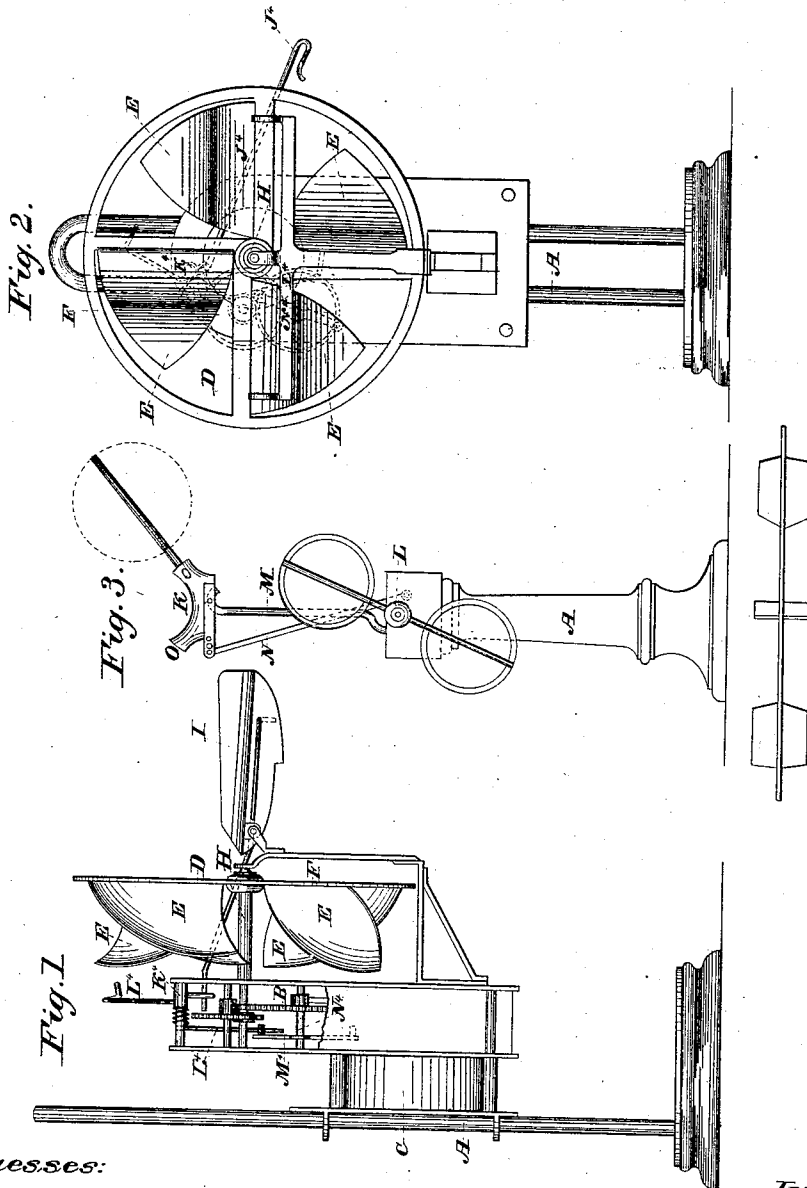


J. & A. BLOOM.
HOUSE FAN.

No. 68,483.

Patented Sept. 3, 1867.



Witnesses:

Chas. Trisacke
Wm. Trewin

Inventor:
J. Bloom
A. Bloom
Per *Munn & Co.*
Attorneys

United States Patent Office

JULIUS BLOOM, OF NEW BRUNSWICK, NEW JERSEY, AND AUGUST BLOOM,
OF NEW YORK, N. Y.

Letters Patent No. 68,483, dated September 3, 1867.

IMPROVED HOUSE-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 we, JULIUS BLOOM, of New Brunswick, Middlesex county, New Jersey, and AUGUST BLOOM, of the city, county, and State of New York, have invented new and useful improvements in "Operating Fans;" and we 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.

The present invention relates to the operating of fans for agitating the air, which consists in a novel combination and arrangement, in connection with gearing actuated by a coiled spring or springs, similar to the ordinary working parts of clocks and other time-pieces, of one or more wheels, suitable for agitating and forcing the surrounding air in one or more directions, or of one or more holders suitable to receive the stems or handles to the fans in common use, and thus, through such holders and the fans which they carry, produce the desired agitation of the air, either by imparting to such holders a rocking, or forward and backward, or a rotary motion. In the accompanying plate of drawings our invention is illustrated—

Figure 1 being a side elevation of a stand, having our improved mode of operating a fan for agitating the air applied thereto.

Figure 2, an elevation of the front side to the stand shown in fig. 1; and

Figure 3, another elevation in front of the stand for the operating parts, but showing holders for the ordinary fans.

Similar letters of reference indicate corresponding parts.

A, in the drawings, represents a stand, in which is arranged a train, B, of gearing similar to that employed in clocks and other time-pieces, which gearing is operated by and through a coiled spring, C, suitably connected with it therefor, when such spring has been wound up with the use of the common clock-keys. D, a wheel, formed of a series of vanes E, attached to a common outside surrounding rim or ring, F. These vanes extend inward or back of the rim F, and are of such a curved shape that if the wheel be revolved while agitating the air, they will cause and force a current or currents of air in a direction outward from the front of the wheel. This wheel D is fixed to one, H, of the spindles or shafts composing the train of gearing, and by the running of such gearing the said wheel is revolved, producing the effect upon the surrounding air above described.

In addition to the wheel agitator D for the air, above described, we have shown a fan-frame as hung to the stand just in front of the wheel, where, by connecting it with the gearing B, it is made to swing up and down through the air, and thus to agitate the same in that direction. This connection consists of a hook-shaped arm, J', fixed to a rocking-shaft, K', that, by an arm, L', is operated through the revolution of a cross-arm, M', secured to a spindle, N', receiving motion from the running gearing.

In fig. 3, in lieu of a revolving wheel for agitating the air, holders K and L, suitable to receive the stem or handle to the common hand-fans, are shown as combined with the stand A, the one holder K being hung to an upright, M, of the stand, so as to rock thereon, from the running of the gearing B, to which, through a pitman-rod, N, it is connected, as illustrated. This holder K is provided with two sockets O, and in them the fan-handles are to be placed, as shown.

The holder L is made of the shape of a hub to a wheel, and is secured to the outer end of one of the shafts, forming a part of the running gearing. This holder is provided with a series of sockets, to receive the handles to the fans, some around its periphery, and extending through the hub in radial lines, and others in the outer end of the hub.

By the two holders for the fans, the one arranged to have a rocking, and the other to have a rotary motion, by using either one or more fans in either one or both of the holders, an agitation of the air can be produced in almost any desired direction; and if both holders are combined in one stand, as shown, with a spring or springs of sufficient power, a most perfect and thorough agitation of the air in all directions can be established or produced and maintained, and in a manner entirely automatic, as is self-obvious; whereby, by constructing the stand and its other parts so as to be portable, a most desirable and convenient automatic mode of agitating the air

for family and household use during the warm season of the year is secured, the advantages of which are apparent without any particular enumeration.

Having thus described our invention, we do not claim broadly the application of a train of gearing similar to the ordinary clock-works, for driving fans to agitate the air, as we are aware that such has been before used; but what we do claim, and desire to have secured to us by Letters Patent, is—

1. The combination of the fan-wheel D, constructed as described, and the up-and-down swinging fan-frame, arranged in front of said fan-wheel, as herein set forth, for the purpose specified.

2. The construction and arrangement of the common fan-holders K L, upright M, rod N, operated by the gearing B, as herein set forth, for the purpose specified.

3. In combination with the running gearing, I claim the hook-shaped arm J¹, fixed to rock-shaft K¹, arm L¹, cross-bar M¹ on spindle N¹, whereby the upward and downward swinging fan-frame is operated, as and for the purpose specified.

The above specification of our Invention signed by us this 11th day of March, 1867.

JULIUS BLOOM,
AUGUST BLOOM.

Witnesses:

WM. F. McNAMARA,
ALBERT W. BROWN.