R. H. SCHENCK.

TREADLE-OPERATED CONFLUENT PUMPS.

No. 194,377. Patented Aug. 21, 1877.

Fig: 1

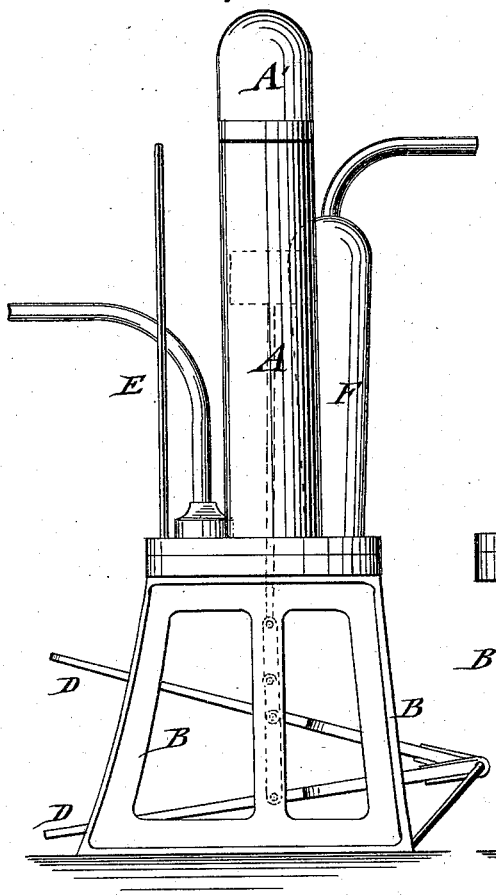


Fig: 2.

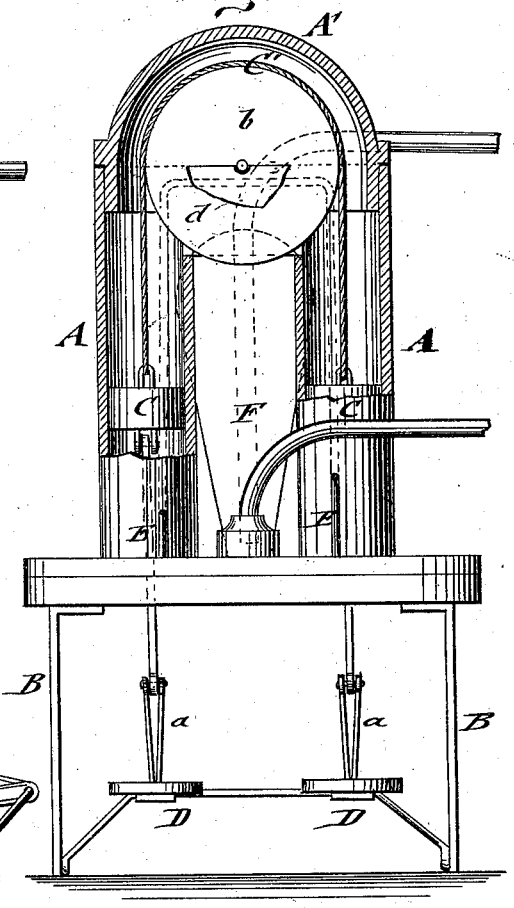
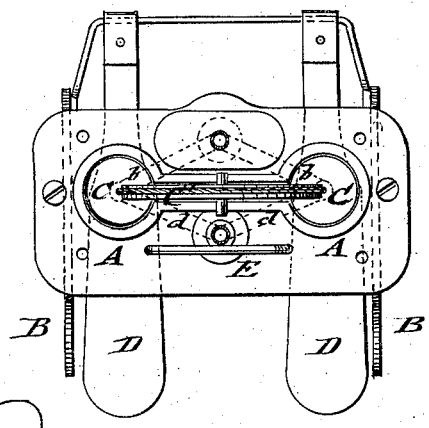


Fig: 3.



WITNESSES:

Chas. Nida

Alex F. Roberts.

INVENTOR:

R. H. Schenck

BY Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

RICHARD H. SCHENCK, OF NEW YORK, N. Y.

IMPROVEMENT IN TREADLE-OPERATED CONFLUENT PUMPS.

Specification forming part of Letters Patent No. **194,377**, dated August 21, 1877; application filed July 23, 1877.

To all whom it may concern:

Be it known that I, RICHARD H. SCHENCK, of the city, county, and State of New York, have invented a new and Improved Pump, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a side elevation, Fig. 2 a front elevation, partly in section, and Fig. 3 a plan view with top detached, of my improved suction and force pump.

Similar letters of reference indicate corresponding parts.

The invention relates to an improved suction and force pump of effective construction, that is operated by the feet, and arranged to throw a uniform stream of water; and it consists of two cylinders with alternately treadle-acted pistons, that are connected by a chain or rope passing over a central pulley between the same, each stroke of the pistons producing the induction and eduction of the water, in connection with suitable valves and channels connecting the cylinders, suction and discharge pipes.

Referring to the drawing, A A are two pump-cylinders, which are mounted on a suitable frame, B, being connected at the base, by suitably-valved channels, with the suction and discharge pipes, and at the top by a semicircular connection, A′. The cylinders A A have pistons C, that are operated by treadles D, which are jointed by pivot-rods *a* to the piston-rods, the pistons being connected by a chain or rope, C′, that extends from the upper part of one piston over a grooved disk or pulley, *b*, to the other piston. The shaft of the pulley *b* turns in bearings of a lateral stay or brace-piece, *d*, connecting the upper ends of the cylinders. The treadles are alternately operated by the feet, the body being kept in steady position by means of a hand rail or rest, E, secured to the supporting-frame, and adjustable to different heights thereon.

The stroke of each treadle produces the lowering of one piston and the raising of the other piston, the pistons exerting thereby, simultaneously, a suction and force action, so as to draw in the water by the induction-pipe and discharge it by the eduction-pipe. The eduction-pipe takes up the water in the air-chamber F and passes out at the top of the same, the air in the air-chamber regulating the flow of water and keeping it up in uniform manner.

The pump can be made of small height, with short strokes of the treadles, so as to be worked with great facility and little effort, and be used as an effective garden and street pump, fire-extinguisher, and for other purposes.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

In a suction and force pump, the combination of two cylinders, connected with valved induction and eduction pipes, with alternately operated and treadle-acted pistons, connected by a top cord or chain passing over a guide-pulley from one piston to the other, substantially in the manner described, and for the purpose specified.

RICHARD H. SCHENCK.

Witnesses:

PAUL GOEPEL,

ALEX. F. ROBERTS.