No. 761,215. PATENTED MAY 31, 1904.

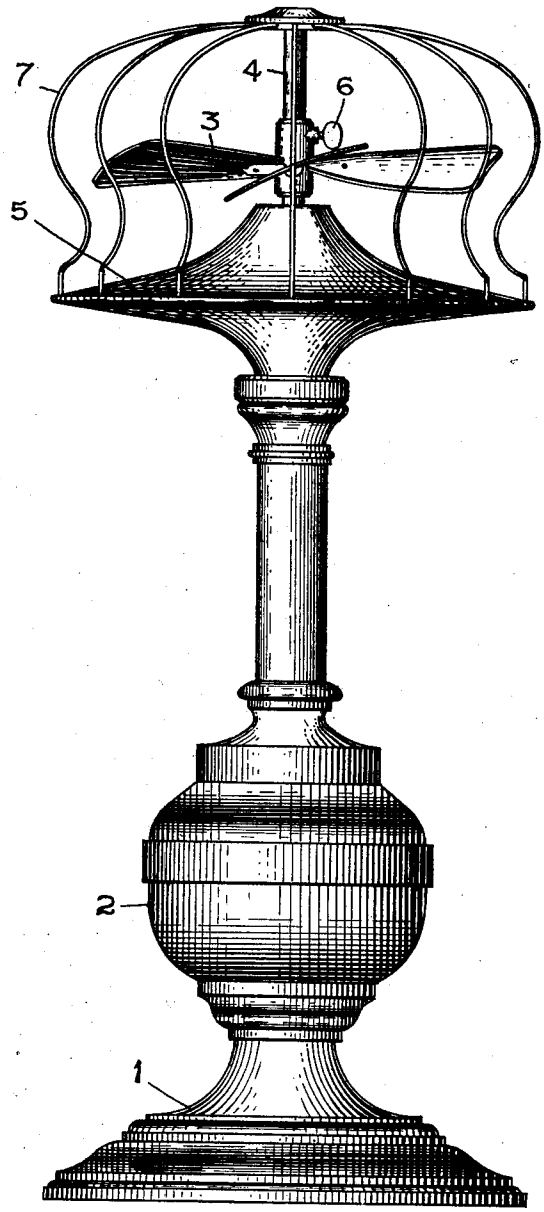
A. R. EVEREST.

FAN MOTOR.

APPLICATION FILED MAY 31, 1901.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1.



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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

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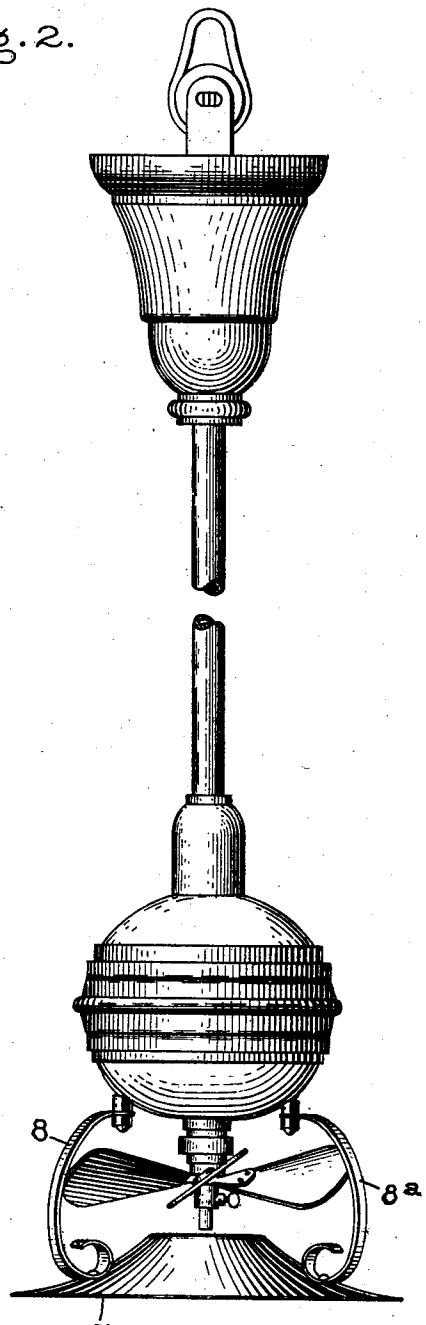
A. R. EVEREST.

FAN MOTOR.

APPLICATION FILED MAY 31, 1901.

NO MODEL. 2 SHEETS—SHEET 2.

Fig. 2.



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No. 761,215. Patented May 31, 1904.

UNITED STATES PATENT OFFICE.

AUGUSTINE R. EVEREST, OF LYNN, MASSACHUSETTS, ASSIGNOR TO GENERAL ELECTRIC COMPANY, A CORPORATION OF NEW YORK.

FAN-MOTOR.

SPECIFICATION forming part of Letters Patent No. 761,215, dated May 31, 1904.

Application filed May 31, 1901. Serial No. 62,593. (No model.)

To all whom it may concern:

Be it known that I, AUGUSTINE R. EVEREST, a subject of the King of Great Britain, residing at Lynn, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Fan-Motors, of which the following is a specification.

The object of this invention is to provide a fan-motor in which the air will be distributed over a wider angle or area than with fans as commonly constructed.

The ordinary fan causes a current of air to move in a comparatively limited path, so that its effect is felt only in the immediate neighborhood of the fan-axis. It is the object of my invention to widen the path of the air-currents, so as to permit the fans to prove serviceable over a much wider area. With a fan as commonly operated, moreover, the draft is stronger than is wanted within certain narrow limits. By means of my invention the area of distribution of air-currents is widened and the strength of the blast tempered, thus rendering the circulation more agreeable as well as effective. Besides this there are certain instances in which an increased area in a definite plane is particularly desirable. For example, in a fan for use on a dining-table it is desirable to form a moderate breeze over the entire surface of the table. I effect these results by mounting in a plane transverse to the axis of the fan a deflector, curving from a point relatively near the fan to a point farther away from the same, which receives the air thrown forward by the fan and diverts it angularly from its path in all directions.

My invention, therefore, comprises a rotary fan in combination with a deflector for spreading the column of air set in movement by the fan, so as to cover a wider area of distribution than the fan would otherwise produce. It involves also more specific features, which will be hereinafter described, and will be definitely indicated in the claims.

In the accompanying drawings, which illustrate my invention, Figure 1 is a side elevation of a desk or table fan embodying my improvements; and Fig. 2 is a similar view, with parts broken away, of a ceiling-fan embodying my improvements.

Referring first to Fig. 1, 1 represents a pedestal, and 2 the casing of the motor for operating a fan 3, mounted on a vertical shaft 4. The invention is of particular service in connection with electric motors, but may be used generally with any kind of power-driven fan. In the direction of blast delivered by the fan I mount a curved deflector 5, having its concave surface below and opposite the fan-blades, serving to divert the column of air impinging upon it in a horizontal or substantially horizontal direction from all parts of the periphery. This angle may be varied by rendering the deflector and the fan relatively adjustable, so that the distance between the two may be varied. In the type shown in Fig. 1 the fan is adjustable, being mounted on a sleeve which may be set at different heights on the shaft by means of the screw 6. Over the parts may be placed a protecting-cage of stiff wire, as indicated at 7. The deflector may be formed of any desirable material, preferably polished, in order to prevent eddies and friction losses. By moving the fan to different positions along the shaft the angle of blast is altered and may be varied from a radial distribution to a distribution in the form of a hollow cone. Instead of adjusting the fan as indicated in Fig. 1 it will of course be evident that the position of the deflector might be changed to effect the same result, the essential point being that the distance shall be regulable and either or both the parts movable to effect this result. A fan having this capacity is particularly desirable for many different uses in order to adjust the direction of its currents to suit varying conditions and is especially serviceable where it is desired to spread out the blast over a wide horizontal area, as for use on dining-tables and the like.

In Fig. 2 is shown a type of ceiling-fan with arrangements for diverting the blast. In this case the deflector 5 is supported on brackets 8 8^a and suspended from the motor-casing and is placed in the axis of the fan beneath the same, the fan, as before, being

shown as adjustable on its drive-shaft. The effect is the same as before to permit much wider angles of air circulation than is possible with fans as commonly constructed.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. An electric fan comprising rotary blades, a motor, and a distributing-deflector mounted between the blades and the motor.

2. An electric fan comprising rotary blades, a motor, and a distributing-deflector mounted between the blades and the motor, said deflector having a curved surface sloping from a central point or hub in all directions away from the fan-blades.

3. An electric fan comprising rotary blades, a motor, and a distributing-deflector mounted between the blades and the motor, said blades and deflector being adjustable relatively to each other.

4. An electric fan comprising a motor, a plurality of fan-blades secured to the shaft of said motor and adjustable along said shaft, and a deflector mounted to receive the air-blast, said deflector having a surface sloping away from the blades as the distance from the axis of rotation increases.

5. An electric fan comprising an electric motor, a casing therefor, a base so formed on the casing that the motor is supported with its shaft in a vertical position, radial blades on the motor-shaft, and a deflector mounted concentrically on the casing and having a surface sloping away from the blades as the distance from the axis of rotation increases.

In witness whereof I have hereunto set my hand this 25th day of May, 1901.

AUGUSTINE R. EVEREST.

Witnesses:
DUGALD McK. McKILLOP,
HENRY O. WESTENDARP.