G. C. Bovey,

Automatic Fan.

No. 113620. Patented Apr. 11. 1871.

Fig. 1.

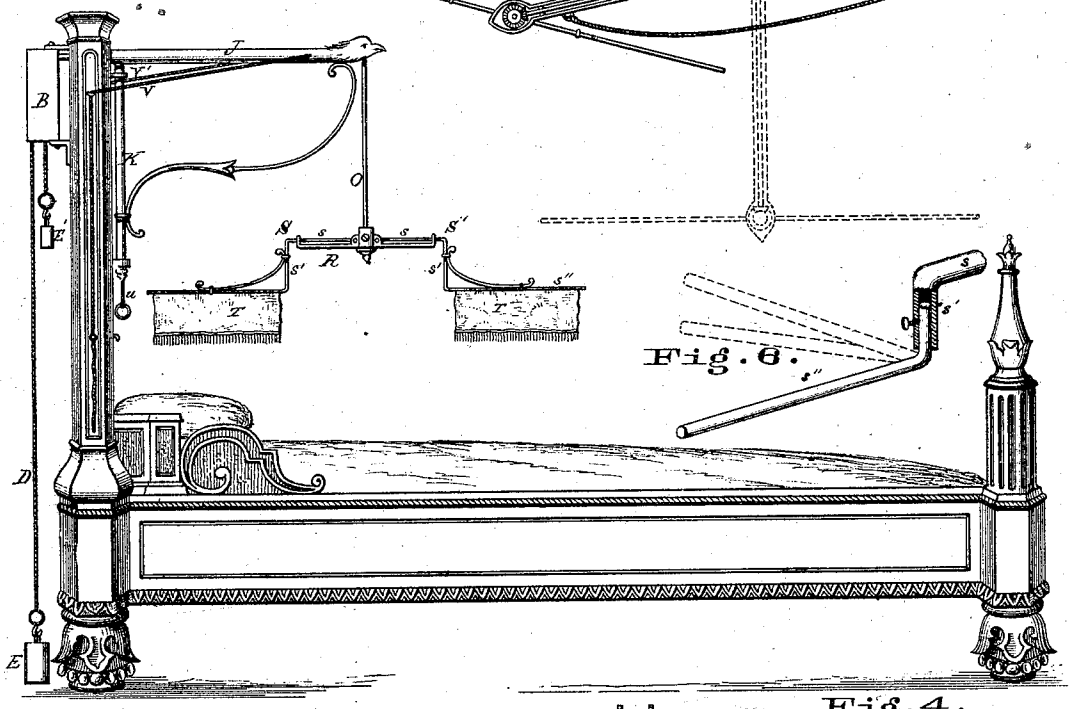


Fig. 2.

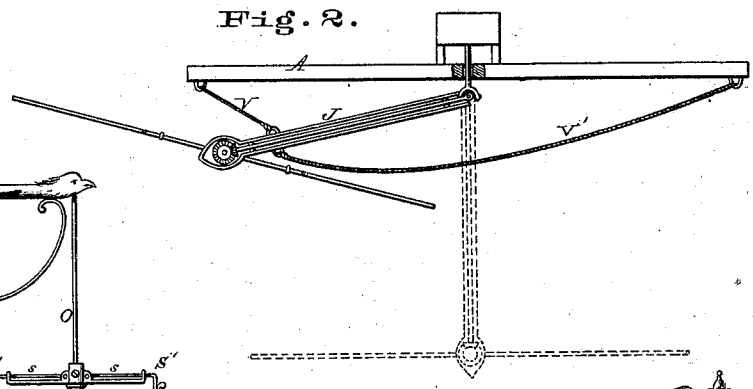


Fig. 6.

Fig. 3.

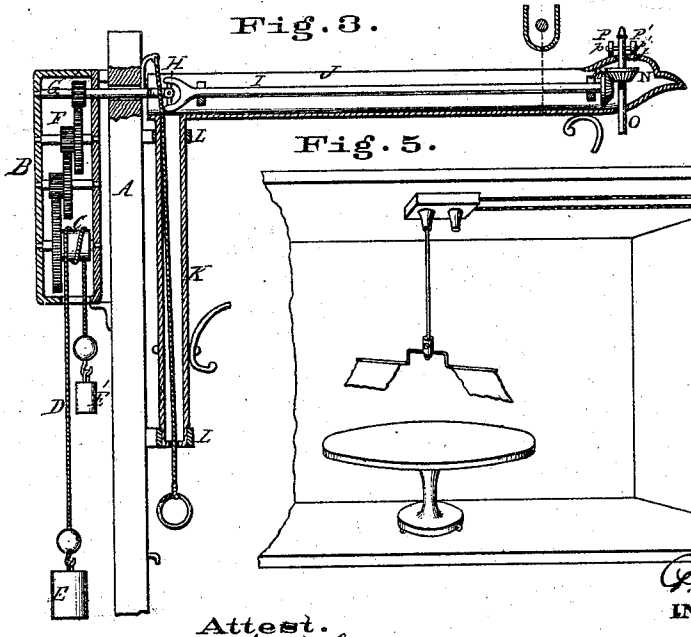


Fig. 4.

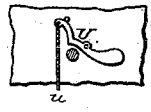
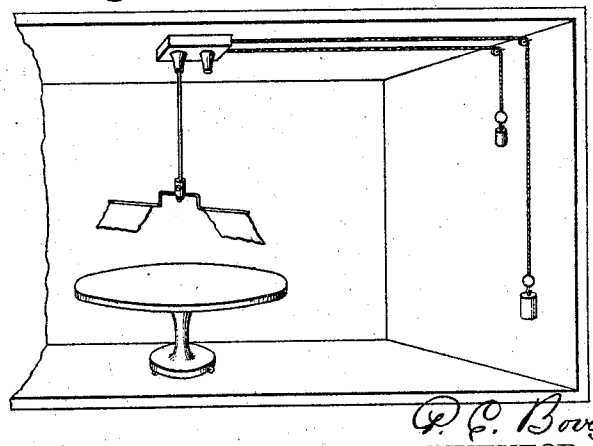


Fig. 5.



Attest.
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Attys.

United States Patent Office.

GEORGE C. BOVEY, OF CINCINNATI, OHIO.

Letters Patent No. 113,620, dated April 11, 1871.

IMPROVEMENT IN AUTOMATIC FANS.

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

I, GEORGE C. BOVEY, of Cincinnati, Hamilton county, Ohio, have invented a new and useful Automatic Fan, of which the following is a specification.

Nature and Objects of the Invention.

This invention relates to an improved form of self-acting fan, for attachment to a bedstead or to the ceiling of an apartment, or other convenient object.

General Description with Reference to the Drawing.

Figure 1 is a side elevation of a bedstead to whose head-board a fan embodying my invention is attached.

Figure 2 is a top view of the head-board and fan, showing the lateral adjustability of the latter.

Figure 3 is a vertical section, showing the adjustable-bracket and the propelling mechanism in position on the head-board.

Figure 4 is a representation of my brake for arresting or retarding at will the rotation of the fan.

Figure 5 represents my invention applied to the ceiling of a room.

Figure 6 shows, on a larger scale, a modification of my fan-arms whereby its effective force and its velocity may be regulated.

A represents the head-board of an ordinary bedstead.

B is a nest of gearing attached to the rear side of the head-board, having a drum, C, or pulley, around which a cord, D, is wound, to whose respective extremities are hung weights E E′, of which one, E, preponderates and operates to move the gearing, while the other and smaller weight acts to keep the cord at the proper stretch and causes it to hug the drum.

The gearing F is so proportioned as to rotate the uppermost spindle or shaft G at a much greater velocity than that of the drum C.

The shaft G protrudes through the head-board and is connected by a gimbal or other universal joint, H, with a shaft, I, that is journaled within the hollow trough-like beam J of a crane or L-formed bracket, whose vertical portion, consisting of a tube, K, is journaled in eyes L, that project from the front of the head-board.

The outer end of the shaft I has a bevel-wheel, M, that gears with another bevel-wheel N upon a shaft, O, that journals in the end of the beam J, whence it depends vertically in the manner represented.

Two arms *p p′*, projecting from the shaft O, may be provided with rollers P P′, which, revolving upon a suitable plane or track, *j*, on the top of the beam J, may serve to support the shaft O and its appendants, and to reduce the friction to a minimum.

Attached by thumb-screw Q to the shaft O at any desired height thereon is the frame R, which supports two or more arms S S′ of my fan proper. My preferred form for these arms is as represented, viz: a horizontal portion, *s*, which rests in the frame R, and having a perpendicular portion, *s′*, that terminates in another horizontal portion, *s″*, to which are attached pendants T T, of muslin, silk, feathers, or other suitable material.

The perpendicular portion *s′* may be tubular, as shown in fig. 6, so as to permit of the horizontal part *s″* of the arm turning therein so as to be set at different angles, as indicated by the dotted lines.

The object of this adjustment is to cause the pendants T to offer a greater or lesser obstruction to the air and thereby serve to regulate the speed of the fan.

The fan may be entirely stopped or its speed checked by means of a brake, U, which is operated by a cord, *u*, which passes down through the tubular portion K of the supporting-frame or crane.

The crane may be swung from side, so as to permit of the bed being made, by the cords V V′, as shown in fig. 2.

Claims.

I claim as my invention—

1. The combination of the rotary-fan R S T, shaft O, adjustable-bracket J, gearing F, cord D, and weights E E′, as and for the purposes specified.

2. The combination of the adjustable-bracket J, shafts I O, and rotary-fan R S T, substantially as set forth.

3. The combination of the brake U *u* with the rotary-fan R S T and its shafts I O, substantially as described.

In testimony of which invention I hereunto set my hand.

GEORGE C. BOVEY.

Witnesses:

GEO. H. KNIGHT,

JAMES H. LAYMAN.