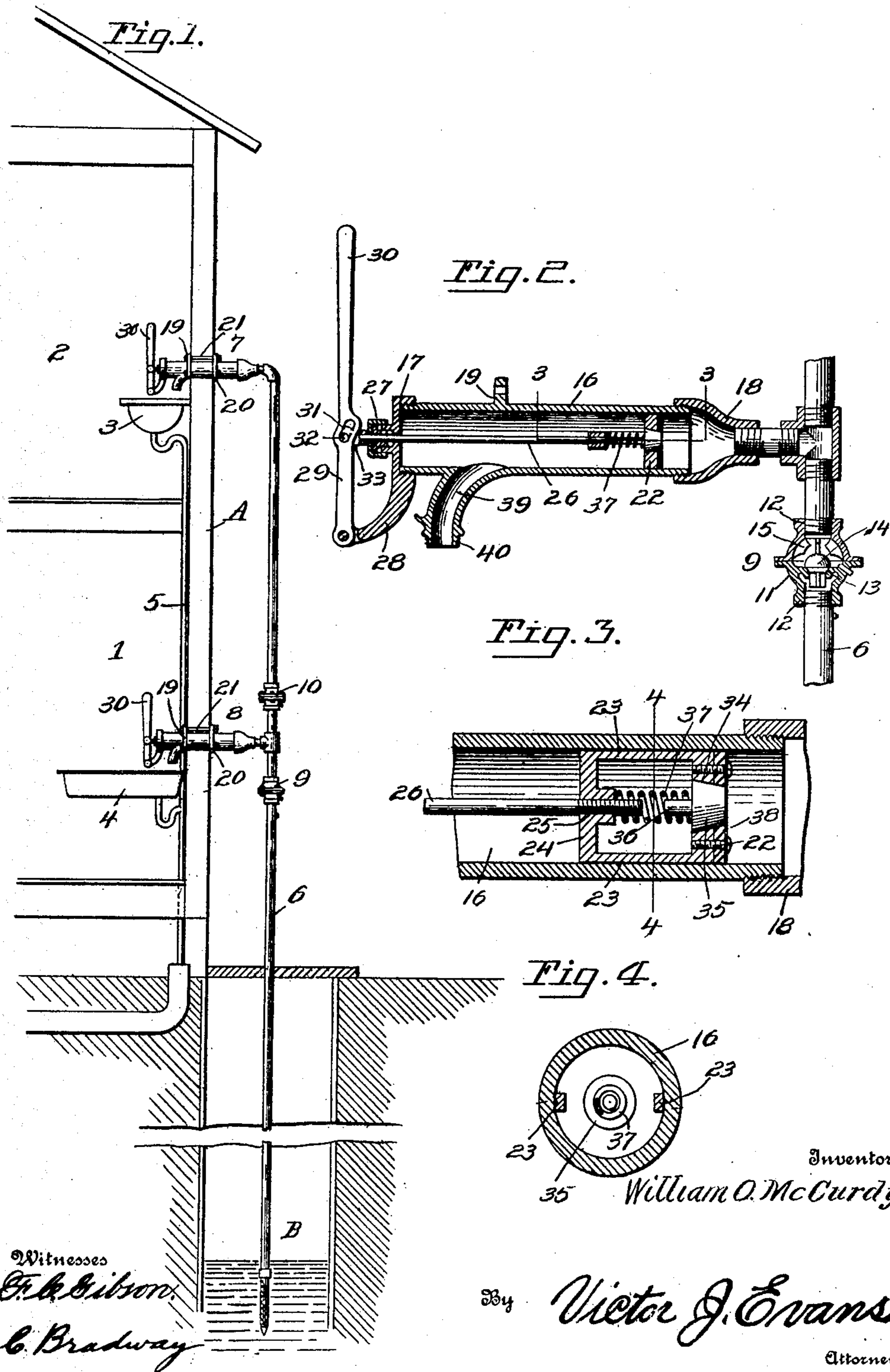


W. O. McCURDY.
PUMP.

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WILLIAM ORSBURN McCURDY, OF BARHAM, LOUISIANA.

PUMP.

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To all whom it may concern:

Be it known that I, WILLIAM ORSBURN McCURDY, a citizen of the United States, residing at Barham, in the parish of Vernon and State of Louisiana, have invented new and useful Improvements in Pumps, of which the following is a specification.

This invention relates to a water supply system for residences and other buildings, whereby water can be drawn from a well or other source by means of hand-operated suction pumps located in various rooms of the residence or other points where the water supply is desired.

The invention has for one of its objects to improve and simplify the construction and operation of devices of this character so as to be comparatively easy and inexpensive to manufacture and install, thoroughly reliable and efficient in use, and convenient to manipulate.

A further object of the invention is the employment of a plurality of pumps that are connected with a common suction pipe or riser having its lower end submerged in the well or other source of supply, the pumps being of simple construction and especially adapted to extend through a wall to draw water from the suction pipe located exterior to the building.

With these objects in view and others, as will appear as the description proceeds, the invention comprises the various novel features of construction and arrangement of parts which will be more fully described hereinafter and set forth with particularity in the claim appended hereto.

In the accompanying drawing, which illustrates one of the embodiments of the invention, Figure 1 is a fragmentary view of a dwelling or other building showing the water supply system installed. Fig. 2 is an enlarged longitudinal section of one of the pumps. Fig. 3 is a longitudinal section on line 3—3, Fig. 2, drawn on an enlarged scale. Fig. 4 is a transverse section on line 4—4, Fig. 3.

Similar reference characters are employed to designate corresponding parts throughout the several views.

Referring to the drawing, A designates a building of which 1 represents a first floor room such as a kitchen, and 2, an upper floor room such as a bath or bed room, having a wash bowl 3, the kitchen having a sink 4 which, like the bowl 3, is connected with a

drain pipe 5 for conveying away the waste water. Located outside the building 5 close to or at a remote point, is a well B or other source of water supply. Extending into the water is a suction pipe 6 that is connected with pumps 7 and 8 for supplying the wash bowl and sink 3 and 4, respectively. Any number of pumps may be employed and the pipe 6 continued to any point within the range of the suction power of a pump where water is required.

Included in the pipe 6 on the suction side of the pump 8 and between the two pumps are check valves 9 and 10, the details of which are clearly shown in Fig. 2. Each check valve comprises a two-part casing 11 bolted together and having threaded bosses 12 into which the sections of the suction pipe 6 are threaded. The lower half of the casing 11 has a valve seat 13 for the check valve 14, wings 15 being provided on the upper section to serve as stops for limiting the opening movement of the valve.

Each pump comprises a hollow cylindrical casting 16 having its extremities exteriorly threaded, one for receiving a cap 17 and the other a coupling 18 for connecting the pump cylinder with the suction pipe. The pump cylinder is adapted to extend horizontally through the wall of the building and has formed thereon a flange 19 adapted to engage the inner surface of the wall, there being applied to the outer portion of the pump cylinder a ring 20 that receives bolts 21 extending through the wall, whereby the pump is firmly secured in position, as clearly shown in Fig. 1. Arranged within the cylinder for reciprocation, is a piston 22 that has a yoke, as shown in Fig. 3, composed of side bars 23 and a connecting cross bar 24, the latter having a central aperture 25 threaded to receive the inner end of the piston rod 26. The outer end of the piston rod extends through the cap 17 that is fitted with a suitable stuffing box 27. Formed on the cap 17 is a depending arm 28 that is curved laterally to form a support on which the operating lever 29 is fulcrumed. Intermediate the lower hinged end of the lever 29 and the handle 30 thereof is an inclined slot 31 for receiving the pintle 32 that is secured to the apertured lugs or bifurcations 33 on the piston rod. By this means, the lever is oscillated for performing the suction and discharge strokes of the pump.

The plunger 22 is provided with a central conical opening 34 for receiving the corre-

spondingly shaped valve 35. This valve is provided with a short stem 36 which cooperates with the inner end of the plunger rod 26 to retain the helical compression spring 37, which serves to seat valve. On the inner face of the piston 22 is a packing 38 secured in any suitable manner thereto to prevent leakage and the entrance of air in the suction pipe. The stem 36 of the valve 35 is adapted to abut the inner end of the piston rod 26 so as to prevent the valve from becoming displaced; in other words, the movement of the valve 35 is limited by the plunger rod. On each cylinder 16 is a downwardly extending discharge spout 39 which, as shown in Fig. 2, may have a thread 40 for coupling a hose thereto when it is desired to discharge water to a distant point, as for instance in the case of fire.

From the foregoing description, taken in connection with the accompanying drawing, the advantages of the construction and of the method of operation will be readily apparent to those skilled in the art to which the invention appertains, and while I have described the principle of operation of the invention,

together with the apparatus which I now consider to be the best embodiment thereof, I desire to have it understood that the apparatus shown is merely illustrative and that such changes may be made when desired, as are within the scope of the invention.

Having thus described the invention, what is claimed, is:—

The combination of a wall having apertures at different points, a supply pipe, pumps extending through the apertures of the wall, a removable coupling on each pump connecting the latter with the supply pipe, a check valve in the supply pipe at a point between the pumps, a check valve in the supply pipe at a point below the lowermost pump, means for clamping the pumps in position in the wall, and means supported on the pumps for actuating the plungers thereof.

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

WILLIAM ORSBURN McCURDY.

Witnesses:

FRED WEBB,
S. R. RUSH.