

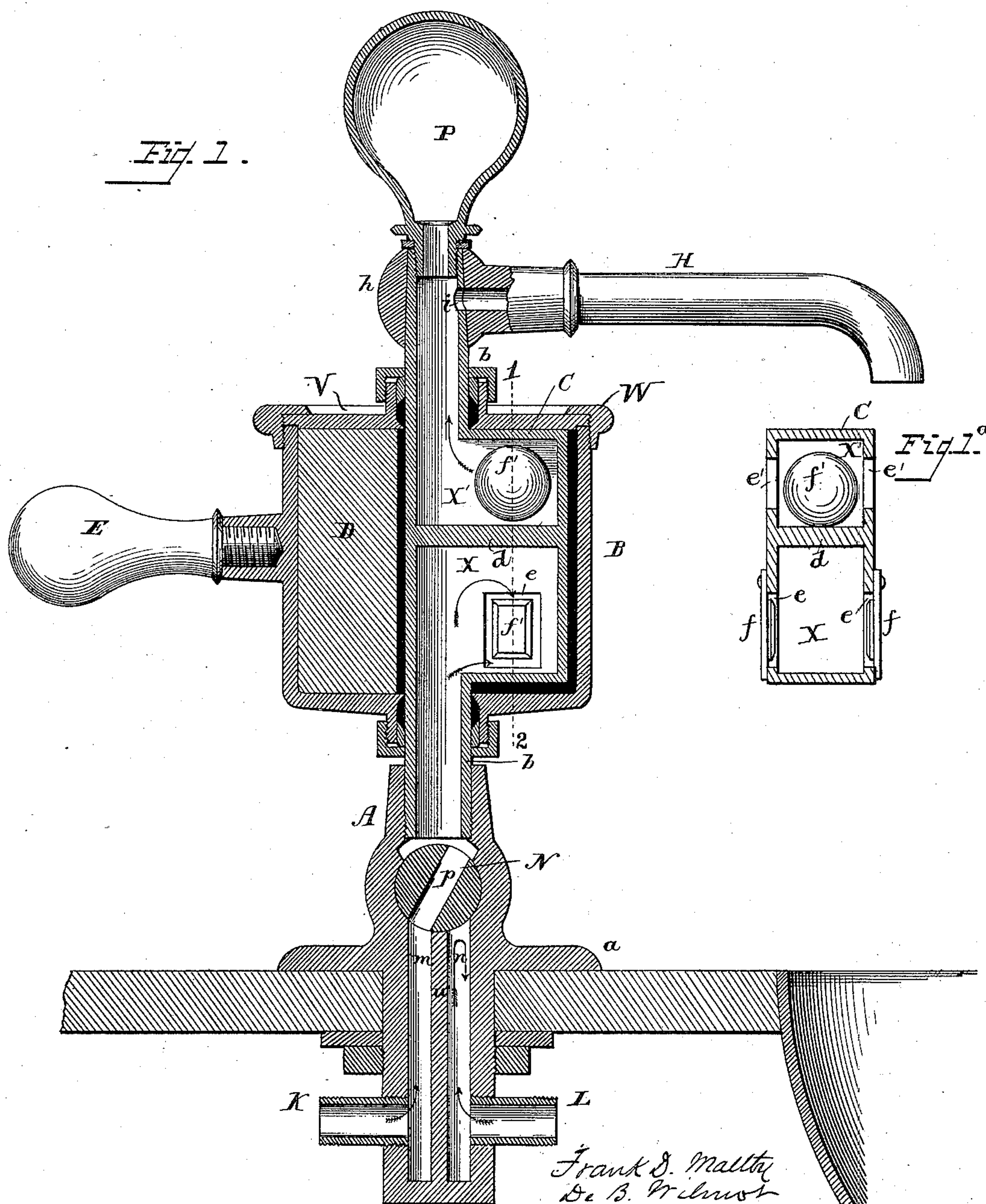
(No Model.)

2 Sheets—Sheet 1.

F. D. MALTBY & DE BORDEN WILMOT.
PUMP.

No. 301,063.

Patented June 24, 1884.



Witnesses.
A. E. Lammann.
Court, A. Cooper.

Frank J. Maltby
De B. Wilbur
Inventors
By Charles E. Allen
Atty

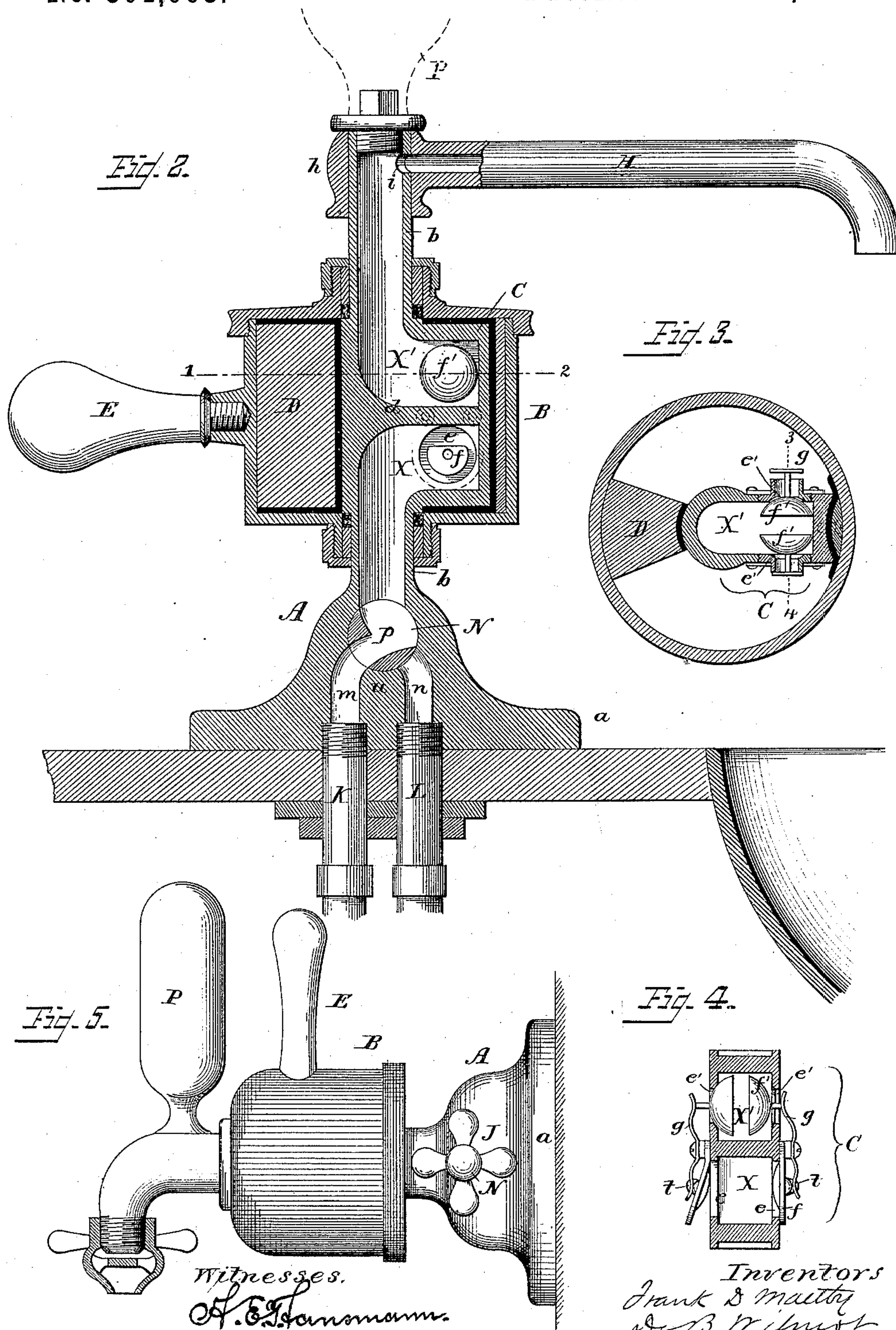
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Witnesses.
L. E. Lammann.
Coat. A. Cooper.

Inventors
Frank D. Maltby
De Borden Wilmot
By *Charles E. Foster*
att'y.

UNITED STATES PATENT OFFICE.

FRANK D. MALTBY, OF WASHINGTON, D. C., AND DE BORDEN WILMOT, OF NEW YORK, N. Y., ASSIGNORS TO THEMSELVES AND WELLESLEY W. GAGE, OF NEW YORK, N. Y.

PUMP.

SPECIFICATION forming part of Letters Patent No. 301,063, dated June 24, 1884.

Application filed May 10, 1883. (No model.) Patented in Belgium September 13, 1883, No. 62,622, and in England September 20, 1883, No. 4,498.

To all whom it may concern.

Be it known that we, FRANK D. MALTBY, of Washington, D. C., and DE B. WILMOT, of the city, county, and State of New York, have
5 invented certain Improvements in Pumps, of which the following is a specification.

Our invention consists of certain improvements in pumps, fully set forth hereinafter, whereby to permit connection to be made with
10 one or more sources of supply, and specially constructed and adapted for use in situations where the water must sometimes be pumped and at other times flows without pumping.

The invention also consists in certain details
15 of construction intended to secure stability and efficient action of the valves.

In the drawings, Figure 1 is a sectional elevation of a basin-pump illustrating our invention. Fig. 1^a is a section of the projection C through the line 1 2, Fig. 1. Fig. 2 is a sectional elevation of a pump, showing slight modifications. Fig. 3 is a section on the line 1 2, Fig. 2. Fig. 4 is a vertical section on the line 3 4, Fig. 3. Fig. 5 is a side view in part section, illustrating a pump arranged horizontally, and provided with a different nozzle-cock.
25

The pump consists, essentially, of the fixed portion A and the movable portion B, which
30 revolves or rocks upon the portion A as a support. The portion A has at one end an enlargement or flange, *a*, whereby it may be securely bolted or fastened by any other convenient means to the top of a basin-slab, to a
35 wall, or other suitable support, and from the said enlargement extends a tube, *b*, having at one side a projection, C, divided centrally by a partition, *d*, to form two chambers, X X', one communicating with the lower and the
40 other with the upper portion of the tube. The portion A, with its channels, constitutes, mainly, the stationary channeled portion of the pump. At each side of the projection C are two openings, *e e'*, the upper communicating with the chamber X' and the lower with the chamber X, the openings *e'* being provided
45 with valves *f'*, opening inward, and the lower with valves *f*, opening outward, the latter

valves being flap-valves, and the valves *f'* being semi-spherical or disk valves, connected
50 each to one end of a flexion-spring, *g*, bolted centrally to the projection C and bearing with its other end against the adjacent valve *f*. The spring *g* yields to permit each valve to open readily, but brings each quickly to its
55 place upon a very slight reduction of the pressure. The spring may extend between ears *t t* on the flap-valve, and serves to insure the proper action of both valves, whatever position the pump may be in. Other forms of
60 springs may be used. The portion B of the pump is a cylinder inclosing the projection C, and is provided with a radial piston, D, bearing against the side of the tube *b* and packed at each end, the cylinder being provided with a
65 handle, E, by which it may be rocked to draw the water between the piston D and projection C at one side, and force it from between these parts at the opposite side, as in the pump
70 patented to Brust and Douglass, March 29, 1881.

In order to properly discharge into the basin the water raised by the pump, the end of the tube *b* is formed into or provided with a spout, H, bent downward toward the basin, and to
75 permit the flow of water to be cut off or regulated in those cases where the head is sometimes sufficient to cause a discharge without the operation of the pump, a cock or valve is provided at some point in the device. In
80 Figs. 1 and 2 this cut-off valve is formed by providing the spout H with an enlargement, *h*, having a tapering socket to receive the tapering end of the tube *b*, which has a lateral perforation, *i*, the spout being held in place,
85 but so as to be turned to bring its bore into or out of line with the opening *i*. Instead of this a screw-valve nozzle may be applied to the spout, as shown in Fig. 5.

It is frequently necessary, especially for
90 wash-basins, to provide means for discharging either hot or cold water, or both. To effect this without necessarily employing two different pumps, I combine with the pump a valve of any suitable character, and provide
95 channels and connections leading to the differ-

ent sources of supply, so that either or both may be put in communication with the pump. Thus the base or enlargement *a* may have channels *m n* leading to the hot and cold water pipes K L, and a transverse recess adapted to receive the plug-valve N, with a transverse port, *p*, larger at one side than at the other, as shown in Fig. 2. The plug N is provided at its outer end with a suitable handle,

10 J. When the valve is in the position shown in Fig. 1, the pump is in communication with the cold-water pipe K. By turning the valve to bring the small end of the opening *p* opposite the channel *n* the pump may be put in

15 communication with the hot-water pipe. By bringing the small end of the opening opposite the solid portion *u*, communication with both pipes is cut off, and by reversing the valve to bring the wide end of the opening

20 downward the pump may be put in communication with both of the pipes K L at once, the relative delivery of the fluids being regulated by turning the valve more or less to one side or the other.

25 It will be apparent that this arrangement of cold and hot supply pipes, valve, and pump may be employed with pumps of different constructions. We however prefer to employ that described, as the central conducting and delivery pipe constitutes the standard, and affords a most firm and substantial fixed support for the movable portion of the pump, which can be vibrated without jerks or jars, and with but little or no tendency to wrench the fixed

30 portion from its bearings.

Where it is desirable to secure a more continuous flow than would be obtained by the vibration of the piston, we combine with the pump a casing, P, which communicates with

40 the discharge-channel, and serves, like the air-vessel of an ordinary pump, to maintain uniform discharge.

In Fig. 1 we have shown the cap V of the cylinder as a loose disk confined by a ring, W, thereby securing a better joint, reducing friction, and permitting easy access to the parts.

We are aware that cocks have been constructed to deliver either or both of two different fluids, and make no claim to this feature, our invention being distinguished by the fact

50 that the pump having different channels in its base may be put into communication with either or both of said channels.

We do not limit ourselves to the special

55 valves shown, and we do not claim any features common to the pump shown and that patented to Brust and Douglass, March 29, 1881; but—

We claim—

1. A basin-pump provided with a stationary 60
channeled portion, a pipe having a chambered projection at one side and inlet and outlet valves, and with an outlet-pipe and discharge-spout affixed to the pipe, and a movable cylinder rocking upon said pipe, inclos- 65
ing the said projection, and provided with a radial piston, substantially as set forth.

2. The combination, in a basin-pump, of the central channeled supporting portion, a pipe extending from the same and having a 70
chambered projection, the cylinder rocking on the pipe and provided with a piston, a spout connected to the pipe, and a valve for controlling the flow of water through the spout, substantially as set forth. 75

3. The combination, in a pump, of the central channeled supporting portion, a pipe connected therewith carrying a chambered projection having a port, *i*, the cylinder rock- 80
ing thereon and provided with a piston, and the spout fitted to the end of the pipe and turning thereon, substantially as set forth.

4. The combination, in a basin-pump, of a stationary portion having two independent supply-channels, a valve whereby the flow of 85
fluids through both channels is controlled, a faucet, and a pump arranged between the valve and the faucet, substantially as described.

5. The combination, in a basin-pump, of 90
the fixed channeled portion A, provided with the delivery-spout, the movable portion B, provided with a radial piston, channels in the fixed portion leading to different supply-pipes, and a cock controlling the communica- 95
tion between the pump and the said channels, substantially as set forth.

6. The combination of pump-case B and piston D, and pipe *b*, provided with the projection C, side valves, *f f'*, and springs *g g*, 100
each attached to one of the valves *f'* and bearing on one of the valves *f*, substantially as set forth.

7. The combination, in a pump, of the fixed portion, the pipe *b*, having a chambered and 105
valved projection, C, and the cylinder B and piston D, loose cap V, and ring W, substantially as set forth.

In testimony whereof we have signed our names to this specification in the presence of 110
two subscribing witnesses.

FRANK D. MALTBY.
DE BORDEN WILMOT.

Witnesses:

DANIEL E. DELAVAN,
SAM D. SEWARDS.