

L. GOODWIN & S. A. WEST.

Pumps.

No. 158,372.

Patented Jan. 5, 1875.

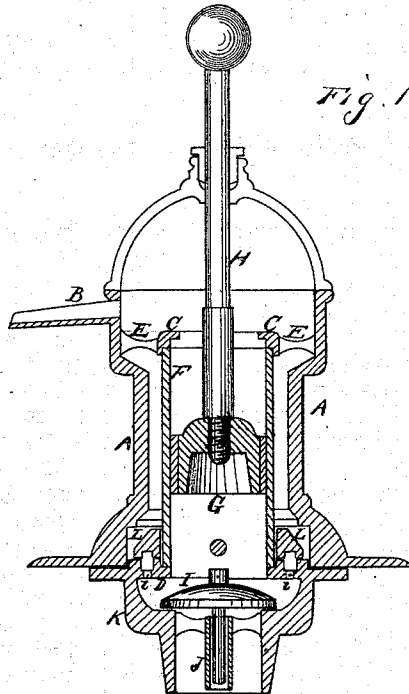


Fig. 1.

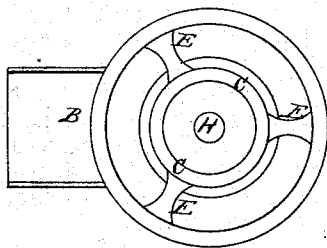


Fig. 2.

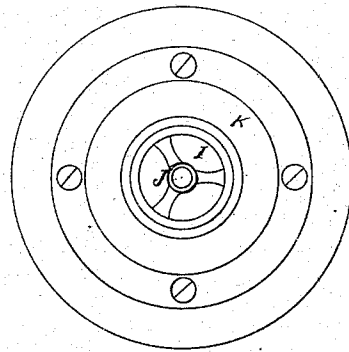


Fig. 3.

Witnesses.

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UNITED STATES PATENT OFFICE.

LEWIS GOODWIN, OF GOLD HILL, NEVADA, AND SAMUEL A. WEST, OF
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IMPROVEMENT IN PUMPS.

Specification forming part of Letters Patent No. **158,372**, dated January 5, 1875; application filed
June 15, 1874.

To all whom it may concern:

Be it known that we, LEWIS GOODWIN, of Gold Hill, county of Storey, State of Nevada, and SAMUEL ALEXANDER WEST, of the city and county of San Francisco, State of California, have invented an Improvement in Pumps; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings and to the letters marked thereon.

The object of our invention is to provide an improved lift and force pump; and it consists, mainly, in a novel construction of the parts, whereby we are enabled to make the whole pump very compact, and the barrel in which the piston moves is made entirely separate from the remainder of the pump, so as to be easily replaced whenever worn. The valves are so placed that the water passes up outside the pump-barrel, which is supported by two rings, with projecting lugs or arms, so as to allow the water to pass freely.

Referring to the drawings for a more complete explanation of our invention, Figure 1 is a vertical sectional elevation of our pump. Fig. 2 is a top view. Fig. 3 is a bottom view.

A is the outer casing of the pump, which is made in any style of ornamentation which may be desired. If it be simply used for a lift-pump the top can be left open; but if it combines the force-pump an air-chamber can be added, through a stuffing-box, in the top of which the pump-rod passes. B is the discharge-opening. C is a ring, which is supported concentrically within the outer casing and at some distance from the sides by arms E. Within this ring the upper end of the pump-barrel proper, F, is supported, proper flanges being formed for the purpose, as shown.

Within this barrel the solid piston G moves, being actuated by the piston-rod H. Below the barrel is situated the valve I, which allows the water to enter the barrel when the piston is drawn upward. When the piston descends this valve closes upon its seat, its stem being guided by a short tube, J, as shown. The lower end of the barrel F is supported by a counter-sink in the edge of the flange D, which projects inwardly from the lower part K of the pump. When this lower part is fastened to the body A the barrel F will be held securely between the flange or ring C and the flange D, and can be easily removed at any time for replacement or repairs. The flange D is perforated all around its circumference, as at *i*, and a valve, L, fits over these perforations. This valve will be elevated to allow the water to discharge when the piston descends, and pass up around the pump-barrel F.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

The combination of interior removable barrel F, supported by the ring C and arms E, and the flange D, so as to stand concentrically within the casing A, with the valves I and L, the whole constructed to operate substantially as herein described.

In witness whereof we have hereunto set our hands and seals.

LEWIS GOODWIN. [L. S.]
SAMUEL ALEXANDER WEST. [L. S.]

Witnesses:

W. P. HOLMES,
M. C. WILSON.

Witnesses to WEST's signature:

C. W. M. SMITH,
GEO. W. LEW.