W. LAWRENCE & J. SANDERS.

Automatic Fans.

No. 134,605. Patented Jan. 7, 1873.

Fig. 1.

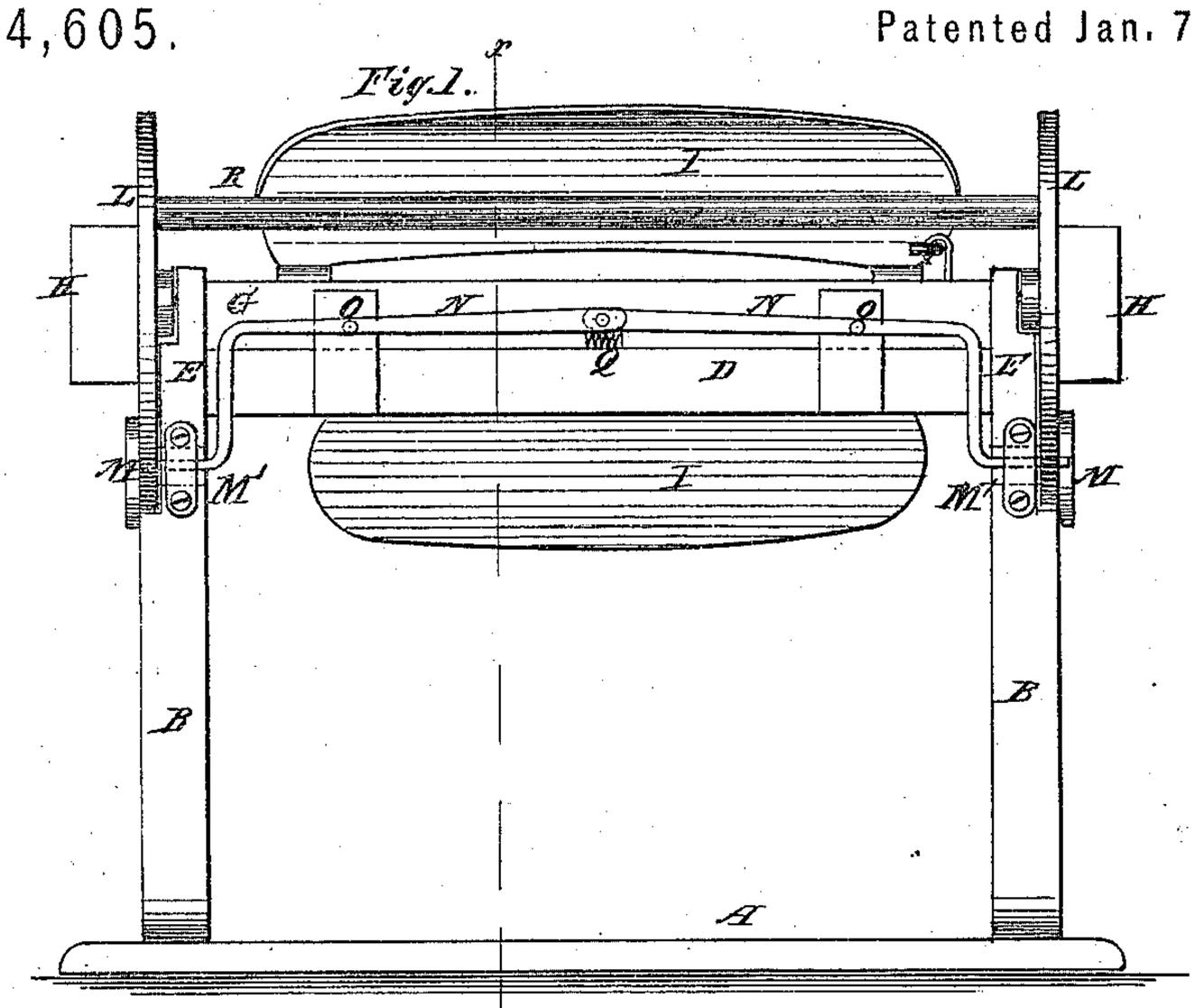

Fig. 3.

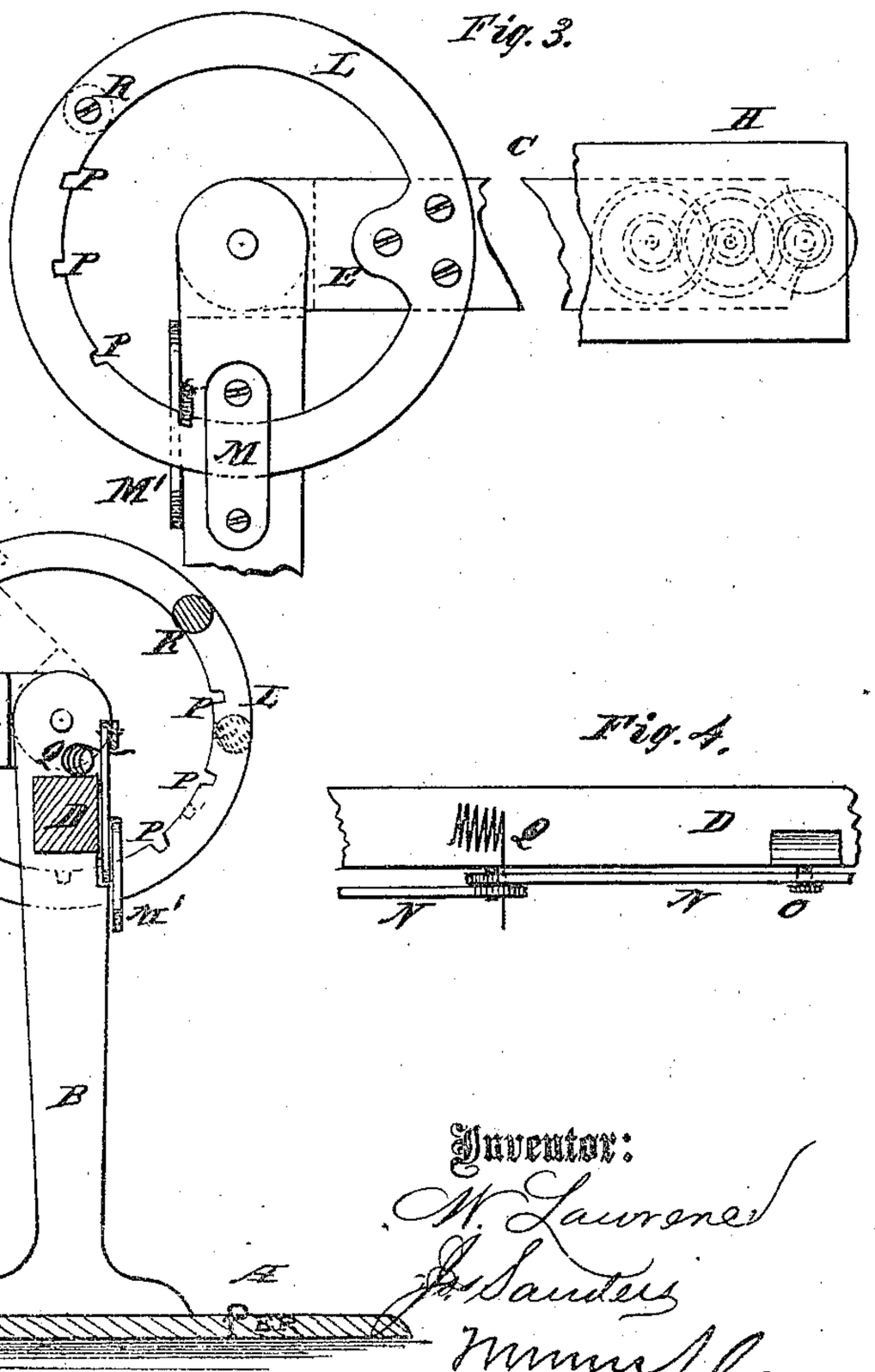

Fig. 2.

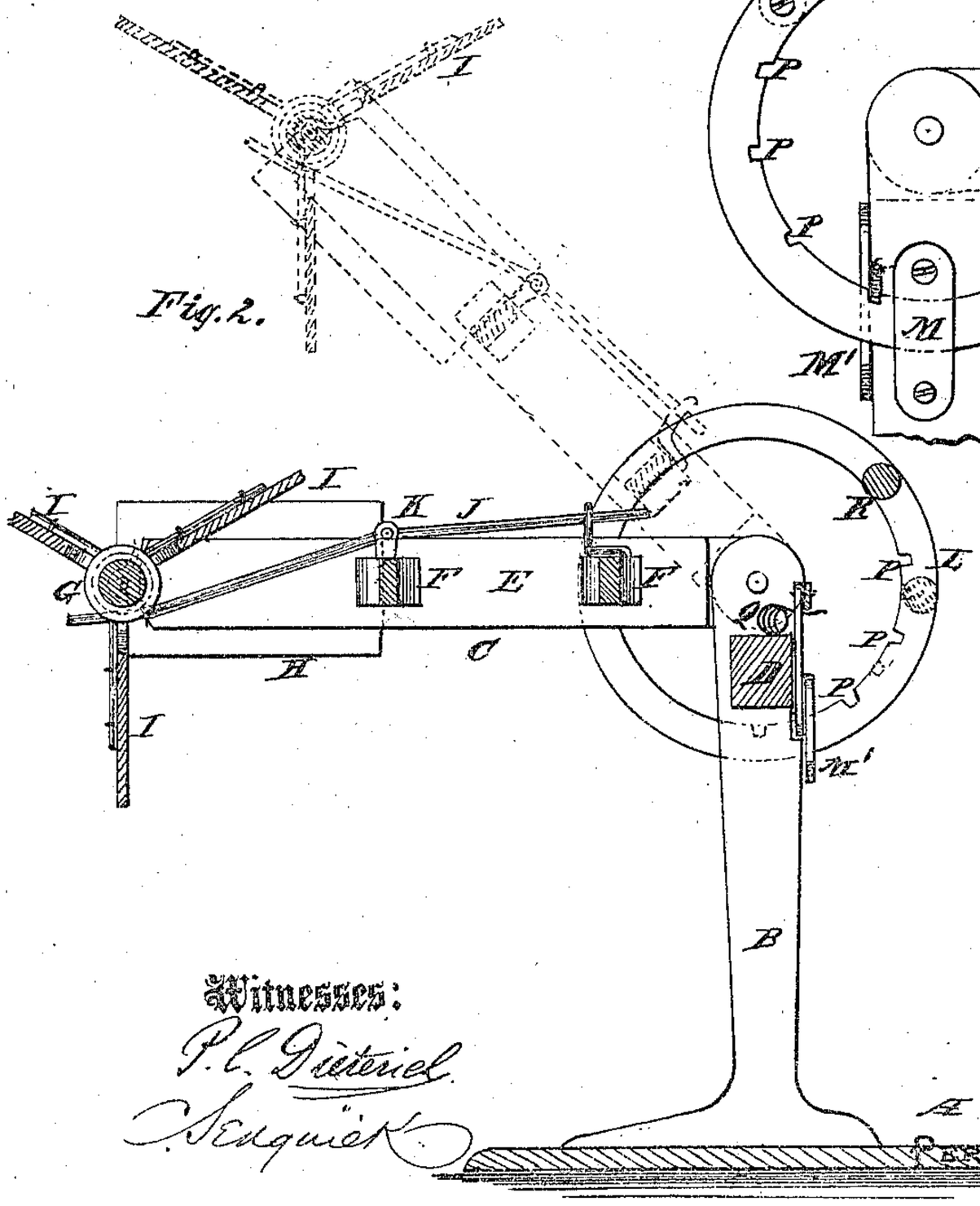

Fig. 4.

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UNITED STATES PATENT OFFICE.

WILLIAM LAWRENCE AND JOSEPH SANDERS, OF NEW ALBANY, INDIANA.

IMPROVEMENT IN AUTOMATIC FANS.

Specification forming part of Letters Patent No. **134,605**, dated January 7, 1873.

To all whom it may concern:

Be it known that we, WILLIAM LAWRENCE and JOSEPH SANDERS, of New Albany, in the county of Floyd and State of Indiana, have invented a new and useful Improvement in Automatic Fans, of which the following is a specification:

This invention has reference to a class of fans which are made to operate automatically by means of clock-work or similar motive power; and consists in the construction and arrangement of parts, whereby the fan is made portable so that it can be readily moved from place to place, and made adjustable by elevating or depressing so as to throw the current of air in any particular direction, the construction and arrangement of parts being as hereinafter more fully described.

In the accompanying drawing, Figure 1 represents a front elevation; Fig. 2 is a vertical section taken on the line *x x* of Fig. 1; Fig. 3 is a sectional side view; and Fig. 4 is a detail, showing the arrangement of the stop-levers for holding the fan in position when it is elevated.

Similar letters of reference indicate corresponding parts.

A is the bed-plate. B B are stands or posts on the bed-plate, to the top ends of which the fan-frame C is jointed. The two posts B B are connected together by the cross-bar D. The fan frame consists of two side pieces, E E, connected together by the two cross-bars F F. G is the fan-shaft, which is revolved on end bearing in the ends of the side pieces E E. H H represent cases or boxes in which the clock-work is confined, by means of which the fan-shaft is revolved.

We do not confine ourselves to any particular clock-work or arrangement of gearing for actuating our fan. We simply set wheels in motion by means of a spring or springs or by means of a weight or weights, and thereby impart the required velocity to our fan.

I represents the wings, more or less in number of which may be used, connected with the shaft in any suitable manner so as to be revolved thereby. J is a brake-lever whose fulcrum is at the point K, by means of which the motion of the fan may be stopped or regulated by friction. The fan-frame is hinged to the top ends of the stands B B, so that it may be turned or elevated from horizontal to a more upright position, as represented in dotted lines. The fan-frame is held in position when so elevated by means of the circles L L attached thereto by screws, as seen in Fig. 3. The rims of the circles are confined to the stands B B by clip-plates M, as seen in the same figure. N N represent stop-levers whose fulcrums are at the points O O. (See Fig. 1.) These outer ends are bent down and outward, and pass within the clip-plates M′ M′, and enter the recesses P in the rims of the circles. The inner ends of these levers are connected together by a rivet, and rest upon a spring, Q, so that they act simultaneously. The tendency of the spring is to keep the outer ends of the levers constantly engaged with the circles, and they are disengaged only when their inner ends are pressed down against the force of the spring. R is a cross-bar, by which the circles are connected.

The fan-frame may be elevated from a horizontal to a vertical position, or be secured in any intermediate position, according to the number and position of the recesses P.

This fan may be placed in any position upon the dining-table or by the bed, and the fan-frame can be adjusted so that the wings will not interfere with anything on the table, and so that the current of air will be directed to any desired point.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. The jointed fan-frame C and circles L L, in combination with the stands B B and bed A, as and for the purposes set forth.

2. The stop-levers N N and spring Q, in combination with the fan-frame C and circles L L, as and for the purposes described.

WILLIAM LAWRENCE.
JOSEPH SANDERS.

Witnesses:
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R. HUMPHREYS.