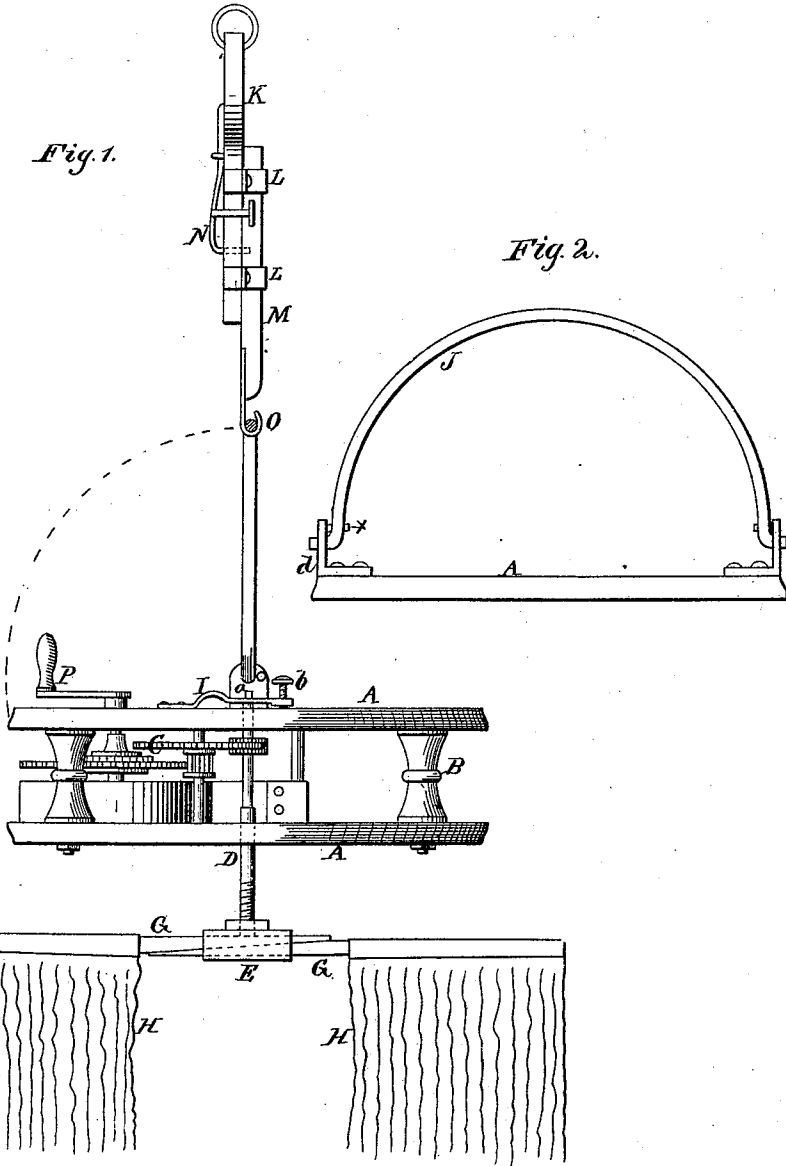


AUTOMATIC FAN.

No. 177,310.

Patented May 9, 1876.



WITNESSES

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# UNITED STATES PATENT OFFICE

JOHN A. WILLIAMS, OF ELIZABETH, ASSIGNOR OF ONE-HALF HIS RIGHT TO JOHN B. TAYLOR, OF FREEPORT, AND ONE-FOURTH TO PATRICK MCQUILLEN, OF ELIZABETH, ILLINOIS.

## IMPROVEMENT IN AUTOMATIC FANS.

Specification forming part of Letters Patent No. **177,310**, dated May 9, 1876; application filed March 13, 1876.

*To all whom it may concern:*

Be it known that I, JOHN A. WILLIAMS, of Elizabeth, in the county of Jo Daviess and in the State of Illinois, have invented certain new and useful Improvements in Fly Brush and Fan; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a fly fan or brush, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a side elevation of my improved fly fan or brush. Fig. 2 is a front view of a part thereof.

A A represent two circular disks of wood, metal, or other suitable material, held a suitable distance apart by means of posts B B, leaving sufficient space between them to contain a suitable clock, or similar mechanism, C. D is the last shaft of such clock mechanism, having its bearings in the center of the disks A A. The lower end of this shaft extends downward for a suitable distance, and is threaded at its extreme end. Upon this end of the shaft is screwed a horizontal socket, E, open at both ends, and in said socket are inserted the arms G G, carrying at their outer ends the fans or brushes H H. The arms G G may be extended or contracted at will, and are held in any position desired by simply screwing up the socket E on the end of the shaft D, said shaft acting as a set-screw to firmly clamp the arms in the socket. The upper end of the shaft D is formed with a shoulder, *a*, upon which bears a spring-bar, I, acting, when free, as a brake to stop the motion of the fans. In the outer end of this spring or spring bar is a set-screw, *b*, passing through the same, and acting on the upper surface of the top disk A to raise said outer end of the spring-bar more or less, and reduce the friction thereof on the

shaft D, and thereby regulate the speed of the same. On opposite sides of the top disk A are two metal ears, *d d*, in which are pivoted the ends of a metal bail, J, to suspend the fly-fan, pins *x x* on the ears *d d* preventing it from tilting. From a hook in the ceiling is suspended a bar, K, provided with loops L L, through which passes an adjustable bar, M, held at any desired height by means of a spring-catch, N, as shown. At the lower end of the sliding or adjustable bar M is a hook, O, in which the bail J is placed. By this means the fly-brush can be raised or lowered, as desired, to bring the fans the proper height, and it can easily be tilted to one side for winding. P is the winding-crank, placed on the winding-arbor of the clock mechanism. The operating mechanism may be either cog or friction wheels.

The device, as shown in the drawing, is a rotating fly fan or brush; but it is, of course, evident that the operating mechanism may be arranged so as to vibrate the fans or brushes instead of rotating the same.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with a frame, A B, carrying a fly-fan or brush, of the hinged bail J, ears *d*, and pins *x*, arranged so that the frame can be tilted as desired, for the purposes herein set forth.

2. The bar K, with loops L L, sliding bar M with hook O, and the spring-catch N, in combination with the bail J and frame A B, carrying a fly-brush mechanism, as and for the purposes herein set forth.

3. The combination of the shaft D, having screw-threads on its lower end, the socket E, and adjustable arms G G, as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 11th day of March, 1876.

JOHN A. WILLIAMS.

Witnesses:

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