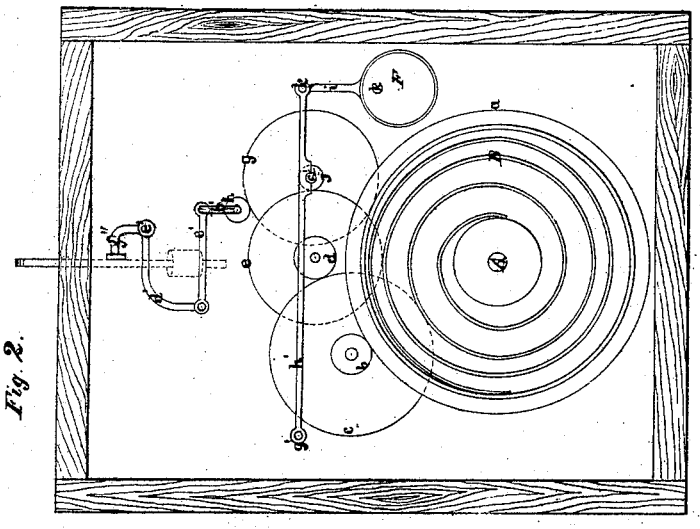
B. D. THOMPSON.

Improvement in Automatic Fans.

No. 114,491. Patented May 2, 1871.

Fig. 2.



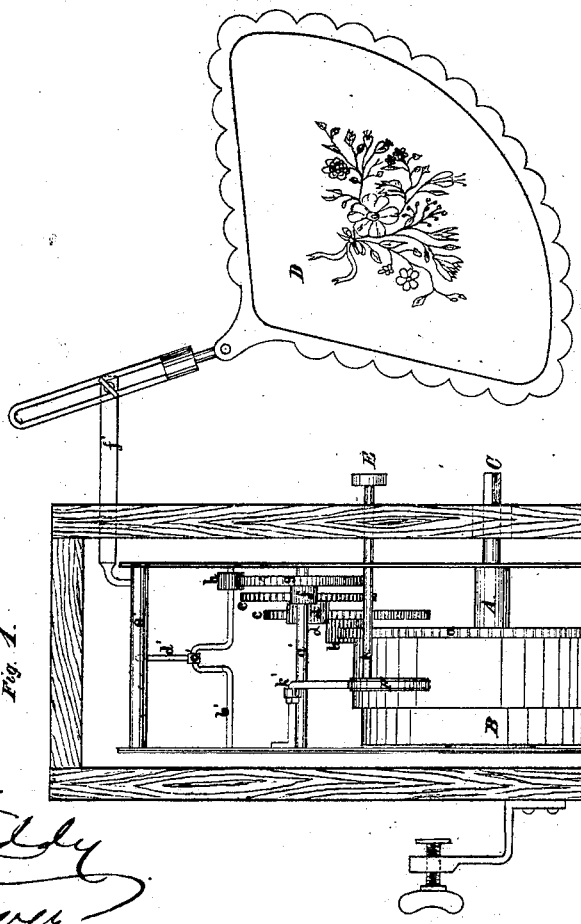


Fig. 1.

Witnesses:

Wm. Tibby

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Inventor:

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his Attys

United States Patent Office.

BENJAMIN D. THOMPSON, OF NEW YORK.

Letters Patent No. 114,491, dated May 2, 1871.

IMPROVEMENT IN AUTOMATIC FANS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, BENJAMIN D. THOMPSON, of the city, county, and State of New York, have invented a new and useful Automatic Atmospheric Fan, of which the following is a specification, reference being had to the accompanying drawing forming part of the same.

My invention relates to so connecting a fan attached to an adjustable arm with a train of wheels having a coil spring as the motor thereof, that when the wheels are set in motion by the action of the spring the fan will have imparted to it automatically a vibratory motion.

I also arrange a brake or regulator to so act upon a part of the general mechanism comprised in my invention as to govern the velocity of the motion of the fan or to check the motion altogether.

Figure 1 is a side sectional elevation of box containing the mechanism embodying my invention, with a fan attached.

Figure 2 is a rear sectional elevation of the same.

A is a main shaft having a spring, B, coiled about it, with the winding-post at C, and having upon it the driving-wheel *a*, which meshes into and operates the pinion *b* upon a shaft which has upon it the wheel *c*, which in turn meshes into and operates the pinion *d* upon a second shaft having upon it the wheel *e*, which also in turn meshes into and operates the pinion *f* upon the shaft *a'* having upon it the wheel *g*, the whole forming a train of wheels such as composes the mechanism of an ordinary clock-work.

The wheel *g* again in its turn meshes into and operates the pinion *h* upon the crank-shaft *b'*, which is connected with and operates the shaft *e'* by means of the pitman *c'* and the arm *d'*.

Upon the shaft *e'* is fixed the adjustable arm *f'*, which carries and moves the fan D.

F is an eccentric fixed upon the shaft *k*, which terminates on the front of the box containing the mechanism in the small knob or head E, and by means of which the eccentric is turned and operated.

h' is a lever, pivoted at *g'*, and joined at *k'* to the rod *i*, which is looped or banded around the eccentric F, and which acts as a brake or regulator upon the movement of the mechanism by more or less pressure upon the shaft *a'*.

Now, it is evident that when the train of wheels specified is set in motion by the spring B acting upon the driving-wheel *a*, an oscillating or vibratory motion will be imparted to the fan D through the crank-shaft *b'*, the pitman *c'*, the arm *d'*, the shaft *e'*, and the adjustable arm *f*.

It is also evident that the rate of motion of the fan can be regulated, or the motion checked altogether, by turning the knob E operating the eccentric F, which will cause the lever *h'* to press more or less upon the shaft *a'*.

It is intended that the fan thus operated shall be convenient and pleasant for use either at night or during the daytime of that season of the year when excessive heat is prevalent and annoying.

By means of the adjustable arm the fan, if placed upon the head of a bedstead, can be operated to create a current of air downward upon the face of the sleeper, thus producing a cooling and pleasant sensation; or if placed upon a table, stand, or other convenient support, it can be so adjusted as to produce a lateral current of air upon a person sitting beside or near it.

Claim.

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

The train of wheels specified, operated by the spring B, in connection with the crank-shaft *b'*, the pitman *c'*, the arm *d'*, the shaft *e'*, the adjustable arm *f'* carrying and operating the fan D, together with the lever *h'* connected with and operated by the eccentric F, all constructed, combined, and operating substantially as described and for the purpose specified.

BENJAMIN D. THOMPSON.

Witnesses:

WM. C. BEDDY,

GEO. GOTT.