S. Wood,

Converting Motion.

No. 19,276. Patented Feb. 2, 1858.

Fig. 1.

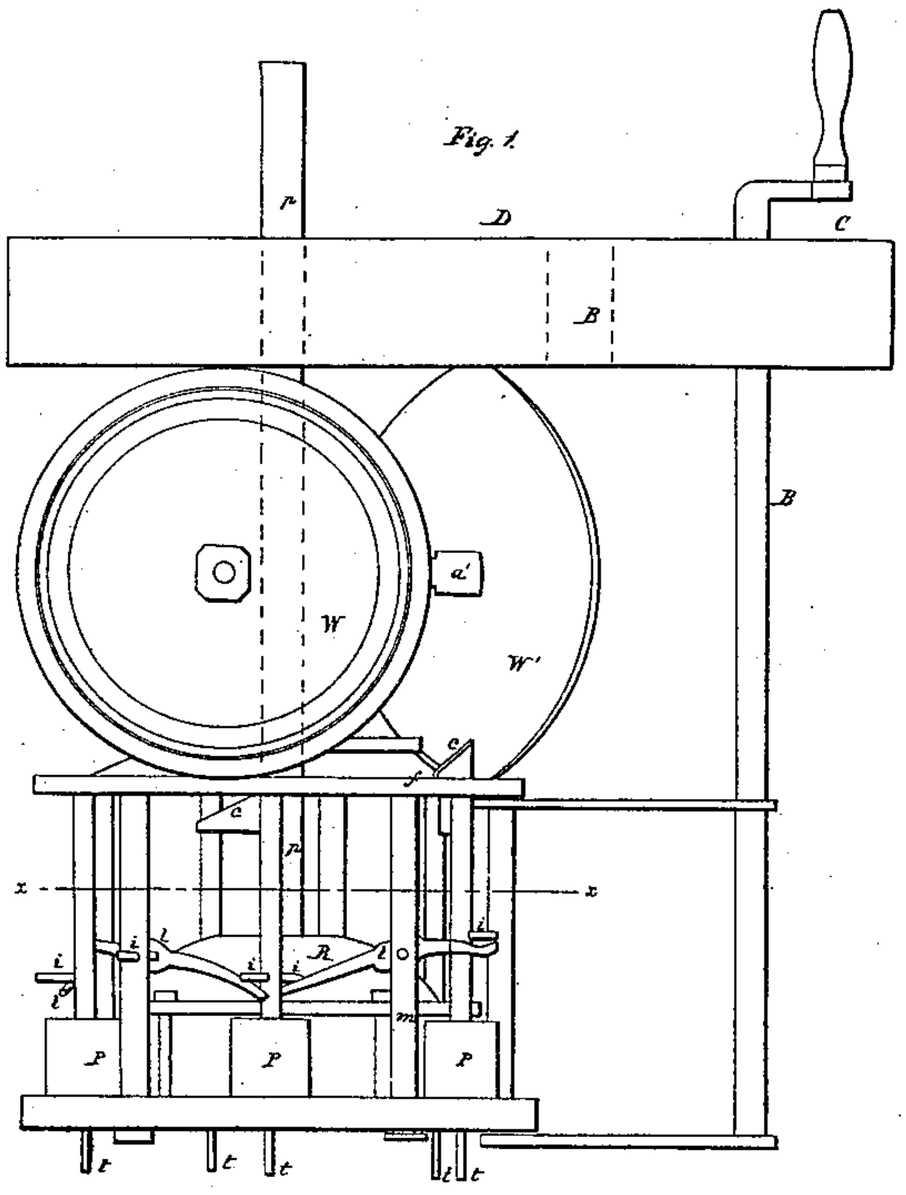


Fig. 2.

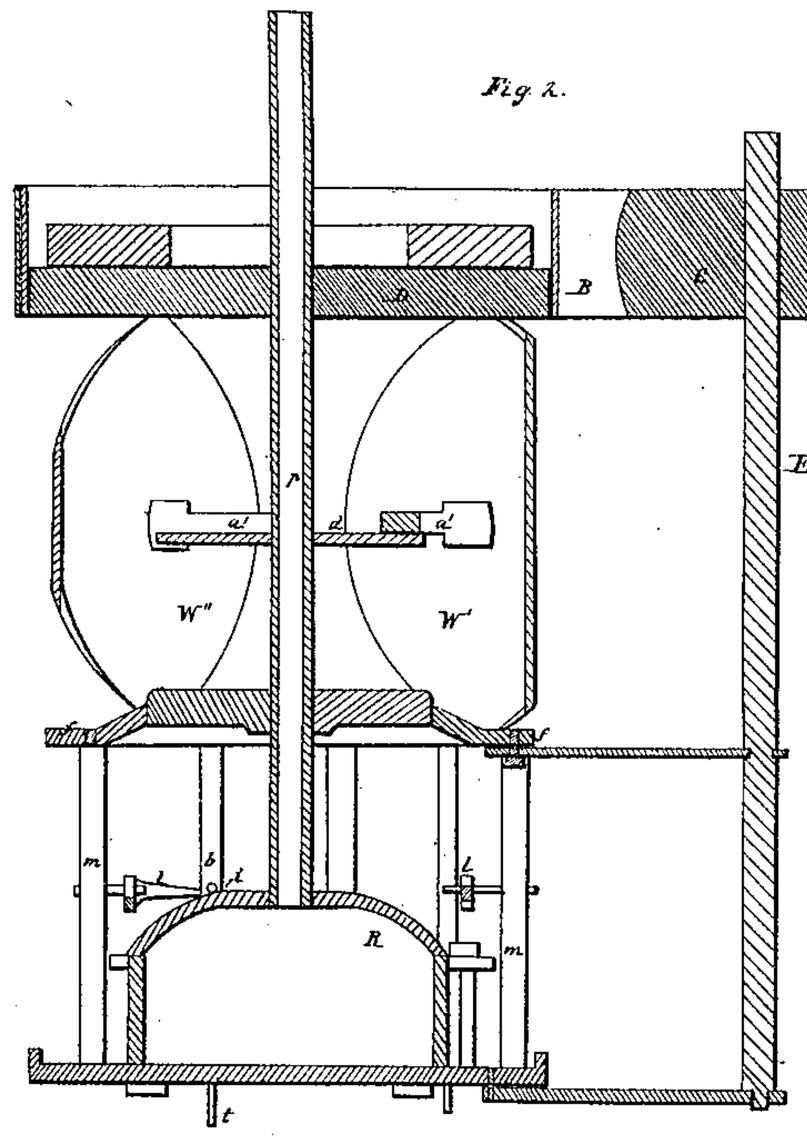


Fig. 3.

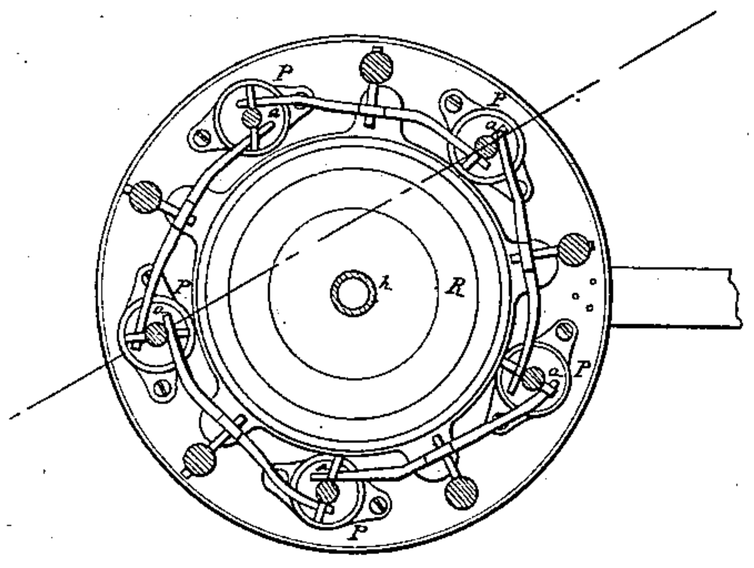


Fig. 5.

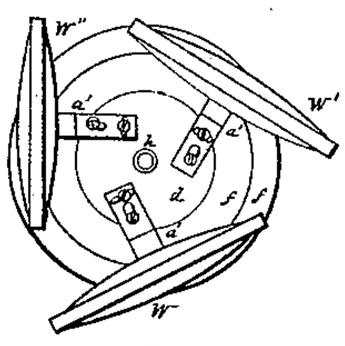
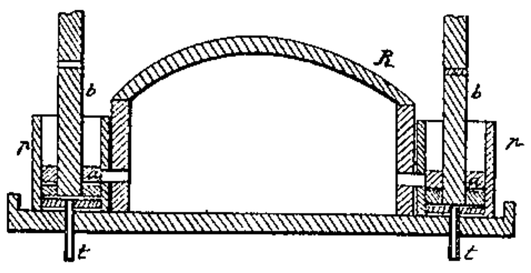


Fig. 4.



UNITED STATES PATENT OFFICE.

SIMEON WOOD, OF WORCESTER, MASSACHUSETTS.

MODE OF OPERATING PISTONS OF PUMPS.

Specification of Letters Patent No. 19,276, dated February 2, 1858.

To all whom it may concern:

Be it known that I, SIMEON WOOD, of the city and county of Worcester and State of Massachusetts, have invented a new and useful Improvement in the Mode of Operating the Pistons of Pumps; 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 annexed drawing, forming part of this specification, in which—

Figure 1 is an elevation of the apparatus. Fig. 2 is a vertical section taken through axis of discharge pipe. Fig. 3 is a horizontal section on line *x x*. Fig. 4 is a vertical section on line *y y*. Fig. 5 is a view showing operating wheels, taken on a smaller scale than the other figures.

Similar characters of reference in the several figures denote the same part.

The nature of my invention consists in effecting the operation of the pistons of a system of pumps communicating with a receiver, by the rotation of wheels over the heads of the piston rods, when said rotation is produced by the turning of a horizontal, weighted disk resting upon the aforesaid wheels; the details of construction and operation being as follows.

In the drawing R is the receiver, communicating with the pumps P P, and having a discharge pipe *p*. The pumps have pistons *a*, whose rods *b* rise above a stationary floor *f*, and have on their extremities, inclined planes *c*. Resting upon the floor *f* is a system of wheels W W′ W″, connected by axles *a′* with a central plate *d* capable of moving around the discharge pipe *p*. Upon the wheels aforesaid rests a weighted disk D, connected by a band B with a pulley C, on a shaft E, so that power applied to pulley C will turn the disk D about the discharge pipe *p*.

The piston rods *b*, have arms *i* which rest upon the levers *l*, vibrating on their attachment to the supports *m* of the floor *f*.

The operation of the apparatus is as follows:—Power applied to pulley C rotates disk D, which by its weight causes the rotation of the wheels W W′ W″, and the consequent turning of the system about the discharge pipe *p*. As the wheels rotate, they encounter the inclined planes *c* on the piston rods, depressing the pistons. The connection of levers *l* and arms *i* causes the depression of one piston to lift the piston in advance. In this manner a rapid reciprocation of the several pistons obtained, causing water to be drawn through the several pipes *t*, and to be forced from the discharge pipe *p*.

Disclaiming the actuating of pistons by the rolling of wheels over upward projecting inclined planes, separately considered, as not embracing the full scope of my invention, what I claim and desire to secure by Letters Patent, is—

The combination of the weighted disk D, with the system of wheels W W′ W″, the floor *f* and the protruding inclined planes or their equivalent, arranged and operating substantially as hereinbefore set forth.

In testimony whereof, I have hereunto signed my name before two subscribing witnesses.

SIMEON WOOD.

Witnesses:

GEO. PATTEN,

JOHN S. HOLLINGSHEAD.