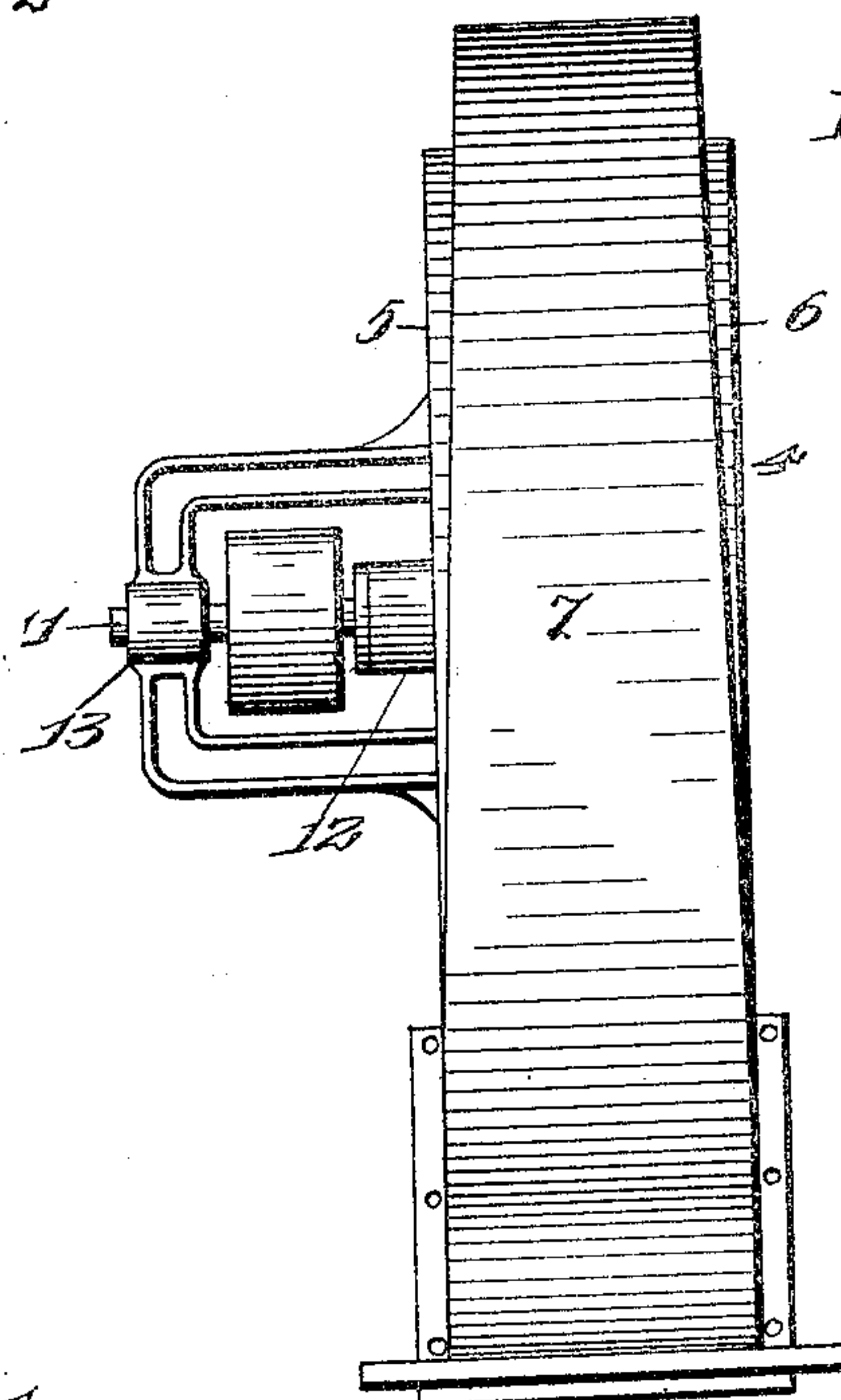
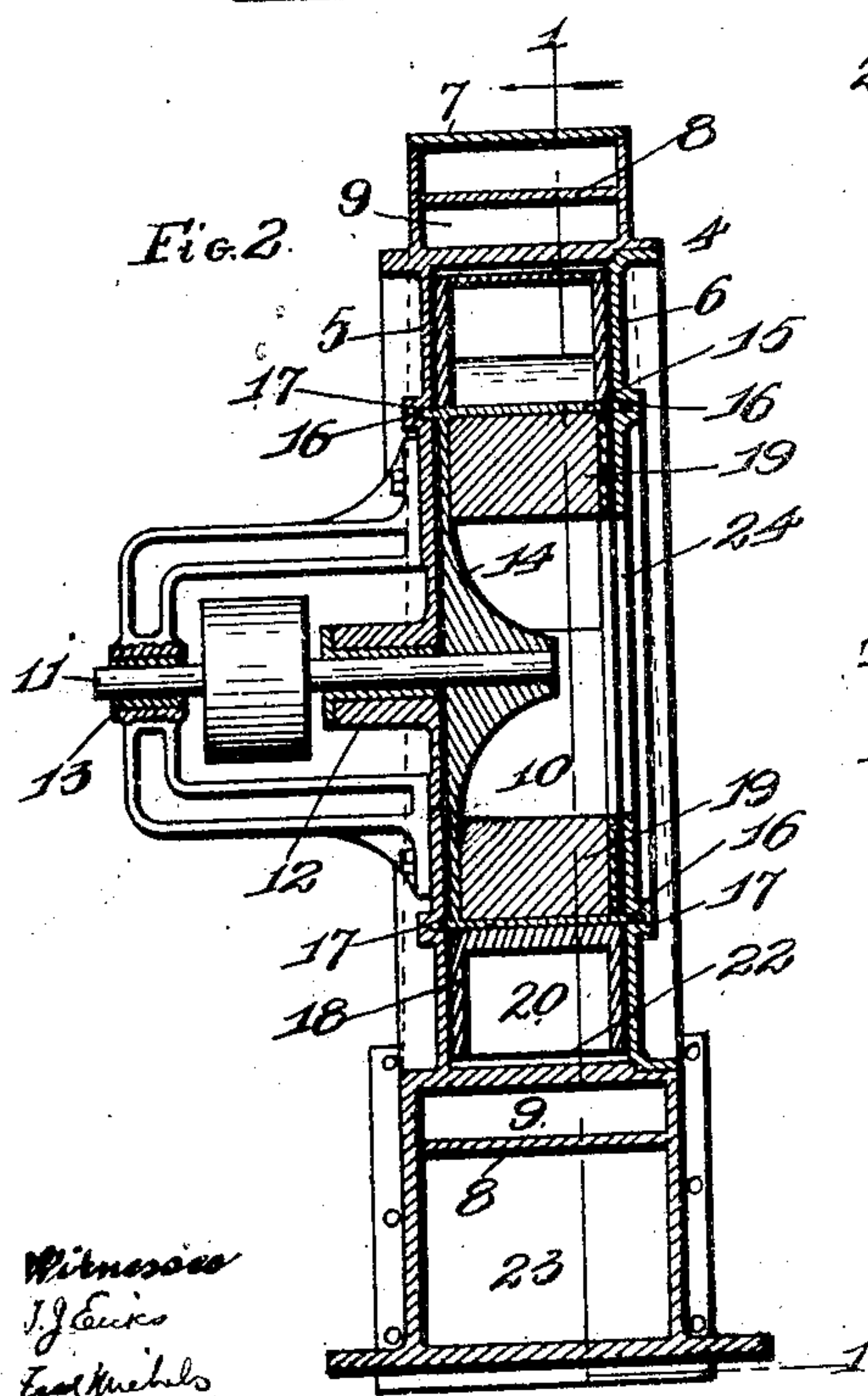
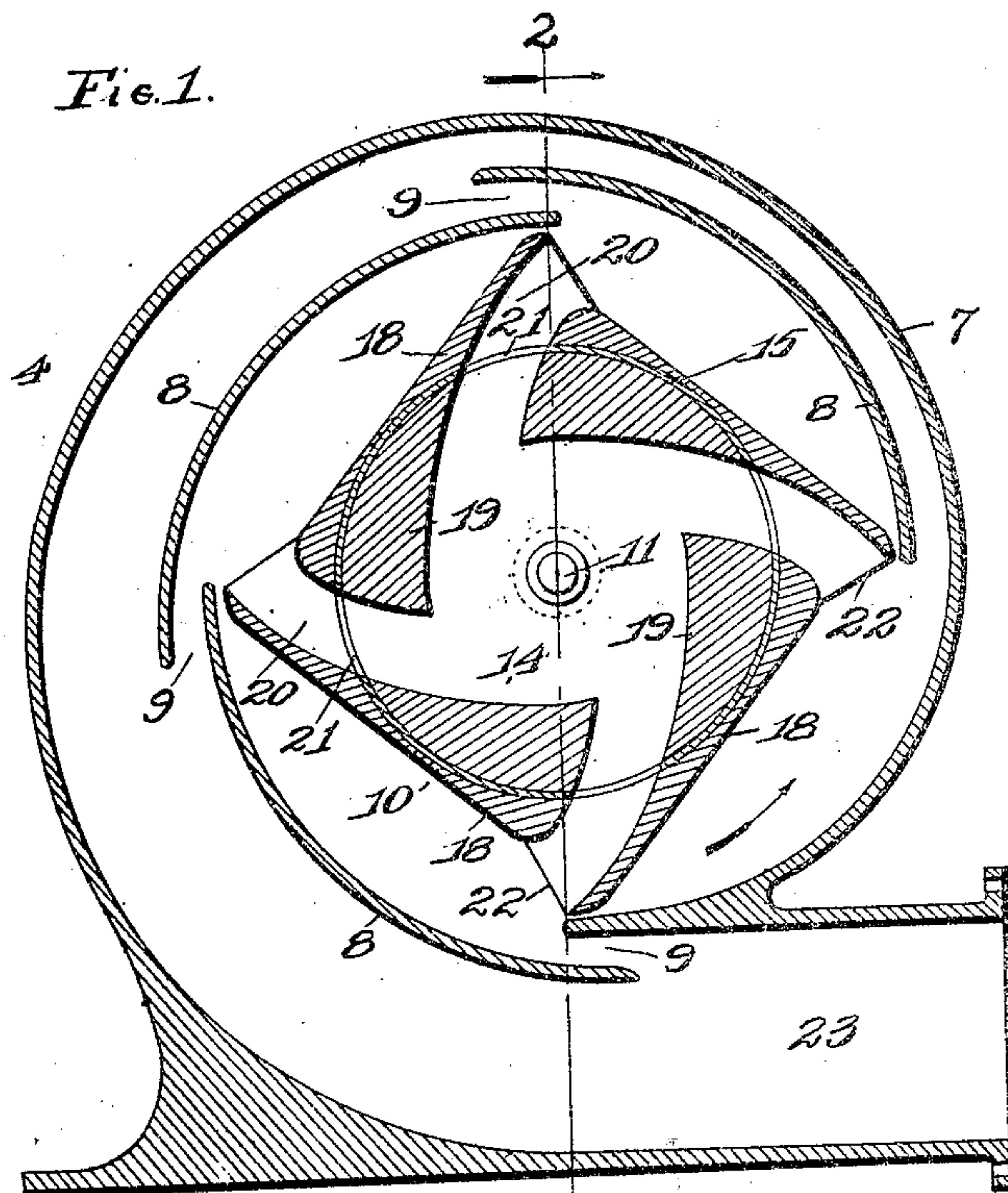


No. 882,477.

PATENTED MAR. 17, 1908.

C. NEUMANN.  
CENTRIFUGAL SUCTION MACHINE.  
APPLICATION FILED JAN. 30, 1905.



Witnesses  
J. J. Lewis  
E. A. Nichols

Inventor  
Christian Neumann  
by Alfred W. Hicks, Atty.

# UNITED STATES PATENT OFFICE.

CHRISTIAN NEUMANN, OF ST. LOUIS, MISSOURI, ASSIGNOR TO NATURAL POWER COMPANY,  
OF ST. LOUIS, MISSOURI, A CORPORATION.

## CENTRIFUGAL SUCTION-MACHINE.

No. 882,477.

Specification of Letters Patent.

Patented March 17, 1908.

Application filed January 30, 1905. Serial No. 243,352.

*To all whom it may concern:*

Be it known that I, CHRISTIAN NEUMANN, a citizen of the United States, and resident of St. Louis, Missouri, have invented certain  
5 new and useful Improvements in Centrifugal Suction-Machines.

This invention relates to improvements in centrifugal suction machines, and it consists of the novel arrangement, construction and  
10 combination of parts as will be fully hereinafter described and claimed.

The object of this invention is to provide a machine composed of an outer casing, its interior having two compartments, and a  
15 revolving member axially mounted within the inner compartment, the outer compartment arranged helical in form and also tapering in width, the machine being designed for ventilating purposes.

20 Figure 1 is a vertical longitudinal sectional view, taken on the line 1—1 of Fig. 2. Fig. 2 is a vertical cross sectional view, taken on the line 2—2 of Fig. 1. Fig. 3 is an end view.

25 My invention consists of an outer casing, 4, composed of two walls, 5 and 6, and a cover, 7. The casing, 4, is provided with partitions, 8, arranged with their ends overlapping, forming air passages, 9.

30 The revolving member, 10, is mounted upon a shaft, 11, which is supported in bearings, 12 and 13. The revolving member consists of a disk, 14, provided with a rim, 15, its projecting ends or flanges, 16, operating in guideways, 17, formed in the walls.  
35

On the rim is securely mounted an outer casting, 18, and inner castings, 19. The outer casting has passages, 20, which communicate with openings, 21, formed in the  
0 rim. The inner castings are so shaped as to

be in proper alinement with the passages, 20, and openings, 21, thereby forming an unobstructed outlet for the air. The outer end, 22, of the outlet, being of greater diameter than any portion of the passage, has  
45 a tendency to expel the air without pressure, and distributing it through the passages, 9, into the outer chamber.

The outer chamber is helical in form and becomes wider in width; its narrowest portion being at the starting point and its  
50 widest portion at the outlet, 23. See Fig. 3.

This invention is a companion application to applicant's former patents, No. 804,028, issued November 7, 1905; and No. 839,312,  
55 issued December 25, 1906.

The revolving member is operated in the direction as indicated by the arrow, and the air is admitted to the exterior through the circular opening, 24, formed in the wall, 6.  
60 The action of this device is opposite to that of a pressure blower.

What I claim is:

A centrifugal suction machine, comprising an outer casing provided with an inlet in  
65 one of its walls, a revolving member, a disk having a conical hub forming the foundation of the revolving member, castings secured to the disk forming air passages, extending from the conical hub to the exterior  
70 of the revolving member whereby a suction is created by the centrifugal action of the revolving member, substantially as specified.

Signed this 19th day of January 1905, at St. Louis, State of Missouri.

CHRISTIAN NEUMANN.

Witnesses:

ALFRED A. EICKS

N. J. STEBER.