

No. 819,079.

PATENTED MAY 1, 1906.

L. R. PARVIS.
FAN BLOWER.

APPLICATION FILED APR. 14, 1905.

FIG. 1.

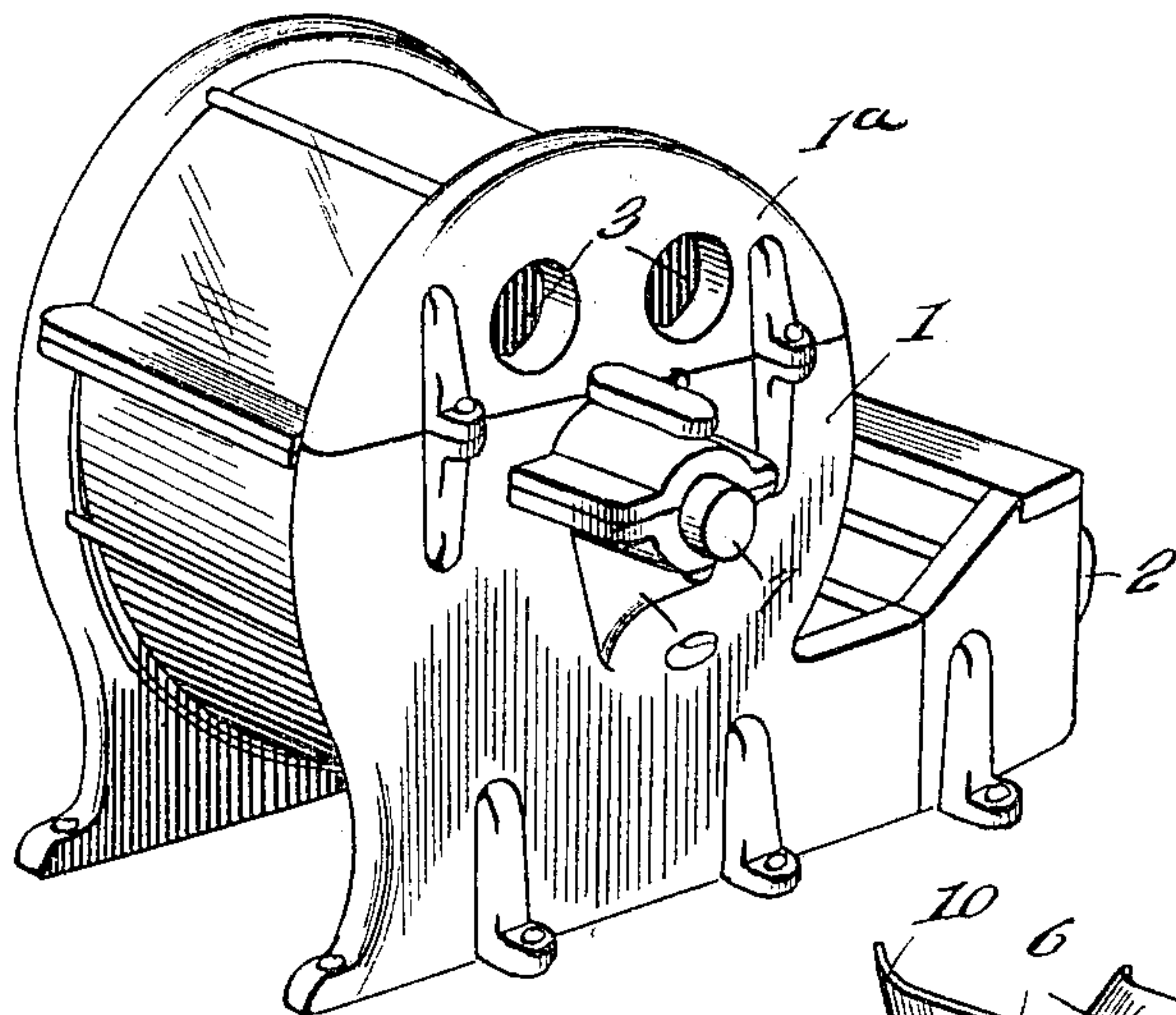


FIG. 3.

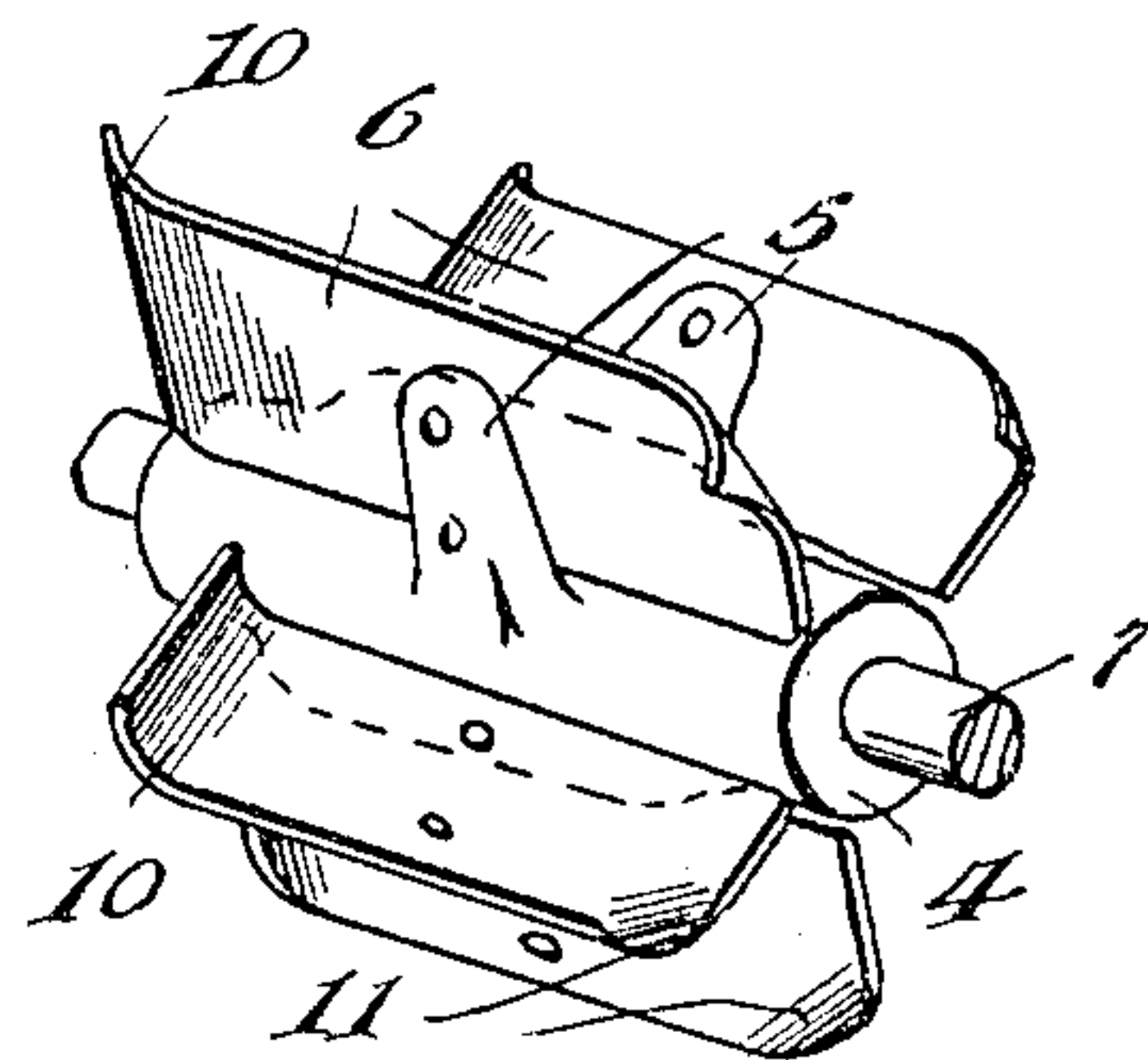
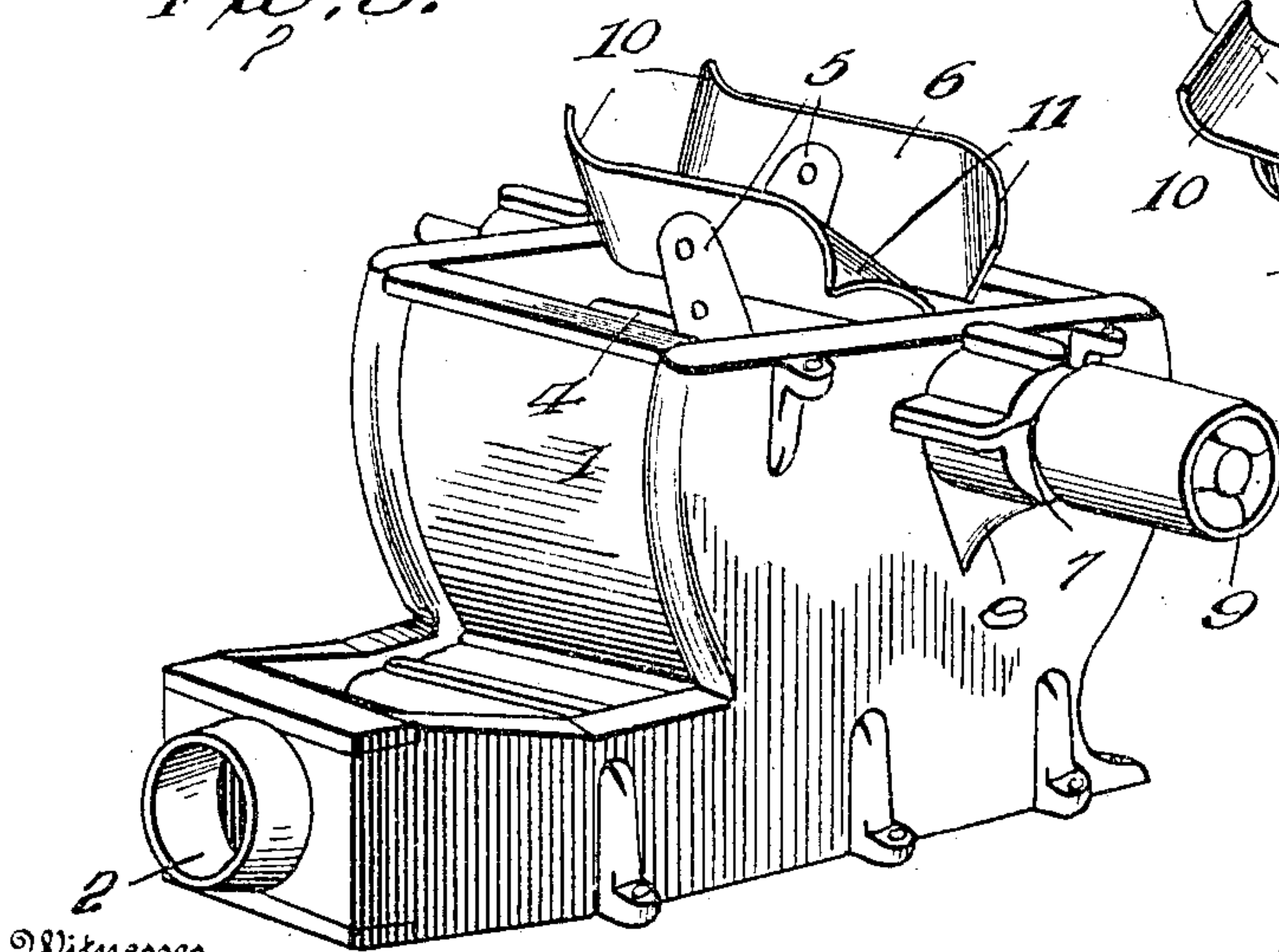


FIG. 2.

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Witnesses

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FAN-BLOWER.

No. 819,079.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, LEWIS R. PARVIS, a citizen of the United States, residing at Metamora, in the county of Franklin and State of Indiana, have invented certain new and useful Improvements in Fan-Blowers, of which the following is a specification.

This invention consists of a novel improved fan-blower designed for use in factories or the like to carry shavings, dirt, and other foreign matter off to a suitable point of discharge by means of a suction-blast.

The invention is useful in various ways besides that above mentioned, being adapted to draw water from a source and force the same to a convenient point of discharge.

The invention resides primarily in the special construction of the fan of the blower, whereby a maximum amount of suction is created in accomplishing the desired results.

For a full description of the invention and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and accompanying drawings, in which—

Figure 1 is a perspective view of a blower embodying the invention. Fig. 2 is a detail perspective view of the fan alone. Fig. 3 is a perspective view of the blower, the removable portion of the casing or cylinder removed.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Referring to the drawings, the numeral 1 indicates the casing or cylinder in which the fan is mounted, said casing having a lateral discharge 2 leading from one end thereof to be connected with a pipe or conduit through which the material which is forced through the blower is carried off to a suitable point of deposit. The upper portion 1^a of the casing or cylinder 1 is made removable therefrom in order to admit of ready access to the interior of the blower for purposes of repair or to remove the fan or the like. Leading into the upper portion 1^a of the casing, at one side thereof, are a plurality of inlets 3, which are preferably two in number and which may be connected by pipes with the compartment or place from which the material to be forced into the blower is to be drawn. Either one or both of the inlets 3 may be used, as found

necessary in the practical operation of the invention, and in the event that only one is used the other one is closed by a suitable cap or similar means.

The fan mounted in the blower is of peculiar construction, comprising, essentially, a hub 4, from which project a plurality of arms 5, integral therewith. The blades 6 of the fan are attached to the arms 5 of the hub 4, and it will be understood that any suitable number of blades may be utilized, dependent upon the size of the machine and the particular purpose for which it is employed. The hub of the fan-wheel is mounted upon the shaft 7, carried in suitable pillow-blocks 8 at opposite sides of the casing or cylinder 1, said shaft 7 passing through the sides of the cylinder and having a pulley 9 mounted thereon, said pulley being connected with a belt or other power-transmitting device for communicating motion to the shaft 7 in an obvious manner. The ends of the blades 6 of the fan adjacent the inlets 3 or the side of the cylinder in which said inlets are provided are curved in the direction of motion of the fan, as shown at 10, in order to increase the suction of the fan-blades as the latter revolve in the actual operation of the machine. The ends 10 are the ends of the blades 6 at which the material forced through the blower is gathered from the inlets, the opposite ends of the blades being the discharge portions, the material being forced therefrom into the discharge 2, before described. The discharge ends of the blades 6 curve at the outer corner portions, as shown at 11, in a direction opposite the direction of curvature of the end portions 10. The structure of each of the blades 6 is such as to greatly facilitate the gathering and discharge of the material entering the inlets 3, said material being deflected as it is operated upon by the blades and projected from the machine through the discharge 2 with great force.

It will be obvious that by closing one of the inlets 3 and attaching a water-pipe to the other one suction may be created for drawing water through such pipe from a suitable source for engineering purposes or the like. When the device is used for discharging material of a bulky nature, it is preferred that both or more inlets 3 be employed. The structure of the machine is very simple, and the parts may be disassembled and secured together in a very short time.

Having thus described the invention, what is claimed as new is—

5 In a fan-blower, the combination of a cylinder or casing having a discharge at the lower portion thereof, a rotary fan mounted in the cylinder and comprising a hub, a plurality of arms extending from the hub and integral therewith, and a plurality of blades attached to the arms, the cylinder having in-
10 lets at its upper portion leading through a side thereof, the ends of the blades adjacent

the inlets of the cylinder being curved in the direction of rotary movement of the fan, the opposite end portions of the blades being curved in the opposite direction at the outer corner portions thereof. 15

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

LEWIS R. PARVIS. [L. s.]

Witnesses:

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