head A' of the cylinder A, to which it is flexibly connected. The extremities of the forks D^2 are, in the present instance, terminated in hooks *d*, having curved inward-projecting flanges *d'*, while the top end or globular part A' of the cylinder A is provided with trunnions E at its sides, and with lugs or ears F projecting outward at a short distance above and over said trunnions, and the curved flanges *d'* of the yoke D^2 pass between the trunnions E and ears F, and thus retain the parts together. The trunnions E, resting in the depressions of the hooks *d*, serve as pivots, on which the rod D^1 and stirrup-plate can be swung toward or from the foot of the cylinder. The hooks *d*, flanges *d'*, trunnions E, and ears F form a lock-hinge, which, while retaining the parts securely in connection when the stirrup is down, permits of the yoke D^2 and cylinder A being readily disconnected by simply raising the stirrup-rod D^1 to a position at an obtuse angle with the axis of the cylinder, which movement carries the curved flanges *d'* from between the ears F and trunnions E. If preferred, the yoke D^2 could be permanently pivoted or hinged to the cylinder-top A'; but I prefer the detachable connection, as shown.

The rod D^1 is preferably of a thin square bar of steel, set with its narrow edge toward the cylinder, the yoke D^2 and stirrup-pad D being of cast metal, and rigidly attached to the ends of the rod. The stirrup-pad D is attached at its inner end to the rod D^1 in an angular position, as shown, and is made with a downward curve, *c*, near its outer end, so that its bearing on the ground or floor is along its broadened outer edge *b*, the foot-bearing being at *f* between the curve *c* and rod D^1. By this construction the pressure of the foot acts to draw downward at the head of the cylinder, thus giving a very secure support to the pump, while the sidewise flexibility of the rod D^1 allows the pad D to conform to any slight irregularity of the ground-surface, and permits sufficient elasticity to render the working of the piston easy. The adjustment for variations between level of the pump-foot *a* and bearing-surface *b* of the stirrup is effected by simply swinging the foot of the rod D^1 to a greater or less distance from the cylinder, the parts naturally assuming the proper adjustment when the pump is placed in position.

A plate, G, may be extended downward

from the yoke D^2, against which the operator can rest his knee for steadying the upper part of the pump, when desired. The stirrup and bar D D^1 swing down close to the cylinder when the pump is not in use, thus occupying but little room.

The discharge-pipe H, to which the hose I is connected, is extended for a short distance from the head A′, and is surrounded by a loose handle-piece, K, capable of partial rotation on said pipe H. A loop or hook, J, is formed on the side of said handle K, into which the hose-pipe L (a portion of which is reduced, as at *l*) may be placed, and there retained by locking one of the corners *k* against the small lug *i* in the manner indicated, the torsional spring of the rubber hose I being sufficient to permit of the parts being readily locked together, and to retain them in place. The handle-piece K may be turned to bring the hook J at the right or left hand side of the pipe H, as desired. Projecting lugs *h h′* are provided for stopping the rotative movement of the handle, with the hook J in proper position to receive the pipe L either at the right or left side.

By the use of the rotative handle K and hose-pipe lock J, the operator is enabled, should he so desire, to hold the pump in position and direct the stream from the nozzle with one hand while working the piston with the other, and without the aid of the stirrup-rod. The hook J serves as a very convenient means for retaining the hose I and pipe L when not in use. The cylinder-head A′ is provided with a ring, O, to facilitate hanging up the pump, if desired.

Having described my improved portable pump and adjustable nozzle, what I claim as my invention, and desire to secure by Letters Patent, is—

1. In combination with the cylinder of a portable pump, a supporting-rod, having at its lower end a foot-pad or stirrup and at its upper end a fork or yoke embracing the upper enlarged end of the cylinder, and connected therewith by pivots or hinge attachment, whereby the foot of the rod is free to swing toward or from the foot of the cylinder, substantially as and for the purposes set forth.

2. In combination with the cylinder in a portable pump, the peculiarly-constructed foot-pad D, curved downward at its outer end, with its inner end rigidly attached in an inclined position to a rod, D^1, extending to and flexibly connected with the upper end of the cylinder, substantially as and for the purpose stated.

3. In combination, substantially as hereinbefore described, the stirrup-rod D^1, having bifurcated upper termination, D^2, provided with hooked extremities *d* and curved flanges *d′*, and the enlarged cylinder-head A′, having trunnions E and projecting ears F, for the purposes set forth.

4. The combination, with the pump-cylinder A A′, discharge-pipe H, and hose-pipe L, of the handle-piece K, loose on pipe H, and provided with hook J or catch device, for retaining the hose-pipe L, substantially as and for the purpose set forth.

5. In combination, substantially as hereinbefore set forth, the pump-cylinder A, having enlarged head A′, with right and left hand lugs *h h′*, the handle-piece K, partially rotative on pipe H and stopping against lugs *h h′*, the hose-pipe L, reduced at *l*, and having lugs or shoulders *k k*, the hook or arm J, lug *i*, and elastic hose I, for the purposes described.

AUGUSTUS B. PROUTY.

Witnesses:

CHAS. H. BURLEIGH,

S. R. BARTON.