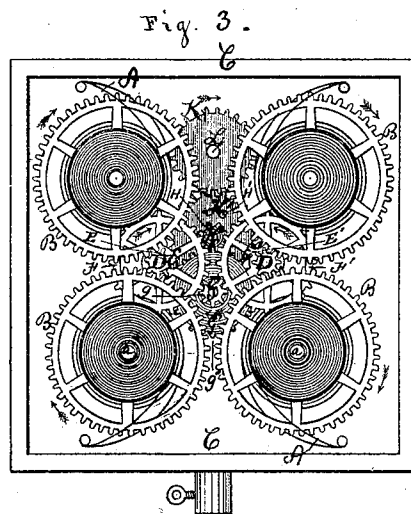
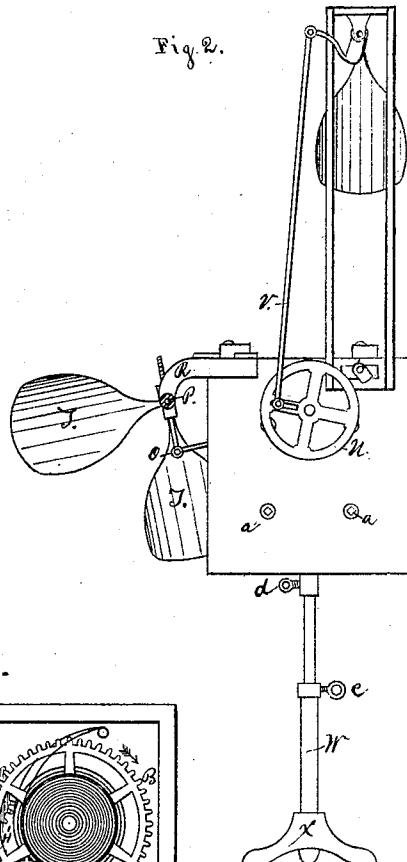
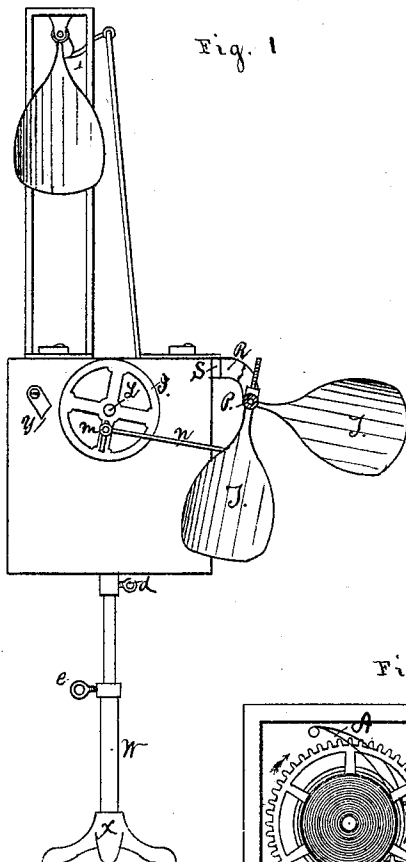


W. FAY.
Automatic Fans.

No. 150,143.

Patented April 28, 1874.



INVENTOR.

WITNESSES.

J. B. Hubbard
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UNITED STATES PATENT OFFICE.

WILLIAM FAY, OF NEW ORLEANS, LOUISIANA.

IMPROVEMENT IN AUTOMATIC FANS.

Specification forming part of Letters Patent No. **150,143**, dated April 28, 1874; application filed July 21, 1873.

To all whom it may concern:

Be it known that I, WILLIAM FAY, of the city of New Orleans, parish of Orleans, State of Louisiana, have made certain new and useful Improvements in an Automatic Fan; and I hereby declare the following to be a full, clear, and correct description of the same, reference being had to the accompanying drawing making a part of this specification.

My present invention relates to an improvement upon my automatic fan for which Letters Patent of the United States were granted to me the 25th day of March, 1873, said patent being numbered 137,189. The present invention, like my former patent, consists substantially of a mechanical combination and arrangement of a toothed-wheel gearing operated by spring-power, through which rotary motion is imparted to a fly-wheel, from which, by means of cranks and connecting-rod, reciprocating motion is transmitted to a rock shaft, in which may be inserted, at any desired angle, one or more fans of the kind in general use for fanning or cooling purposes; but it differs in other respects, and in some essential particulars, from my said patented invention, as is hereinafter described. My present invention, like my former one referred to, is equally effectual for the purposes for which it is designed in almost any relative position in which the same may be placed, by simply adjusting the fans on the rock-shaft before mentioned; and by turning the device upon, or by raising and lowering the same by means of, the adjustable telescopic pedestal shaft or spindle to which the same is secured, its effects may with the greatest facility be directed to the face of the person upon whom the same is desired to operate. In this respect consists the novelty, utility, and main feature of my invention, the construction and operation of which, and the particulars wherein it differs from the said patented invention, will be more clearly understood by reference to the accompanying drawing.

Figure 1 is a front elevation of the device complete and ready for use, with a single fly-wheel and a single fan or set of fans; while Fig. 2 is a rear elevation of the same, showing likewise an additional fly-wheel upon the opposite end of the fly-wheel shaft, with an ad-

ditional fan, rock-shaft, &c. Fig. 3 shows the mechanical arrangement of the springs and toothed-wheel gearing, by means of which motion is imparted to the fly-wheel and fans therewith connected.

My apparatus, as at present constructed, is operated by eight volute springs, A, the inner ends of which are secured to the four shafts *a*, there being two of the said springs A upon each of the said shafts *a*; and the said shafts *a* are, moreover, provided each with one of the four driving-wheels B. The springs therewith connected are wound up by means of a crank or key applied to the ends of the said shafts *a*, as shown in the elevation, Fig. 2. The outer extremities of the said springs are attached to the connecting-bars of the frame C. D and D' are stationary shafts, provided with the pinions E and E' and wheels F and F', which revolve loosely thereon, the pinion E and wheel F, as well as the pinion E' and F', being cast, respectively, in one piece. Each of the said pinions E and E' is engaged by two of the said driving-wheels B, whereby motion is transmitted to the fly-wheel shaft L through the said wheels F F', the pinion G, wheel G', pinion H, wheel H', and, finally, to the wheel K upon the fly-wheel shaft L.

My said patented invention has but two springs, and does not possess the efficiency of my improvement, wherein the combined power of eight springs is concentrated upon the fly-wheel shaft L, so as to move the same and the fly-wheel I thereon placed continuously in one direction.

Upon the side of the said fly-wheel I, and at any suitable distance from its central axle, I place the crank-pin M, to receive one end of the connecting-rod N. This connecting-rod has its opposite end connected with one end of the crank-lever O, which, in turn, has its opposite end inserted in the rock-shaft P, having bearings in the brackets R, projecting from the frame S. One end of this frame is clamped to the wooden casing by which the motive mechanism of my device is surrounded, and from the casing the said frame S can be conveniently detached. By the revolution of the said fly-wheel I an oscillating motion is imparted to the said rock-shaft P, through the connecting-rod N and crank-lever O afore-

said. In the said rock-shaft P, through perforations therein made, may be inserted at any required angle the stem or handle of one or more fans, T, to be employed by my apparatus. In my present device I use no balance-weight, as in my former one; but, instead, I place a second fly-wheel, U, upon the opposite end of the said fly-wheel shaft L, from which, by a connecting rod or wire, V, motion may be imparted to another fan or set of fans placed upon the device in a room above or at any distance from the machine, as required. The said second fly-wheel U, with connecting-rod, rock-shaft, fans, &c., is plainly shown in Fig. 2 of the drawing. The whole apparatus above described rests upon and is secured to the upright standard W of the pedestal-base X. The said standard W is in two pieces, both of which are tubular. The upper member, upon which the device immediately rests, and to which it is secured by the set-screw *d*, is made to slide freely within the lower tube, and may be kept at any desired elevation therein by means of set-screw *e*. For regulating the speed of the fly-wheel, and the machinery therewith connected, or bringing the same to a full stop, a friction-brake may be applied thereto, as shown at Y, Fig. 1.

It is obvious that either a less or a greater number of springs might be employed for the operation of my device, and to this end I reserve the privilege of employing one or more, as in my former patent before mentioned.

The machinery for the operation of the fly-wheel is incased in a neat box, and the whole device is cheap, simple, and efficient for the purposes for which it is designed; and

Having described it, what I claim as new, and desire to secure by Letters Patent, is—

The operating clock mechanism herein described, in combination with a rock-shaft having a series of perforations, *a*, fan T, and secondary fly-wheel U, the whole being constructed and arranged substantially as described, whereby the fan may be adjusted to any required angle upon such rock-shaft, and the whole device fixed upon the tubular pedestal W at any required height by means of the set-screws.

WILLIAM FAY.

Witnesses:

H. N. JENKINS,
L. J. OLMSTEAD.