

No. 697,448.

Patented Apr. 15, 1902.

W. E. COLEMAN.
FAN.

(Application filed July 12, 1901.)

(No Model.)

3 Sheets—Sheet 1.

Fig. 1.

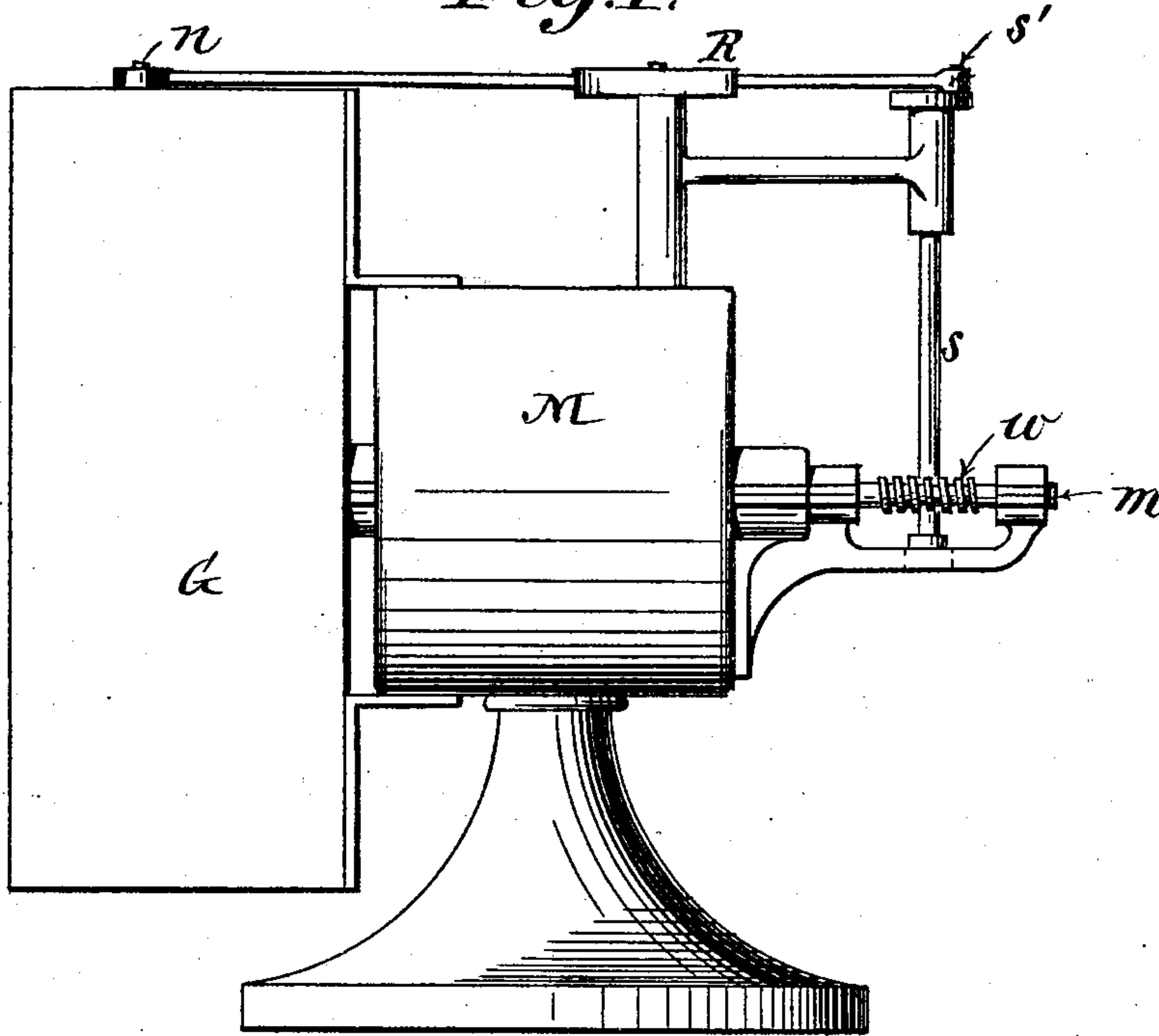
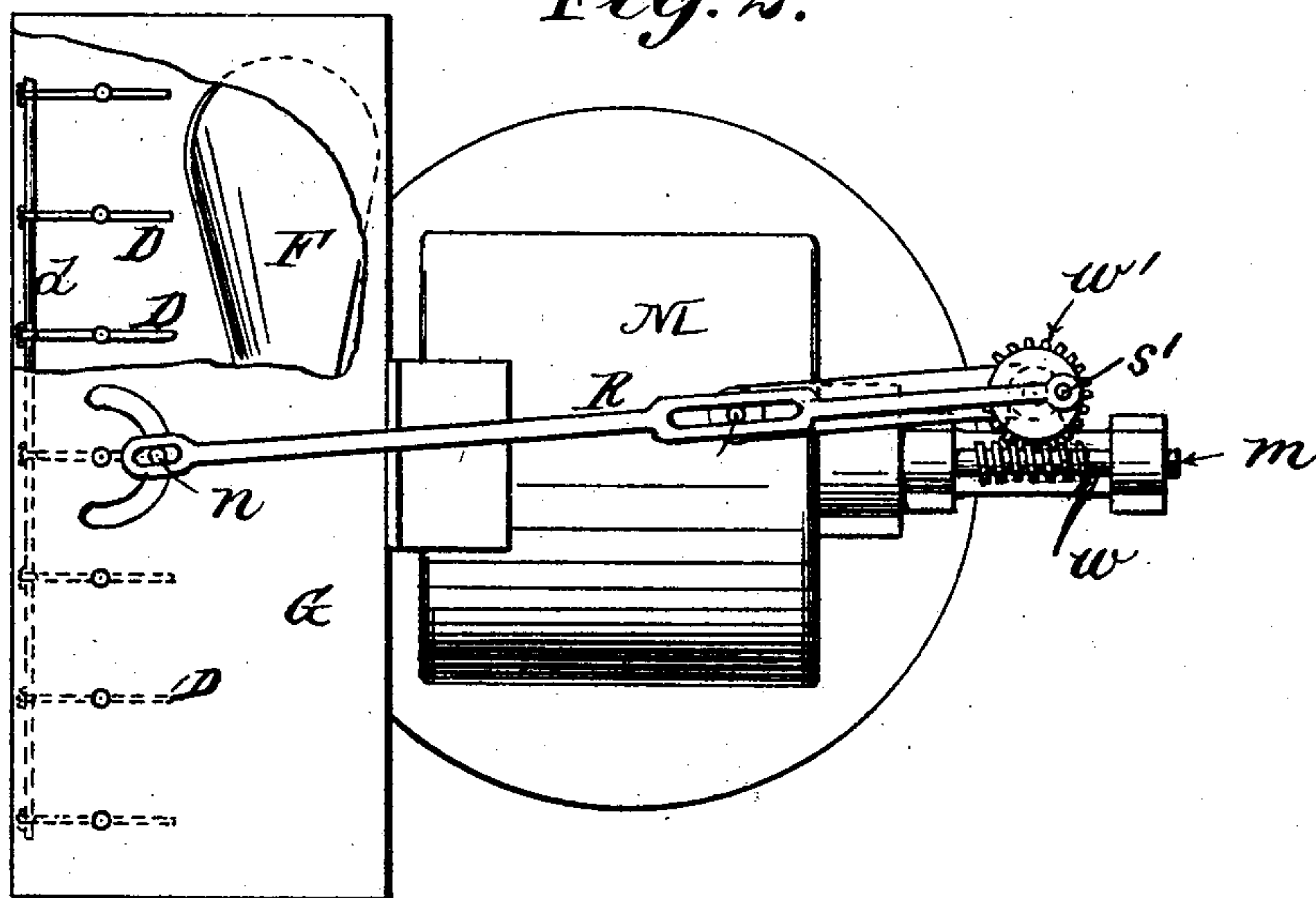


Fig. 2.



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Fig. 3.

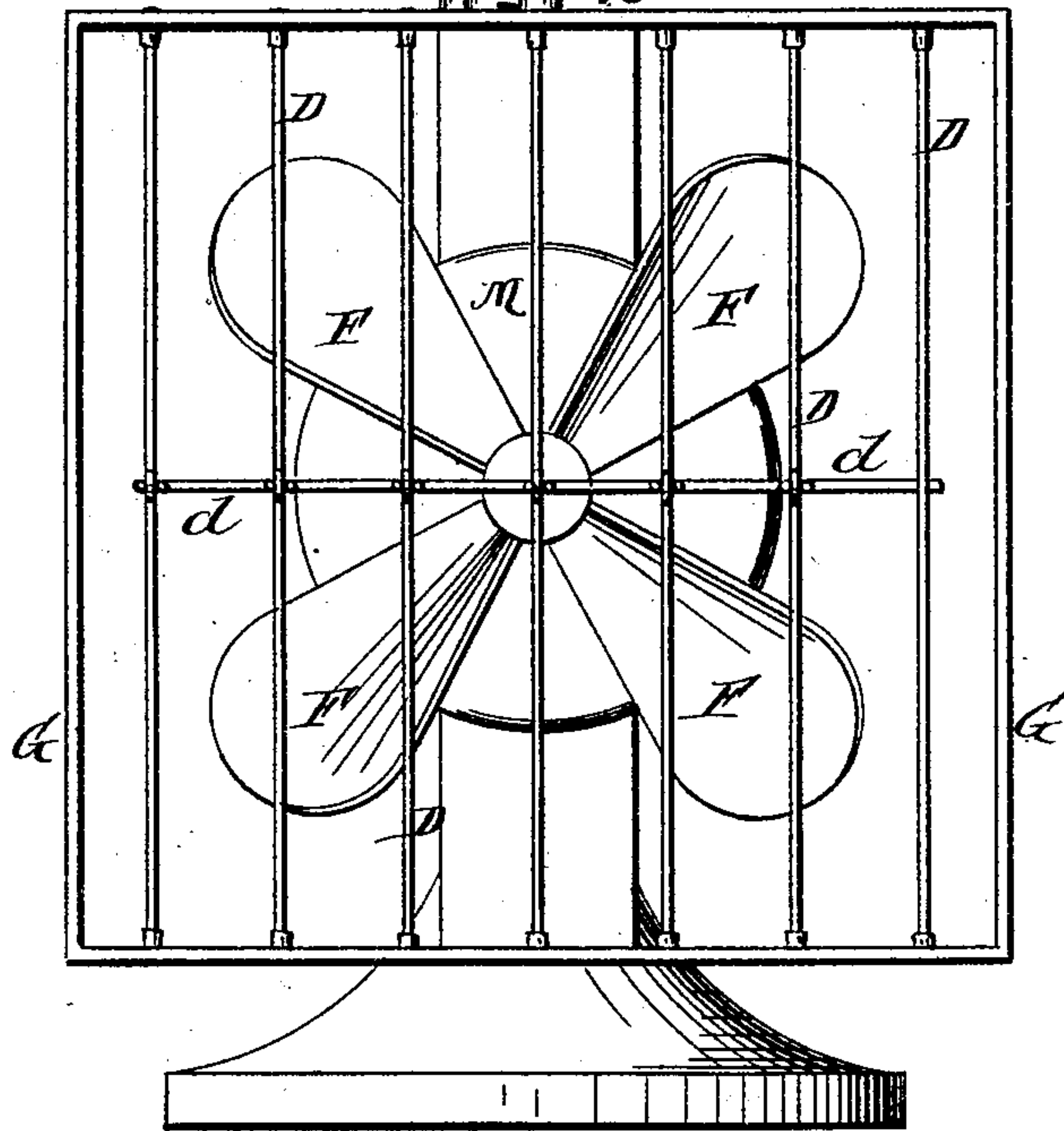
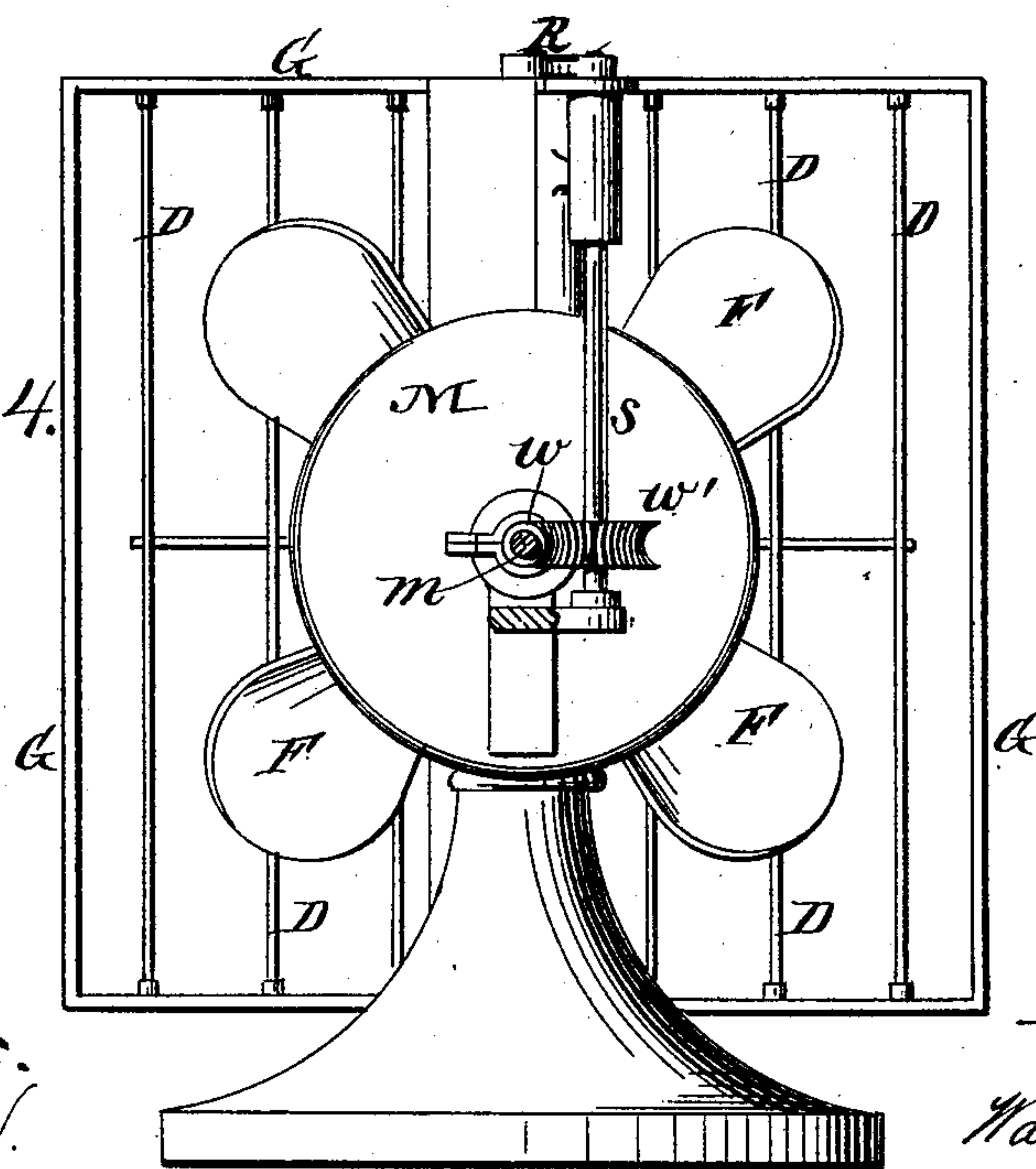


Fig. 4.



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Fig. 5.

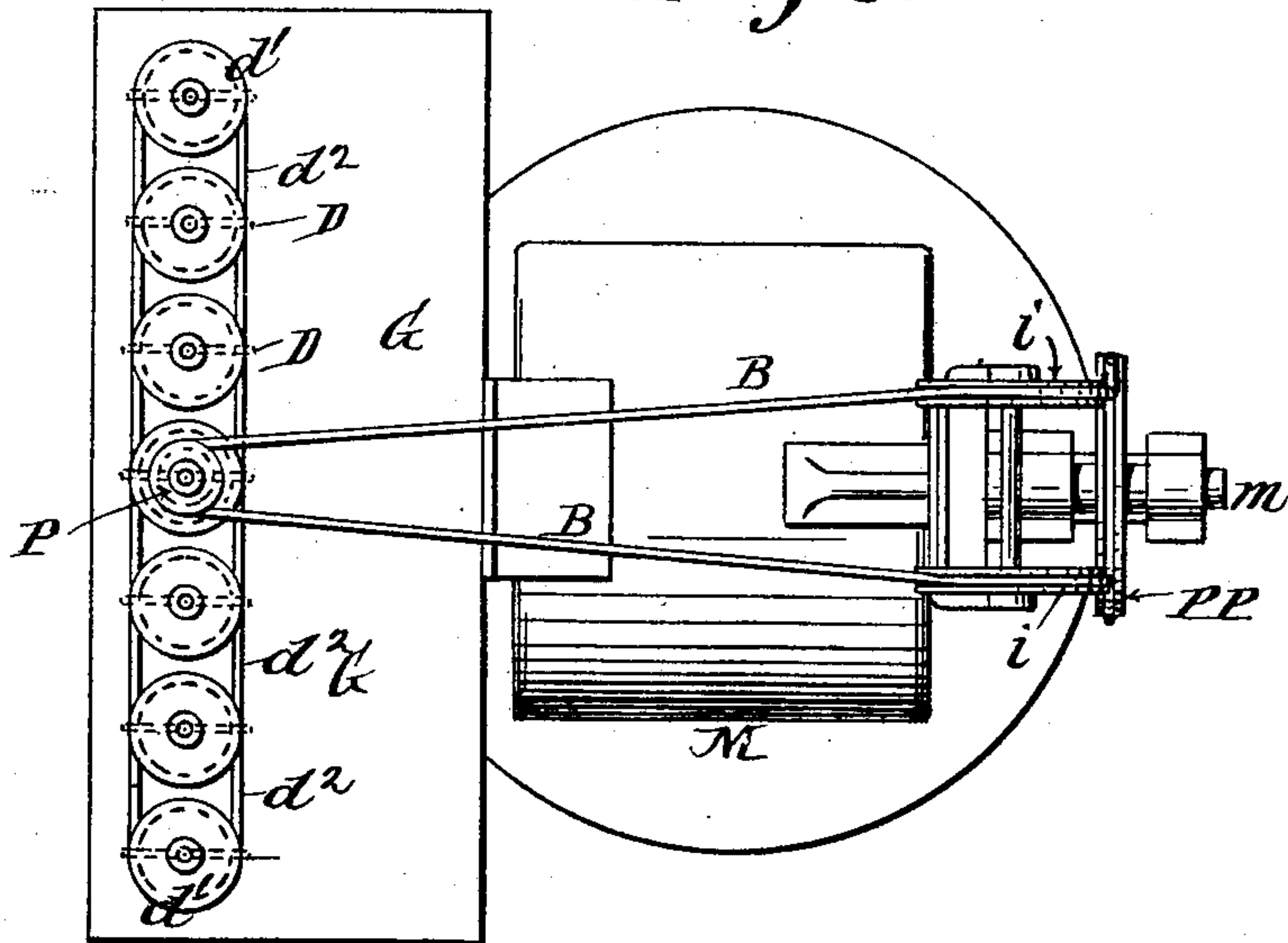
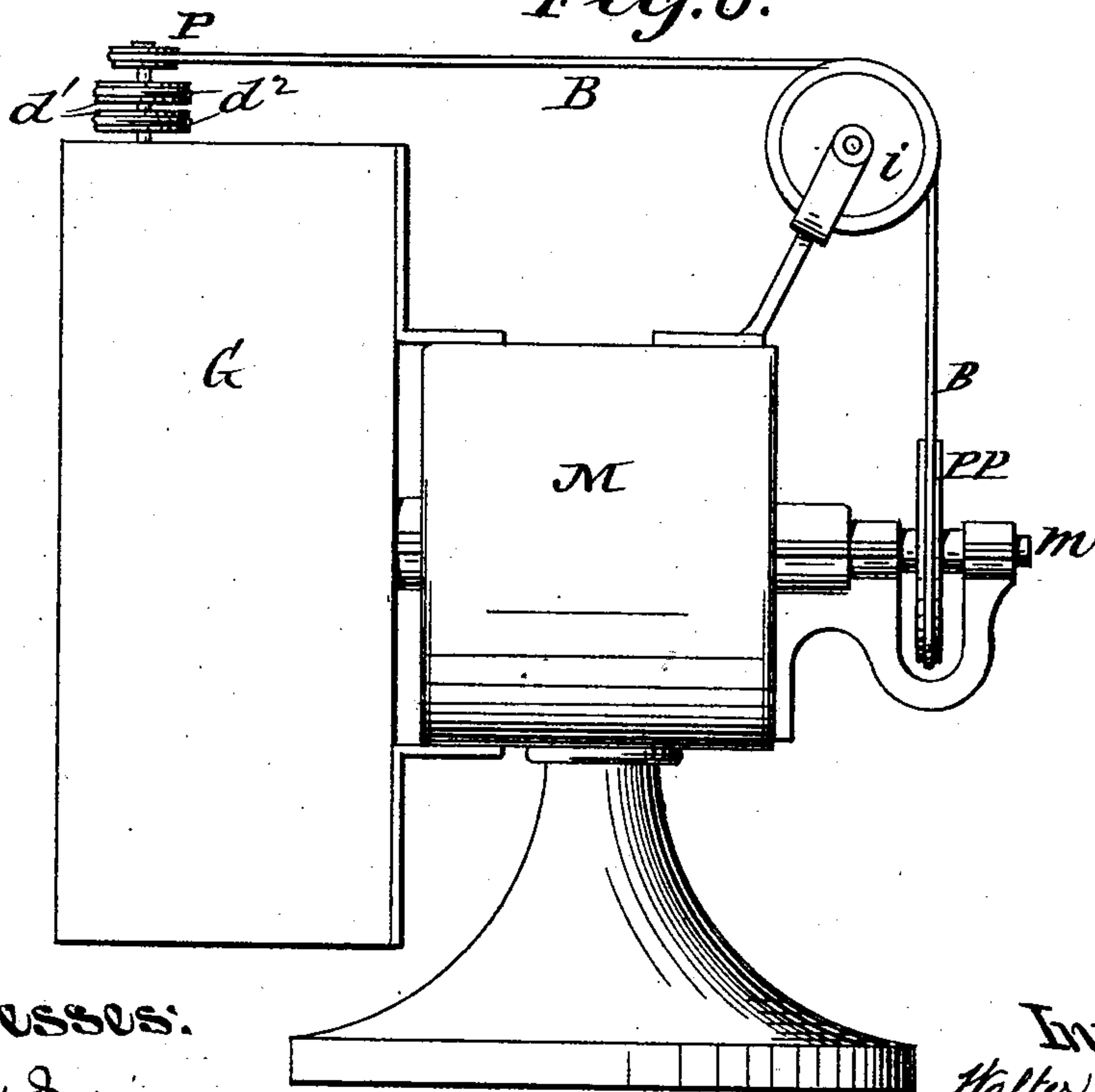


Fig. 6.



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UNITED STATES PATENT OFFICE.

WALTER E. COLEMAN, OF NEW DORP, NEW YORK.

FAN.

SPECIFICATION forming part of Letters Patent No. 697,448, dated April 15, 1902.

Application filed July 12, 1901. Serial No. 67,952. (No model.)

To all whom it may concern:

Be it known that I, WALTER E. COLEMAN, a citizen of the United States, residing at New Dorp, Richmond county, and State of New York, have invented certain new and useful Improvements in Fans, of which the following is a specification sufficient to enable others skilled in the art to which the invention appertains to make and use the same.

10 My invention relates to fans for cooling and ventilating apartments; and it consists in the special construction and arrangement of parts hereinafter described and claimed specifically.

15 In the accompanying drawings, Figure 1 represents a side elevation of an electric fan provided with my improvements; Fig. 2, a top view of the same with a portion of the fan-guard broken away; Fig. 3, a front view; 20 Fig. 4, a rear view. Figs. 5 and 6 are respectively a top view and a side elevation of a modified structure.

M represents, symbolically, an electric motor, of any ordinary construction, for actuating the fan F.

25 G is the guard-frame surrounding the fan. Pivotally supported in this guard-frame G are a series of deflectors D, free to rotate in whole or in part upon their longitudinal axes. 30 Thus in the first four figures they are connected by a rod d , which limits the degree of their rotation, whereas in the remaining figures they are provided with pulleys d' and connected thereby with belts d^2 , so that the 35 slats or deflectors are capable of making continuous and complete revolution upon their longitudinal axes. In this latter arrangement the axis of one of the deflectors is provided with a pulley P for the reception of a 40 belt B, which passes over idlers $i i$ and around the power-pulley P P on the motor-shaft m ,

by which means a continuous rotation of the deflectors is insured. In lieu of this arrangement of pulleys I utilize any other mechanical expedient for rotating or vibrating the 45 deflectors, so as to shunt the air-current from side to side. Thus in the first four figures a worm-gear w is shown as formed upon the motor-shaft m , said worm w gearing with a pinion w' upon the shaft s , which carries the 50 crank-pin s' , which in turn actuates the rock-lever R, the forward bifurcated end of which engages with a crank-pin n on one of the deflectors D. As a result the rotation of the crank-pin s' causes the deflectors D to vibrate 55 back and forth, and thereby deflect the air-current from left to right and right to left alternately and continuously, thus differing from the result attained in the modifications shown in Figs. 5 and 6, in which the continu- 60 ous rotation of the deflectors D changes the current of air from right to left or left to right, as the case may be, suddenly, the sweep of the air-current being in one direction only.

What I claim as my invention, and desire 65 to secure by Letters Patent, is—

1. The combination with an electric motor M, and fan F, of the guard G, the series of slats D, pivotally supported in said guard G, and means for automatically moving said de- 70 flectors or slats D, by the direct action of the motor, substantially as herein set forth.

2. The combination of the electric motor M, the fan F, the guard G, a series of pivoted slats D, and mechanism for transmitting mo- 75 tion from the motor-shaft m , to said deflectors D, for the purpose and substantially in the manner described.

WALTER E. COLEMAN.

Witnesses:

D. W. GARDNER,
JOHN KIRN.