D. W. Lewis

Pump Lever,

No. 32,881. Patented July 23, 1861.

Fig. 1.

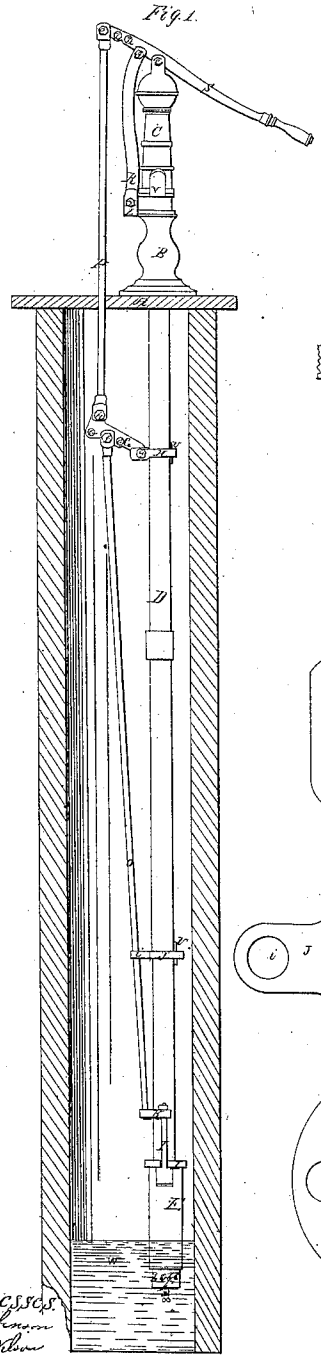


Fig. 3.

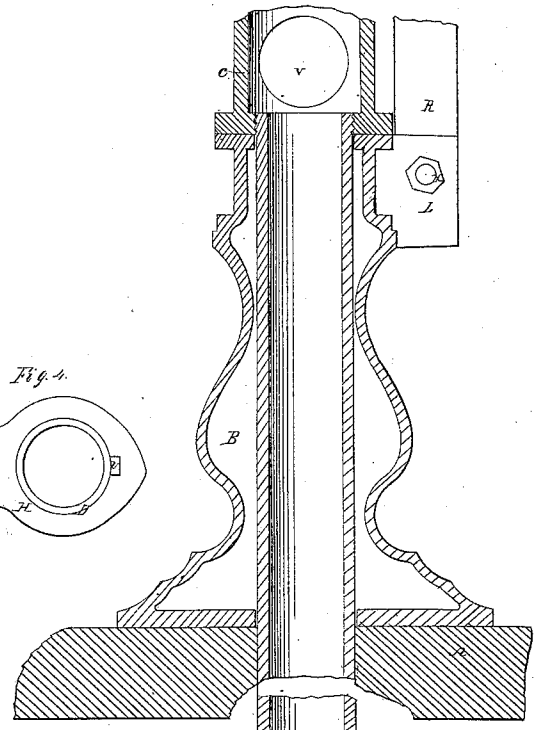


Fig. 4.

Fig. 5.

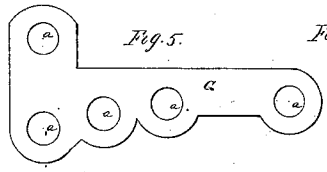


Fig. 2.

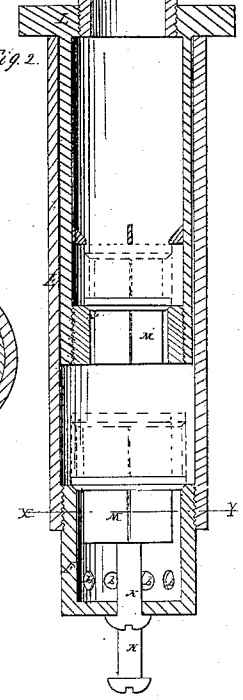


Fig. 6.

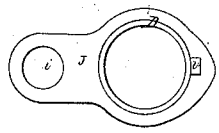


Fig. 7.

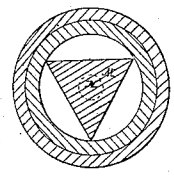
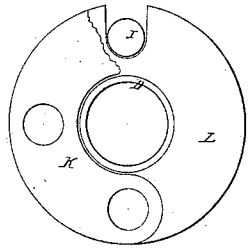


Fig. 8.



Witnesses:
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UNITED STATES PATENT OFFICE.

D. W. LEWIS, OF JANESVILLE, WISCONSIN.

PUMP.

Specification of Letters Patent No. 32,881, dated July 23, 1861.

To all whom it may concern:

Be it known that I, D. W. LEWIS, of the city of Janesville, in the county of Rock and State of Wisconsin, have invented a new and Improved Mode of Constructing and Operating a Balancing Force and Lift Pump; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, like characters referring to like parts in each figure.

Figure 1, shows a side view of the pump, in elevation, inserted in a well, shown in vertical section. Fig. 2, represents a full size vertical section of the pump cylinder E, Fig. 1, and shows the general construction of the same, and fully represents the peculiar combination of the lower pin and wing valve M, with the strainer F, which is attached to the lower part of the cylinder E, by screwing it into the same, as there represented. Fig. 3, is a full size vertical section, representing that part of the stationary pump case, which is attached and secured to the planking A, that covers and protects the mouth of the well W, and also the upper and movable part C, to which is attached the water pipe D, thus connecting the upper and movable part of the pump case C, with the piston L. Fig. 4, represents a full size clutch band H, which is secured to the pipe D, by the key U, said band forming a seat for the equalizing lever gage G, which is secured to the clutch band H, by the bolt *g*. Fig. 5, represents the equalizing lever gage at full size. Fig. 6, represents a full size clutch band secured to the pipe D, by the key U′, forming a guide for the balancing rod O, which is secured to the equalizing lever gage G, by the bolt *f*, at the top, said rod O, passing through the clutch band J, at *i*, to the crescent shaped plate K, which is attached to the piston barrel E, by the rods I. Fig. 7 is a full size section on the line X, Y, Fig. 2, showing the plan of the wing valve M, and the location of the pin N. Fig. 8, represents a full size plan of the crescent shaped plate K, and the flange L, which forms a part of the piston.

The pump is operated by raising the lever or handle S, which has an oscillating fulcrum R, which is pivoted at the point Q on the bolt *x*′, thus raising the movable case C, the pipe D, and the piston L, and at the same time, and by the same motion, causing the piston barrel E, to descend by means of the balancing rods P, O, which are attached and connected to the piston barrel E, by means of the crescent shaped plate K and the rods I, thus causing a double stroke with one motion of the lever or handle S. When the lever, or handle, descends, the motion of the several described parts is reversed, and the water made to flow out at the orifice V. In order to balance the pump, the pipe D is to be filled with water, and if found to be too light, or out of balance the top of the rod P is to be carried in toward the fulcrum rod R, and the bolt *e* moved to the hole *h* or *h*′, and at the same time the top of the rod O is to be carried out on the equalizing lever gage G, and the bolt *f* moved to the hole *a*. If the water pipe is found to be too heavy, a reverse movement of the several described parts is to be made.

I do not claim as new the construction of the pump cylinder, nor the pin and wing valve, nor the construction of the pump case in two parts; but

I do claim—

1. The peculiar combination of the piston L, and piston barrel E, with the equalizing bar or lever gage G and the balancing rods P, O, substantially as and for the purpose set forth and described.

2. The oscillating fulcrum bar R, combined with the lever or handle S, and the balancing rods P, O, and the movable case C, substantially as shown and described.

D. W. LEWIS.

Witnesses:
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