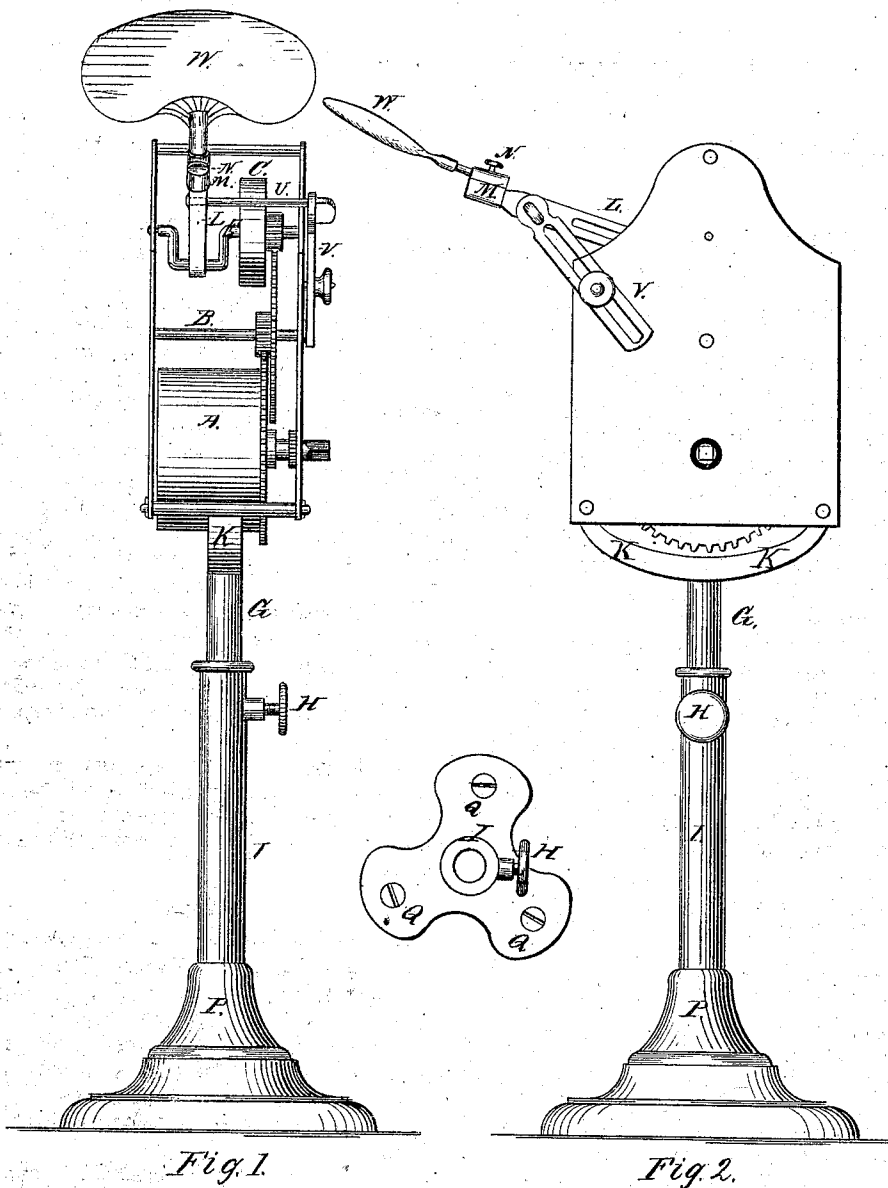


W. De L. HALL.

Automatic Fans.

No. 136,044.

Patented Feb. 18, 1873.



Witnesses.

Shes Fleumer
John E. Warner

Inventor.

Willis DeLancy Hall.

UNITED STATES PATENT OFFICE.

WILLIS DE LANCEY HALL, OF MEMPHIS, TENNESSEE.

IMPROVEMENT IN AUTOMATIC FANS.

Specification forming part of Letters Patent No. 136,044, dated February 18, 1873.

To all whom it may concern:

Be it known that I, WILLIS DE LANCEY HALL, of the city of Memphis, county of Shelby and State of Tennessee, have invented certain Improvements in Automatic Fans, of which the following is a specification:

My invention relates to an improvement upon an automatic fan patented by me September 26, 1871, reference being had to the accompanying drawing and to the letters marked thereon, in which—

Figure 1 is a front view of the automatic fan, with the adjustable standard and base shown in said patent. Fig. 2 is a side view, showing the adjustable fulcrum or pivot slot and bed attachment.

The nature of my invention consists of attaching to the upper end of standard G of my former patent a train of cog-wheels, arranged between two plates, and consisting of a large wheel and barrel, A, inclosing a mainspring fixed upon an axle at one end, and attached to the barrel at the other end, supplied with a click and click-wheel. Cogged with this large barreled wheel is an intermediate wheel, pinion, and axle, B, which cogs with the pinion attached to the axle, supporting a balance-wheel, C. The balance-wheel axle is shaped like a crank, so as to produce, when in operation, an eccentric motion. Working on this driving crank or pin is the slot bar or lever L, which is supported by a fulcrum or pivot attached to another slot-bar, V, and secured to the side plate by a set-screw. At the end of the slot bar or lever V is a short tube, M, and set-screw N, for the purpose of securing the fan handle and leaf. At the lower end of tube I is attached a base, Q, to be used in connection with base P, shown in said patent. The object of this base is to secure the fan in a horizontal position when screwed fast to the head of a bed, or wherever required.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction.

I construct the base Q of metal, so as to be used in connection with the base P, tube I, set-screw H, and standard G of my former patent, and therein described. At the upper end of standard G are two short metallic arms, K, supporting two metallic plates, which contain the mainspring and train of cog-wheels A B, and balance-wheel C. Passing through balance-wheel C is an axle, E, which is shaped like a crank, and acts as a driving-pin. Upon this crank or driving pin works the slotted lever L, which should be constructed in such a manner as to balance on the fulcrum or pivot U when the fan-leaf is attached. The fan-leaf W may be made of any light material. The speed of the fan is regulated by adjusting the side slot-bar supporting the pivot or fulcrum.

The machine when in the desired position is operated by being wound up at the spring, causing the fan-leaf to vibrate, and thereby producing the desired agitation of the atmosphere.

Claim.

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

The automatic fan, combining the bases P or Q with tube I, set-screw H, standard G, the train of cog-wheels A B, and balance-wheel C, slotted lever L, holder M, set-screw N, leaf W, fulcrum U, slot and set-screw V, all arranged and constructed substantially as described.

WILLIS DE LANCEY HALL.

Witnesses:

THEO. HOERNER,
JOHN E. WARNER.