

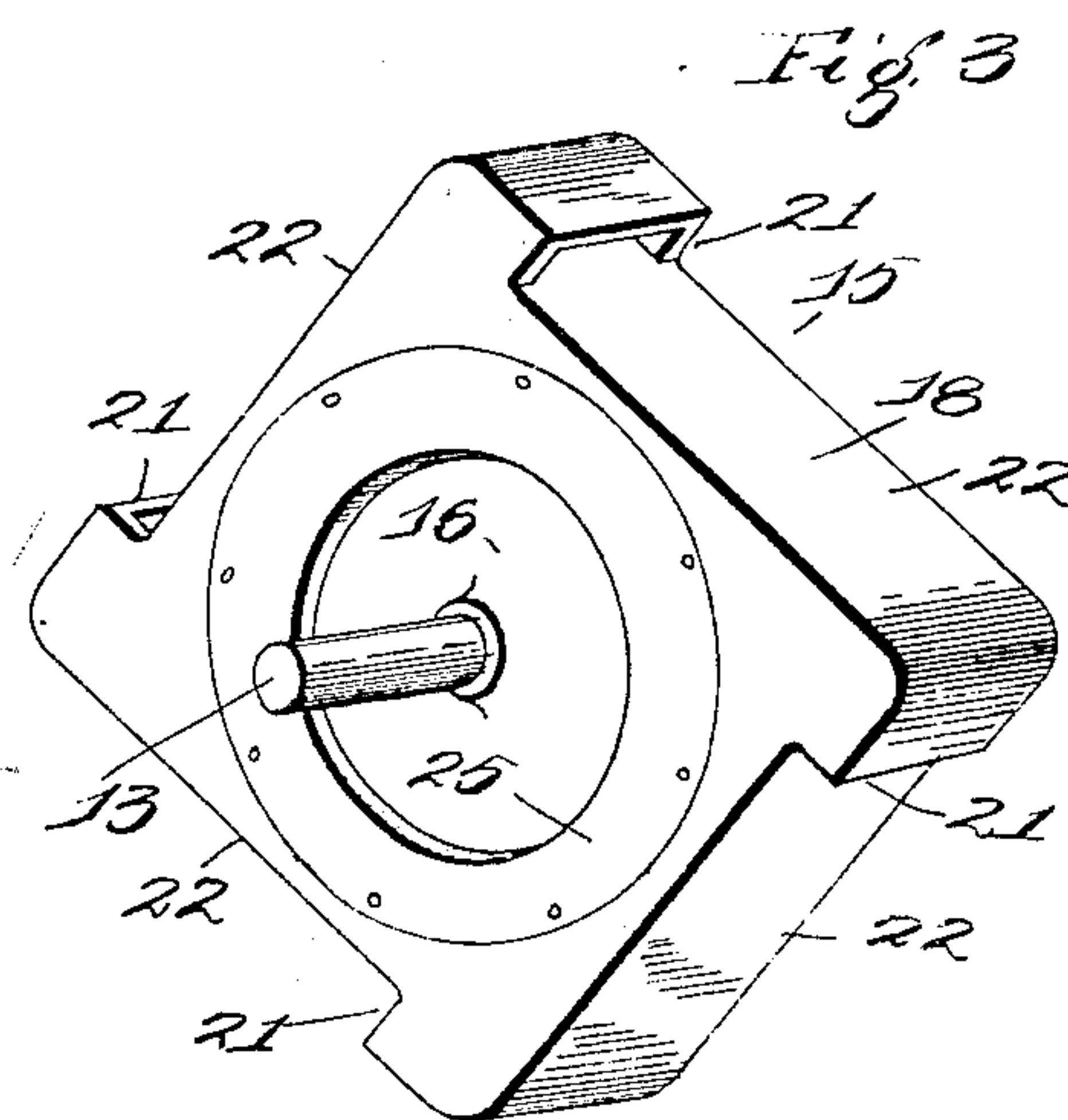
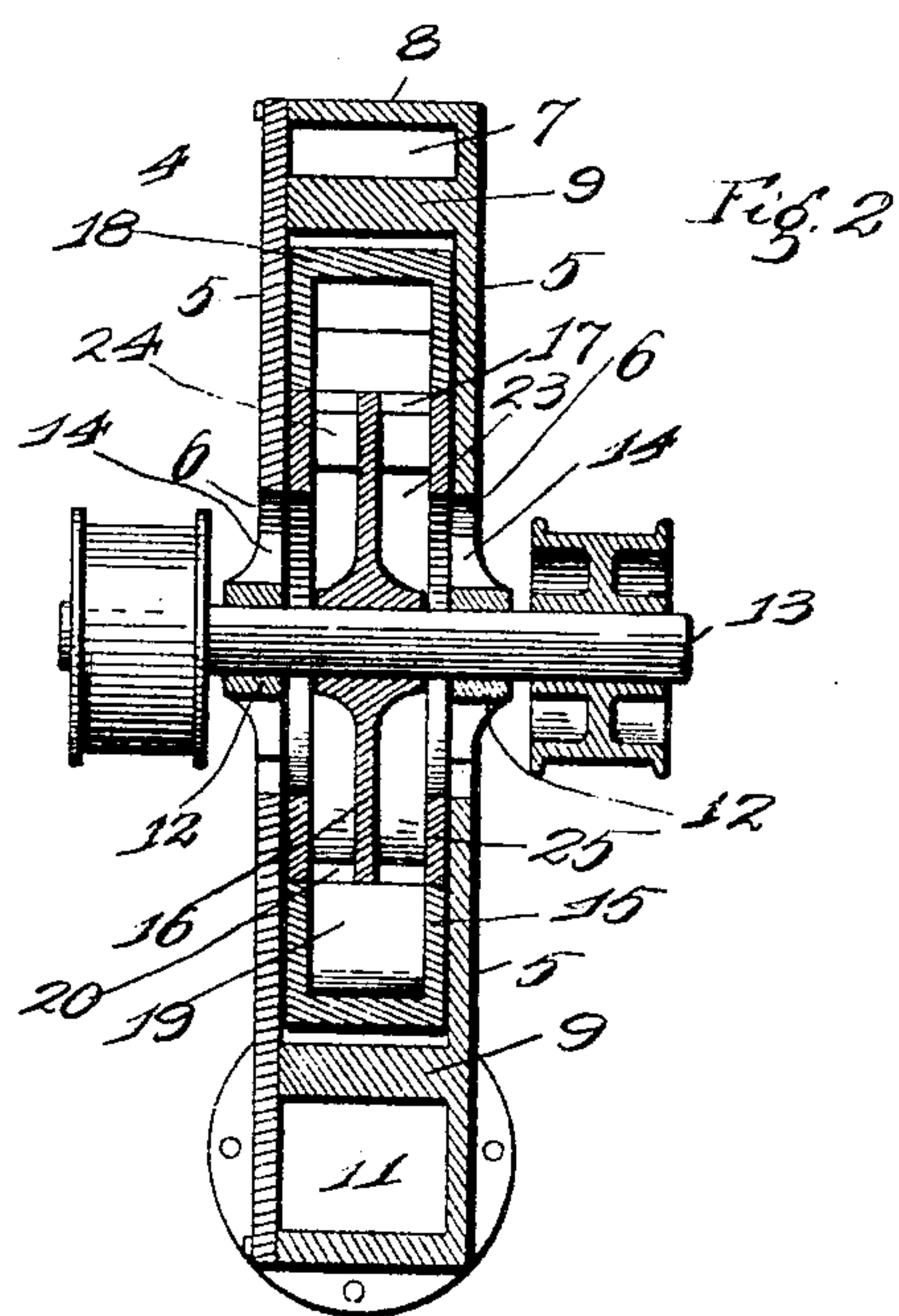
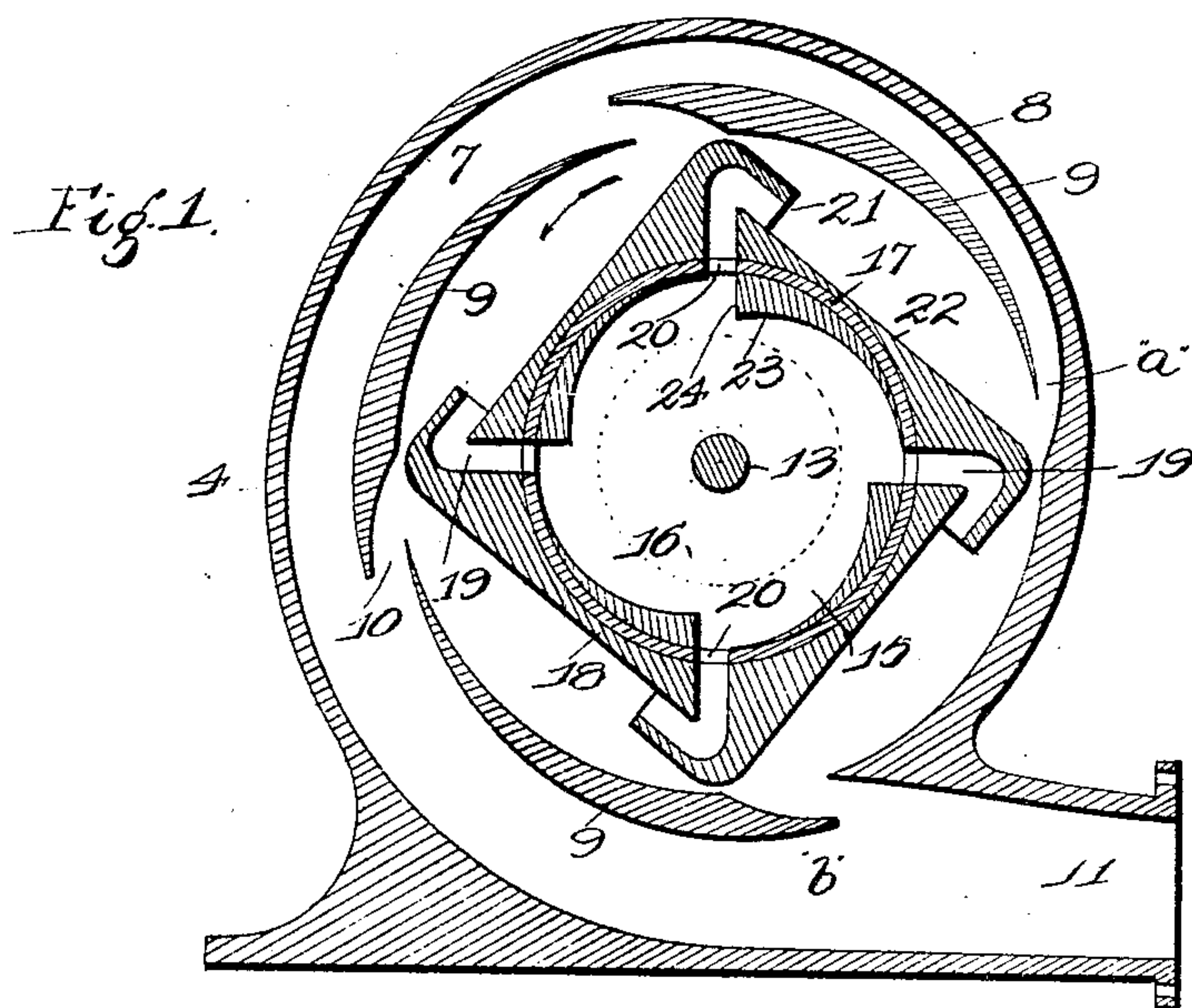
No. 804,028.

PATENTED NOV. 7, 1905.

C. NEUMANN.

BLOWER.

APPLICATION FILED DEC. 8, 1904.



Witnesses
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UNITED STATES PATENT OFFICE.

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BLOWER.

No. 804,028.

Specification of Letters Patent.

Patented Nov. 7, 1905.

Application filed December 8, 1904. Serial No. 236,051.

To all whom it may concern:

Be it known that I, CHRISTIAN NEUMANN, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Blowers, of which the following is a specification, reference being had therein to the accompanying drawings.

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

Figure 1 is a vertical longitudinal sectional view through the center of my improved blower, showing the internal construction. Fig. 2 is a vertical central cross-sectional view of the same. Fig. 3 is a detail perspective view of the revolving member made use of in carrying out my invention.

In the construction of my improved blower I provide an outer casing 4, comprising two vertical walls 5, having central openings 6, through which the air is admitted into the interior. An air-receiving chamber 7 is formed in the casing 4 by the outer periphery 8 and the partition 9. This partition is provided with passages 10, through which the air is discharged into the air-receiving chamber 7 from the revolving member.

The air-receiving chamber 7 has the form of a helix, beginning at the point indicated by the letter *a* and gradually becoming larger, ending at the point indicated by the letter *b*, where in this instance it terminates in the outlet or delivery pipe 11. Bearings 12, supporting the driving-shaft 13, are located in alinement with the openings 6 and supported by ribs 14, forming a part of walls 5. (See Fig. 2.)

Upon the shaft 13 is securely mounted the revolving member 15, comprising a disk 16, having a rim 17, upon which is securely fastened a casting 18, rectangular in form and provided with air-passages 19, extending outwardly from the center of the machine and in alinement with openings 20, formed in the rim 17 of the disk. The air-passages 19, as will be seen in Fig. 1, are located at each corner and extend outwardly and then rearwardly, terminating at the set-off 21 and in perfect alinement with the flat surface 22 of the casting.

The revolving member is operated in the direction as indicated by the arrow, and in order to collect the air and pass it through the passages 19 abutment-blocks 23 are secured to the inner periphery of the rim 17, whose rectangular edges 24 are in direct alinement with the wall of the passage 19 and opening 20.

By the revolution of member 15 the air is collected and passed through the passages 19 and in turn through the passages 10 into the chamber 7. The corners of the casting 18 extending outwardly beyond the surfaces 22 act as wings and have a tendency to drive the collected air in the space before member 15 through the passages into the chamber and out through the delivery-piping.

On each side of the rim 17 and extending downwardly a short distance beyond the lowest edge of the blocks 23 is a ring 25, which has a tendency to receive the air as it passes in through the opening 6 and passes through the passages formed in the rim and castings, as suction is created by the rapidly-revolving mechanism.

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

1. A blower comprising a casing having a partition forming a helical-shaped air-chamber, a rectangular-shaped revolving member mounted within the casing, and a plurality of air-passages formed in the partition and revolving member whereby the air is admitted into the chamber from the atmosphere, substantially as specified.

2. A blower comprising a casing, a partition in said casing; said partition having passages, and forming an air-receiving chamber between the same and the casing, a revolving member located in the casing; said revolving member being rectangular in form, a plurality of air-passages formed in the revolving member and arranged to deliver the air rearwardly, the projecting corners having a tendency to drive the air through the partition into the chamber, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

CHRISTIAN NEUMANN.

Witnesses:

ALFRED A. EICKS,
FRED. MICHELS.