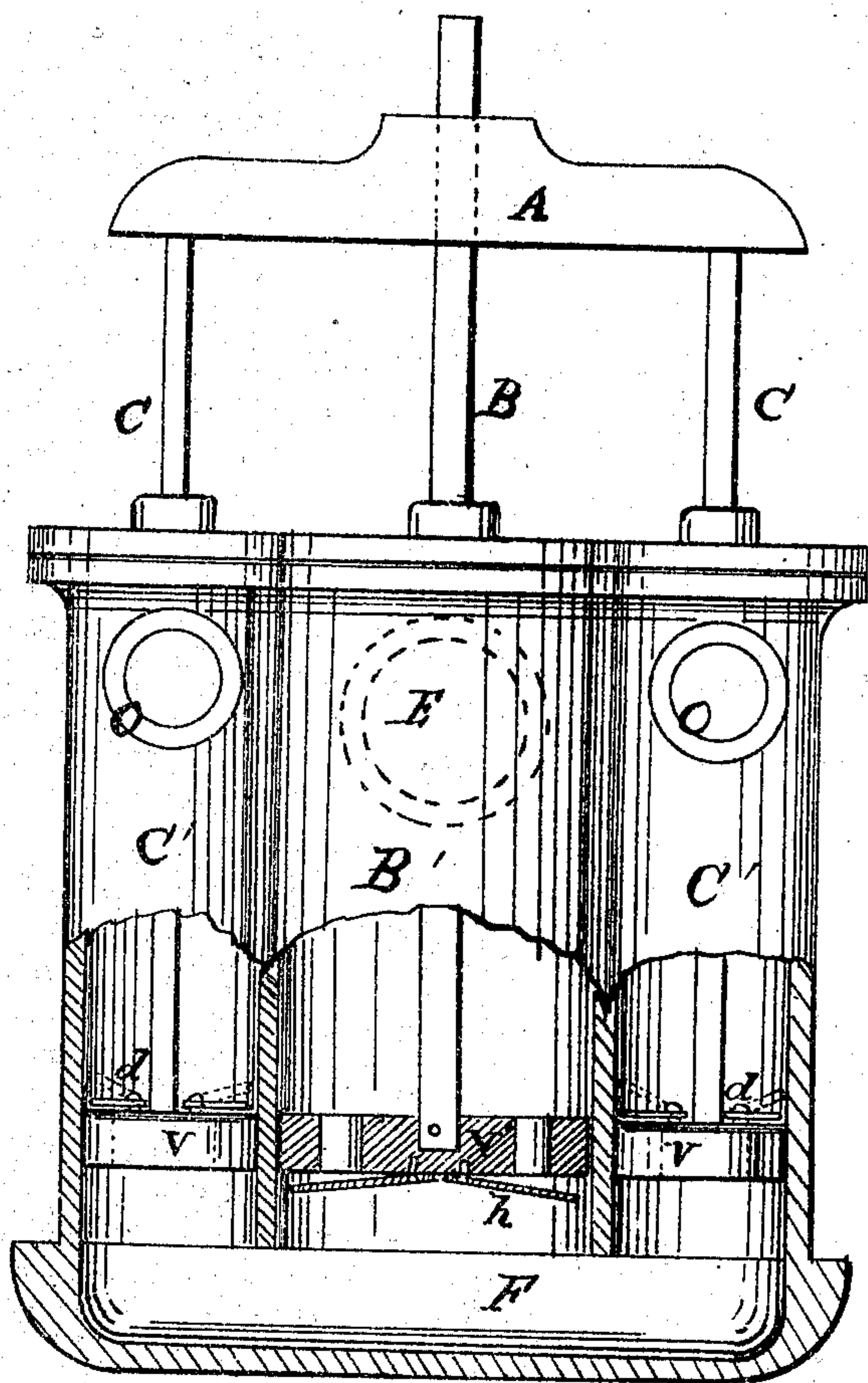


S. White.

Pump.

N^o 75819

Patented Mar. 24, 1868.



Witnesses.

Alex F. Roberts
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Inventor.

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STILLMAN WHITE, OF PROVIDENCE, ASSIGNOR TO HIMSELF AND CHRISTOPHER DEXTER, OF EAST PROVIDENCE, RHODE ISLAND.

Letters Patent No. 75,819, dated March 24, 1868.

IMPROVEMENT IN PUMPS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, STILLMAN WHITE, of the city and county of Providence, and State of Rhode Island, have invented a new and improved Force-Pump; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

This invention relates to a new and improved method of constructing force-pumps whereby a greater flow of water is produced.

It consists of three pistons united by a cross-head, working in three cylinders or pump-barrels, the water being received in the middle cylinder and discharged from orifices or noses in the other two cylinders.

By the application of power to the centre piston-rod, from which, by a cross-head, power is communicated to the auxiliary rods, a certain balance of strain is maintained, not found in other pumps of more than one cylinder already invented.

The drawing represents a front view of my invention, portions of the cylinder shown as broken away to show the construction; a portion of the middle piston being also broken away to show the passage through it.

A is the cross-head; B is the middle piston-rod; C are the side piston-rods; B' is the middle cylinder or pump-barrel; C' are the two side cylinders or pump-barrels; b' is the centre piston; h is the valve of the same; b are the two side pistons; d are their valves; F is a chamber into which all the cylinders open at their lower ends; E is an orifice or pipe through which the water enters the pump; o are orifices or noses, by which the water is discharged.

The pump is composed of three cylinders or pump-barrels, B' and C', placed side by side, the middle or centre cylinder, B', being larger than the cylinders C'. Said cylinders B' C' are constructed in the ordinary way, and open at their lower ends into a common chamber, F. The middle cylinder B' is provided with an orifice or pipe, E, near the upper end of the same, as shown in the drawing. The cylinders C' are provided also near their upper ends with the orifices or noses o, through which the water is discharged. Each of said cylinders B' C' has a piston, b' b, fitting into and moving within itself in the ordinary way, each piston having its piston-rod. Said piston-rods B C pass through caps in the said cylinders B' C', packed in the ordinary way, and are joined at their upper ends by a cross-bar, A, to which they are rigidly attached, so that all said pistons are moved up and down together. The pistons b' b are all provided with passages through them for the passage of water; said piston, b', having a valve, h, on the under side of the same, opening downwards, and said pistons, b, having valves, d, on their upper sides, opening upwards, as shown in the drawing.

The operation is readily seen from the drawing, being the same as in pumps in common use, with the exception that all the pistons b' b are moved upward and downward together, their several piston-rods B C being joined together at their upper ends by cross-head A.

Constructed as above described, it constitutes a cheap and convenient pump, by means of which large quantities may be raised and discharged.

I claim as new, and desire to secure by Letters Patent—

A pumping-apparatus, consisting of a central force-pump, and two or more lift or suction-pumps, the area of the first being quite equal to the area of both or all the others, and so arranged that power applied to the main or central piston-rod is communicated by means of a cross-head to both or all the other piston-rods, so that the power forcing the main or central piston downward is fully compensated or balanced in its ascent, substantially as shown and described.

STILLMAN WHITE.

Witnesses:

JOHN COYLE,

BENJAMIN F. WORSLEY.