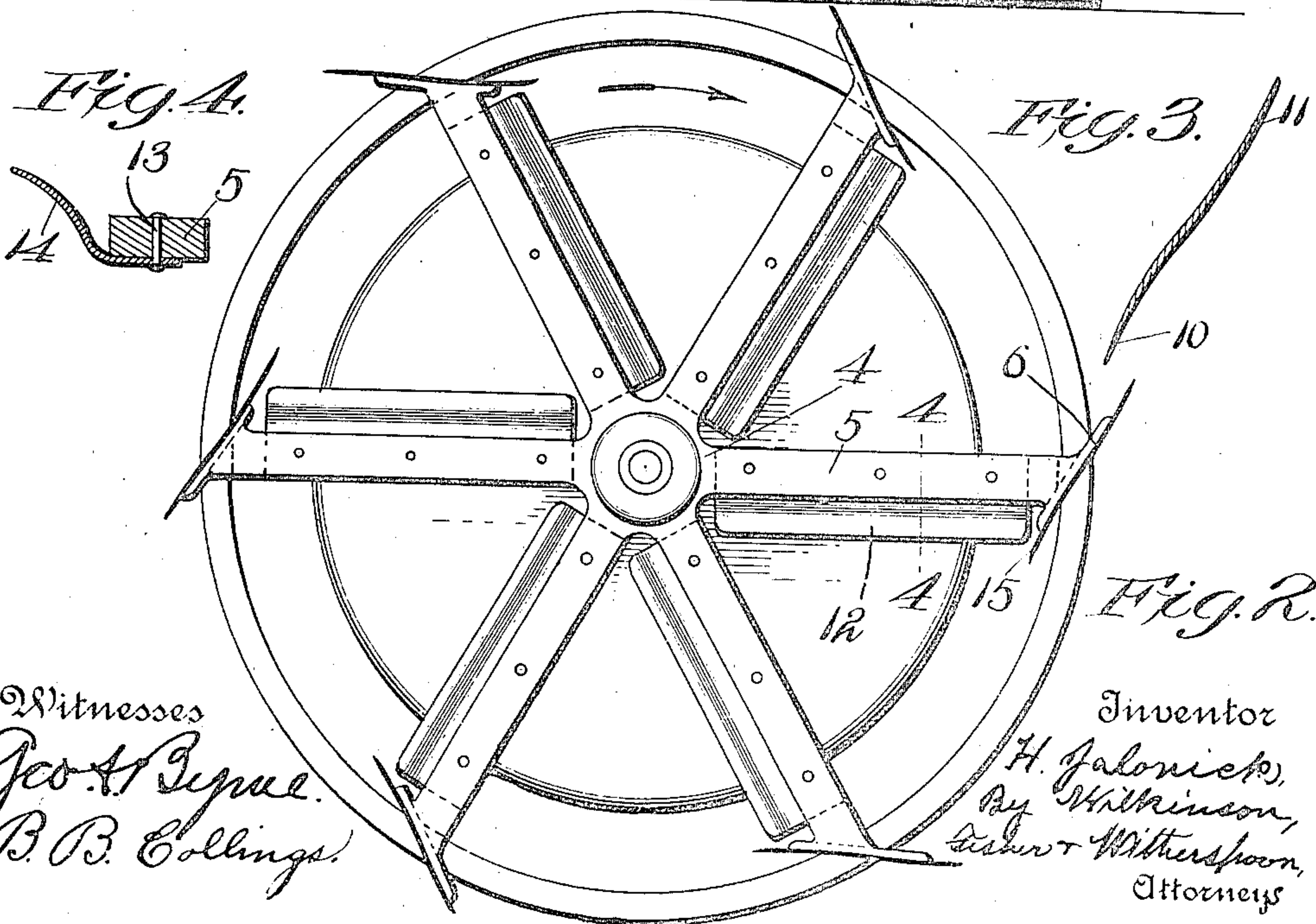
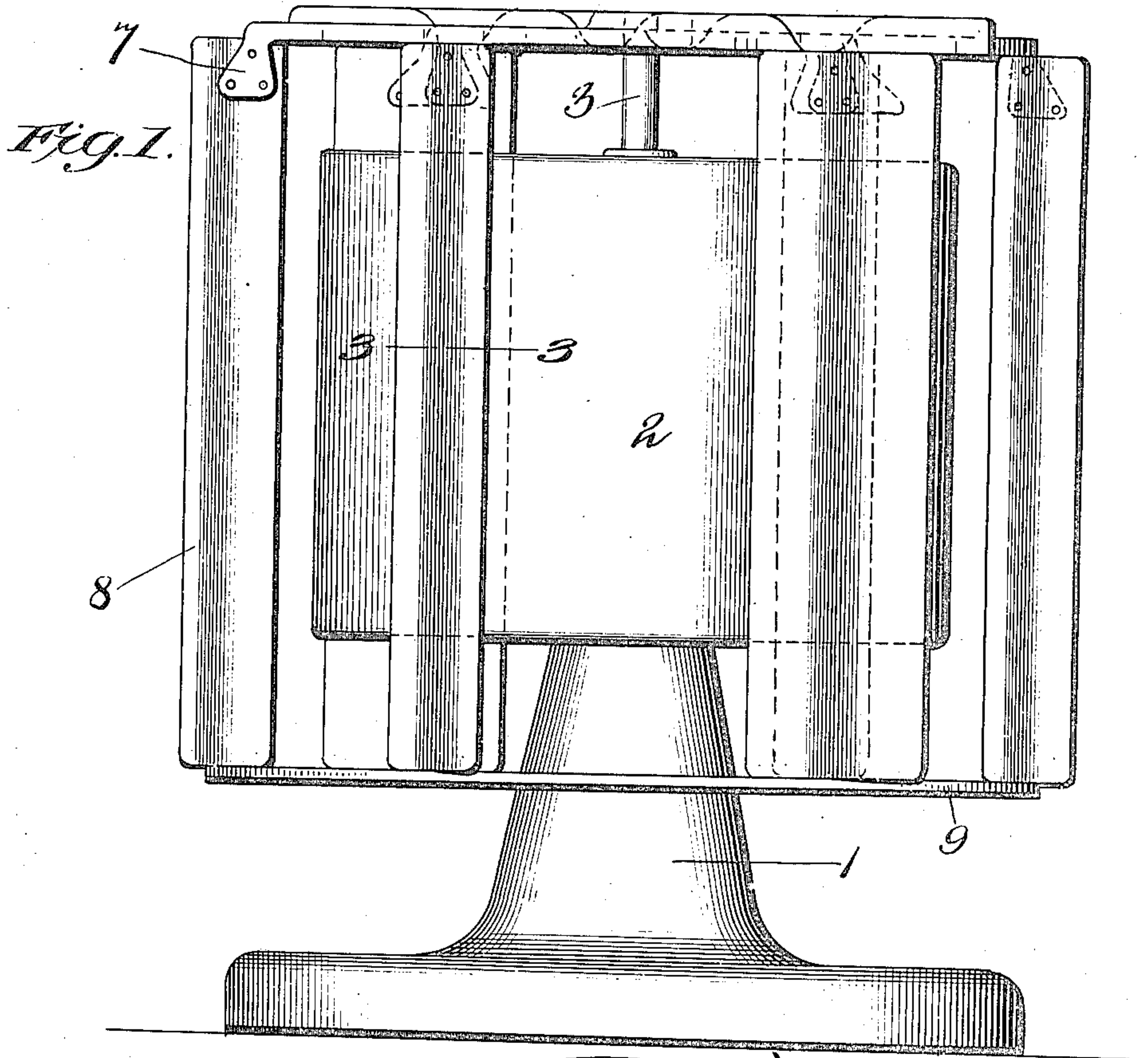


H. JALONICK.
CIRCULATING FAN.

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997,678.

Patented July 11, 1911.



Witnesses
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UNITED STATES PATENT OFFICE.

HARTWELL JALONICK, OF EL PASO, TEXAS.

CIRCULATING-FAN.

997,678.

Specification of Letters Patent.

Patented July 11, 1911.

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To all whom it may concern:

Be it known that I, HARTWELL JALONICK, a citizen of the United States, residing at El Paso, in the county of El Paso and State of Texas, have invented certain new and useful Improvements in Circulating-Fans; 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 fans and the object of my invention is to produce a simple, cheap and very compact fan which will cause a thorough circulation of all the air in a room.

With this object in view my invention consists in the construction and combinations of parts as hereinafter described and claimed.

In the accompanying drawings: Figure 1 is a side view of my improved fan; Fig. 2 is a top plan view thereof; Fig. 3 is a cross-section of one of the fan blades taken on the line 3—3 of Fig. 1; Fig. 4 is a cross-section of one of the top fan blades and its support taken on the line 4—4 of Fig. 2.

1 represents a suitable base or support on which is vertically mounted a motor 2 of any desired type, 3 representing the revoluble shaft of said motor. To the top of the shaft 3 is fixed a suitable frame 4, having extending arms 5, each of which is, at its outer end, provided with a flattened head 6 inclined to the direction of the arm itself and projecting downwardly, as shown at 7 in Fig. 1. To each of the faces 6 is attached a fan blade 8 which is arranged vertically, the lower ends of the fan blades being connected to a wire or annular plate 9. From the construction shown it is apparent that the entire fan structure is hung upon the shaft 3 with the blades of the fan extending down around the motor 2.

As shown in Fig. 2 the fan illustrated is adapted to rotate clockwise and the leading edge of each fan blade is inclined outwardly to a slight degree and the trailing edge is inclined inwardly to a slight degree as shown at 10 and 11 in Fig. 3, forming a reverse curve. To each of the arms is attached a horizontal deflecting blade 12. As shown in Fig. 4, the bottom of this blade is attached to the bottom of the arm by pins 13 and is then curved upwardly as shown at 14, so that, when the fan is revolved in the

direction of the arrow, the blades 14 will catch the air and force it downwardly between the blades 8 and at the same time have a tendency to take the weight of the revolving element off from the bottom or thrust bearing.

The operation is as follows: The motor being set in motion the shaft 3 thereof rotates clockwise; the blades 12 catch the air and force it down upon the top of the motor and the blades 8 force the air outwardly. Unlike the horizontally arranged fan, however, the blades do not throw a steady current of air in substantially a straight line but at each portion of their movement the blades 8 throw the air outwardly into the room, thus causing a rotary motion of the air and in time causing a thorough circulation of the air in a room, thus efficiently accomplishing the result aimed at by the ordinary swinging horizontally mounted fans.

I do not restrict myself to the exact form of fan blade shown, as blades of various shapes could be used. Furthermore the motor might be placed in and form part of the base, the blades being supported by a pedestal mounted above the motor proper, and other changes will suggest themselves to those skilled in the art.

I claim:

1. The combination of a support and a revoluble electric motor vertically mounted on said support and provided with an upwardly projecting shaft and a fan wholly supported on said shaft and provided with blades extending in a circle down and around said motor, and means for uniting the lower ends of said blades, substantially as described.

2. The combination of a support and an electric motor vertically mounted on said support and provided with an upwardly projecting shaft, spider arms supported by said shaft, and a series of vertically arranged fan blades, one end of which is secured to each spider arm, said fan blades extending downwardly around and below said motor, and means for uniting the lower ends of said fan blades, substantially as described.

3. The combination of a support and a motor vertically mounted on said support and provided with an upwardly projecting shaft, with horizontal spider arms secured to the upper end of said shaft, a series of vertically arranged fan blades, one of said

blades being secured to each of said spider arms, said blades extending downwardly around and below said motor, and a ring uniting the lower ends of said blades, substantially as described.

4. The combination of a support and a vertically arranged electric motor mounted on said support and provided with an upwardly projecting shaft, spider arms secured to the upper end of said shaft, a vertically arranged fan blade secured to each of said spider arms, a ring connecting the lower ends of said fan blades and horizontal curved deflecting blades, one of which is secured to each of said arms, substantially as described.

5. The combination of a support and a vertically arranged electric motor having an

upwardly projecting shaft, a spider frame provided with horizontally projecting arms, said frame being secured to the upper end of said shaft, a series of vertically arranged fan blades, one of said blades being secured to each of said arms, a ring connecting the lower ends of said fan blades and located in a plane below the motor, and a series of horizontal curved deflecting blades, one secured to each of said arms, the vertical fan blades being each made of a reversely curved plate of metal, substantially as described.

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

HARTWELL JALONICK.

Witnesses:

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GEO. W. SNIDER.