

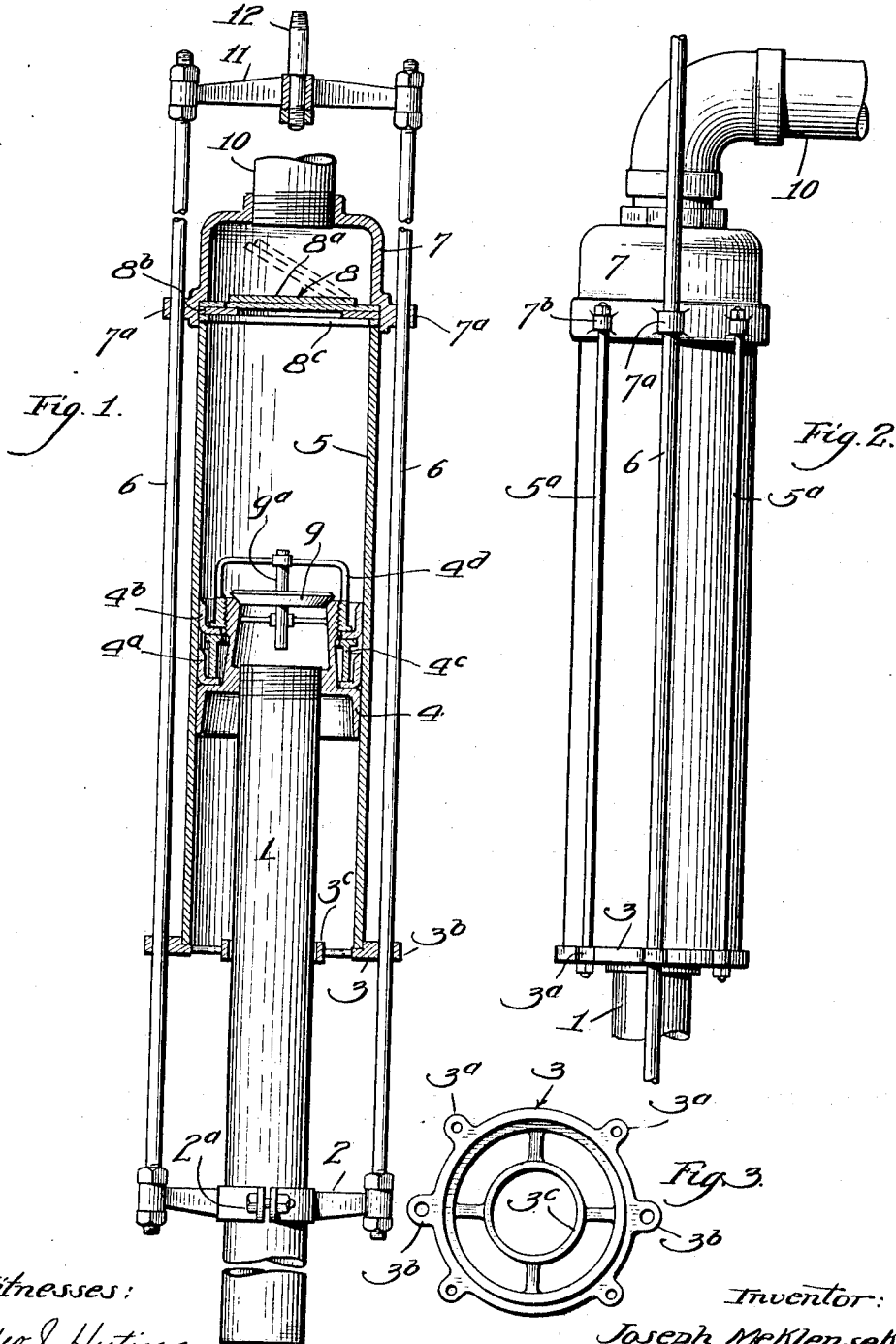
J. MEKLENSEK.

PUMP.

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1,053,525.

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UNITED STATES PATENT OFFICE.

JOSEPH MEKLENSEK, OF SAN DIEGO, CALIFORNIA.

PUMP.

1,053,525.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOSEPH MEKLENSEK, a citizen of the United States, and a resident of San Diego, in the county of San Diego and State of California, have invented certain new and useful Improvements in Pumps, of which the following is a specification.

My invention relates to pumps, in which the operating rods are adapted to run in guides on the cylinder of the pump, and in which the piston and inlet pipe are directly connected together so that the inlet pipe reciprocates when the pump is in operation.

The objects of my invention are, first, to provide a pump that is simple of construction, durable, easily installed and easily taken apart so as to facilitate the removal of the working parts, second, to provide a pump in which the inlet pipe is used as a piston rod.

With these and other objects in view, my invention consists of certain novel features of construction, combination and arrangement of parts, as will be hereinafter described in detail and particularly set forth in the appended claims, reference being had to the accompanying drawings and to the characters of reference thereon, which form a part of this specification, in which:—

Figure 1 is a vertical section showing the cylinder and piston and their immediate connecting parts, Fig. 2 is a side elevational view thereof, and Fig. 3 is a detail plan view of the piston operating pipe guide.

Similar characters of reference refer to similar parts throughout the several views.

The inlet pipe 1, clamp 2, guide 3, piston 4, cylinder 5, guide rods 6, cylinder cap 7, valve 8, valve 9, outlet pipe 10, cross-head 11, and operating rod 12 constitute the principal parts of my pump.

The cylinder cap 7 is shaped as best shown in Fig. 1, and is provided in its upper end with a pipe tap adapted for an outlet pipe 10. It is also provided with two oppositely disposed lugs 7^a, which are provided with holes, adapted as guides for the rods 6. In the lower end of this cap 7 is set the valve 8, which is an annularly shaped piece of leather cut to fit the cap 7, and having the central portion thereof cut concentrically, leaving a portion on one side to act as a hinge. To this central portion is fastened a metallic piece 8^a. This leather piece 8 rests upon a metallic washer 8^b. Beneath this

piece is placed a flexible washer 8^c preferably of leather, which acts as a gasket between the end of the cylinder 5 and the metallic washer 8 when the end of the cylinder 5 is set against the leather piece 8^c. On the lower end of the cylinder 5 is placed the guide piece 3, which is provided with a plurality of lugs 3^a adapted for tie rods 5^a, which extend to the lugs 7^b on the cap 7, and are adapted to tie the pieces 3 and 7 together, thus forming a clamp for the cap 7, cylinder 5 and guide 3. This guide piece 3 is also provided with oppositely disposed lugs 3^b, adapted as guides for the rods 6. To the upper ends of these rods 6 is secured the cross-head 11, to which is secured the operating rod 12. To the lower ends of the rods 6 is secured a clamp 2, which is a two piece clamp adapted to clamp around the pipe 1, and be tightened by means of bolts 2^a. The pipe 1 is the inlet pipe and it also acts as a piston rod. It is guided by means of the annular portion 3^c of the guide piece 3. Upon the upper end of the pipe 1 is rigidly mounted the piston 4, preferably by means of pipe threads. The piston is shaped as shown best in Fig. 1. Its main portion is provided with a valve seat in its top end, and with an external thread around its upper end. The piston is provided with two leathers 4^a and 4^b which are clamped to said piece 4 by means of piece 4^c and the piece 4^d which screws onto the thread of the piece 4. Adapted to the valve seat of the upper end of the piece 4 is the valve 9, guided by means of the guide piece 9^a.

Though I have shown and described a particular construction and arrangement of parts, I do not wish to be limited to this particular construction and arrangement, but desire to include in the purview of my invention, the construction substantially as set forth in the appended claims.

It is obvious that with this construction, upon the reciprocation of the operating rod 12, it will carry with it the rods 6 which will be guided by means of the lugs on the pieces 7 and 3; that these rods in turn will reciprocate the pipe 1, which acts as an inlet for the water as well as a piston rod for the pump; that when the pump is operated the pipe 1 will reciprocate and having its lower end in the water will cause the water to flow through it and the valve 9, into the cylinder, and that with each upward stroke of the piston, the water in the cylinder will be

forced upward through the valve 8 and the outlet pipe 10.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:—

1. A pump comprising a cylinder; a cap piece of the same diameter as said cylinder, mounted on its upper end; a guide piece on the lower end of said cylinder; means for clamping together said cylinder, cap piece, and guide piece; an outlet pipe secured to said cap piece; a valve in said cap piece; a piston reciprocally mounted in said cylinder; an inlet pipe secured to said piston, adapted to carry said piston; a valve in said piston; a two-piece clamp adapted to connect rigidly to said inlet pipe; a cross head; a plurality of rods connecting said clamp with said cross head, adapted to reciprocate in lugs on said cylinder, cap, and clamp.

2. A pump comprising a cylinder; a cap on its upper end; a combined clamp and guide piece on its lower end; an outlet pipe secured to said cap piece; a valve in said cap piece; a piston reciprocally mounted in said cylinder; a hollow piston rod entering said cylinder from below, attached at its upper end to said piston, adapted for a water inlet; a valve in said piston; a two-piece clamp adapted to connect rigidly to said inlet pipe; a cross head; a plurality of cross head rods connecting said clamp with said cross head, adapted to operate in lugs on said cylinder, cap, and said clamp.

3. A pump comprising a cylinder, a cap piece of the same diameter, mounted on its upper end, provided with a plurality of lugs on its outer surface, a combined clamp and

guide piece mounted on its opposite end, provided with a plurality of lugs; an outlet pipe secured to said cap piece; a valve in said cap piece mounted between said cylinder and said cap piece; a piston provided with a hole through it reciprocally mounted in said cylinder; a valve in the hole in said piston; a hollow piston rod entering said cylinder from below, adapted to be secured into the hole in said piston to carry said piston and act as an inlet pipe; a two-piece clamp adapted to rigidly connect to said inlet pipe; a cross head; a plurality of cross head rods connecting said clamp with said cross head, adapted to reciprocate in lugs on said cylinder cap and said clamp.

4. In a pump of the class described, a piston rod having its upper end provided with a thread, entering the pump cylinder from below; a main portion of the piston provided with an annular extension of the same size as the cylinder, with a space above said extension between said main portion and the valve of said cylinder; and a thread on the upper end thereof, mounted on said piston rod; two leather rings mounted in said space above said extension; a ring between said leathers, and an annularly-shaped inside threaded member secured onto said piston rod so as to hold said leathers and said ring firmly in position.

In testimony whereof, I have hereunto subscribed my name in the presence of two subscribing witnesses.

JOSEPH MEKLENSEK.

Witnesses:

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