J. P. KELSO.

Automatic Fly-Brush.

No. 203,462. Patented May 7, 1878.

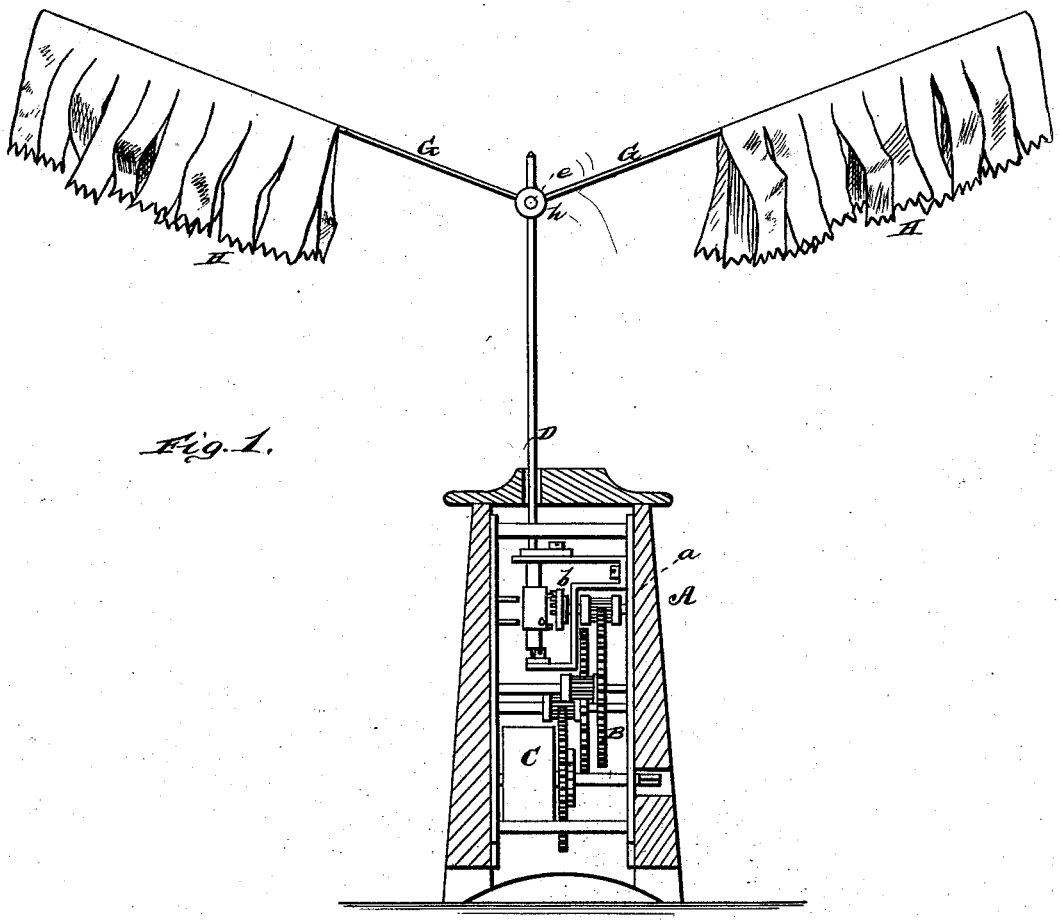

Fig. 1.

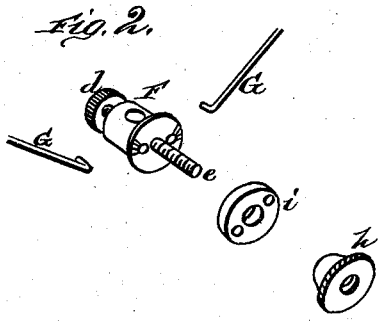

Fig. 2.

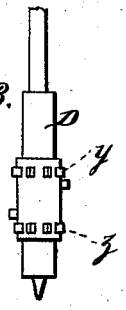

Fig. 3.

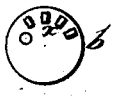

Fig. 4.

WITNESSES

Robert Everett

James J. Stoothy.

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James P. Kelso.

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ATTORNEYS.

UNITED STATES PATENT OFFICE.

JAMES P. KELSO, OF MORGANTOWN, INDIANA.

IMPROVEMENT IN AUTOMATIC FLY-BRUSHES.

Specification forming part of Letters Patent No. **203,462**, dated May 7, 1878; application filed March 30, 1878.

To all whom it may concern:

Be it known that I, JAMES P. KELSO, of Morgantown, in the county of Morgan and State of Indiana, have invented a new and valuable Improvement in Fly-Brushes; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of vertical section of my fly-brush, and Fig. 2 is a perspective detail, and Figs. 3 and 4 are detail views thereof.

The nature of my invention consists in the construction and arrangement of a vibrating fly-brush operated by clock-gearing, as will be hereinafter more fully set forth.

The annexed drawing, to which reference is made, fully illustrates my invention.

A represents a box of any suitable dimensions and of any desired material.

In this box is arranged a clock-work, B, run by means of a spring, C, in the usual manner. On the last shaft *a* of the train of gearing is secured a wheel or disk, *b*, havings cogs *x* arranged in a semicircle on its face. This wheel meshes with two series of cogs, *y* and *z*, arranged on an upright shaft, D, near the lower end thereof, said series of cogs running about half-way around.

The wheel *b*, gearing into the upper row of cogs *y*, drives the shaft half-way around, and then gears into the lower series *z*, leaving the upper row at the same time, and driving the shaft half-way around in the opposite direction, thus making two vibrations of the shaft D for each revolution of the half-cogged wheel *b*.

This device may be used for various other purposes where a vibratory movement is desired, as well as for a fly-brush.

The shaft D is supported in a suitable bearing within the box, and extends upward through the top thereof a suitable distance.

On the shaft is placed a block, F, fastened at any height desired on the shaft by means of a set-screw, *d*, passing through one end of the block. From the opposite end of said block projects a bolt, *e*, upon which is a washer, *i*, and thumb-nut *h*. In this end of the block F are made two holes for the insertion of the bent ends of two arms, G G, to which the brushes H H are connected, said arms being held by screwing up the nut *h*, so as to clamp the arms between the end of the block and the washer.

The arms G G can be adjusted so as to stand in a horizontal position, or at any angle desired above or below the horizontal line.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a vibrating fly-brush, or other vibrating machinery operated by clock-work, the combination, with the train of gearing B and its operating spring C, of the wheel or disk *b*, having a semicircular row of cogs, *x*, on the face, and the shaft D arranged at right angles to the axis of the wheel *b*, and provided with two series of cogs, *y* and *z*, substantially as and for the purposes set forth.

2. In combination with the shaft D, the perforated block F, provided with set-screw *d*, bolt *e*, washer *i*, and thumb-nut *h*, and the hooked arms G G, with brushes H H, substantially as and for the purposes set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JAMES P. KELSO.

Witnesses:
B. F. KENNEDY,
GEORGE W. PROSSER.