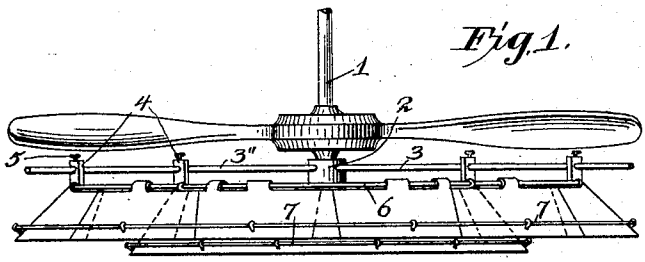
W. J. MAHER.

VENTILATING FAN.

APPLICATION FILED APR. 8, 1915.

1,178,088. Patented Apr. 4, 1916.

Fig. 1.



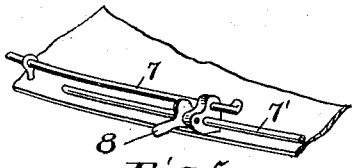
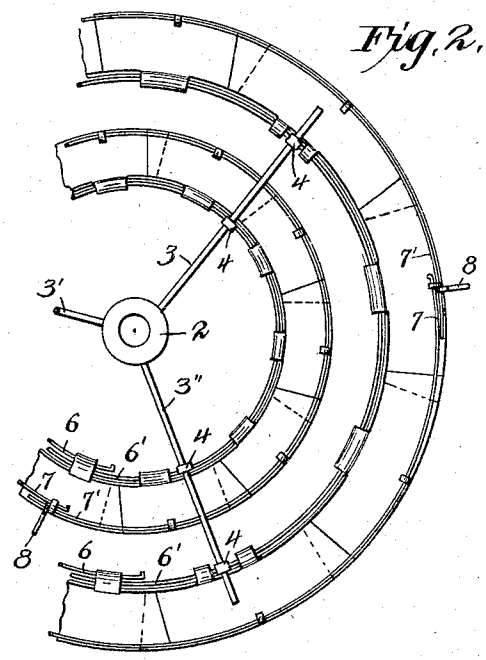


Fig. 5.

Fig. 2.



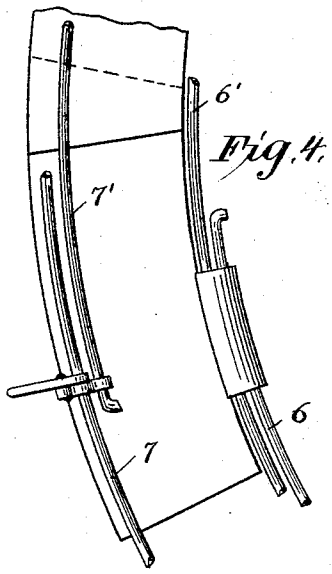
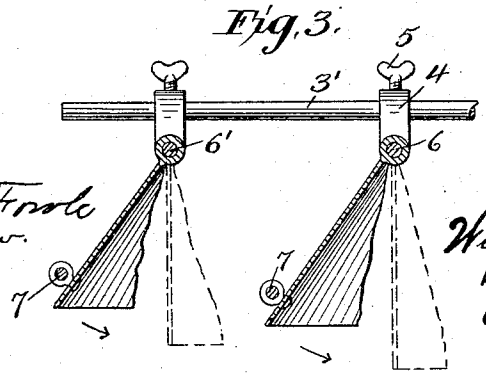


Fig. 4.

Fig. 3.



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UNITED STATES PATENT OFFICE.

WILLIAM JOHN MAHER, OF FRESNO, CALIFORNIA, ASSIGNOR OF ONE-HALF TO STANLEY LILBURN, OF FRESNO, CALIFORNIA.

VENTILATING-FAN.

1,178,088. Specification of Letters Patent. Patented Apr. 4, 1916.

Application filed April 8, 1915. Serial No. 19,938.

To all whom it may concern:

Be it known that I, WILLIAM JOHN MAHER, a citizen of the United States of America, residing at Fresno, in the county of Fresno and State of California, have invented new and useful Improvements in Ventilating-Fans, of which the following is a specification.

My invention relates to ventilating fans as used in offices, restaurants, theaters and similar places, to create a current of air for cooling. Such fans are customarily hung from the ceiling or rest on brackets on side walls and throw a solid stream of air against whatever objects or persons are under or in front of it, with such a force as to raise a dust in the air, or to be disagreeable, and at times to cause the person against whom the current is directed to contract a cold.

The object of my invention is to provide a means for spreading and breaking up this current of air, when so desired.

To this end my invention comprises, in combination with the fan, one or more circular series of flat blades, stationed close to and in front of the fan and adjustable to stand perpendicular to the face of the fan thereby allowing the full force of the current to pass unbroken or parallel to the face of the fan, or at any intervening angle thereby dispersing the current of air over a broader or narrower area and with less or more violence.

In the accompanying drawing Figure 1 is a side elevational view of my improvement attached to the style of fan which is suspended from a ceiling; Fig. 2 is a front elevational view of the device showing the relative position of one series of blades to another and their adjustability. Figs. 3, 4 and 5 are enlarged views of the means used for adjusting the blades.

Referring to the drawings 1 represents the axis of a fan with the fan blades shown in Fig. 1. To the end of this axis, in front of the blades is attached the supports of my device, consisting of the collar 2, into which the arms 3, 3′ and 3″ are screwed.

In the accompanying drawing two series of flat blades are shown, one within the other. Each blade overlaps or underlaps the blade adjoining it and each series of blades is adjustable to make a greater or less circumference and also to make a greater or less angle with the direction of the current of air coming from the fan. On the arms 3, 3′ and 3″ are the slides 4 held to their position by the set screws 5. The inner support to each series of blades is the circular rod 6 and 6′, each of which is in sections so that the size of the circumference of the circle may be changed by slipping the rods, one upon the other, as shown in Fig. 4. These circular rods pass through the slides 4 whereby they are held in position upon the arms 3, 3′ and 3″. Upon each of the circular rods 6 and 6′, each blade of the respective series hinges freely by a portion of the middle of the blade being wrapped around the circular rod. thereby allowing a free hinge movement and also allowing each blade to overlap its adjoining blade. The periphery of each series of blades is stiffened and held to place by the sectional, adjustable, circular rods 7 and 7′. A locking lever 8 for fastening these latter circular rods to any adjusted circumference is shown in Fig. 5.

In operation the adjustment of the rods 7 and 7′ to the same size as the respective rods to which the two series of blades are hinged, will set the blades perpendicular to the face of the fan and allow a full solid volume of air to pass out from the fan. If the rods 7 and 7′ are adjusted to their greatest circumference the blades of each series will overlap parallel to the face of the fan and force the volume of air out at approximately right angles to its natural unobstructed course. By adjusting the rods 7 and 7′ to an intermediate position a relatively broken current of air is dispersed, according to the taste and desires of the individual. Increasing or decreasing the circumference of the circular rods 6 and 6′ gives an adjustment for different sized fans and for a more or less central volume of air.

My claim is as follows:—

The combination with a fan, of one or more circular series of flat blades, each series supported at its inner circumference by a circular rod, adjustable in length upon which each blade is hinged freely in its middle part and each series of blades bound together on its periphery by a circular rod adjustable in length, substantially as described.

WILLIAM JOHN MAHER.

Witnesses:
VIDA HANNAH,
WILLIAM A. CONN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."