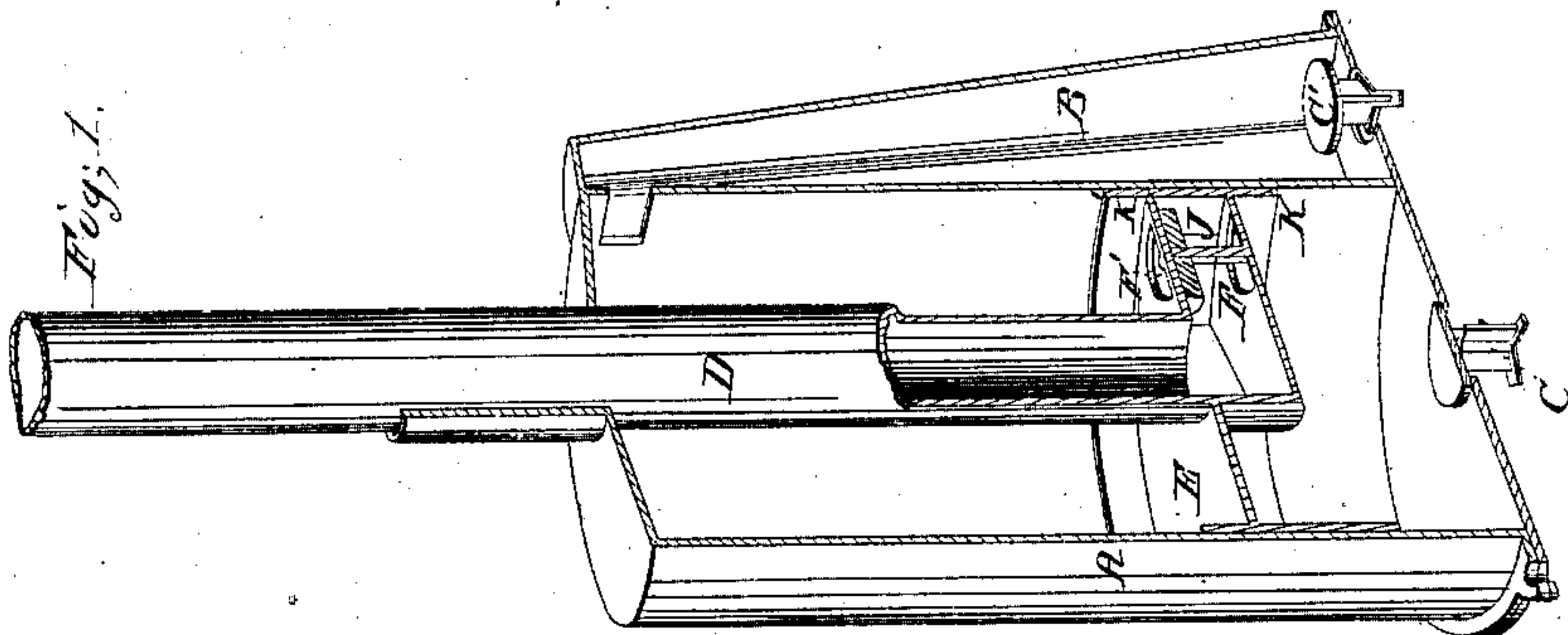
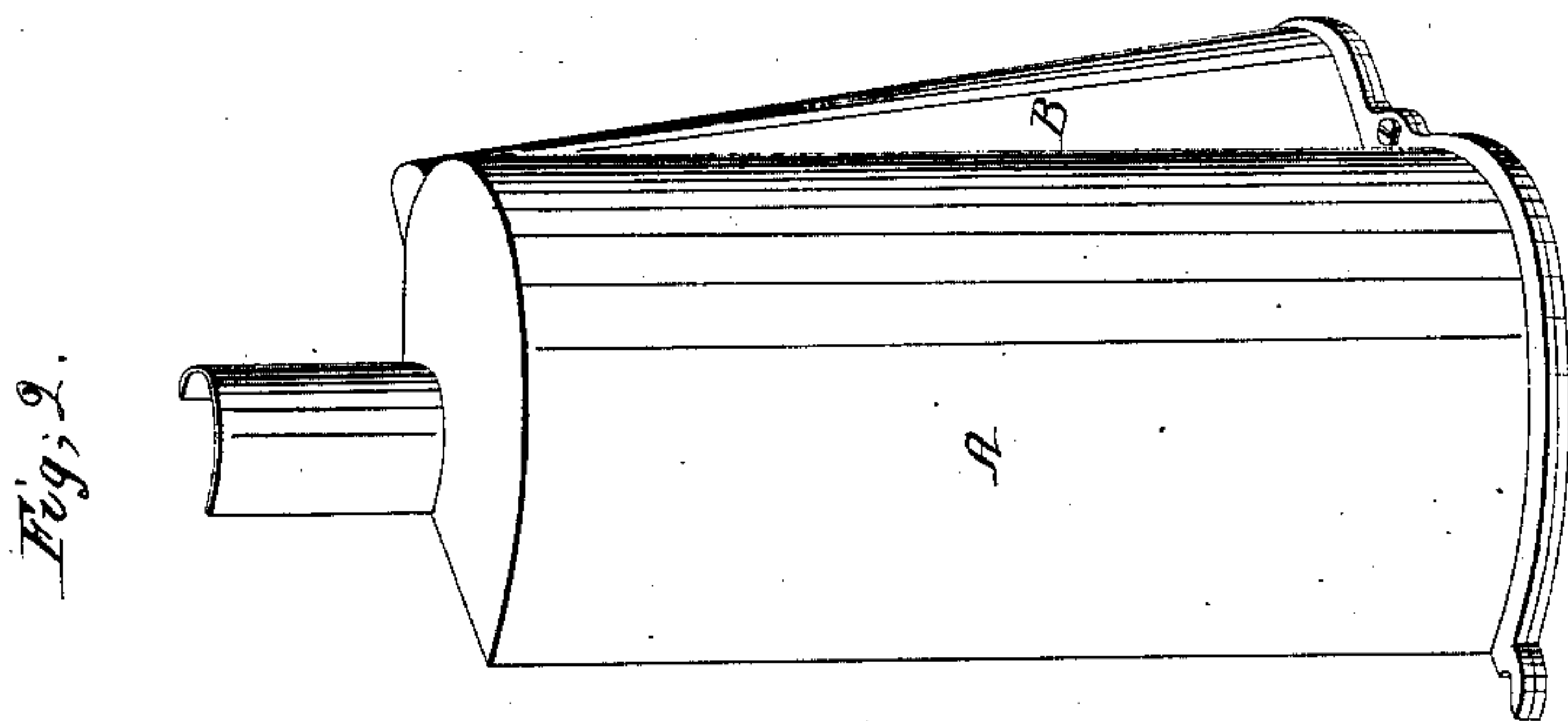
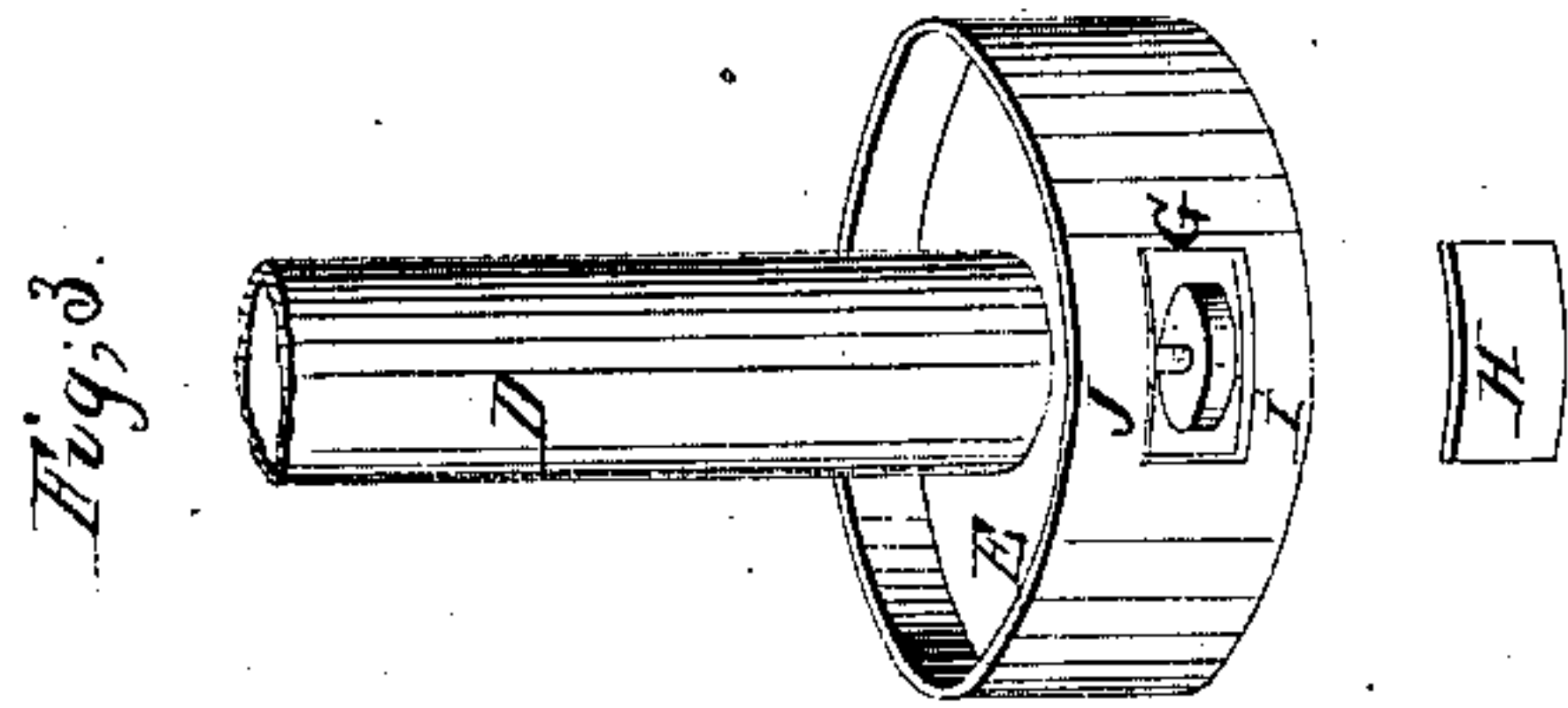
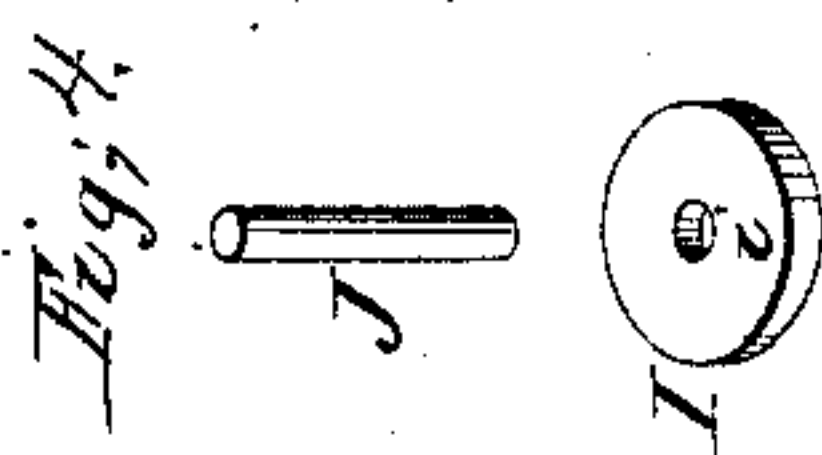


*N. Stedman,*  
*Pump Piston,*  
*No. 41,543,* *Patented Feb. 9, 1864.*



*Witnesses;*  
*Charles L. Fisher*  
*P. J. Baldauff*



*Inventor,*  
*N. Stedman*  
*By Knight Bros*  
*Atty's*

# UNITED STATES PATENT OFFICE.

NATHAN STEDMAN, OF AURORA, INDIANA.

## IMPROVEMENT IN PUMP-VALVES.

Specification forming part of Letters Patent No. **41,543**, dated February 9, 1864.

*To all whom it may concern:*

Be it known that I, NATHAN STEDMAN, of Aurora, Dearborn county, Indiana, have invented a new and useful Improvement in Pumps; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

My invention is chiefly designed for the class of pumps having a hollow piston-rod, which is also the exit-pipe; and it consists in a peculiar arrangement of hollow piston and double-acting valve of very simple construction and effective operation.

Figure 1 is an axial perspective section of my pump. Fig. 2 shows the remaining portion of the barrel. Fig. 3 shows my piston detached. Fig. 4 shows my valve and guide rod detached.

The cylinder or barrel A, side passage, B, induction-valves C and C', and hollow piston-rod D may be of the construction customary in this class of pumps.

My hollow piston E has a valve-aperture, F, through its bottom, and a similar aperture, F', immediately over it through the top of the piston.

My hollow piston E has also an aperture, G, through its side, which immediately previous

to the insertion of the piston into the barrel is closed by a cap or plug, H.

The aperture G enables the insertion of a disk, I, of caoutchouc or other suitable material, constituting a double-acting valve, which seats alternately on the two apertures F and F'. The valve I, having been inserted, is secured in place by a rod, J, which, having been passed through an eye, j, at the center of the disk, is fixed to its place by being riveted outside of the bridges K and K'.

I have indicated india-rubber for the valve I, because I deem that the most suitable material; but I do not desire to restrict the invention to valves of such material, for it is obvious that a metallic valve would serve all the essential purposes of that part.

I claim as new and of my invention—

The arrangement of the hollow piston E, having the side perforation, G, and double-acting disk-valve I, seating alternately in apertures F and F' at the top and bottom of the piston, and confined to a motion in the line of its axis by stationary rod J.

In testimony of which invention I hereunto set my hand.

NATHAN STEDMAN.

Witnesses:

GEO. W. KNIGHT,  
GEO. H. HART.