

J. A. W. Lundborg,

Automatic Fan,

N^o 62,431.

Patented Feb. 26, 1867.

Fig. 1.

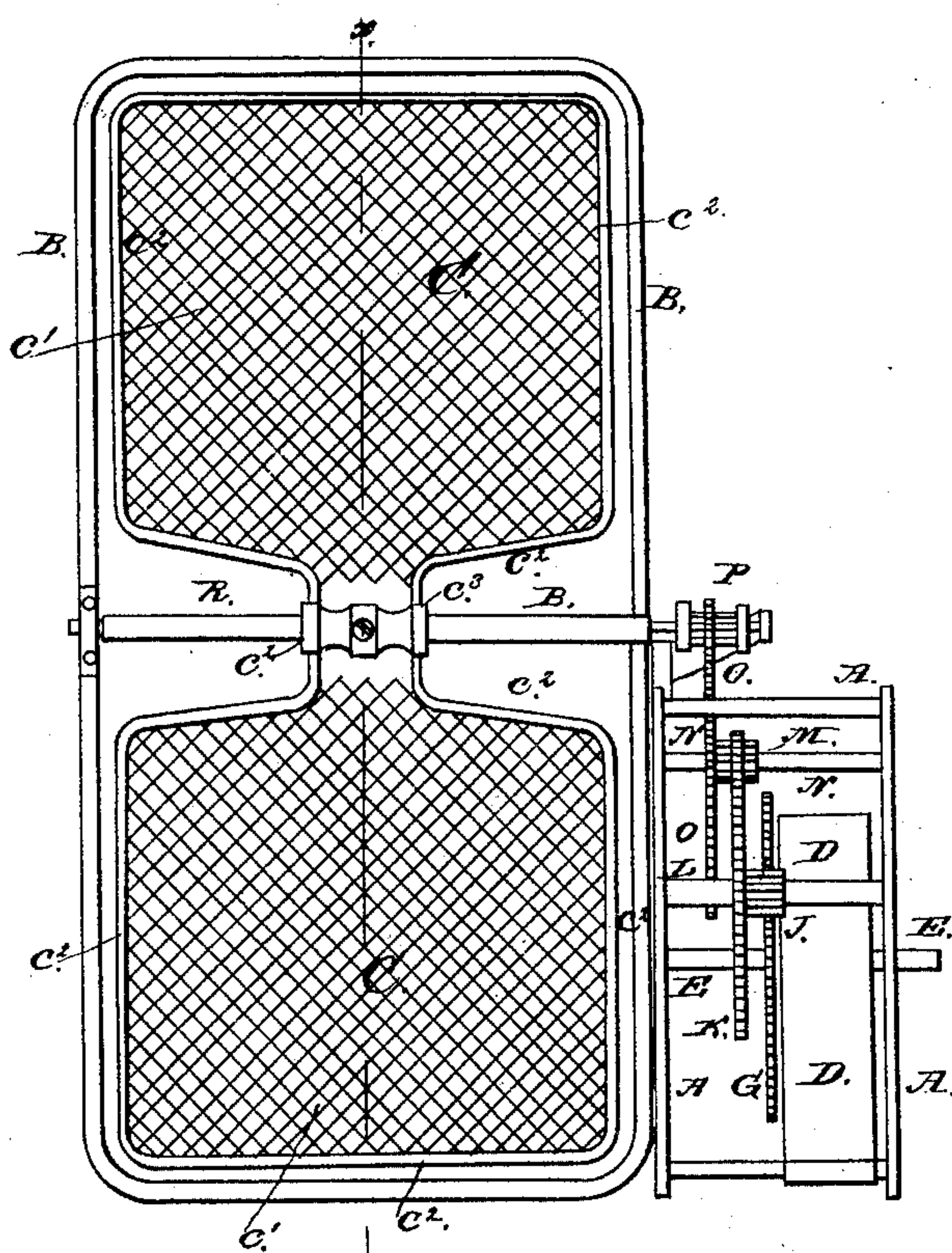
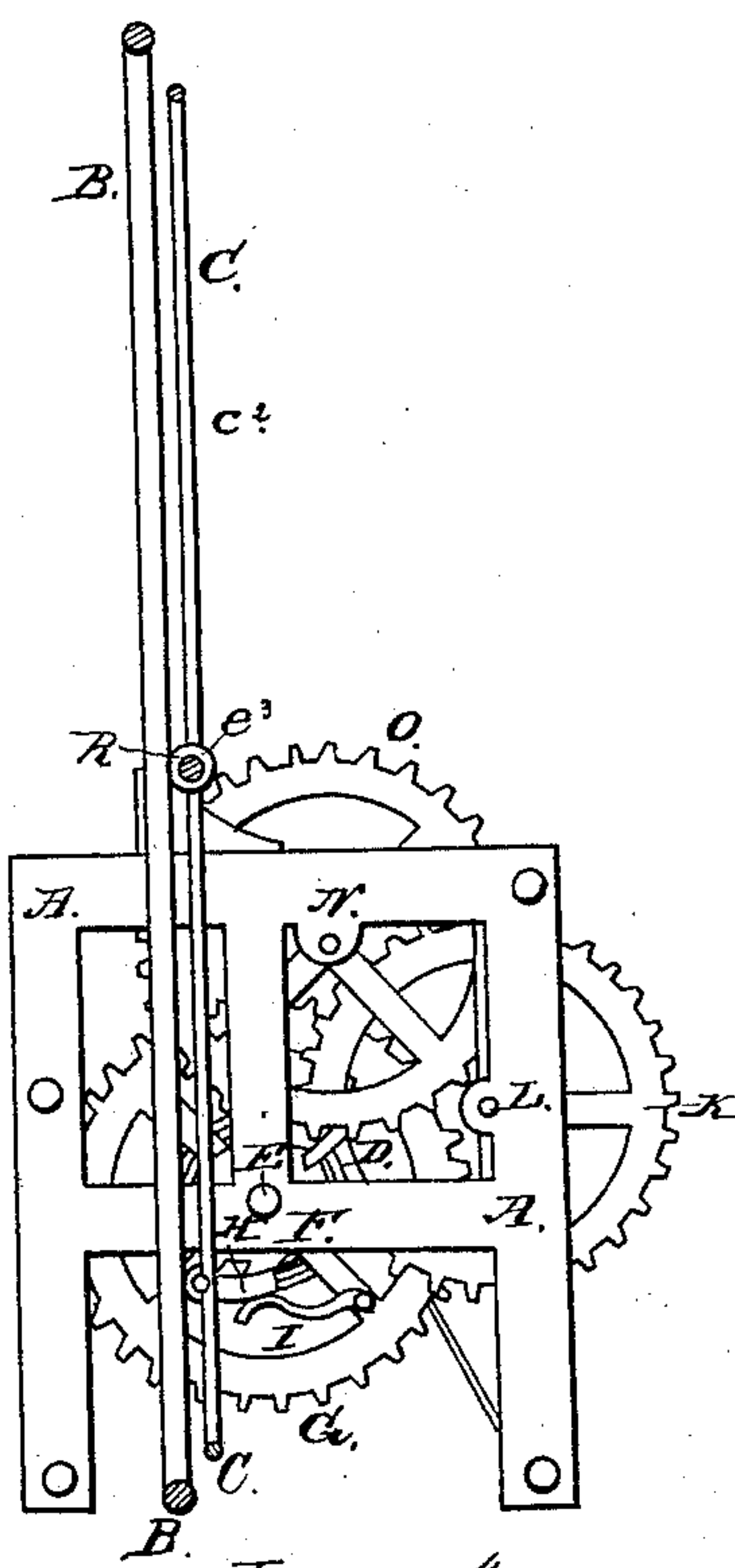


Fig. 2.



Inventor:

John A. W. Lundborg
Per [Signature] Attorney

Witnesses:

Theo Trusch
J. A. Service

United States Patent Office.

JOHN A. W. LUNDBORG, OF SAN FRANCISCO, CALIFORNIA.

Letters Patent No. 62,431, dated February 26, 1867.

IMPROVED AUTOMATIC FAN.

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, JOHN A. W. LUNDBORG, of San Francisco, in the county of San Francisco, and State of California, have invented a new and useful Improvement in Automatic Fan; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side view of my improved fan.

Figure 2 is a vertical section of the same, taken through the line *x x*, fig. 1.

Similar letters of reference indicate like parts.

My invention has for its object to furnish an improved automatic fan, to be suspended from the ceiling over beds, dining tables, surgical chairs, and in theatres, public halls, &c., and it consists in the combination of the fan and shaft with the frame in which it works, and with the clock-work by which it is driven, as hereinafter more fully described.

A is the frame in which the clock-work or cog-wheels are placed, and which is securely attached to the side of the frame B in which the fan C revolves. D is the spring which furnishes the motive power. One end of the spring D is attached to the frame A; and its other end to the shaft E. F is a ratchet-wheel securely attached to the shaft E, and G is a cog-wheel loosely attached to the said shaft. When the shaft E and ratchet-wheel F are revolved in one direction, they are made to carry the cog-wheel G with them, by the pawl H, pivoted to the side of the wheel G, so that its free end may rest upon the teeth of the ratchet-wheel F, against which it is held by the pressure of the spring I, attached to said wheel. When the shaft E and ratchet-wheel F are revolved in the other direction, the pawl H slides over the teeth of the ratchet-wheel, and the cog-wheel G is not revolved. The teeth of the cog-wheel G mesh into the teeth of the pinion-wheel J, attached to the shaft L, which said shaft also carries a cog-wheel, K. The teeth of the cog-wheel K mesh into the teeth of the pinion-wheel M, attached to the shaft N, which said shaft also carries a cog-wheel, O, the teeth of which mesh into the teeth of the pinion-wheel P, attached to the end of the fan-shaft R. The shaft R revolves in bearings attached to the frame B, or to the frames B and A, in such a way that the said shaft R may be readily removed when desired. The fan C is two-winged, as shown in fig. 1, and this construction I prefer, but a greater number of wings may be employed if desired. The fan C consists of a covering of thin cloth, *c*¹, or other suitable material attached to a light metallic frame, *c*². The ends of the frames *c*² are attached to the sliding band *c*³, which fits upon the shaft R, and which is secured in place by a set-screw which passes through one side of the band *c*³, and presses against the shaft R, as shown in figs. 1 and 2. The fan may be suspended from the ceiling by a cord or cords attached to the upper horizontal bar of the frame B, or in any other convenient manner, according to the circumstances in which the fan is to be used. If desired, the spring D may be omitted, and the apparatus driven by a weight. The amount of motive power required will depend upon the size of the fans, and the number employed, and this again will depend upon the circumstances in which the apparatus is to be used. It should be observed that bouquet vases may be attached to the fan in such a manner that the fragrance of the flowers may be imparted to the breeze, and thus be disseminated through the room.

I claim as new, and desire to secure by Letters Patent—

The frame B, bearing the shaft R, to which is attached the fan C, having metallic frame *c*², when constructed and arranged to operate with the clock-work, as herein set forth.

The above specification of my invention signed by me this 15th day of September, 1866.

J. A. W. LUNDBORG.

Witnesses:

CHAS. N. FOX,

CHAS. McLAUGHLIN.