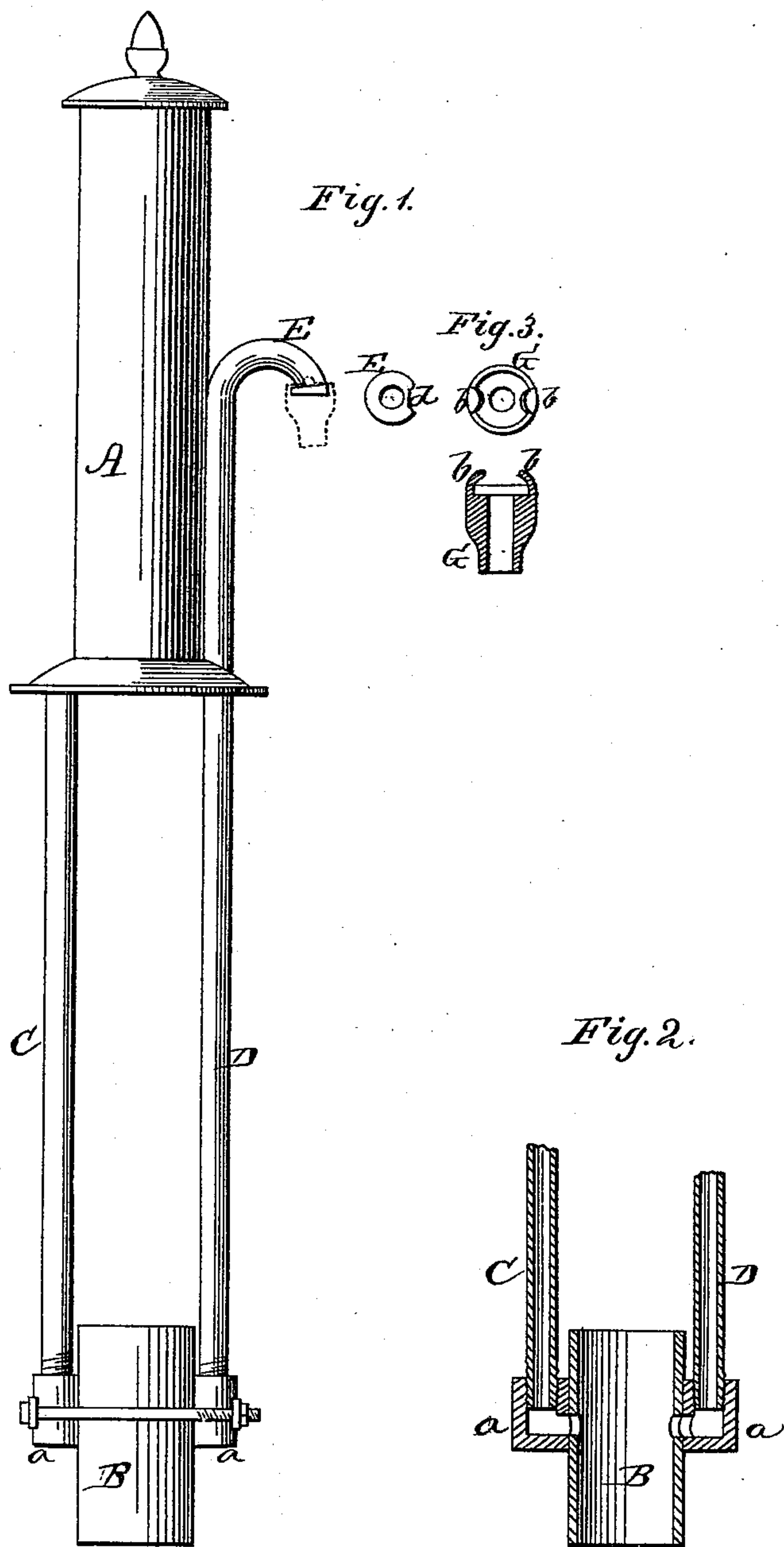


R. BEAN.
FORCE-PUMP.

No. 175,588.

Patented April 4, 1876.



WITNESSES

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UNITED STATES PATENT OFFICE.

ROSCOE BEAN, OF HUDSON, MICHIGAN.

IMPROVEMENT IN FORCE-PUMPS.

Specification forming part of Letters Patent No. **175,588**, dated April 4, 1876; application filed September 2, 1875.

To all whom it may concern:

Be it known that I, ROSCOE BEAN, of Hudson, in the county of Lenawee and in the State of Michigan, have invented certain new and useful Improvements in Force-Pumps; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and novel arrangement of a pump-stock, connected with the cylinder by two tubes, one forming an air-chamber, and the other the discharge-pipe, said tubes opening into the cylinder directly opposite each other, as will be hereinafter more fully set forth.

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 a pump embodying my invention. Fig. 2 is a vertical section of the cylinder. Fig. 3 shows a coupling for connecting hose to the spout.

A represents an ordinary pump or pump-stock as used above ground. B is the pump-cylinder, connected to the pump A by means of two tubes, C and D. The lower ends of these tubes are screwed into pieces *a a*, between which the cylinder B is placed, and the parts there firmly bolted together. The pieces or elbows *a a* open into the cylinder on opposite sides thereof, and in the same horizontal plane. The tube C is closed at its upper end, and forms not only a support for the pump but also the air-chamber. This air-chamber, being in the form of a tube, has a direct action on the water, and also has greater power for forcing water, as well as to give it a more steady action. The pipe D extends up along the pump-stock A and forms the discharge-pipe, as well as the second support for the pump-cylinder. By this mode of connecting the pump-stock and cylinder a substantial support is formed for the cylinder, and it is

very simple and readily put together. By these means, also, the cylinder is placed down in the well below the freezing-point, and in cisterns or where the cylinder is submerged, it will not fill up with water, and at the same time connects and supports the cylinder, however deep the well may be.

By having two holes in the cylinder—one for discharge and one for air-chamber—it gives a place for the air-chamber to have a direct action on the water while in use, giving it an even steady stream, and a direct discharge for the water, independent of the air-chamber.

The upper end of the discharge-pipe D is curved to form the spout E, and to the same a hose may be attached by means of a coupling, G. This coupling is used with one slot, *a*, on the spout, and two lips, *b b*, on the coupling.

The advantage of only one slot *a* is, that when in use, forcing and pulling on the hose, the coupling tightens, and will not come off, as it will when two slots are used.

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

1. The combination of the pump-stock A and cylinder B with the pipe C forming the air-chamber, as well as the supporter between the pump and cylinder, substantially as herein set forth.

2. The combination of the pump-stock A and cylinder B with the tubular air-chamber C and discharge-pipe D, forming connection between the pump and cylinder, substantially as herein set forth.

3. The cylinder B, having the air-chamber and discharge-pipe opening into the same on opposite sides, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 15th day of July, 1875.

ROSCOE BEAN.

Witnesses:

WM. A. SKINKLE,
MONROE ALLEMAN.