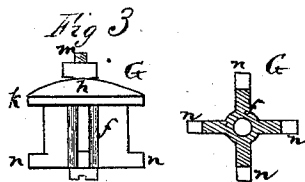
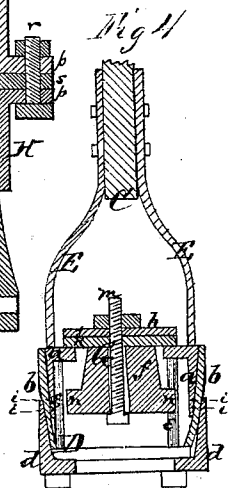
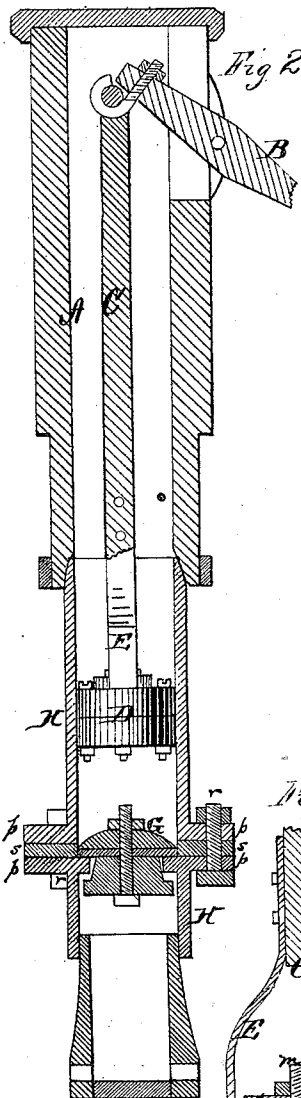
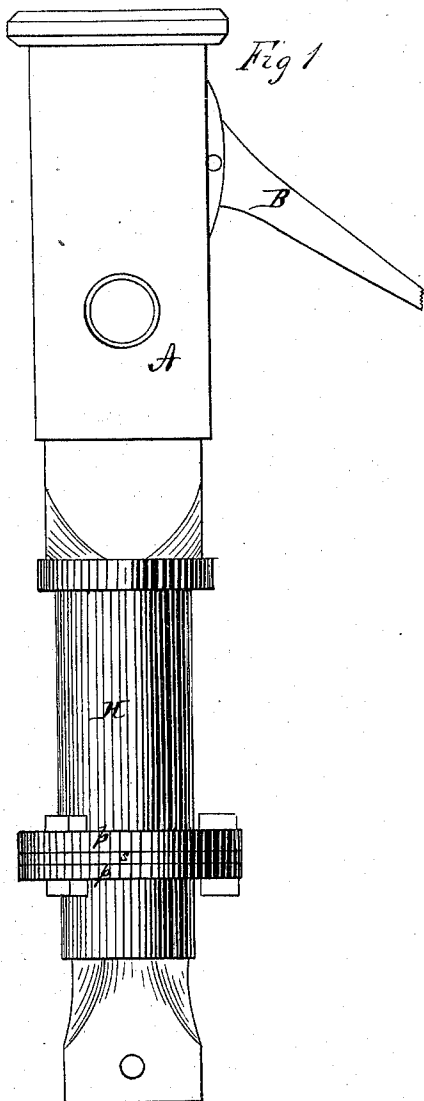


C. O. SYLVESTER.  
Pumps.

No. 128,921.

Patented July 9, 1872.



Witnesses:

*Francis L. Oviand*  
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# UNITED STATES PATENT OFFICE.

CYRUS O. SYLVESTER, OF ATTICA, INDIANA.

## IMPROVEMENT IN PUMPS.

Specification forming part of Letters Patent No. 128,921, dated July 9, 1872.

*To all whom it may concern:*

Be it known that I, C. O. SYLVESTER, of Attica, in the county of Fountain and in the State of Indiana, have invented certain new and useful Improvements in Pumps; and I 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 the construction and arrangement of a "pump," 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 view, and Fig. 2 a vertical section, of my pump. Fig. 3 shows the construction of the valves, and Fig. 4 is an enlarged vertical section, of the sucker or plunger.

A represents the pump-stock, constructed in the ordinary way with handle B and plunger-rod C. This rod C is at its lower end connected with the plunger D by means of an iron fork, as shown. The plunger D is constructed of a cylinder, *a*, made conical on the outer side, and with an inward projecting flange at the upper end. One or more grooves, *i*, are made around the outside of the cylinder *a*, as shown in Fig. 4. A strip, *b*, of leather, rubber, or other suitable material is placed around the cylinder *a*, and then a correspondingly-shaped cap, *d*, is drawn up over the lower end of the cylinder and secured by bolts *e e*. The packing *b* is secured in place by being pressed by the cap *d* into the exterior grooves *i i* on the cylinder *a*. The plunger D is provided with a valve, G, constructed in two pieces, *f* and *h*. The lower piece *f* is rib-shaped, as shown in Fig. 3, to admit a piece, *k*, of leather, between the same and the cap *h*, a bolt, *m*, pass-

ing through the cap and valve, thereby securing the leather to its place. The ribs on the valve proper, *f*, are provided with projections *n* at the lower ends, which projections strike against the lower side of the valve-seat in the upward motion, thereby preventing the valve from rising too high. The iron cylinder H, in which the plunger D works, is made in two pieces connected together by flanges *p p* and bolts *r r* passing through the same, leather packings being interposed between the flanges, as shown. The cylinder is constructed without any obstructions either upon the inside or outside, so that when disconnected the two parts form complete patterns by which they may be cast without the use of sand-cores. The upper end of the cylinder H is tapered, as shown in Fig. 2, to be inserted in the wooden stock A, while the lower end may be fitted to receive either wood or iron tubing. The lower end of the cylinder is provided with a valve, G, similar to the one in the plunger, and which has its seat where the cylinder disconnects.

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

1. The valve G, constructed in two pieces, *f* and *h*, with a bolt, *m*, connecting them together with leather *k* between them, and the ribbed part *f* provided with projections *n n*, substantially as and for the purposes herein set forth.

2. The plunger D, constructed of the conical cylinder *a* having exterior grooves *i i*, the packing *b*, and the cap *d*, all connected together by means of bolts *e e*, all substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 26th day of February, 1872.

CYRUS O. SYLVESTER.

Witnesses:

ISAAC E. SCHOONOVER,  
GEO. F. WARD.