

No. 854,711.

PATENTED MAY 28, 1907.

C. BARTHOLOMEW.

PUMP.

APPLICATION FILED JULY 2, 1906.

Fig. 1.

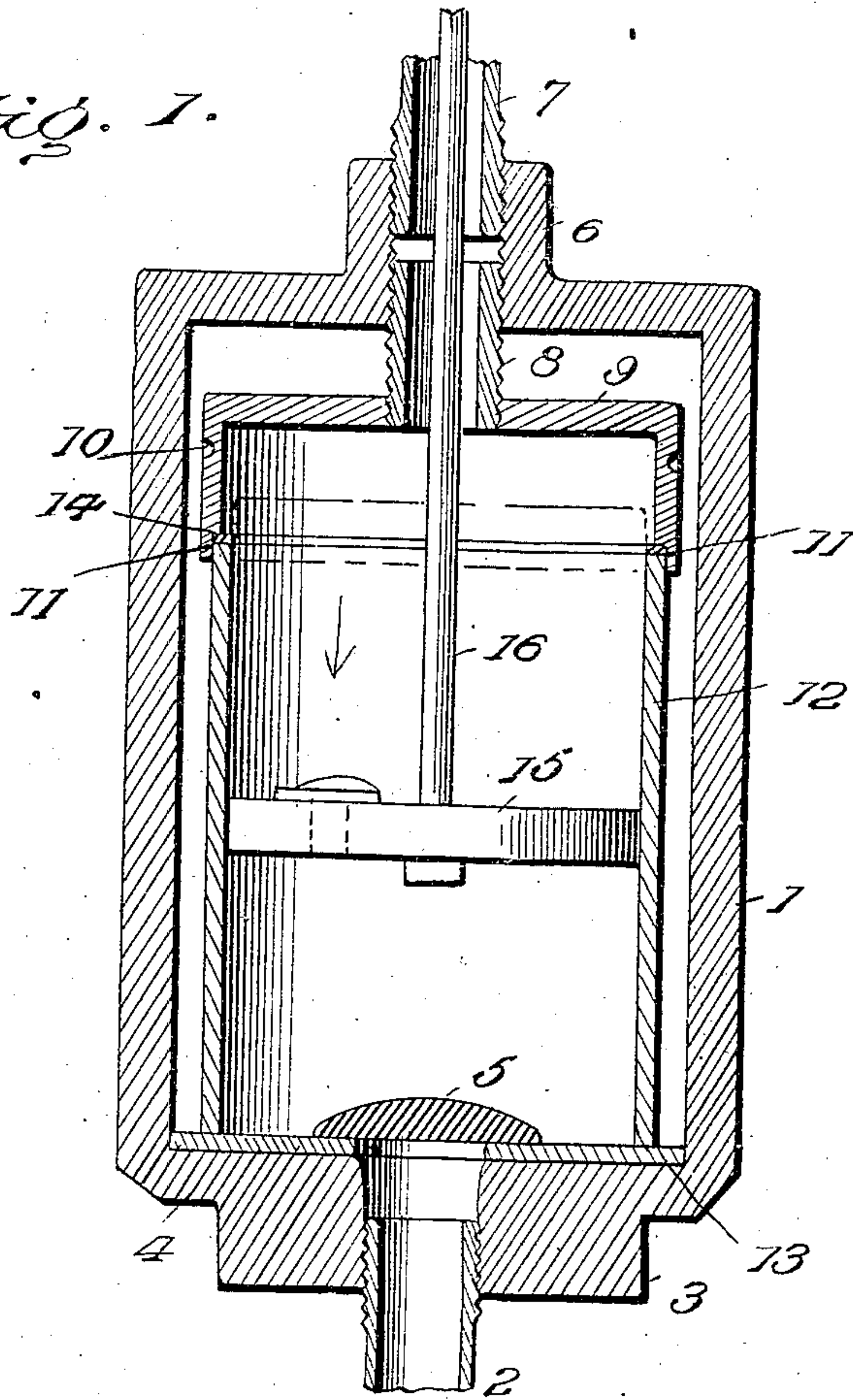
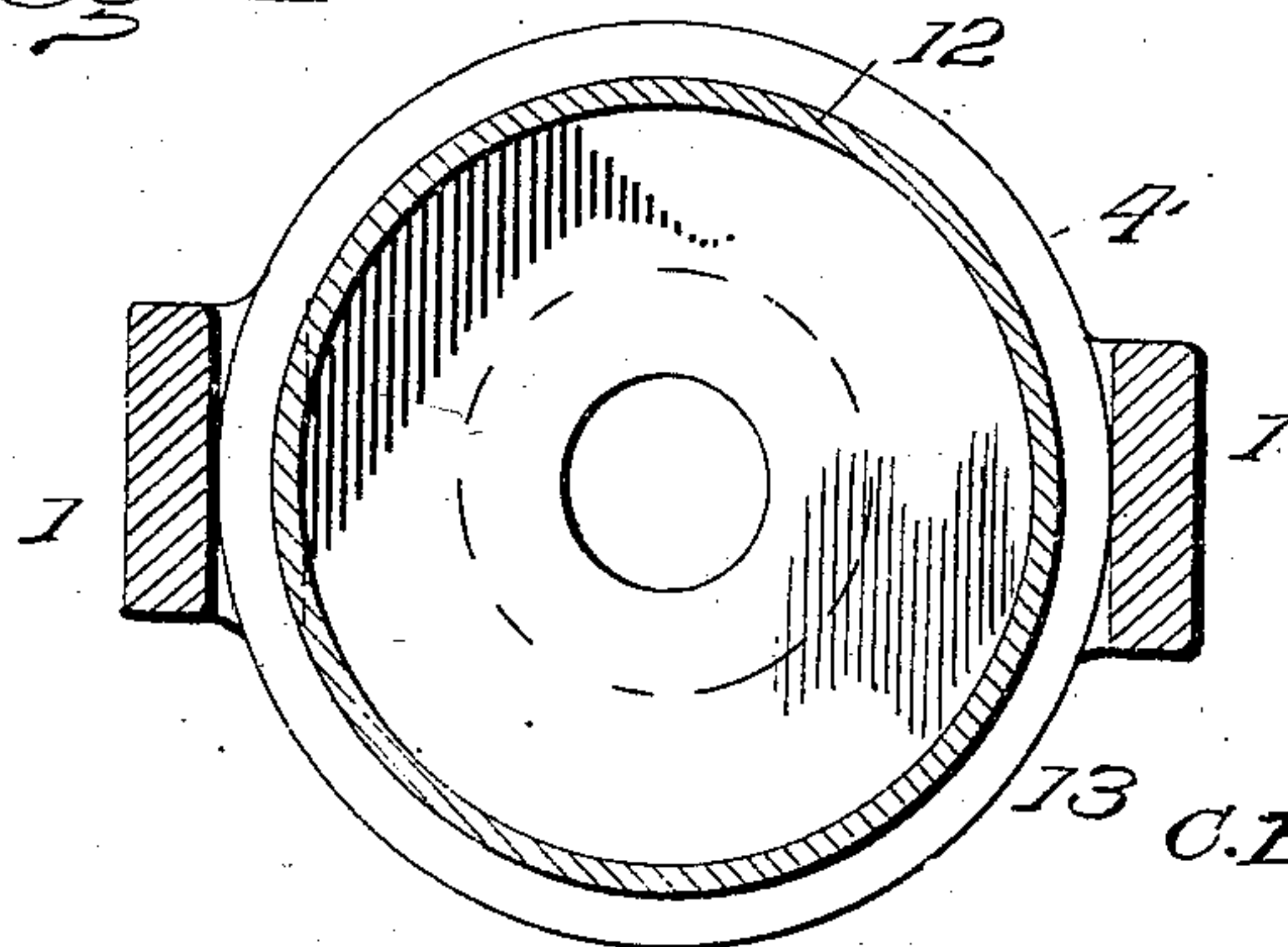


Fig. 2.



Witnesses

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PUMP.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES BARTHOLOMEW, a citizen of the United States, residing at Newark, in the county of Newark and State of Ohio, have invented certain new and useful Improvements in Pumps, of which the following is a specification.

My invention contemplates certain new and useful improvements in pumps particularly lift pumps, and the object of my invention is to provide an improved pump construction of this character whereby the parts of the pump may be readily and quickly taken apart to put in new leather washers or valves and washers on the piston when the old ones are worn out. Pumps of this character usually have their working parts in comparatively deep wells to prevent freezing and this causes them to rust quickly which renders it difficult if not impossible to unscrew the several parts to obtain access to the leather valves and washers of the piston to renew the same, and it is the primary object of my invention to construct pumps in which the parts may be readily disconnected, as above noted, to avoid these difficulties.

For a full understanding of the invention and the merits thereof, and also to acquire a knowledge of the details of construction of the means for effecting the result, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a vertical longitudinal section of my improved pump; and, Fig. 2 is a horizontal sectional view thereof.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Referring to the drawings the numeral 1 designates the frame of my improved pump, the same being provided with an induction pipe 2 which in the present instance is shown secured thereto by being screwed within a polygonal nipple 3 depending from the base 4 of the frame 1. The passage of the water through the induction pipe 2 is controlled by a valve 5 of any desired type. The frame 1 is provided at its top with a boss 6 which is screw threaded on its interior to provide a means for connection thereto of the eduction or delivery pipe 7. The exterior screw threaded sleeve 8 is screwed in the top of the frame within the lower part of the boss 6 and extends within the frame below the boss, as shown, and a cap 9 is provided with a cen-

trally screw threaded aperture by which it is connected to and suspended from said sleeve. The cap 9 is provided with several holes 10 to which a rod or similar tool may be applied to screw the cap 9 either up or down upon the sleeve. The cap 9 opens downwardly as shown and is provided at its lower edge with an inwardly and downwardly facing shoulder 11.

12 designates the pump cylinder which is open throughout its length when unattached to the pump frame and which is designed to rest upon the base 4 and upon a gasket or packing 13, its lower end encircling the valve 5 as shown. The upper end or edge of the cylinder 12 is, when the parts of the pump are in assembled relation, encircled by the flange which constitutes the shoulder 11 of the cap 9 and the cap 9 is screwed down tight upon the upper end of the cylinder and closes on the upper end thereof and maintains it in a secure position, a packing ring 14 being, preferably, interposed between the shoulder 11 and the upper edge of the cylinder. A suction piston 15 is mounted within the cylinder and is carried by a rod 16 which extends up through the sleeve 8 and the eduction or delivery pipe to its operating means, (not shown).

When the parts of the pump are assembled, it will be seen that the cylinder 12 is securely held in place by being clamped down upon the base 4 through the instrumentality of the cap 9. Whenever it is desired to take the pump apart to obtain access to the interior parts, such as the valve 5 and the piston 15, for any purpose, it is only necessary to apply a suitable tool to any of the holes 10 of the cap 9 and turn the same around to screw it upwardly upon the sleeve 8. This action releases the upper edge of the cylinder 12 and by then raising the piston 15 to a plane above the operating cylinder, the same may be readily removed and ready access had to both the valve 5 and the piston 15.

From the foregoing description in connection with the accompanying drawings, it will be seen that I have provided a pump construction of few and simple parts that may be readily assembled and taken apart when desired and which when assembled embodies a rigid construction which is efficient in operation and durable.

Having thus described the invention, what is claimed as new is:

1. A pump, comprising a frame provided

with a base plate, a cylinder resting in a detachable manner on said base plate, a cap for said cylinder, said cap being provided with a downwardly and inwardly facing shoulder at its lower edge adapted to clamp upon the upper edge of the cylinder, an exteriorly threaded sleeve supported in the top of the frame and upon which said cap is mounted in screw threaded engagement whereby the cap may be raised and lowered upon the sleeve out of and into engagement with the upper edge of the cylinder, and a piston and rod in said cylinder.

2. A pump, comprising a frame provided with a base plate arranged for connection to an induction pipe and provided with a valve controlling the passage of water from said induction pipe, a cylinder adapted to rest in a detachable manner upon said base plate within the frame, a downwardly facing cap

provided with a shoulder at its lower edge adapted to bind upon the upper edge of said cylinder whereby to clamp it within the frame, an exteriorly threaded sleeve held in screw threaded engagement in the upper end of the frame, said cap being mounted with screw threaded engagement on the lower end of said sleeve whereby the cap may be raised and lowered for the purpose specified, said cap being provided in its exterior with holes for the reception of an operating rod, and a piston and rod adapted to operate in said cylinder.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES BARTHOLOMEW. [L. S.]

Witnesses:

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MAUD M. IRWIN.