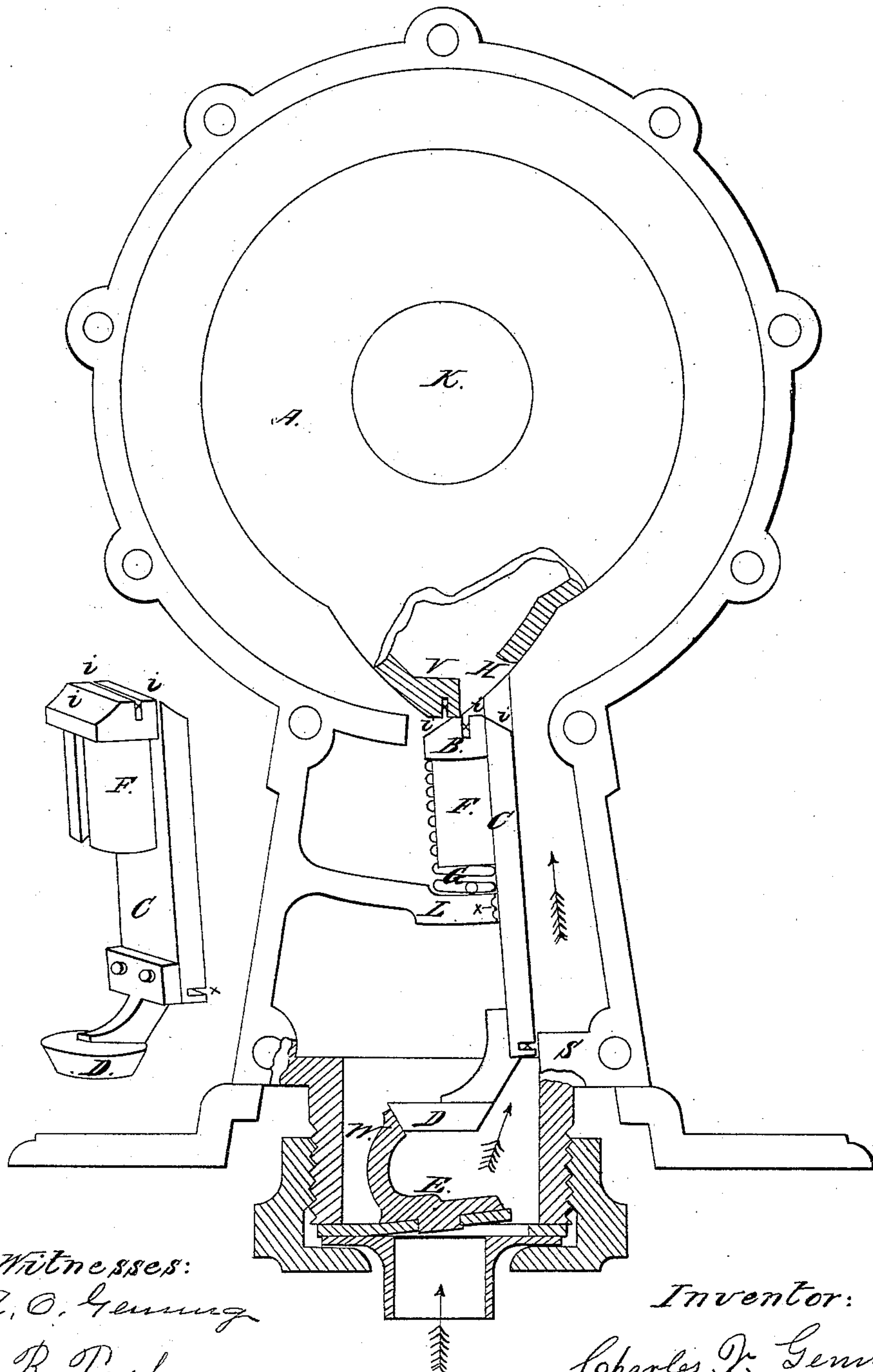


*C. V. Gernung,*

*Rotary Pump.*

*N<sup>o</sup> 84,106.*

*Patented Nov. 17, 1868.*



*Witnesses:*  
*A. O. Gernung*  
*L. R. Parker*

*Inventor:*  
*Charles V. Gernung*



CHARLES V. GENUNG, OF DUQUOIN, ILLINOIS.

Letters Patent No. 84,106, dated November 17, 1868.

IMPROVEMENT IN ROTARY 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, CHARLES V. GENUNG, of Duquoin, in the county of Perry, and State of Illinois, have made certain new and useful Improvements in Rotary Pumps; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A is a piston, having an elongated projection, V, and so fashioned that, while rotating, the arcs of its periphery come in contact and conform accurately with the arcs *i i i* of the follower B. The piston A is hollow, and is provided, on the forcing side of the projection V, with an oblong slot, H, through which the fluid enters, and is discharged at the eduction-passage proper, K.

C is a vane or partition, provided with a peculiarly-shaped head, forming the follower B, the latter so shaped that the arcs *i i i* come in contact and conform accurately with the arcs on the piston A. The vane C is arranged to reciprocate vertically in corresponding grooves in the case and front plate respectively, forming a division between the induction and eduction-ports. The object in placing the follower B at one side of the vane C, is to render the former balanced, viz, so that the fluid has an equal pressure, the same below as above, necessary in forcing.

D is a peculiarly-shaped trip, so arranged as to come in contact and conform with the arm W of the valve E, when the vane C is at the bottom of its stroke, allowing the fluid to escape. The trip D is circular-shaped, so as to render unnecessary a special adjustment of the valve E.

E is a valve, provided with a peculiarly-shaped arm, W, so arranged as to come in contact and conform with the trip D.

G is a coil-spring, by means of which the vane C is

operated, causing the follower B to press tightly against the periphery of the piston A. The upper portion of the spring G is kept in place by means of the guide F, and its lower part by being countersunk in the septum L. L is a septum, against which the vane C presses while operating.

S is also a septum, against which the vane C presses when at the bottom of its stroke, to prevent the escape of fluid while the piston A is passing its dead-point, as shown in the drawing, and also useful when used with an air-chamber.

The piston A, follower B, vane C, and septum L, are each provided with grooves for water-packing, as at *x x x*.

Operation: Upon being primed in the usual manner, and operated, a vacuum is formed, when the fluid passes in the direction indicated by the arrows, through the opening H and into the piston A, whence it is discharged at the eduction-passage proper, K.

The trip D does not raise the valve E when the pump is at work, but only when the projection V of the piston A is left at rest directly over the follower B, necessary in allowing the fluid to escape in freezing weather.

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

1. The hollow cylindrical piston A, having the slotted v-formed projection V, when used in combination with the follower B and vane C, as herein specified.

2. The hollow piston A, provided with the opening H, forming an eduction-passage, substantially as described.

3. The vane C, having an enlarged head, forming the follower B, as specified, as arranged in relation to the trip D and valve E, as herein described and for the purpose specified.

CHARLES V. GENUNG.

Witnesses:

A. O. GENUNG,  
WM. C. NEWSOM.