

No. 889,680.

PATENTED JUNE 2, 1908.

C. L. HAWES.
POLISHING MACHINE.
APPLICATION FILED JULY 29, 1907.

2 SHEETS—SHEET 1.

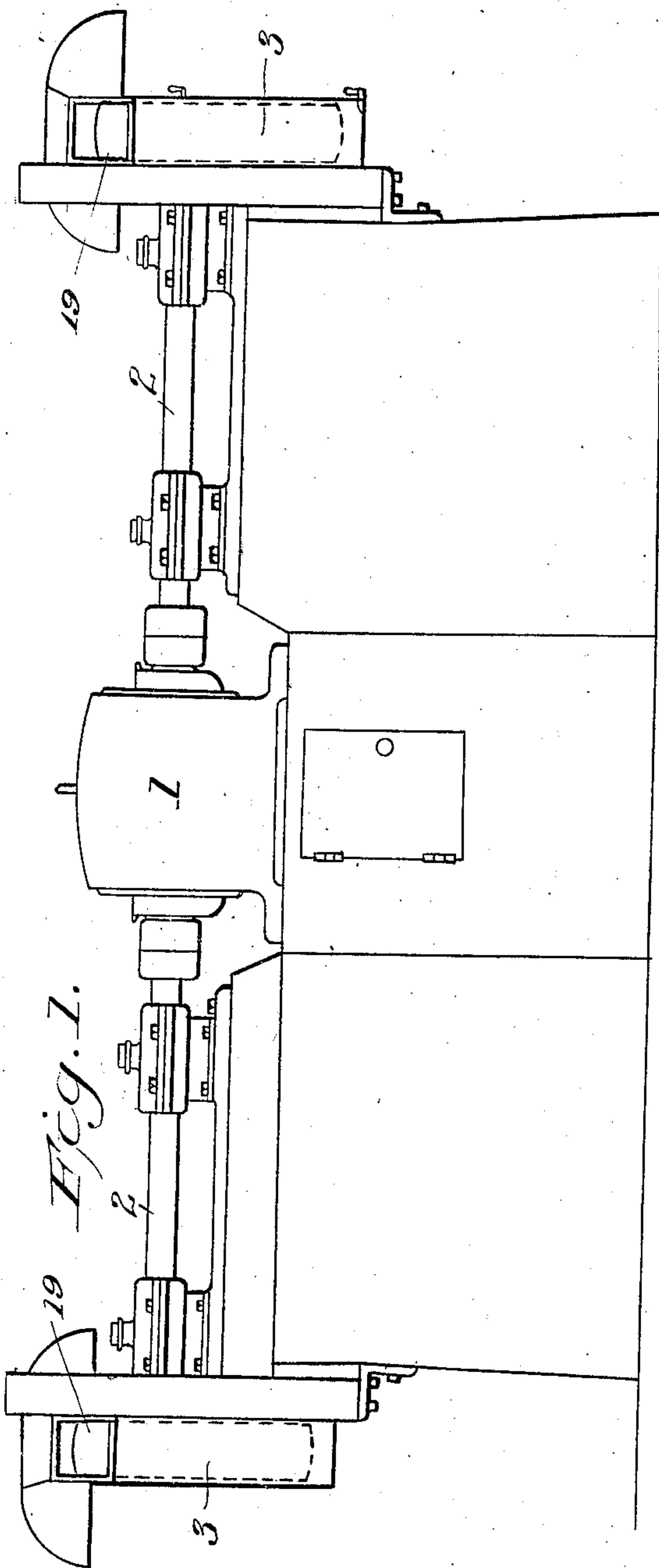


Fig. 1.

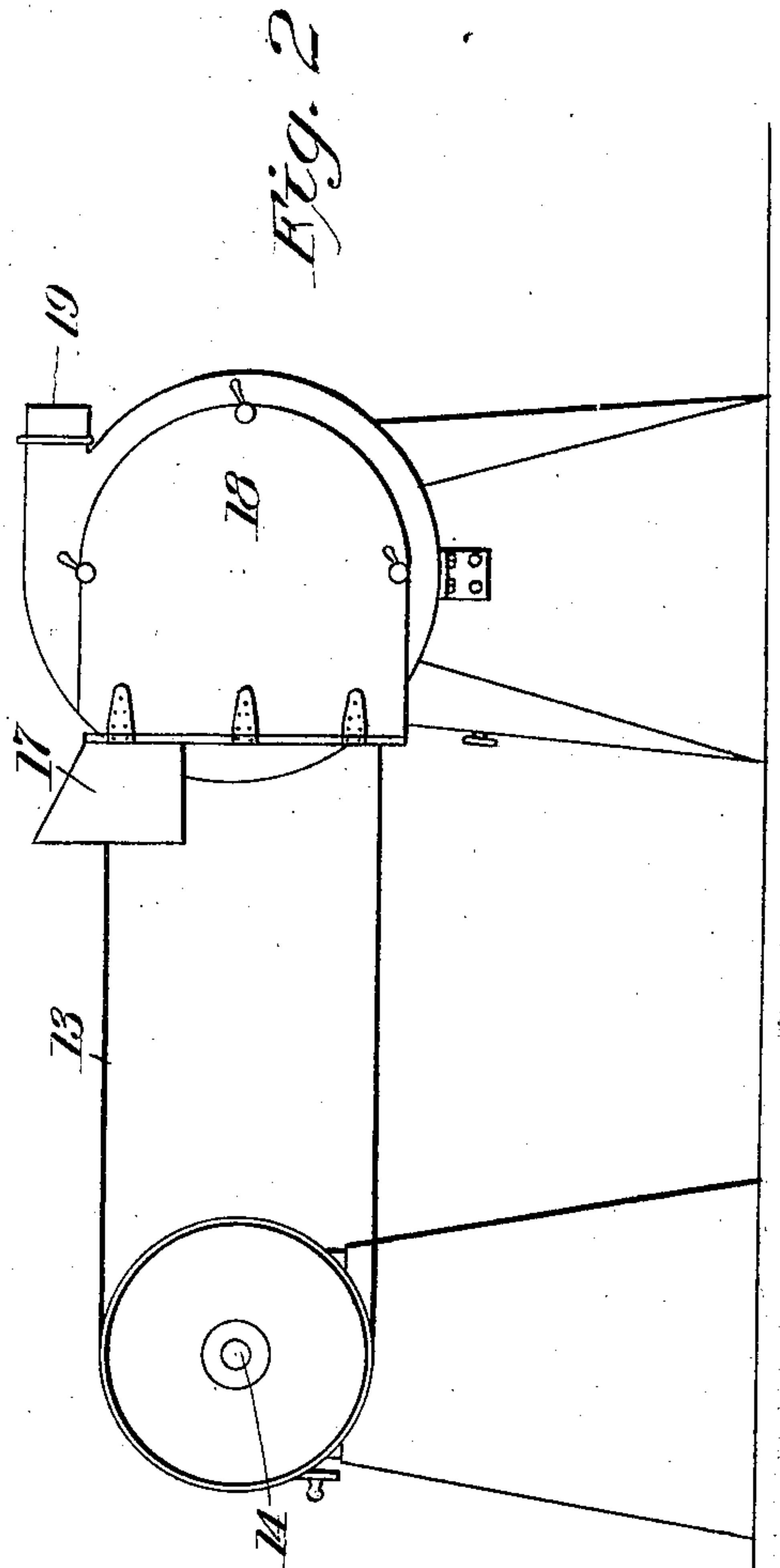


Fig. 2.

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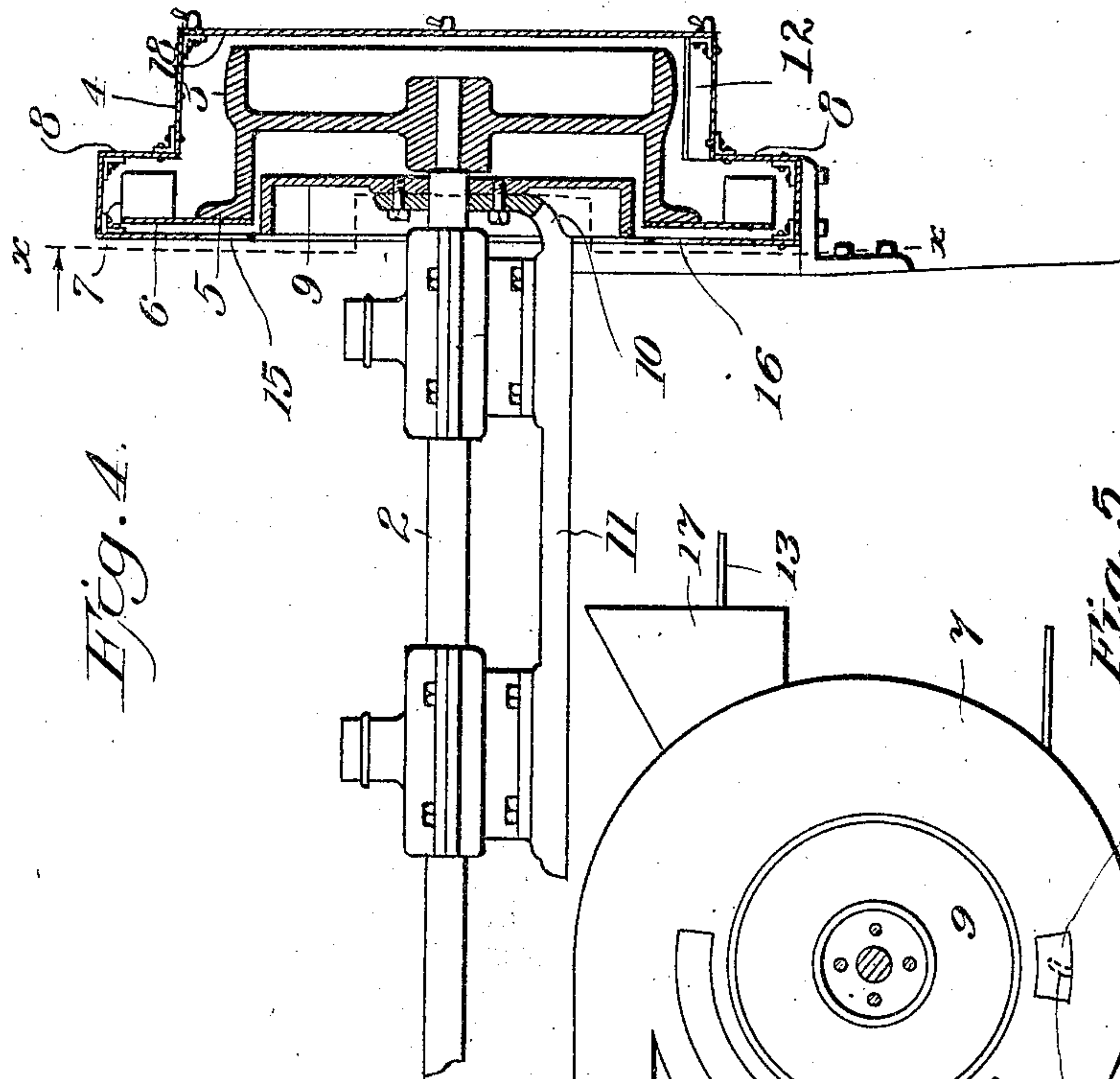


Fig. 4.

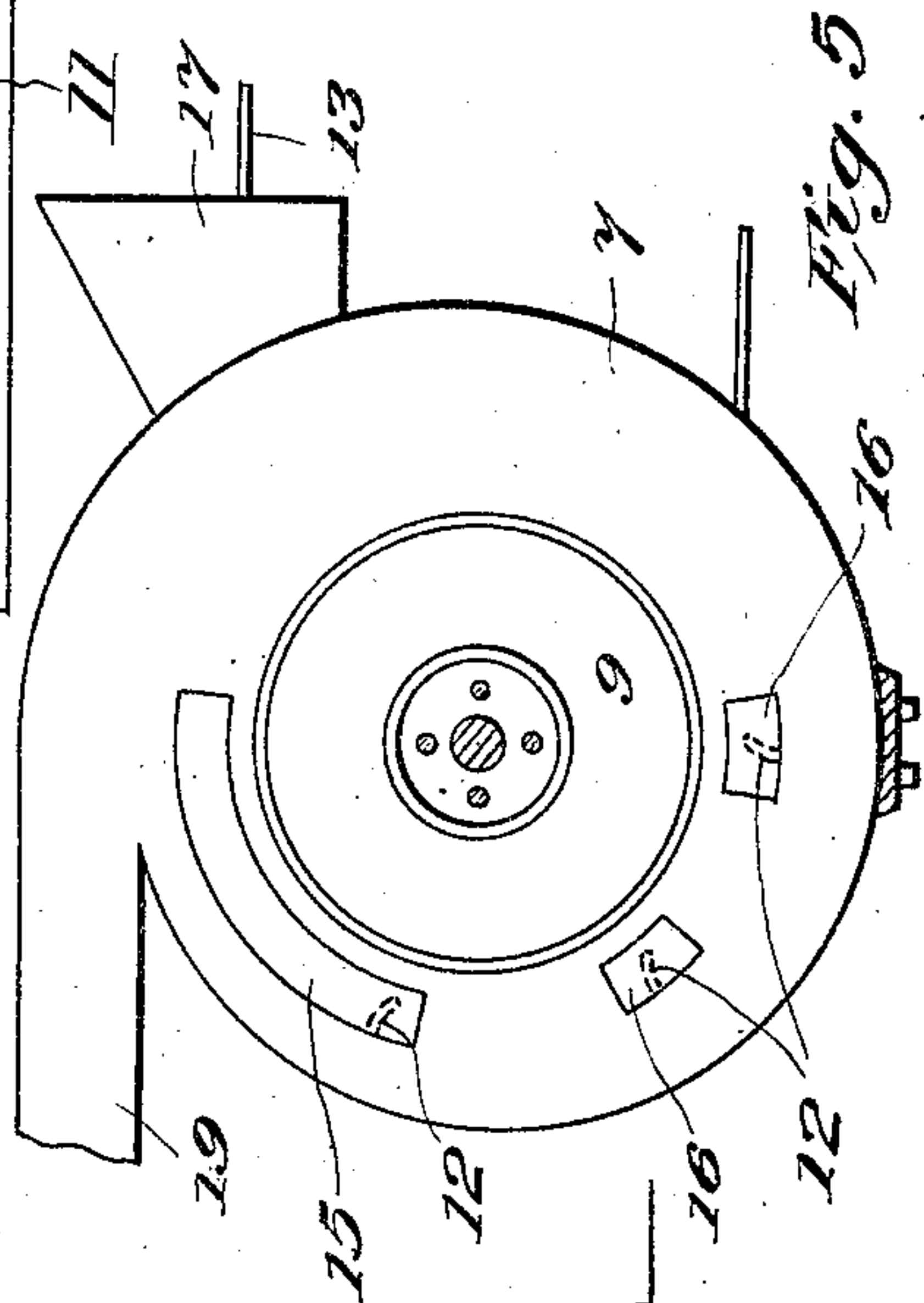


Fig. 5.

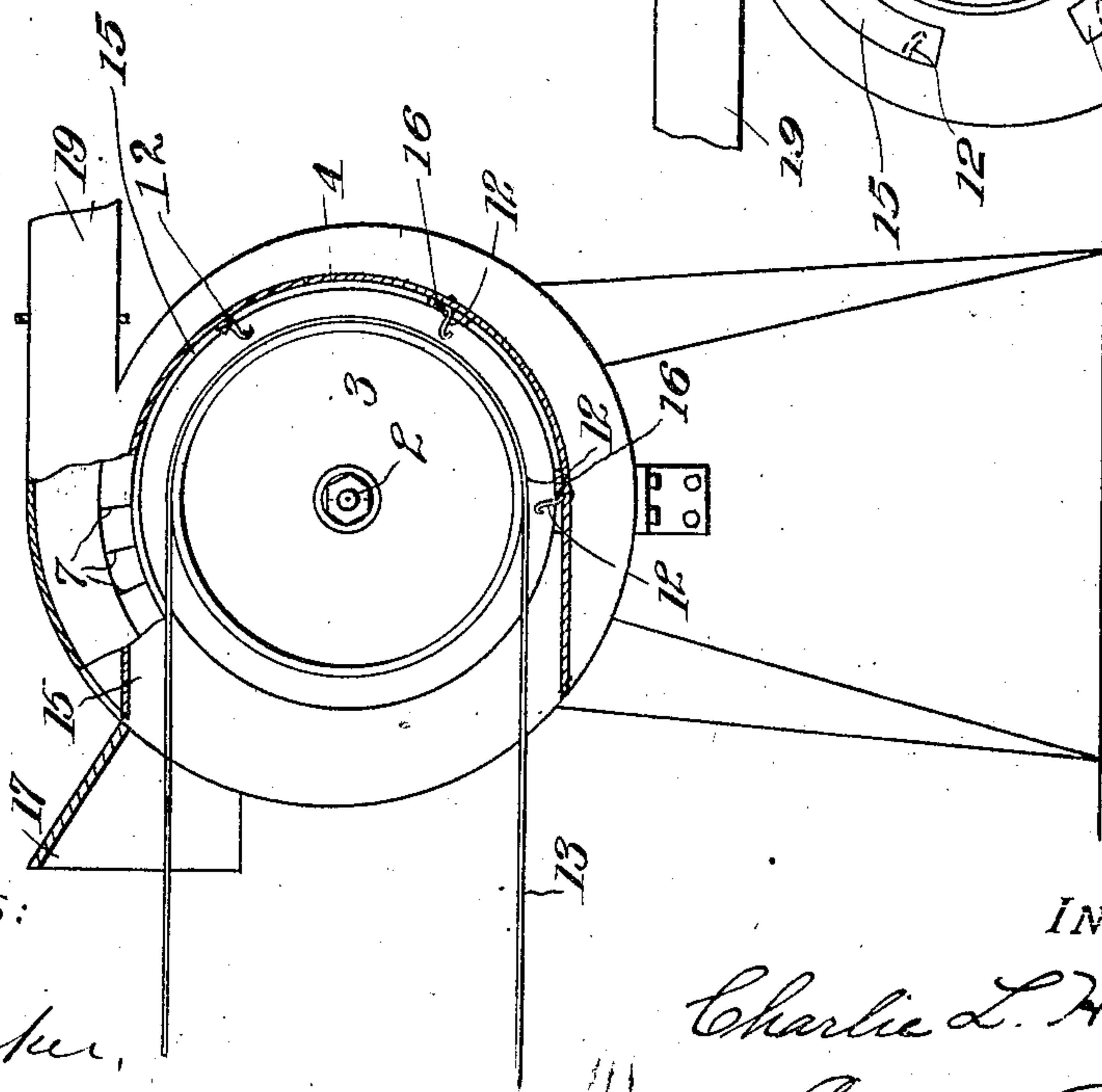


Fig. 3.

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UNITED STATES PATENT OFFICE.

CHARLIE L. HAWES, OF ASHTABULA, OHIO.

POLISHING-MACHINE.

No. 889,680.

Specification of Letters Patent.

Patented June 2, 1908.

Application filed July 29, 1907. Serial No. 386,059.

To all whom it may concern:

Be it known that I, CHARLIE L. HAWES, a citizen of the United States, residing at Ashtabula, in the county of Ashtabula and State of Ohio, have invented certain new and useful Improvements in Polishing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in polishing belt machines.

It has for its object to provide an improved machine of this kind which is of simple and compact construction and which includes means for removing the dust and dirt from the belt.

The invention consists in the features of construction and combinations of parts hereinafter described and specified in the claims.

In the accompanying drawings, illustrating the preferred embodiment of my invention: Figure 1 is a front elevation of a motor and two polishers mounted directly upon the ends of the motor shaft. Fig. 2 is an end elevation of one of said polishing machines. Fig. 3 is a vertical section taken from front to back of the polishing belt driving device. Fig. 4 is an enlarged vertical section thereof taken transversely, and Fig. 5 is a view on line $x-x$ of Fig. 4 looking in the direction of the arrow.

Referring more particularly to the drawings, 1 designates the motor and 2 the motor shaft. On the end of said shaft, as shown in Fig. 4, is mounted the polishing belt driving wheel 3 which is partially inclosed by a housing 4. At one side said wheel has a flange 5 to which is secured an outwardly extending ring or plate 6 carrying the fan blades 7. The fan and that side of the wheel 3 are inclosed by the projecting housing 8. The inner side of said wheel is closed by a flanged plate or casting 9 bolted to an arm 10 of the bed plate 11 on which the motor shaft is mounted.

To the inner surface of the peripheral portion of the housing 4 are fastened a plurality of vanes 12 extending across said housing and inwardly to within a short distance of the polishing belt 13 which is passed over the wheel 3 and a second wheel 14 mounted the required distance therefrom. The function of said vanes is to stop the dirt that is thrown from the belt by centrifugal force.

Air enters the casing or housing through

the long arcuate slot 15 arranged in the inner end thereof as shown in Fig. 5 and also through the small openings or slots 16 arranged opposite the vanes 12. The large volume of air drawn in through said slot 15 by action of the fan blades cleans the belt while the air which comes in through the small openings 16 removes the dirt from the vanes 12. The flared hood 17 which projects from the housing out over the belt serves to catch the dirt from the latter whereby it is brought under the influence of the suction created by the fan and drawn into said housing.

The outer end of the housing is closed by a door 18, see Fig. 2, which may be opened for the purpose of renewing the polishing belt. The dirt removed from said belt is blown out at the outlet 19.

The great advantage in mounting the fan directly upon the belt-carrying wheel will be readily appreciated as the structure is thereby made more compact and the fan is rendered more effective because it is brought nearer to the belt.

I claim:

1. The combination, with a polishing belt, of a pair of wheels over which said belt is passed, a fan mounted on one of said wheels and adapted to draw the dust from said belt, and a housing for said fan and wheel.

2. The combination, with a polishing belt, of a pair of wheels over which said belt is passed, one of said wheels having a flange at one edge, a fan secured to said flange, and a housing for said fan and wheel.

3. The combination, with a polishing belt, of a pair of wheels over which said belt is passed, a fan mounted on one of said wheels, a housing for said fan and wheel, and a flared hood on said housing extending over the belt for the purpose specified.

4. The combination, with a polishing belt, of a pair of wheels over which said belt is passed, a fan mounted on one of said wheels and adapted to draw the dust from said belt, a housing for said fan and wheel, and vanes secured to the interior of said housing and extending inwardly near to the belt for the purpose specified.

5. The combination, with a polishing belt, of a pair of wheels over which said belt is passed, a fan mounted on one of said wheels, and a housing for said fan and wheel having a slot in one end for admitting air.

6. The combination, with a polishing belt,

of a pair of wheels over which said belt is passed, a fan mounted on one of said wheels, a housing for said fan and wheel, and vanes secured to the interior of said housing and extending inwardly near to the belt to catch the dirt therefrom, said housing having openings in one end opposite said vanes for the purpose specified.

7. The combination, with a polishing belt, of a pair of wheels over which said belt is passed, a fan mounted on one of said wheels, a housing for said fan and wheel, and vanes secured to the interior of said housing and extending inwardly near to the belt to catch the dirt therefrom, said housing having a slot in one end for admitting air and also smaller openings arranged opposite said vanes for the purpose specified.

8. The combination, with a polishing belt, of a pair of wheels over which said belt is passed, a fan mounted on one of said wheels

and adapted to draw the dust from said belt, a housing for said fan and wheel, and a door at one end of said housing for renewing the polishing belt.

9. The combination, with a polishing belt, of a pair of wheels, over which said belt is passed, one of said wheels having a flange at one edge, a fan secured to said flange, a housing for said fan and wheel, vanes secured to the inner surface of said housing and extending inwardly near to said belt, a flared hood fastened to said housing and projecting out over said belt, said housing having an opening in one end and others opposite said vanes, and a door at the other end of said housing.

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

CHARLIE L. HAWES.

Witnesses:

SAMUEL L. JEROME,
N. M. FICKINGER.