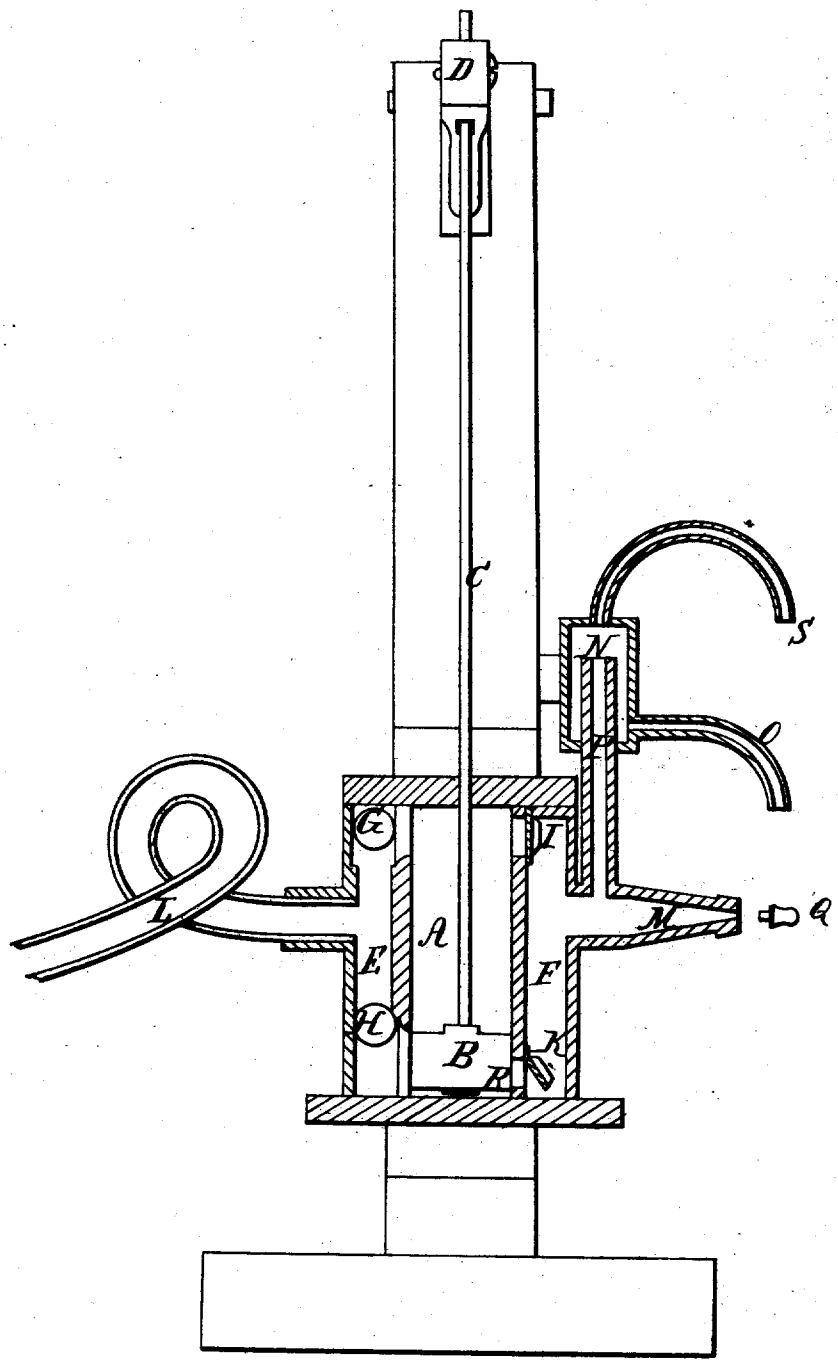
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# J. G. WHITE.

No Printed Specification Available

## Force Pump.

Patented July 1, 1836.




THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

July 1. 1836 514.

# John G. White of Dryden State of New York.

## Letters Patent.

The schedule referred to in these Letters Patent and making part of the same containing a description in the words of the said John G. White himself of his "Improvement in the double acting force pump."

Be it known that I John G. White of the town of Dryden County of Tompkins, and State of New York, have invented a new and useful improvement in the force pumps for raising water, called "White's double acting force pump," which is described as follows reference being had to the annexed drawings of the same making part of this specification:—

This pump consists of a cylinder A, closed tight at each end in which works a solid piston B, fastened to the end of a piston rod C, passing through one of the heads, and worked by a lever or handle D. The piston is made of cork on each side of the cylinder is a valve box E & F. In the box E are two ball valves G. & H. for admitting the water The valve box F, contains two valves I. & K. opening from the cylinder for discharging the water. L. represents the tube for admitting the water and M. the tube for discharging it, N chamber in which the air is compressed, to produce a continued uniform discharge through the tube O. by the dilation of the air P. tube for conducting the water to the air chamber Q plug to close the lower tube.

Operation, — Supposing the piston to be at E. then raised a vacuum will be produced into which will rush the water through the valve H, at the same time the water which was above the piston will be forced through the valve I, into the air

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discharge pipe, the valves G and K during this operation, remaining closed. Then depress the piston and the water which filled the vacuum, will be forced through the valves K into the discharge pipe at the same time creating a vacuum, above the piston which will be instantly filled by the water rushing through the valve G; the valve VII. V. I, being closed as soon as the

When a steady stream or jet d'eau is required this play must be inserted in the end of the discharge tube, the water will then be forced into the air chamber, into which extends the tube P, two thirds its depth, The water being forced into the air chamber, get above the end of the pipe P begins to compress the air & having no way to escape except through the mouth of pipe O, which is covered with water becomes more and more compressed as the water rises, the air then begins to act on the surface of the water by its elasticity & drives the water through the tube O. in a continued stream, which is supplied by the constant action of the piston, S, second discharge pipe

What I claim as my invention & which I desire to secure by Letters Patent, consists in the before described double acting force pump

Witness

M^m P. Elliot

Saml Mellinies

John G. White

Drawing

Exd

M.E.