

No. 666,191.

Patented Jan. 15, 1901.

F. M. GALBRAITH.
FAN ATTACHMENT.

(Application filed Oct. 22, 1900.)

(No Model.)

Fig. I.

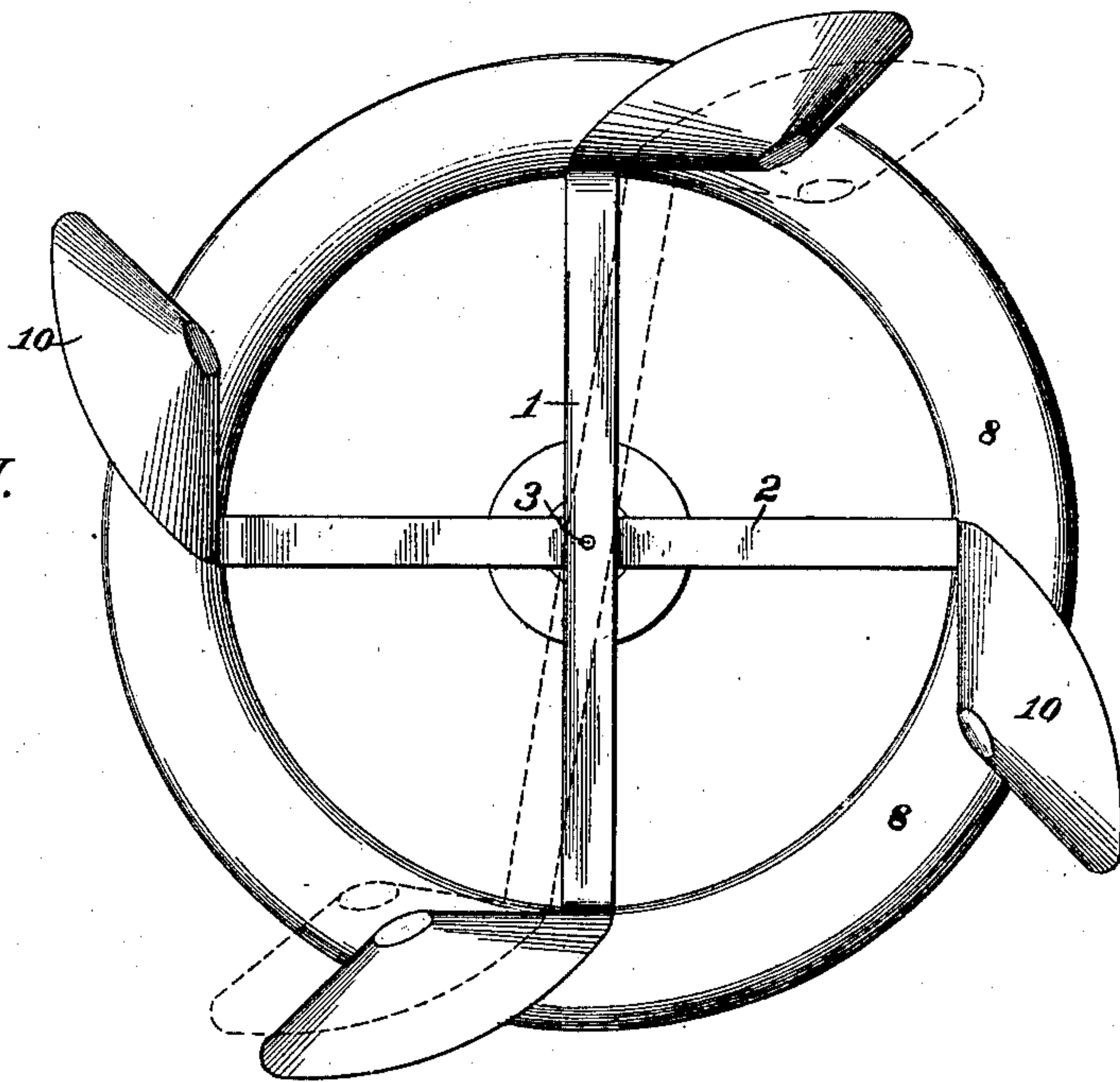


Fig. II.

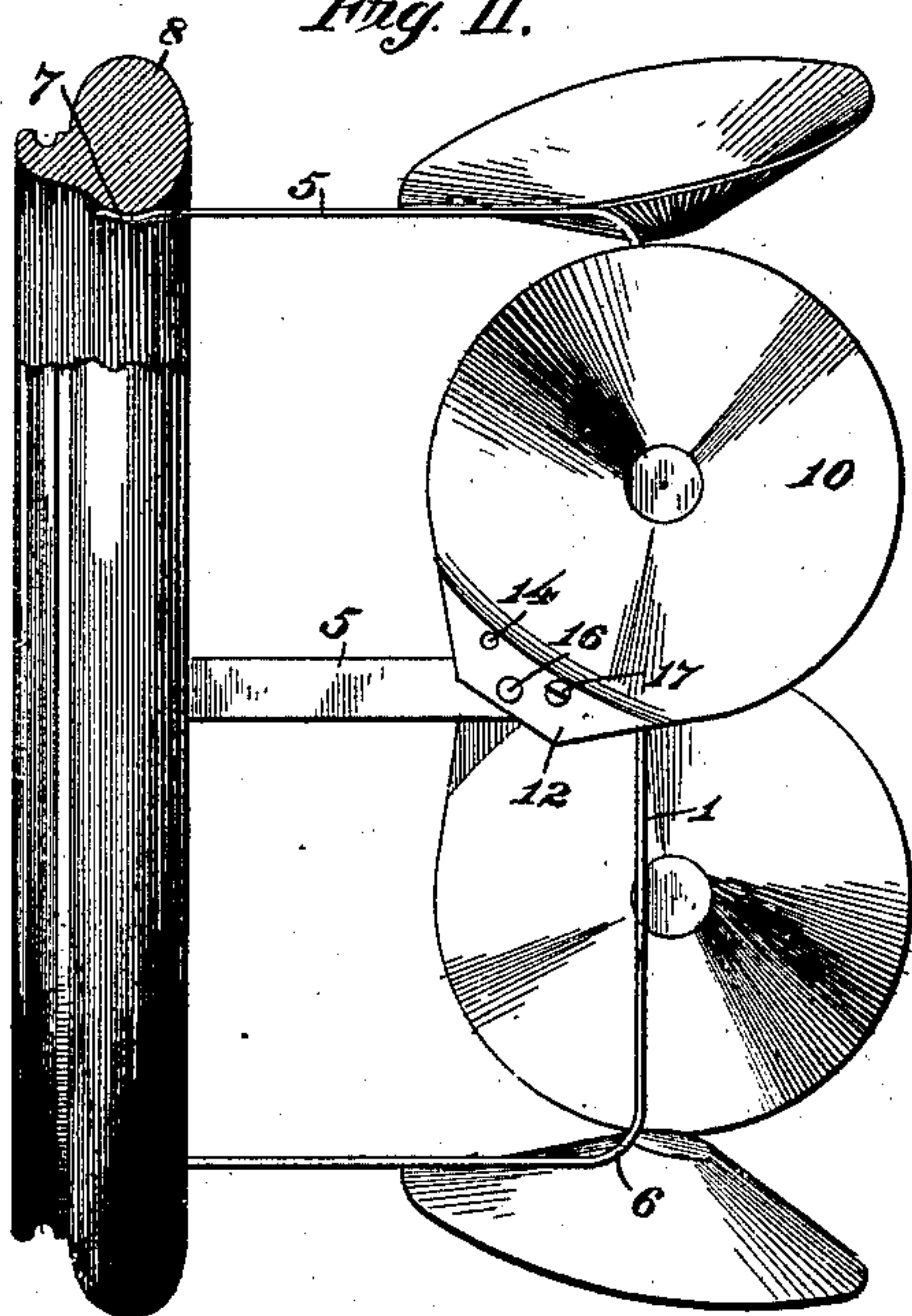
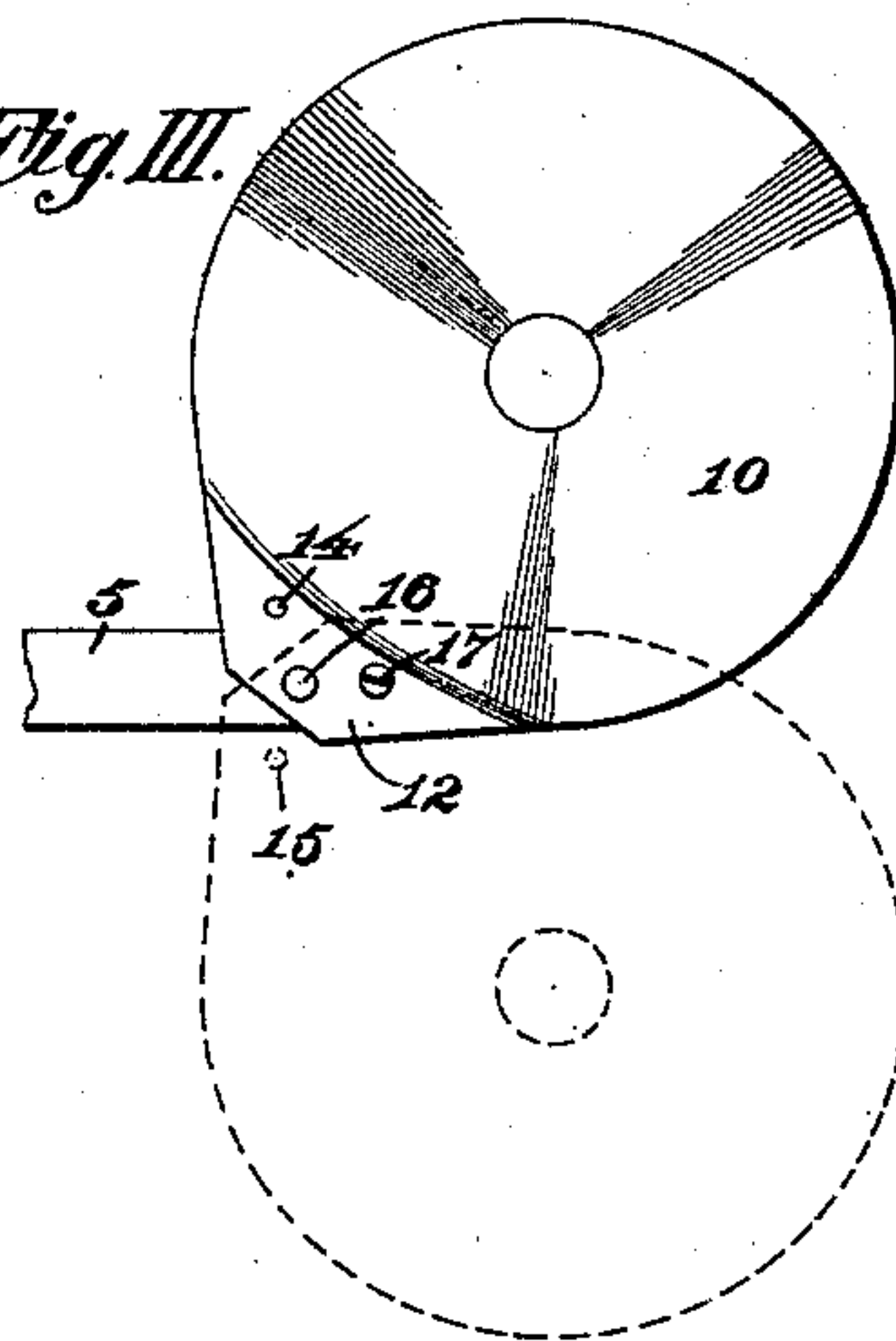


Fig. III.



Witnesses
H. S. Austin.
Paul J. Daniel.

Inventor:
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UNITED STATES PATENT OFFICE.

FRANK M. GALBRAITH, OF ATLANTA, GEORGIA.

FAN ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 666,191, dated January 15, 1901.

Application filed October 22, 1900. Serial No. 33,947. (No model.)

To all whom it may concern:

Be it known that I, FRANK M. GALBRAITH, of Atlanta, in the county of Fulton, State of Georgia, have invented certain new and useful Improvements in Fan Attachments, of which the following is a complete specification, reference being had to the accompanying drawings.

The object of my invention is to produce an improved fan attachment which may be readily applied to and disengaged from a rotary member or wheel, through rotation of which the fan may be utilized to set in motion a current of air.

It is especially designed as an attachment for sewing-machines, to the balance-wheel of which it is designed to be applied.

As an attachment for the purpose specified, the invention comprehends a simple, cheap, light, and convenient article which can be readily manipulated, which takes up little space, and which embodies means for reversing the position of the vanes of the fan by which the current of air generated by the fan may be driven in either of two directions, as required by the direction of rotation of the member to which it is attached. It also comprehends means for folding the fan into small compass in storing or shipping the articles.

In the accompanying drawings, Figure I is a side elevation of one form of embodiment of my invention attached to the balance-wheel of a sewing-machine, showing the fan folded in dotted lines. Fig. II is a front elevation of the subject-matter of Fig. I, part of the rim of the wheel being broken away to show the means of attaching the fan to the wheel. Fig. III is a detail view of one of the vanes, illustrating in full lines one position thereof and in dotted lines the vane reversed.

Referring to the numerals on the drawings, 1 and 2 indicate strips made of any suitable resilient metal, which, medially pivoted together, as indicated at 3, constitute the frame of my device. The opposite ends of each of the strips 1 and 2 are disposed at an angle, preferably a right angle, to the body of the strip. These ends (indicated severally by the reference-numeral 5) constitute the engaging members of the frame and are preferably formed with the strips, as by bends 6. They have collectively a yielding expansive tend-

ency, afforded by the resiliency of the metal of which the strips 1 and 2 are made, and are provided with engaging terminals 7, which are adapted, as by being curved in shape, to engage the inner wall of the wheel-rim 8, and thereby secure the frame to the wheel, which in the drawings is illustrated as the balance-wheel of a sewing-machine.

Each of the engaging members 5 is provided near its bend 6 with a vane 10, that is preferably of the shape illustrated—that is to say, the several vanes are of uniform dish shape—a shape which may be imparted to the disks of metal of which they are made, as by stamping or pressing. The shape illustrated is preferred not only as constituting an efficient and economical form of vane, but as affording means for readily reversing the respective positions of the vanes and also for nesting them one into the other, as illustrated in dotted lines in Fig. I, when the strips 1 and 2 of the frame are folded together upon their pivot 3, as for shipment.

Each of the vanes 10 is preferably provided with an ear 12, which constitutes a slight departure in the vane from a true circular shape and which is adapted to accommodate three apertures, by means of which the vane is secured to its respective engaging member 5 of the frame. One of said apertures, 14, is shown in full lines in Fig. III, and another, 15, is shown in dotted lines in said figure. The apertures 14 and 15 are lateral apertures, by means of which the reversal of the vanes is accomplished, while the medial aperture, affording a constant pivotal support upon the engaging member to which the vane is secured, is shown in each figure as occupied by a pivot-pin or rivet 16. When the vane is set in the position shown in full lines in Fig. III and secured in that position, as by a screw 17, the said screw is passed through the lateral aperture 15 in the vane and screws into a screw-threaded aperture provided for it in the engaging member 5. Instead of the screw any other detachable means for fixing the position of the vane may be employed. If it is desired that the device shall generate a current of air in the opposite direction to that in which it drives when set in the position shown in Fig. III, all that is necessary to accomplish that result is to shift the position of

the vane to that shown in dotted lines in said figure. This may be accomplished by removing the screw 17, turning the vane upon its pivot-pin 16, inserting the screw 17 into the
5 aperture 14, and screwing the screw 17 into the aperture provided for it in the member 5.

What I claim is—

In a rotary fan the combination with a frame and dish-shaped vanes provided with
10 ears, of a pivotal connection between the ears of each vane and the frame, and means upon opposite sides of said pivotal connec-

tion for securing the vanes of the fan in either of two positions, whereby adjustment is obtained through which the fan may be
15 operatively applied to a wheel rotative in higher direction.

In testimony of all which I have hereunto subscribed my name.

FRANK M. GALBRAITH.

Witnesses:

W. M. MIDDLEBROOKS, Jr.,
C. A. MIDDLEBROOKS.

It is hereby certified that in Letters Patent No. 666,191, granted January 15, 1901, upon the application of Frank M. Galbraith, of Atlanta, Georgia, for an improvement in "Fan Attachments," an error appears in the printed specification requiring correction, as follows: In line 17, page 2, the word "higher" should read *either*; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed, countersigned, and sealed this 5th day of February, A. D., 1901.

[SEAL.]

F. L. CAMPBELL,
Assistant Secretary of the Interior.

Countersigned:

C. H. DUELL,
Commissioner of Patents.