2 Sheets--Sheet 1.

B. S. CHURCH.

Pump-Cocks.

No. 154,319. Patented Aug. 25, 1874.

Fig. 2.

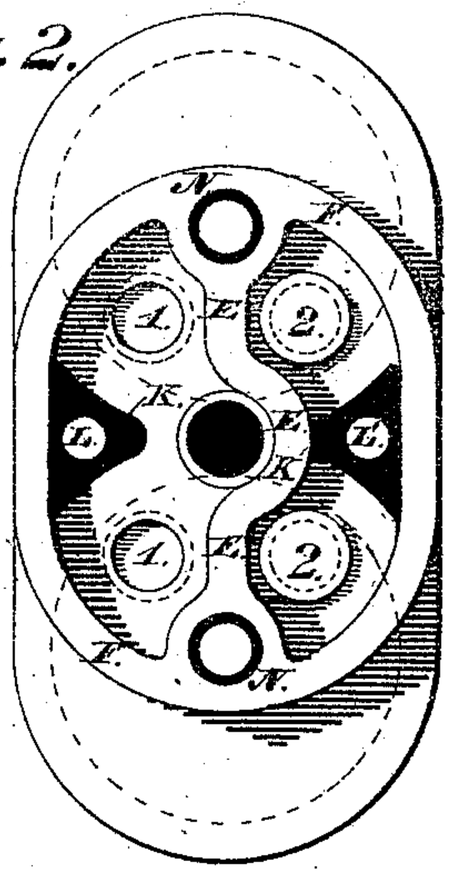

Fig. 1.

Attest:

Robert B. Holmes
S. Finkney Jr.

Inventor:

Benj. S. Church

2 Sheets--Sheet 2.

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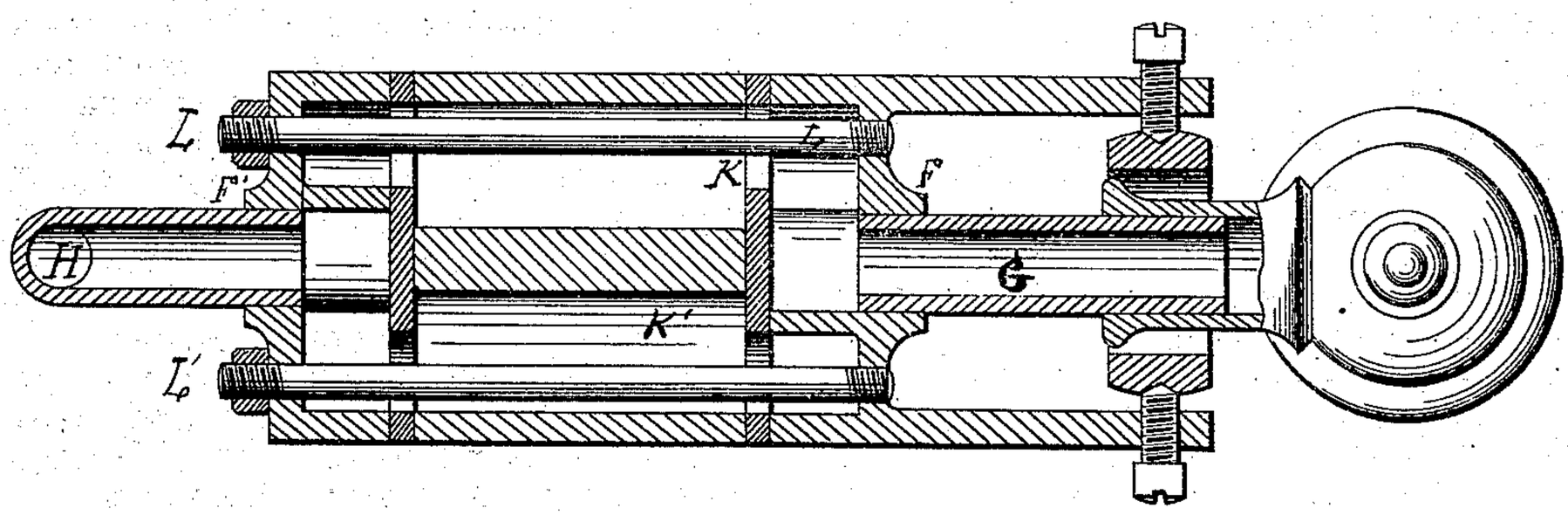
Fig. 3.



Attest.

Robert B. Holmes.
S. Purkey Church.

Inventor.

Benj. S. Church.

UNITED STATES PATENT OFFICE.

BENJAMIN S. CHURCH, OF NEW YORK, N. Y.

IMPROVEMENT IN PUMP-COCKS.

Specification forming part of Letters Patent No. **154,319**, dated August 25, 1874; application filed May 29, 1874.

To all whom it may concern:

Be it known that I, BENJAMIN S. CHURCH, of New York city, State of New York, have invented a Pump-Cock, of which the following is a specification:

The object of my invention is to attach to the discharge or supply opening of a cock a pump, A B, as shown in Figure 1 of the accompanying drawing, to draw water into hand-basins, bath-tubs, closets, &c., on stories above the height to which the water rises in the service-pipes, or where the flow of water may be intermitted.

The machine is illustrated more in detail in the accompanying drawing, in which Fig. 1 is a vertical longitudinal section, and Fig. 2 is a section and projection through T T of Fig. 1. Fig. 3 is a longitudinal section on line *x x*, Fig. 1.

The parts in both figures being lettered alike, the description is as follows;

A and B are cylinders; C and D, their pistons. F F F′ F′ are valve-boxes. E E E is a partition separating the inlet-water from the outlet-water in each valve-box. At the ends of this partition are the stuffing-boxes N N for the piston-rods. K K is a port connecting the inlet-water of the valve-boxes, and K′ (behind K K in Fig. 1) is a port connecting the outlet-water in the valve-boxes. Through these two ports two rods, L L L′, pass, one end of each rod being screwed into the front of valve-box F F, and the other ends pass through the head of valve-box F′ F′ and into nuts on the outside, which being tightened, the rods bind all the parts of the pump together. 1 1 1′ 1′ are the inlet-valves, and 2 2 2′ 2′ the outlet-valves, of the cylinders.

The pistons moving in the direction of the arrows, the action is as follows: The water entering through G, opening valve 1, enters cylinder A, (valve 1′ closing.) It enters, also, through K K, into valve-box F′ F′, and, opening valve 1′, enters cylinder B. Simultaneously the water is forced out of cylinder A, through valve 2′, into valve-box F′ F′, and then out through H. The water is forced out of B, through valve 2, port K′, (situated behind K K, Fig. 1,) into valve-box F′ F′, then out through H. On the return stroke of the pistons the action of the valves is reversed.

When there is sufficient pressure in the service-pipe to raise the water to this cock, it can flow through the valves and out of H unobstructed and without working the pump.

My invention may be attached to the supply-pipe by any of the ordinary methods of attaching a cock or faucet to such pipe.

I claim as my invention—

1. The combination of a pump, faucet, and supply-pipe, substantially as and for the purpose described.

2. The combination of the valve-boxes F F F′ F′ and their valves, the partition E E E, the ports K K K′, substantially as described.

3. The combination of the valve-boxes F F F′ F′ and their valves, the partition E E E, the ports K K K′ with a supply-pipe, substantially as and for the purpose described.

Witnesses: BENJ. S. CHURCH.
ROBERT B. HOLMES,
HENRY APMAN.