

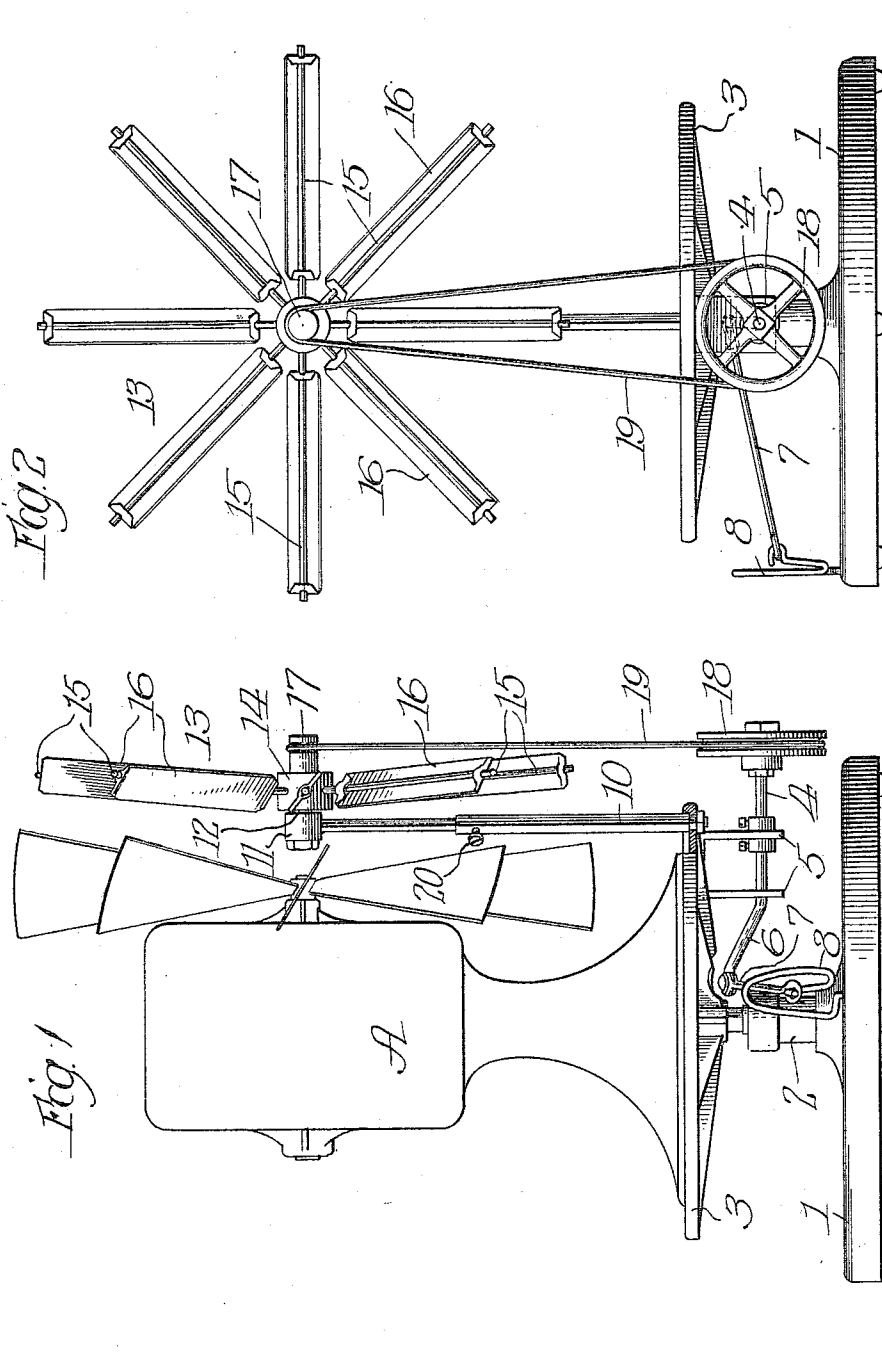
F. ANDRUS.
FAN SUPPORT.

APPLICATION FILED DEC. 13, 1909.

Patented Dec. 27, 1910.

2 SHEETS—SHEET 1.

979,405.



Witnesses:
Harold G. Bennett
Paul Parker

Inventor:
Frank Andrus
By Luther L. Miller
Att'y.

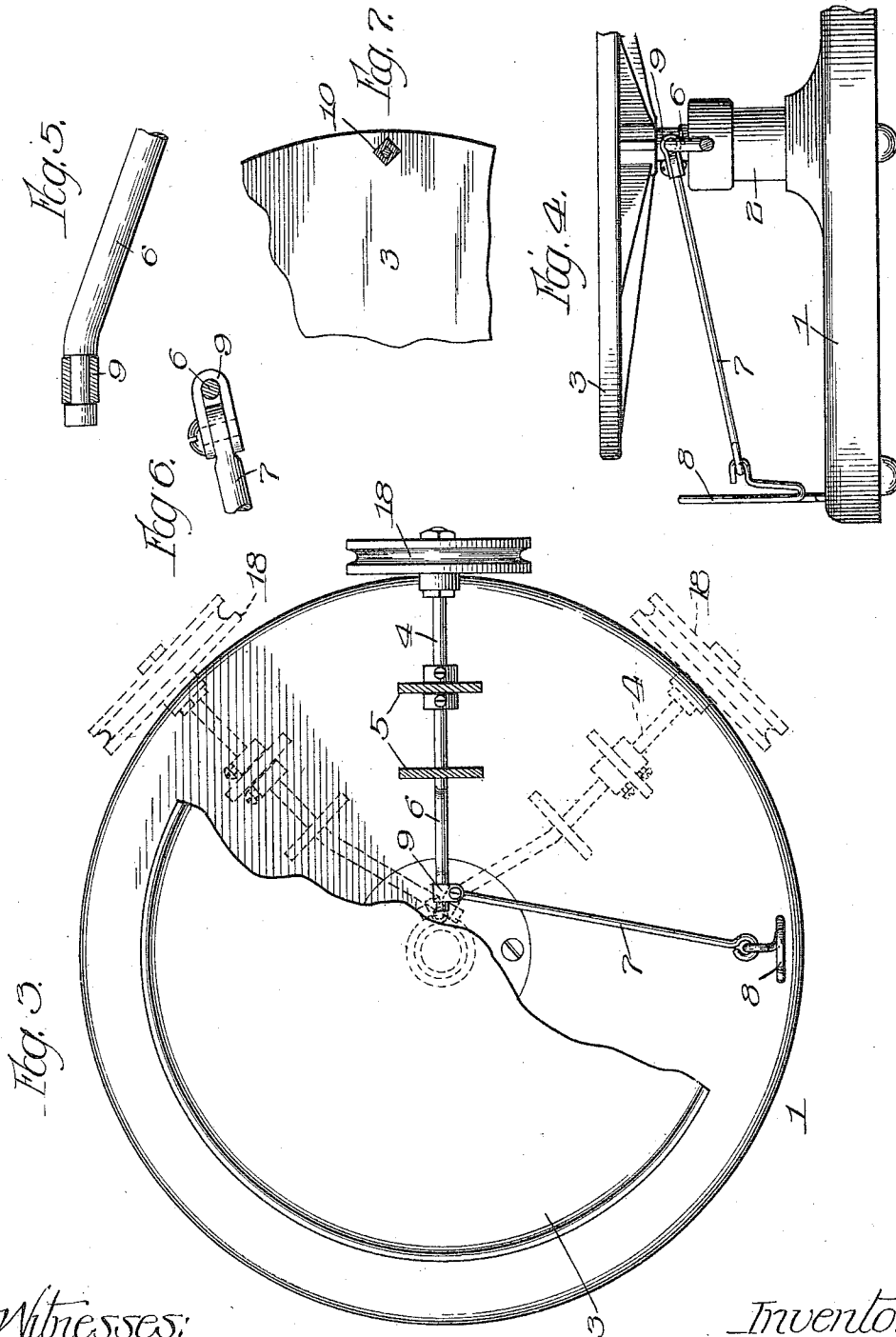
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S. G. Barrett.
C. Paul Parker.

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UNITED STATES PATENT OFFICE.

FRANK ANDRUS, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO MONTEZUMA SCOTT, OF CHICAGO, ILLINOIS.

FAN-SUPPORT.

979,405.

Specification of Letters Patent. Patented Dec. 27, 1910.

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To all whom it may concern:

Be it known that I, FRANK ANDRUS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Fan-Supports, of which the following is a specification.

The object of this invention is to provide an improved support for electric and other power-driven fans which is arranged to be moved by the current of air from the fan to change the position of the fan and the direction of its air current so that said current will be directed to various parts of the room.

In the accompanying drawings, Figure 1 is a side elevation of a fan support embodying the features of my invention, an electric fan being shown in position on the support. Fig. 2 is a front elevation of the support with the fan removed. Fig. 3 is a plan view showing a portion of the rotatable table broken away. Fig. 4 is a fragmental front elevation. Figs. 5 and 6 are detail views of the connection between the driving crank and its link. Fig. 7 is a fragmentary view of the rotatable table and a section through the extensible standard which supports the propelling wheel.

The embodiment which I have shown for the purpose of illustrating the invention comprises a base 1 having a post 2 rising centrally therefrom, said post rotatably carrying a table 3, adapted to support an electric or other fan A. Means is provided for moving the table 3 back and forth through a partial rotation so as to cause the blades of the fan A to describe an arc of a circle and thereby direct the current of air to various parts of a room. Said means comprises a shaft 4 rotatably mounted in a bracket 5 secured to the under side of the table 3. The inner end of the shaft 4 is in this instance bent to form a crank 6, the free end of said crank being connected by a link 7 to a part 8 fixed to the base 1. The part 8 as herein shown is in the form of a spring, bent to occupy but little space and yet presenting a relatively long spring arm. One end of the link 7 is connected to the free end of the spring 8 and the other end of said link is connected to a bearing 9 in which the free end of the crank 6 rotates (Fig. 6).

Rising from the edge of the table 3 above the shaft 4 is a standard 10 having a bearing

11 at its upper end in which bearing a shaft 12 is rotatably mounted, said shaft extending substantially parallel to the shaft 4. Upon the outer end of the shaft 12 is a wind wheel 13 comprising a hub 14 having a plurality of radial arms 15 secured thereto and vanes 16 secured to the arms 15, said vanes being adjustable upon their arms 15 in order to vary the inclination of the vanes with respect to the air current from the fan, and thereby vary the speed of rotation of the wheel 13. It will be understood that the fan A is positioned on the table 3 with its fan wheel facing the wheel 13.

A pulley 17 which may be integral with the hub 14 is connected with a pulley 18 fixed on the shaft 4 through the medium of a belt 19 so that rotation of the wheel 13 imparts rotation to the shaft 4.

The standard 10 may be made extensible so that the position of the wheel 13 may be varied to accord with fans of varying heights. I have herein shown the standard as composed of two telescoping sections which may be secured together in the desired relation by means of a set screw 20. Said sections are preferably square in cross section, the lower end of the lower section fitting into a correspondingly shaped opening in the table 3, in order that the correct position of the standard may be readily determined in assembling the device.

In operation, the current of air from the fan A striking the vanes 16 of the wheel 13 rotates said wheel and the pulley 17, thereby rotating the pulley 18 and the shaft 4 through the belt 19. The free end of the crank 6 is held from lateral or horizontal movement by the link 7, except in so far as the spring arm 8 permits the link to yield, but is free to move vertically. It will thus be seen that when the shaft 4 is rotated, said shaft, and with it the table 3, will be oscillated in a horizontal plane, because the free end of the crank 6 is held against such horizontal movement. At the end of travel of the table 3 in one direction, as shown in dotted lines at the top of Fig. 3, tension is placed on the link 7 and the travel of the table is yieldingly stopped by the spring 8. Similarly, travel of the table is stopped at its opposite limit of movement, the link 7 being put under compression.

The speed of oscillation of the table 3 may be controlled and varied at will by

changing the degree of inclination of the vanes 16 on the arms 15 with respect to the direction of the air current from the fan A, the wheel 13, and therefore the shaft 4, rotating faster or slower accordingly.

I would have it understood that I do not limit myself to the exact construction herein shown and described, for various modifications will occur to those skilled in the art.

10 I claim as my invention:

1. In a fan support, in combination, a rotatable table; a shaft rotatably carried by said table; a crank on one end of said shaft; means for holding the free end of said crank against horizontal movement; a wheel rotatably carried by said table and adapted to be rotated by the current of air from the fan; and a connection between said wheel and said shaft for rotating said shaft.

2. In a fan support, in combination, a base; a table rotatably mounted on said base; a shaft rotatably carried by said table; a crank on one end of said shaft; a yielding member fixed on said base; a link connecting said yielding member with the free end of said crank and preventing horizontal movement of said free end; and means for rotating said shaft.

3. In a fan support, in combination, a rotatable table; a bracket secured to the under side of said table; a shaft rotatably mounted in said bracket, the outer end of said shaft extending beyond the edge of the table; a crank on the inner end of said shaft; means for holding the free end of said crank against horizontal movement; a wind wheel rotatably carried by said table and arranged to be rotated by the air current from the fan; a pulley rigid with respect to said wind wheel; a pulley on the outer end of said shaft; and a belt connecting said pulleys.

4. In a fan support, in combination, a rotatable table adapted to carry a fan; a standard rising from one edge of said table; a wind wheel rotatably carried by the upper end of said standard, said wheel comprising

a plurality of radial vanes which are adjustable to vary their degree of inclination with respect to the air current from the fan; and means beneath said table arranged to be driven by said wind wheel for rotating said table.

5. In a fan support, in combination, a rotatable table; a shaft rotatably carried by said table; means for rotating said shaft; a crank on one end of said shaft; and yielding means for holding the free end of said crank against horizontal movement and for stopping the rotation of said table at the limits of its movement.

6. In a fan support, in combination, a rotatable table; an extensible standard comprising two telescoping sections rising from one edge of said table; a wind wheel rotatably carried by the upper end of said standard and arranged to be driven by the air current from the fan; and means beneath said table arranged to be driven by said wind wheel for rotating said table.

7. A support for electrically-driven ventilating fans of the usual form, said support comprising a table upon which the base of the fan may be set; a base on which said table is rotatably mounted; a wind wheel supported by said table; a crank carried by said table; a connection between said crank and the table-base; and a driving connection between the wind wheel and the crank.

8. A support for electrically-driven ventilating fans of the ordinary form, said support comprising a table upon which the base of the fan may be set; a base on which said table is rotatably mounted; a wind wheel supported by said table; a horizontal crank shaft carried by said table upon the lower side thereof; a yielding connection between the crank of said shaft and the table base; and a driving connection between the wind wheel and the shaft.

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Witnesses:

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