

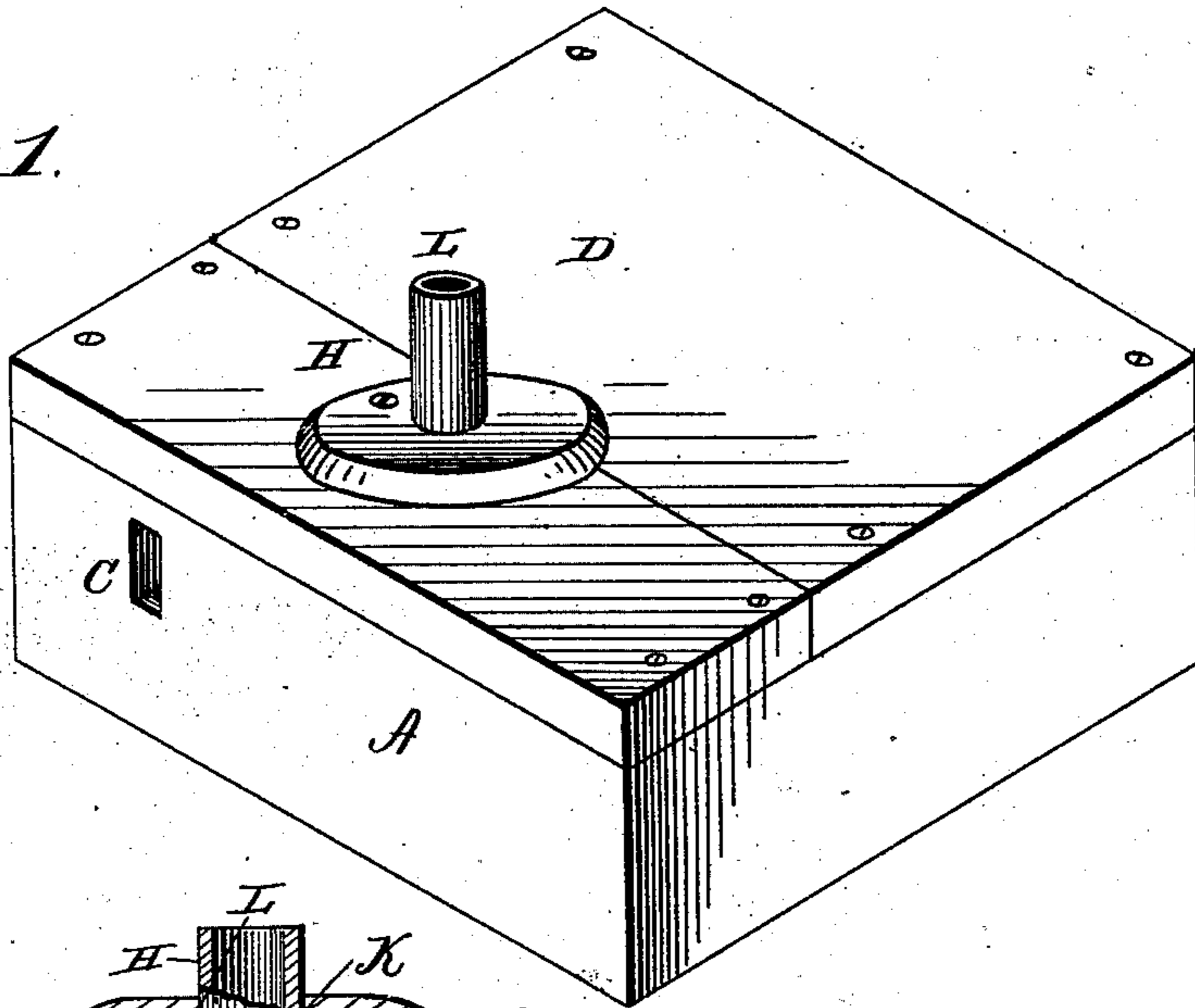
(No Model.)

L. BENSON.  
Rotary Pump.

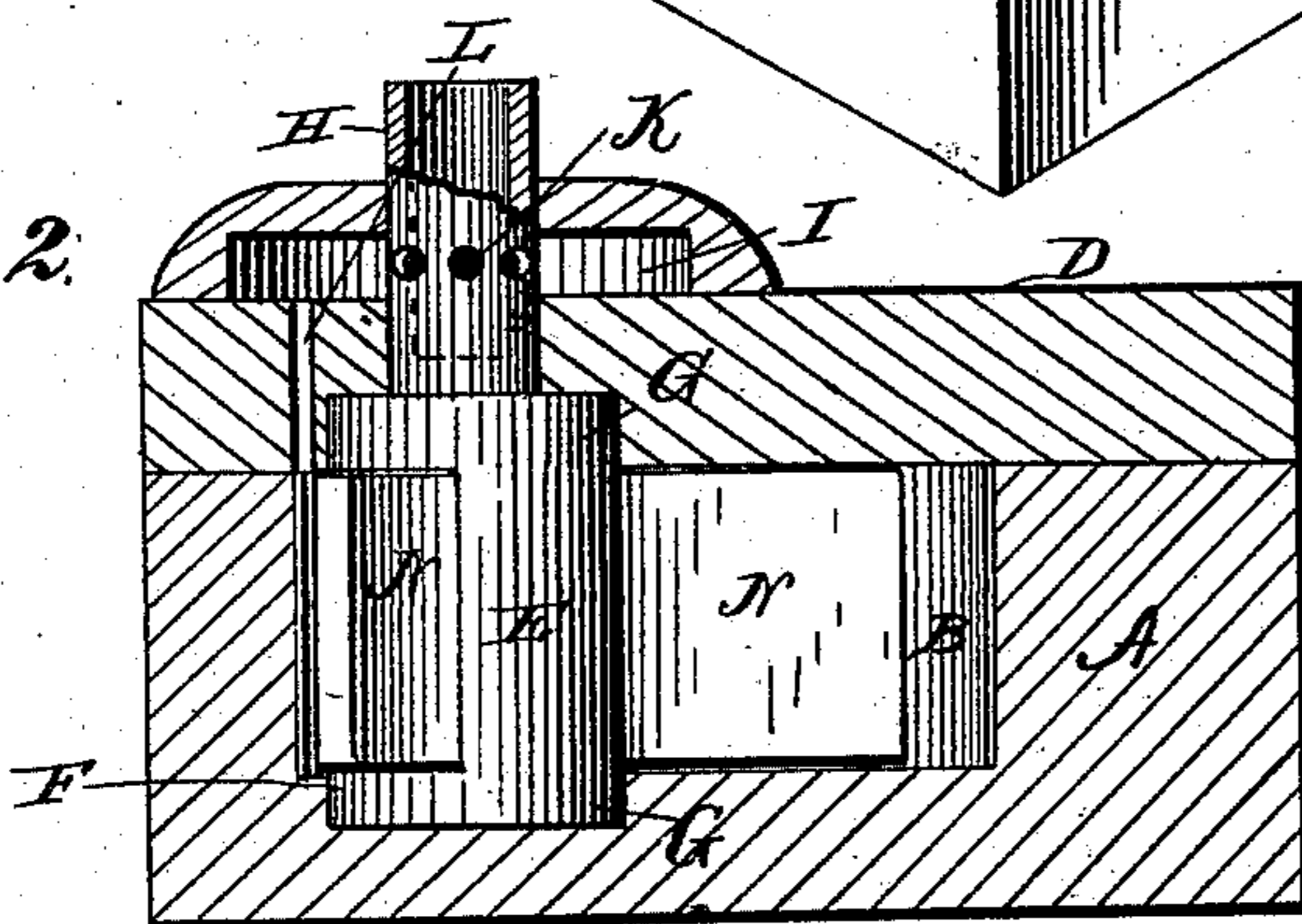
No. 238,834.

Patented March 15, 1881.

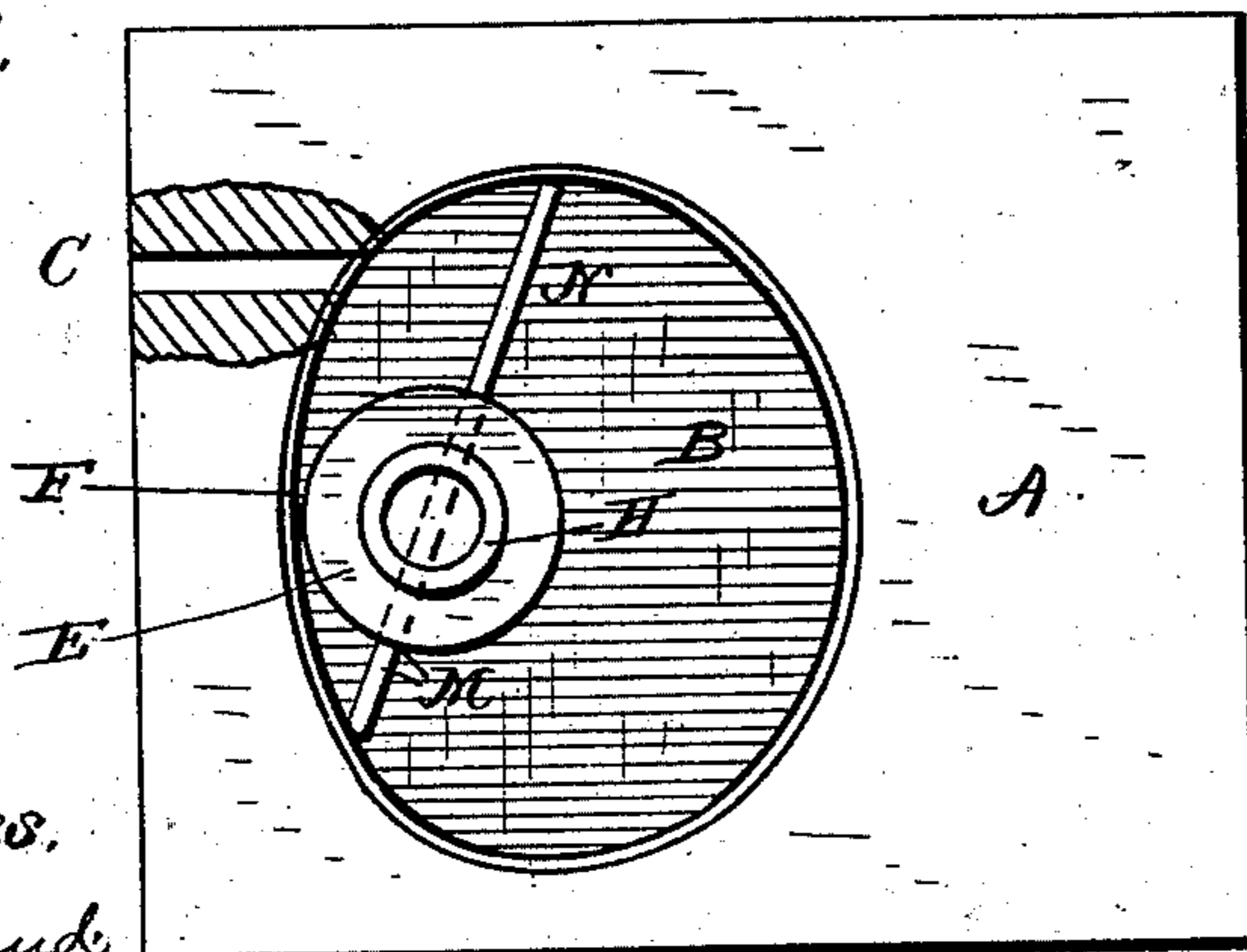
*Fig. 1.*



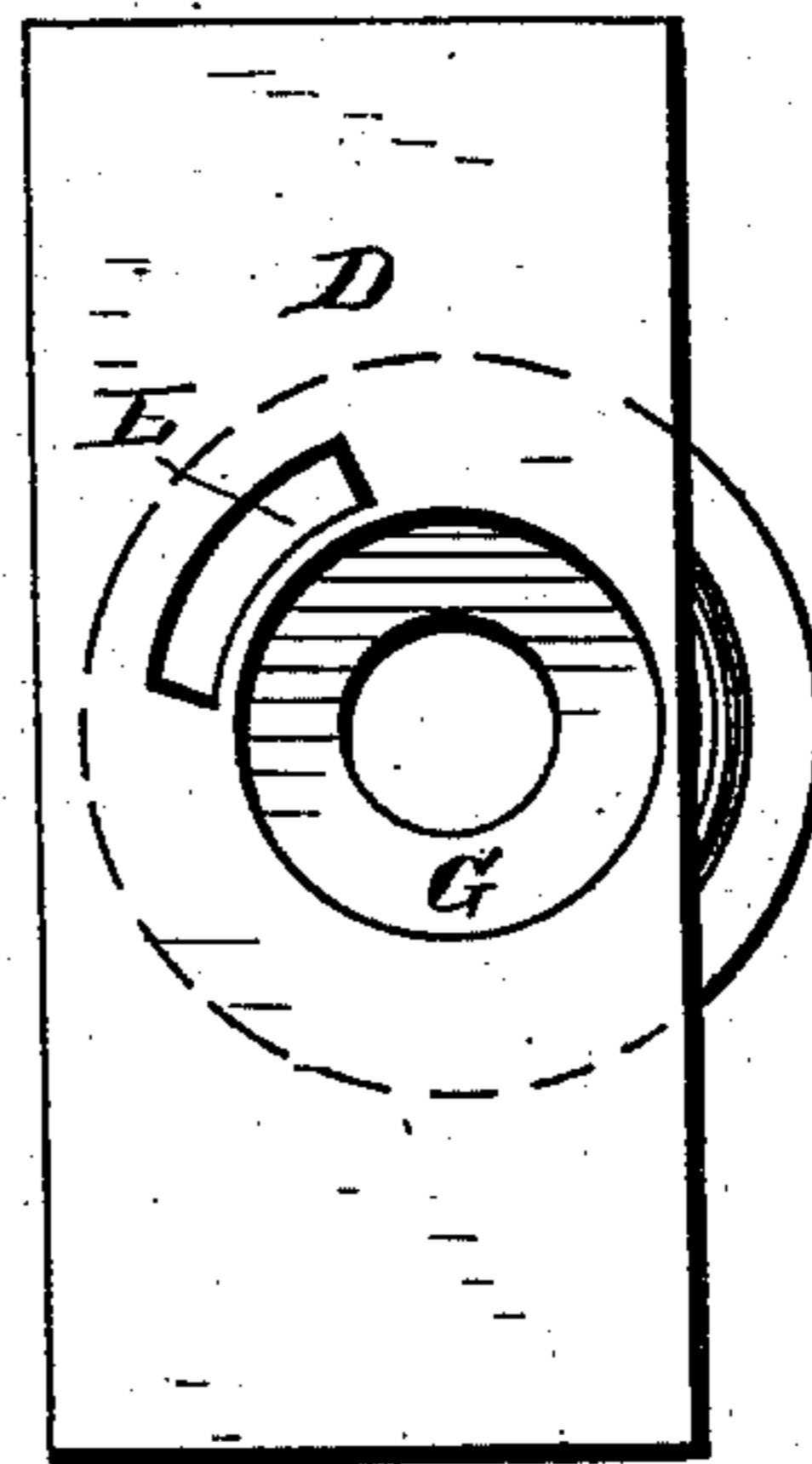
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



Witnesses.  
A. L. Curand

H. Aubrey Toulmin

Inventor:  
L. Benson.

By Alexander D. Mason

# UNITED STATES PATENT OFFICE.

LEON BENSON, OF LIME SPRING, IOWA.

## ROTARY PUMP.

SPECIFICATION forming part of Letters Patent No. 238,834, dated March 15, 1881.

Application filed December 21, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, LEON BENSON, of Lime Spring, in the county of Howard, and in the State of Iowa, have invented certain new and useful Improvements in Rotary Pumps; and I 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.

This invention relates to certain improvements in rotary pumps; and it has for its object to provide a submerged pump that will be so compact in form that it may be conveniently used in an ordinary drilled well, which will be cheap in construction, and durable and efficient in operation. These objects I attain by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 represents a perspective view of the pump-chamber; Fig. 2, a vertical sectional view thereof; Fig. 3, a horizontal sectional view; and Fig. 4, a detached view, showing the eduction-port of the pump.

The letter A indicates the casing of the pump, which is formed with an elliptical chamber, B, and an induction-port, C, at one side. The said chamber is closed by a head, D, secured to the casing by means of suitable screws or other fastening devices.

Within the chamber B, toward one side of the same, is located a drum, E, bearing at F against one side of said chamber. The drum at its opposite ends is journaled in recesses G in opposite walls of the chamber, so as to rotate freely therein. From the upper end of said drum extends a hollow shaft, H, upward through a chamber, I, and a suitable stuffing-box therein. The said shaft, in the part located within the chamber I, is perforated, as

indicated by the letter K, so as to communicate with the interior of said chamber.

The letter L indicates an eduction-port leading from the chamber B into the chamber I, by which communication between the two is established.

The drum E is slotted transversely, as indicated by the letter M, and in said slot, and adapted to travel back and forth therein, is located a sliding valve, N, which acts as a piston as the drum is rotated. The hollow shaft of the drum extends upward above the surface of the well, and is provided with a suitable discharge-spout, and mechanism by which it may be rotated.

The operation of my invention will be readily understood in connection with the above description, and is as follows: The shaft being rotated in the proper direction, water will be taken in the induction-port and forced by the piston through the eduction-port up through the hollow shaft, and discharged at the surface of the well.

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

The combination of the casing A, having an elliptical chamber, B, provided with recesses G and induction-port C, the drum E, journaled in said recesses, the sliding piston N, the eduction-port L, and chamber I, and the hollow perforated shaft H, all arranged to operate substantially in the manner specified.

In testimony that I claim the foregoing I have hereunto set my hand this 16th day of August, 1880.

LEON BENSON.

Witnesses:

C. E. WOOD,

GEO. M. VAN LEUVEN, Jr.