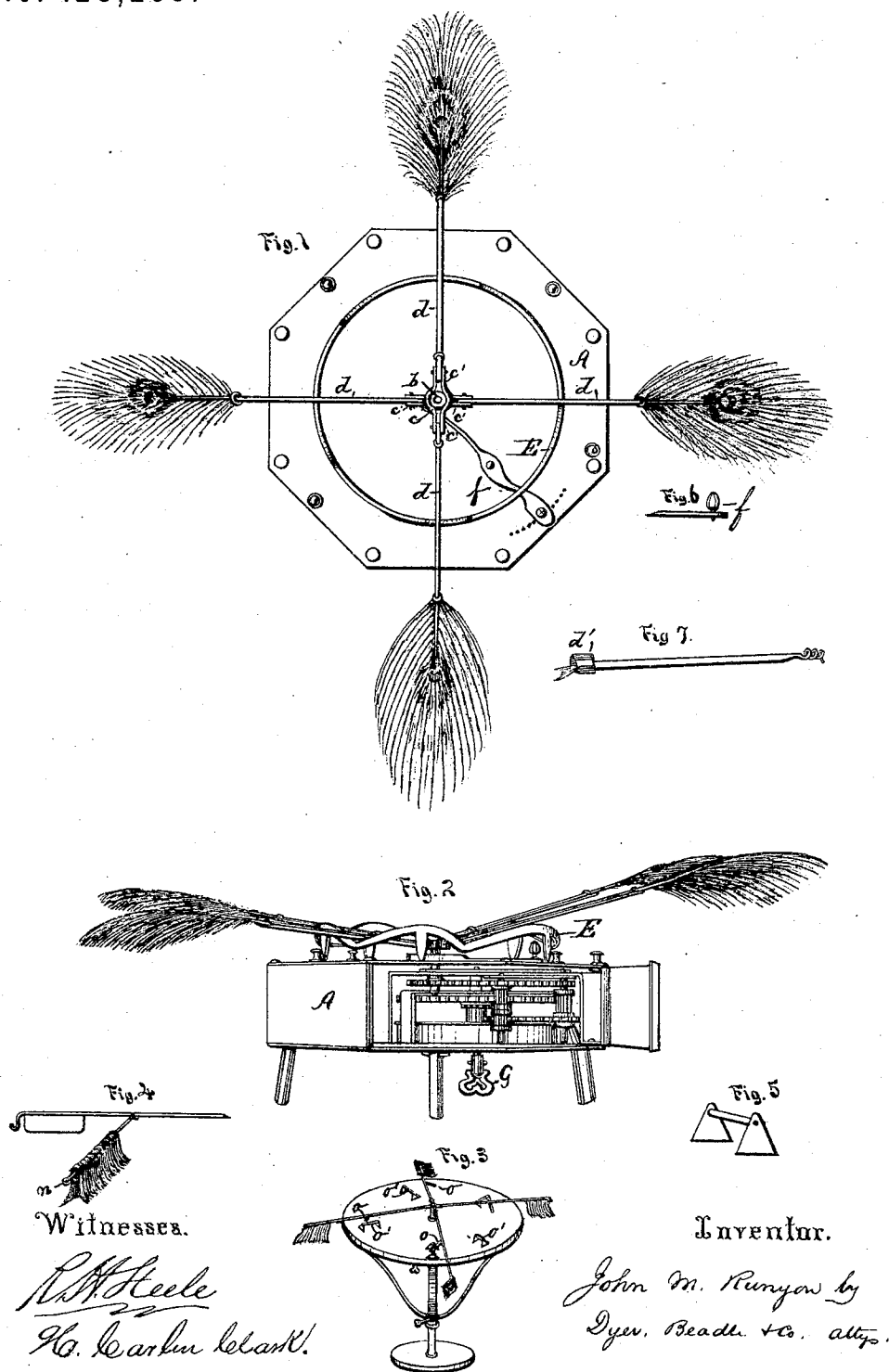


JOHN M. RUNYON.
 Improvement in Fly-Brushes.
 No. 128,253. Patented June 25, 1872.



UNITED STATES PATENT OFFICE.

JOHN M. RUNYON, OF PEMBERTON, OHIO.

IMPROVEMENT IN FLY-BRUSHES.

Specification forming part of Letters Patent No. 128,253, dated June 25, 1872.

SPECIFICATION.

To all whom it may concern:

Be it known that I, JOHN M. RUNYON, of Pemberton, in the county of Shelby and State of Ohio, have invented a new and useful Improvement in Fly-Brushes; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawing and to the letters of reference marked thereon.

This invention relates to that class of automatic fly-brushes designed for table use, which are provided with brushes having a revolving movement; and consists mainly in giving to the said brushes, in addition to the revolving movement, a rising-and-falling motion, as will be fully described hereinafter.

In the drawing, Figure 1 represents a plan view of my device; Fig. 2, a side elevation; Fig. 3, a modified form of my invention; and Figs. 4, 5, 6, and 7, views of parts detached.

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

A represents the box or case containing the mechanism for revolving the brushes. It may be constructed in any proper form, and of any suitable material and size. It is preferably supported upon legs or standards of proper size, and is made sufficiently ornamental to be attractive to the eye. Within the case is located a train of wheels, of any suitable construction and arrangement, which train gives motion to a central shaft, the upper end of which latter appears above the box or case, as shown at *b*. *c* represents a sleeve provided with arms *c'* of any proper number. *d* *d* represent bars for supporting the brushes, the inner ends of which are pivoted to the arms *c'*, and the outer ends, which terminate in a wire, Fig. 7, are wound about the brushes, as shown in Fig. 7. *d'* represents a metal clasp, which is employed for uniting the inner ends of the brushes to the bars. *E* represents a guide-ring supported by standards resting in sockets upon the top of the case, which ring has its upper edge provided with a series of inclines at regular intervals, as shown. *f* represents a brake, consisting of a bar piv-

oted near its center to the top of the case, the inner end of which bears against the central shaft, when in place, as shown. Its outer end is provided with a handle, and with a short pin or stud, Fig. 6, which latter is adapted to rest in one of a series of corresponding depressions in the case for the purpose of adjusting the brake to regulate the pressure upon the shaft. *G* represents the key, which is permanently fixed to the winding shaft by means of a transverse pin, as shown.

The operation of my improved machine is as follows: The device having been wound, motion is communicated to the central shaft in the usual well-known manner. The revolving motion of the shaft is communicated to the brushes by means of the arms *c'*. In addition to the revolving movement thus communicated, the brushes being attached to pivoted bars, have a rising-and-falling movement as the latter pass over the inclines of the guide-ring. As the upward inclines are long, and the downward inclines abrupt, the brushes receive a downward flit at each fall, which insures the dispersing of any flies that may have gathered in its vicinity.

By means of the brake, the speed of the revolution of the brushes may be regulated at will.

A modified form is shown in Fig. 3, in which a different method is shown of imparting the rising-and-falling motion to the arms. Each arm is provided with a pin, *o*, which is brought in contact at regular intervals during its revolution with a rod or bar, *o'*, by which means it is caused to rise. After the pin has passed the rod, the brush-arm is caused to fall by its own weight. If desired, the whole can be supported by a single standard, and be adjusted by means of a set-screw, as shown.

In Fig. 4 is represented a different method of attaching the brushes to the arms. *n* represents a rod on which the material for forming the brushes is laid. One end of this rod is held by a staple upon the arm, and the other by a hook, as shown.

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

The combination of a series of horizontal pivoted radial arms, having a revolving motion, with projections adapted to force the arms upward at intervals, their return movements being caused by gravitation, by means of which the arms have a rising-and-falling movement as they revolve, as described.

This specification signed and witnessed this 22d day of March, 1872.

JOHN M. RUNYON.

Witnesses:

SAMUEL WILSON,
S. R. HISSLEY.