J. A. McMARTIN.

PUMP.

No. 255,318. Patented Mar. 21, 1882.

Fig. 1.

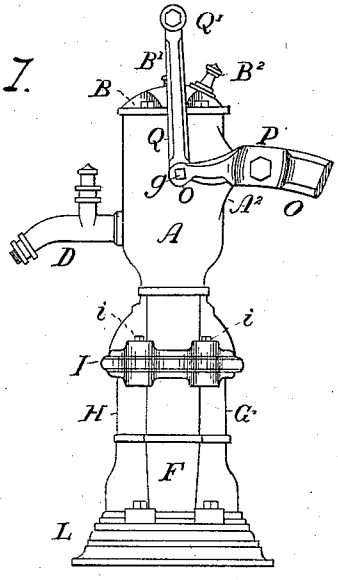


Fig. 2.

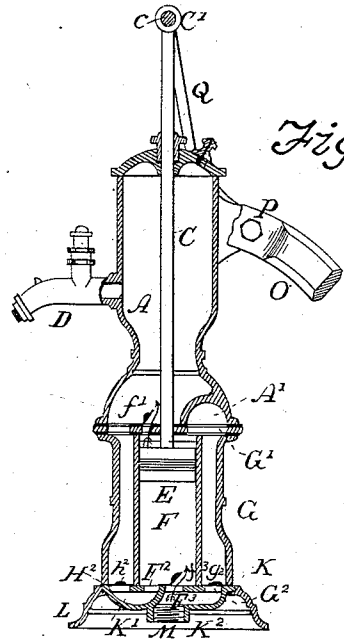


Fig. 3.

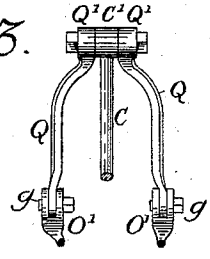
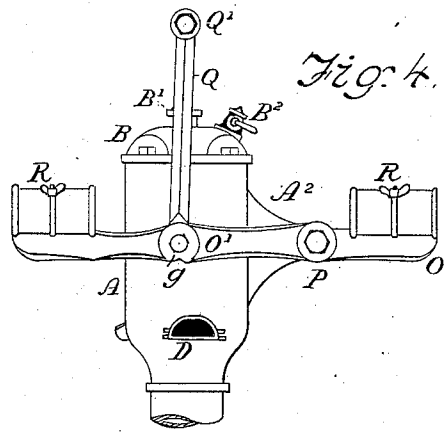


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

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PUMP.

SPECIFICATION forming part of Letters Patent No. 255,318, dated March 21, 1882.

Application filed November 7, 1877. Patented in England January 26, 1877.

To all whom it may concern:

Be it known that I, JOHN ALEXANDER McMARTIN, of the city of Montreal, in the district of Montreal and Province of Quebec, Canada, have invented certain new and useful Improvements in Pumps; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention consists in a pump handle or lever adapted to straddle or encircle the pump-case, whereby I am enabled to pivot thereto links connected with the pump-rod in a position to insure the vertical movement of the latter; in adapting said lever to be operated from either or both sides of the case, and in a novel arrangement of the links connecting the pump rod and lever.

In the accompanying drawings, Figure 1 represents a side elevation of a pump provided with my improved handle; Fig. 2, a vertical central section of the same; Fig. 3, a face view of the links, showing their connection with the pump-rod and the handle or lever; Fig. 4, a side elevation of a pump case or head provided with my improved handle or lever adapted for operation from either or both sides of the pump.

Referring to the drawings, A represents the body or case of the pump, which may be of any usual construction, provided with a cap, B, and a central rod, C, to the lower part of which latter is secured the piston E. As indicated in Figs. 1, 2, and 4, the case A is formed or provided with a projecting arm or bracket, A^2, at one side, to which is pivoted the lever or handle O, by means of a bolt or pin, P. As shown in Fig. 1, the lever or handle is forked in advance of the pivot P, forming two arms, O′, extending on opposite sides of the case or body A, and to these arms are attached, by means of pivot pins or bolts *q*, the lower ends of links Q, the upper extremities of which are in turn pivoted to the upper extremity of the pump-rod C, the arrangement being such that as the handle or lever O is carried up and down the pump-rod is caused to fall and rise in a vertical line.

In some cases it is found desirable to render the pump capable of operation from either side, or from both sides, the latter being particularly desirable in connection with force-pumps, where the application of a large amount of power is necessary; and for this purpose the handle or lever O has its arms O′ extended entirely around the pump case or body, as shown in Fig. 4, and either formed with a hand-lever or, as is preferred, both ends of the yoke or lever are furnished with an eye or head, R, to receive a hand-lever, as indicated in Fig. 4.

As will be observed by reference to Figs. 1, 2, and 4, the links Q are attached to the arms O′ at a point to one side of the vertical plane of the pump-rod, this arrangement preventing the arms O′ and the links Q from standing at any time at right angles, the movement of said arms and the length of the links being made to insure this result. By this arrangement of the several pivots the greatest possible leverage is obtained, and a true vertical movement of the rod insured.

Having thus described my invention, what I claim is—

In combination with the chamber A, having the lug A^2 cast integral therewith, the handle P, pivoted to the lug A^2, and having the arms O′, adapted to partially encircle the casing, the pump-rod C, and the connecting-links Q, pivoted out of a vertical line to the pump rod and to the arms O′, substantially as described.

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Witnesses:
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