

H. HIBBERD.
PUMP.

No. 108,705.

Patented Oct. 25, 1870.

Fig. 1.

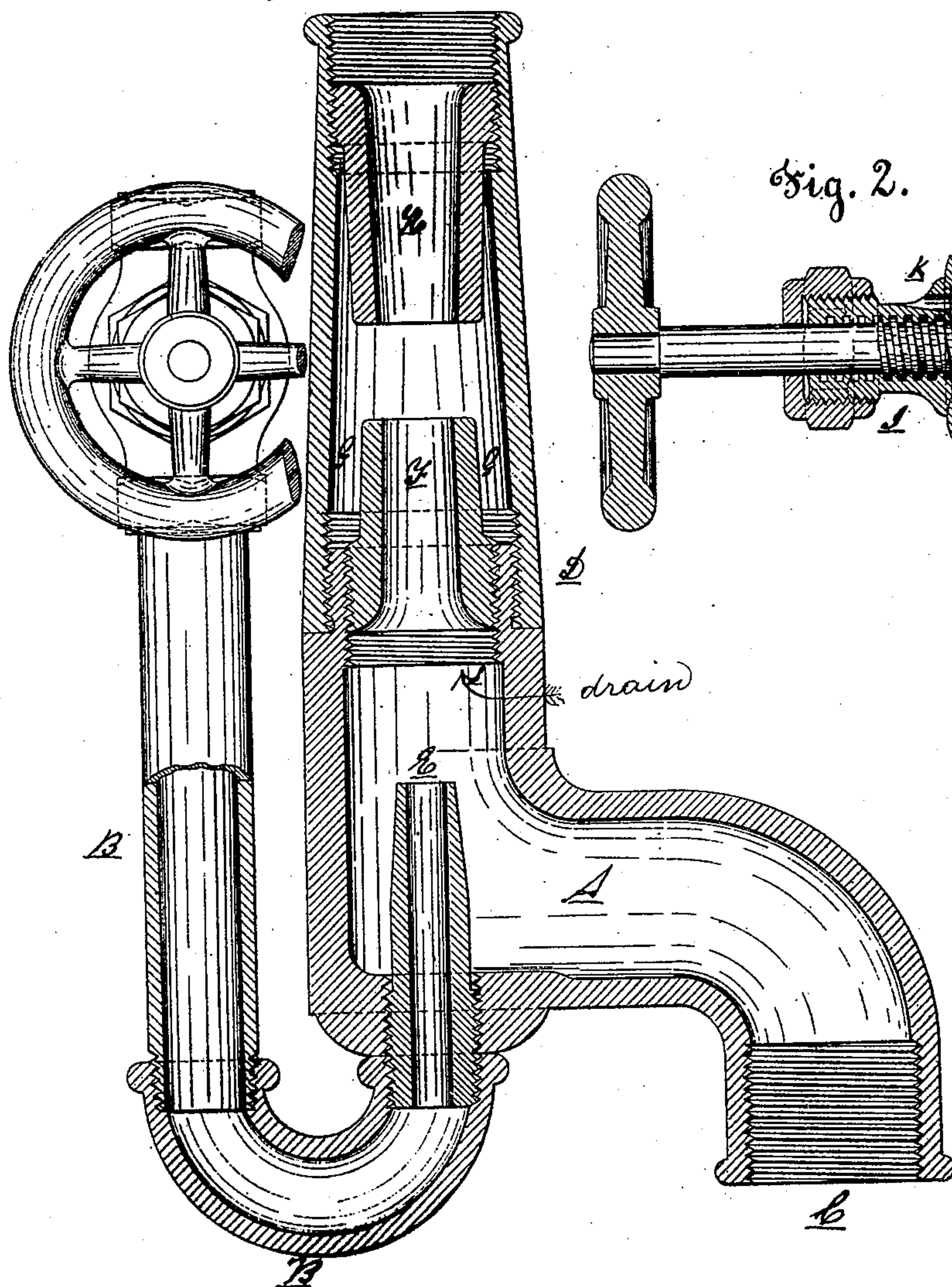
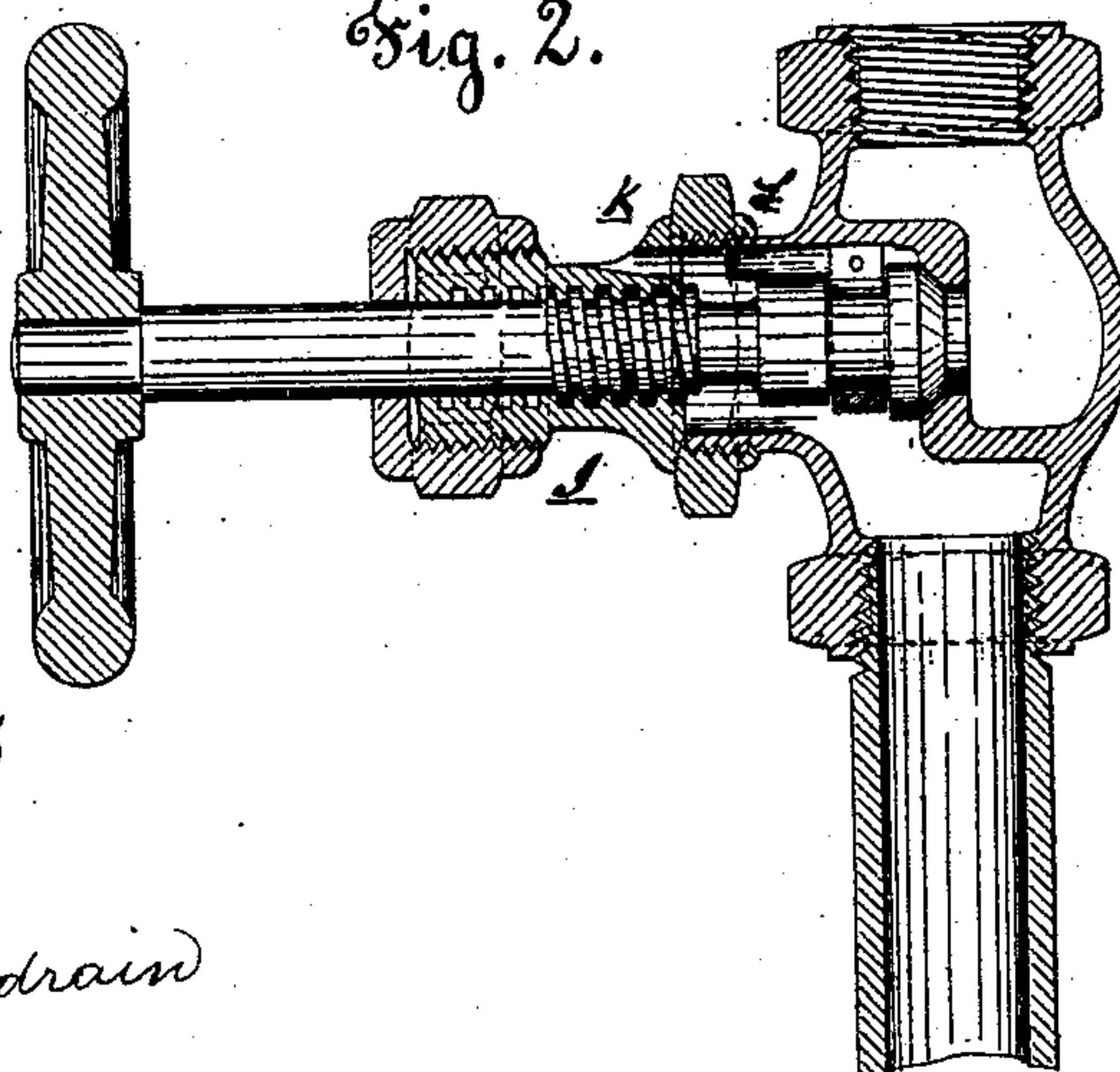


Fig. 2.



Witnesses.
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GEORGE HIBBERD, OF WHEELING, WEST VIRGINIA.

Letters Patent No. 108,705, dated October 25, 1870.

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, GEORGE HIBBERD, of Wheeling, in the county of Ohio and State of West Virginia, have invented certain new and useful Improvements in Pumps operated by Steam; and do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon.

My invention relates to the elevation of water by the application of steam or water under pressure, to produce a vacuum; and

It consists in the construction and arrangement of the various parts composing my pump.

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, which form a part of this specification, and in which—

Figure 1 is a sectional view of the complete machine, and

Figure 2 is a similar view of the valve in the steam-pipe.

A represents a chamber, of any suitable dimensions, and of the peculiar shape shown in fig. 1.

In the lower side of this chamber connects the steam-pipe B, and the water-supply pipe C, while at the upper side connection is formed with water-delivery-pipe D.

The steam-pipe B enters into the chamber A for a suitable distance, its upper end being tapering or nozzle-shaped, as shown at E.

In the delivery-pipe D, and above the nozzle E, is in-

serted a short nozzle-pipe, F, provided in its base with a small aperture, S, whereby all water in the pipe D is drawn off when not in use.

The base of the pipe F, being in diameter smaller than that of the pipe D, forms a chamber, G, around it, as shown.

Further up in the pipe D is inserted another nozzle-pipe, H, in an inverted position. This pipe may or may not be used; and similar ones may be inserted above it, according to the distance the water is to be carried.

In the pipe B is a globe-valve, I, to turn on and shut off the steam or water operating the pump.

This valve is provided with the aperture K, which is closed by the plug L, attached to the end of the stem of the valve when the steam is turned on, but left open when the steam is shut off, to allow any steam remaining in the pipe to pass off.

I am aware that the various parts of this machine, taken separately, are not new, and I do not therefore claim them as my invention; but

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

The within-described pump, consisting of chamber A, pipes B D, adjustable nozzles E F, said nozzle F being provided with aperture S, for the escape of waste or surplus water, all constructed and arranged to operate in the manner shown and for the purpose described.

GEORGE HIBBERD.

Witnesses;

J. BOON McLURE,
SAMUEL A. HEATON.