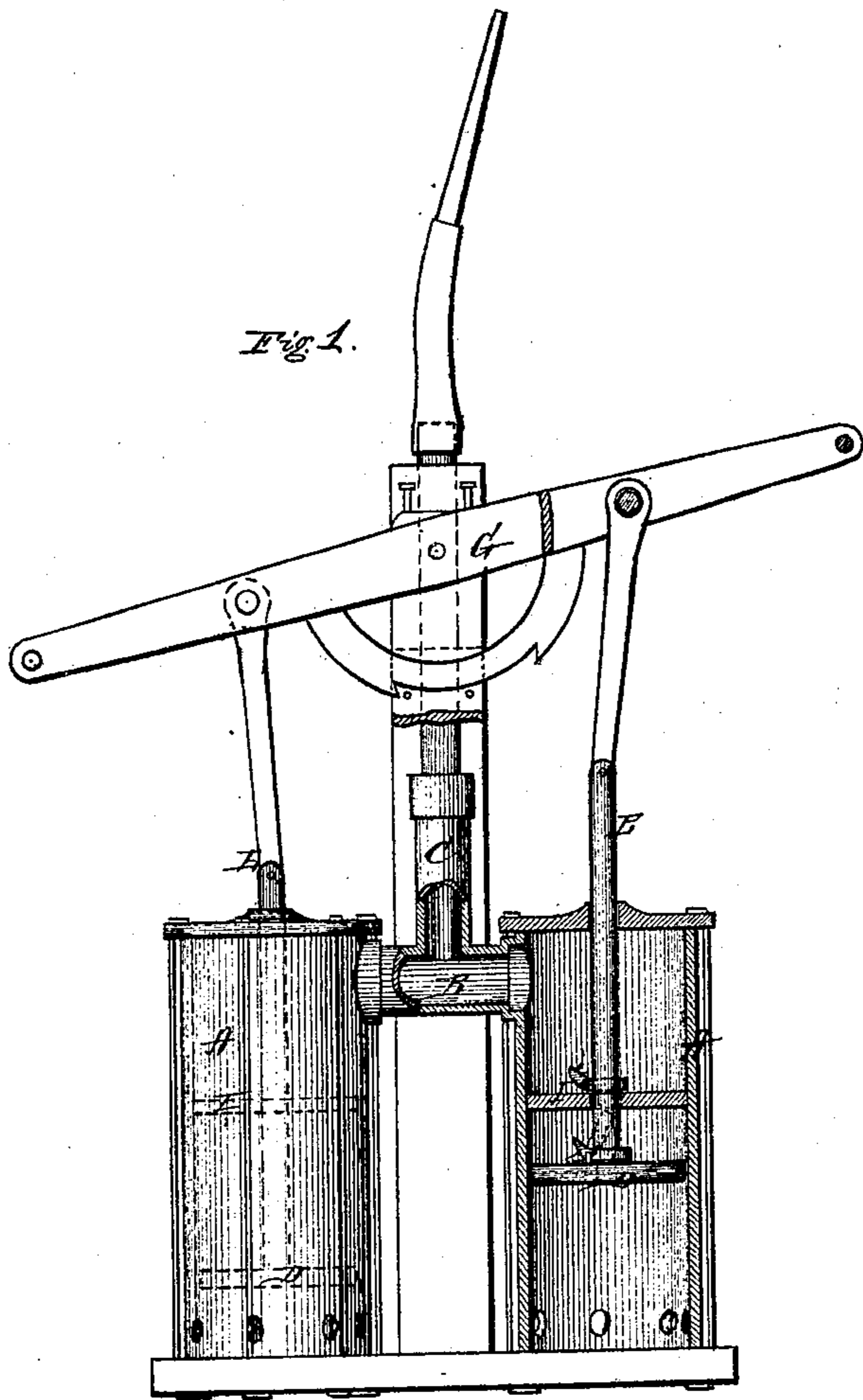


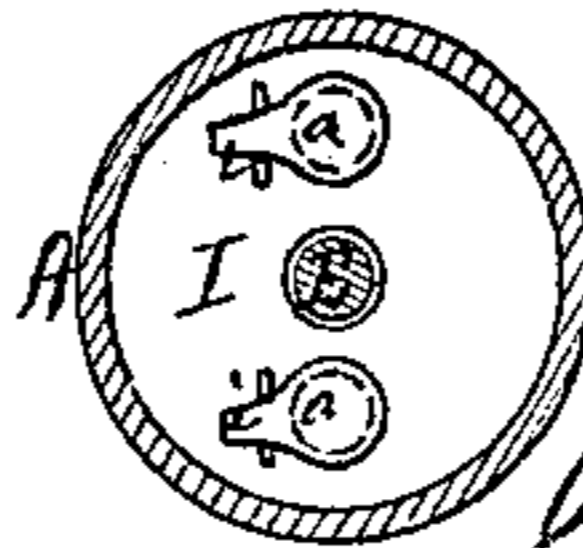
*J. Barney,*  
*Force Pump.*

*No. 113,132.*

*Patented Mar. 28, 1871.*



*Fig. 2.*



*Witnesses.*

*Harry King*  
*C. L. Curtis*

*Inventor.*

*Jenniah Barney*  
*per Alexander Mason*

*Attys.*

# United States Patent Office.

JEREMIAH BARNEY, OF PERRY'S MILLS, NEW YORK.

Letters Patent No. 113,132, dated March 28, 1871.

## IMPROVEMENT IN DOUBLE-ACTING FORCE-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, JEREMIAH BARNEY, of Perry's Mills, in the county of Clinton and in the State of New York, have invented certain new and useful Improvements in Double-acting Force-Pumps; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

The nature of my invention consists in providing the two cylinders of a "double-acting force-pump" with center stops having each two valves; and also in the construction of said valves so as to prevent them from turning over backward.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a side elevation of my pump, a part thereof being in section, and

Figure 2 is a horizontal section of one of the cylinders.

My force-pump being not materially different from those generally used, except in the features indicated above, I deem it not necessary to describe the same, but will merely by letter indicate the different parts thereof.

A A are the two cylinders, connected near the top by the pipe B, from which leads the outlet-pipe C.

D D are the plungers, working in the cylinders.

E E are the plunger-rods, attached to the levers G, one on each side of the point where said levers are pivoted.

At a suitable point in each of the cylinders A is a horizontal partition or center stop, I, through the center of which the plunger-rod E passes, the plunger D working below said stop.

This center stop I is provided with two valves, *a a*, which are each provided with a tail, *i*, so that when the valve opens to a certain height this tail will strike the upper side of the stop and prevent it from turning over backward, and so remain by the pressure of the water, as would be the case in ordinary valves.

By means of these center stops I I and their valves *a a*, a greater volume of water can be ejected from the double force-pump, and with much greater force.

Having thus fully described my invention,

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

The combination, in a double-acting force-pump, of the center stops I I, valves *a a*, and tail-pieces *i i*, constructed and arranged substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 23d day of May, 1870.

JEREMIAH BARNEY.

Witnesses:

LEMUEL T. PERRY,  
LYCURGUS A. PERRY.