

J. SIMMONS.
Automatic Fans.

No. 149,612.

Patented April 14, 1874.

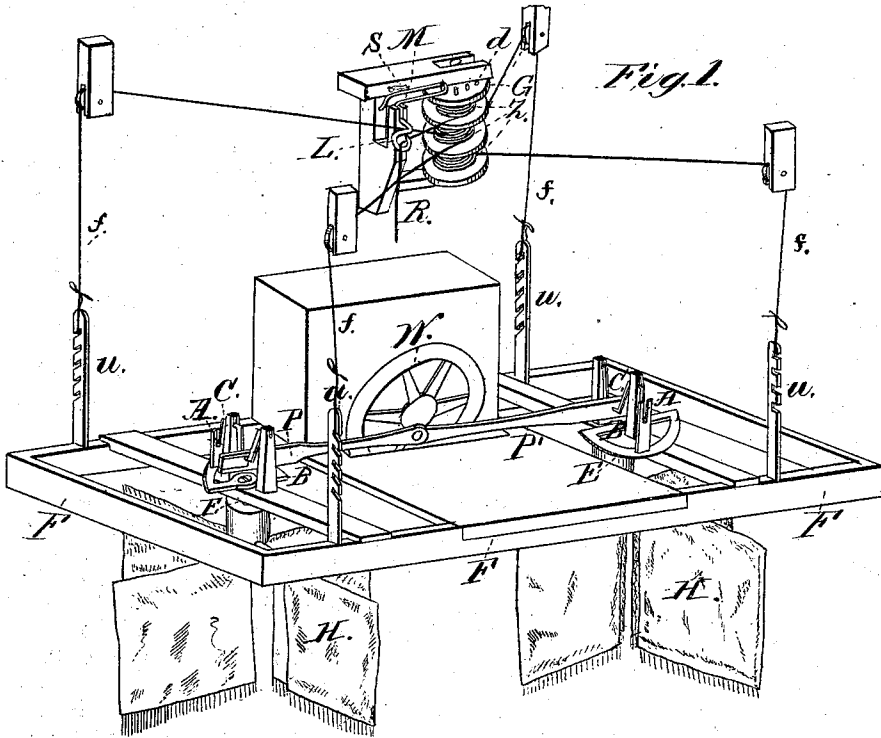
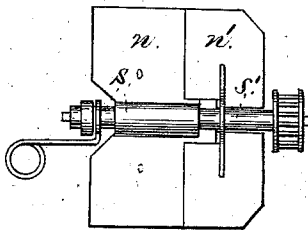


Fig. 2.



Witnesses.

Charles A. Newrick.
Ossian C. Simonds.

Inventor:

Joseph Simmons.
By Taggart, Simonds & Fletcher.
his Attorneys.

UNITED STATES PATENT OFFICE.

JOSEPH SIMMONS, OF POLKTON TOWNSHIP, OTTAWA COUNTY, MICHIGAN.

IMPROVEMENT IN AUTOMATIC FANS.

Specification forming part of Letters Patent No. **149,612**, dated April 14, 1874; application filed November 11, 1873.

To all whom it may concern:

Be it known that I, JOSEPH SIMMONS, of the township of Polkton, county of Ottawa and State of Michigan, have invented a certain new and Improved Dining-Room Fan, of which the following is a specification, reference being had to the accompanying drawings and the letters of reference marked thereon.

My invention relates to a new and useful automatic fan, operated by a spring and clock-work, and so arranged as to be raised and lowered at pleasure.

In the drawings, Figure 1 is a perspective view of my invention with its attachments; and Fig. 2 is a plane view of my improved fly-regulator, by means of which the motion of the fans is regulated, as hereinafter described.

In Fig. 1, F represents the frame-work, which supports the fans and the clock-work which operates the same. P P' are pitmen, operated by means of the wheel W. C C is a crank, supported by two upright posts, slotted at the top to receive the crank, as shown. The crank passes through the pitman P, as shown. A is an upright post or pin rigidly attached to the semicircle b, which semicircle b is rigidly attached to a shaft, E, of the fan. Post A is provided with an open slot at its upper end, as shown, which receives the end of crank C, and is operated by it. Thus, when the wheel W is put in motion by the clock-work, a vibratory motion is conveyed to the fans. The pitman P' is connected, by a similar device, to and operates another fan.

Fig. 2 is constructed in two parts, *n n'*, arranged on a sliding shaft. The part of the shaft S slides over the part of the shaft S'. The parts *n* and *n'* are thin flat pieces of metal, and, when closed, *n* slips by part *n'*, and then the regulator presents only one-half as much surface to catch the air as when open. The sliding part is provided with a handle, so that it may be readily operated. The regulator is so attached to the machinery of the clock-work that it is revolved very rapidly, and thereby acts as a regulator by being adjusted so as to allow a fast or slow motion. The frame-work of the fan is supported by four cords, which

pass over pulleys attached to the ceiling of the room. Over the center of the fan is a block supporting spools or wheels, upon which the cords are wound and unwound in raising and lowering the fan. These spools are shown by Z. R is also a cord, which is wound on spool G, which last-named spool is provided with projections *d*, which act as dogs or catches. R passes through the outer end of lever L, which lever L turns in a fulcrum in support M, and is bent to the right, as shown in the figure, and rests upon the top of spool G, so as to act as a pawl, and engages with the dogs or catches on the top of spool G. By pulling down the cord R the pawl is raised, and the notches and the fan may thus be lowered. Lever L is held down by the spring S, so that as soon as the cord R is loosened the lever L presses upon the cord G, and holds the fan in place. The cords are fastened to the parts *u u u*, which are provided with notches, as shown, by which means the cords may be adjusted.

Instead of using two fans, as shown in the drawings, if desired one or several fans may be used.

Having thus described my invention, what I claim to have invented, and desire to secure by Letters Patent, is—

1. The combination and arrangement of pitman P, crank C, upright A, semicircle B, and shaft, for the purpose of giving the oscillating motion to the fan H, said parts being constructed substantially as described.
2. The wing *n* of the regulator, attached to the sliding part, in combination with the wing *n'* and shaft, arranged as described, so as to be extended or closed, as and for the purpose set forth.
3. The lever L, provided with the spring S, in combination with the spool G, provided with the dogs or catches, cords *f*, and loose cords R, for the purpose of raising and lowering the fan, as described.

JOSEPH SIMMONS.

Witnesses:

CHARLES A. RENWICK,
EDWARD TAGGART.