

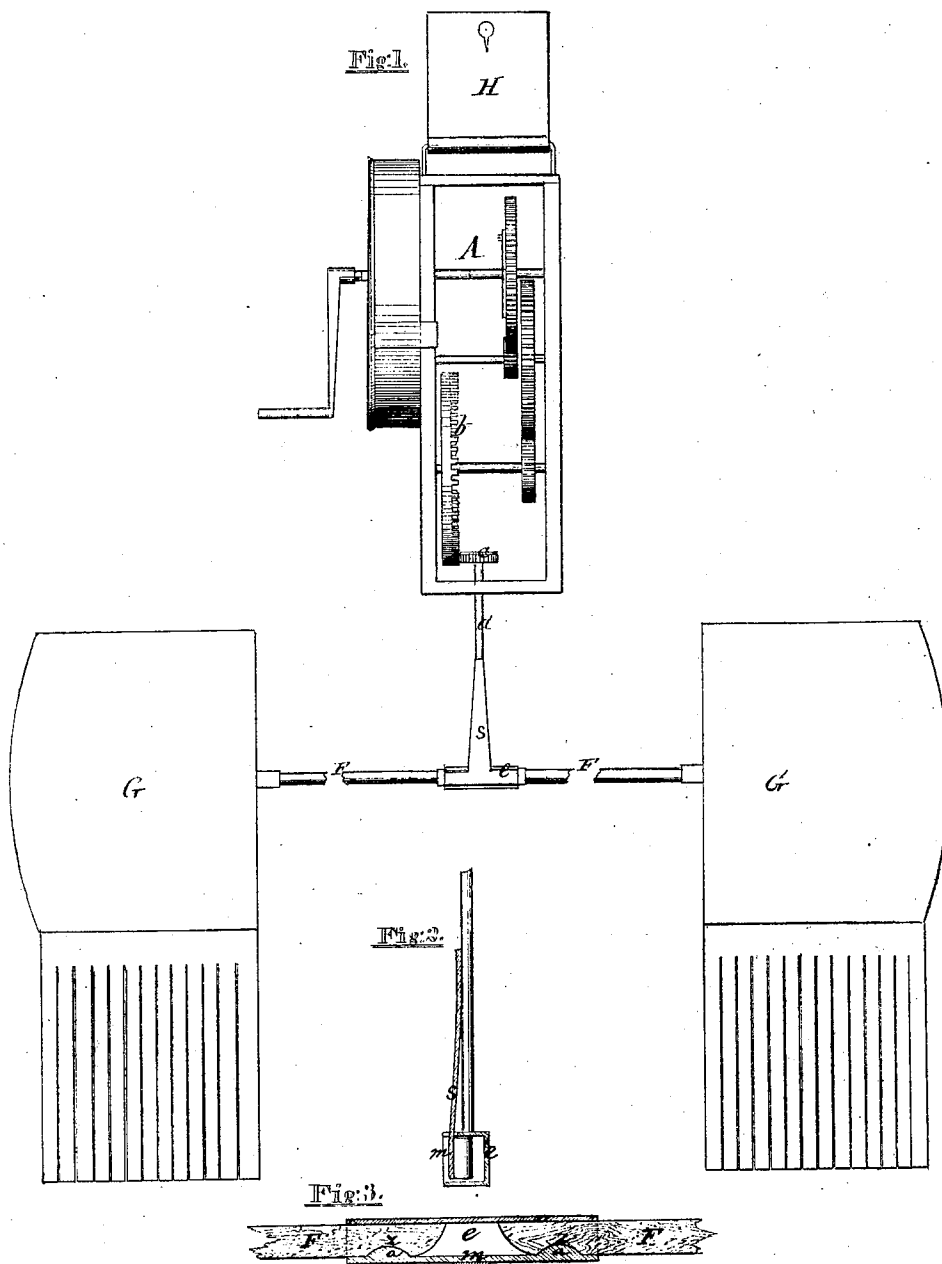
O. Metcalf,

2. Sheets, Sheet 1.

Automatic Fan.

No. 107,396.

Patented Sep. 13. 1870.



Witnesses.
Chas. Kenyon
A. D. Kane.

Inventor.
Oliver Metcalf
Chipman & Osmer & Co
Attorneys

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2, Sheets, Sheet 2.

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Fig. 4.

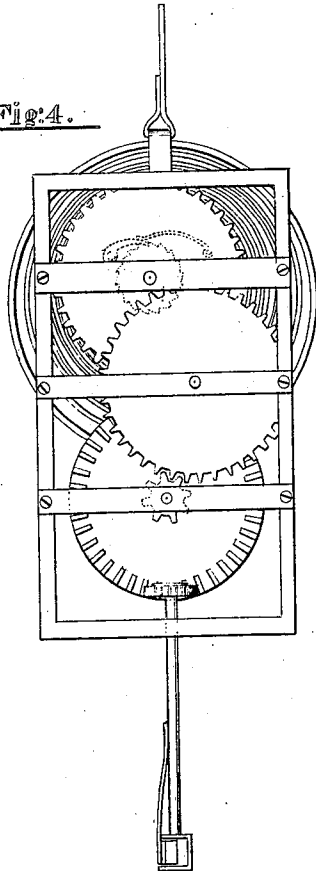
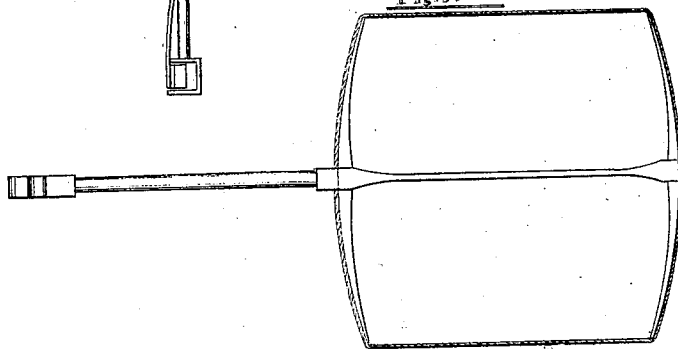


Fig. 5.



Witnesses.

Chas. Kenyon

H. D. Kane.

Inventor.

United States Patent Office.

OLIVER METCALF, OF ORLEANS, INDIANA.

Letters Patent No. 107,396, dated September 13, 1870.

IMPROVEMENT IN ROTATING FANS AND FLY-BRUSHES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, OLIVER METCALF, of Orleans, in the county of Orange and State of Indiana, have invented a new and valuable Improvement in Fans and 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 drawing is an external view of my fan and brush.

Figures 2 and 3 are sectional details.

My invention relates to fans, fly-brushes, &c., and consists in the construction and novel arrangement of devices designed to constitute a combined revolving fan and fly-brush, operated by clock-work, and adapted to be suspended at any point of the apartment, according to desire.

The letter A of the drawing designates the operating clock-work, turning the large vertical crown-wheel *b*, which in turn operates the horizontal pinion *c*, thus rotating the shaft *d*, at the lower end of which is the holder *e*.

F F are the horizontal arms, to each of which is attached the combined fan and brush G, the brush being usually attached to the lower edge of the fan, in the manner shown.

The holder *e* consists of a hollow rectangular tube, one wall of which is made separate, and provided with

the lugs or bosses *a a*, to secure the arms of the fans, which are correspondingly recessed at *z z*, and beveled at the ends, for convenient introduction.

This separate wall or plate *m* is actuated by a spring, *s*, which serves to keep it securely pressed against the arms F F.

H represents a strap or loop, whereby the rotating fan, with its clock-work, may be conveniently suspended at any desired point, as for instance, over the center of the dining-table at meals.

It will be observed that the fans sweep around horizontally, and the drooping brushes serve effectually to drive away the flies and other insects which may be within its influence.

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

The combined fan and fly-brush herein described, consisting of the clock-work A, rotating shaft *d*, with holder *e*, spring clamp *m*, with lugs *a a*, removable arms F, with recesses *z*, and fringed fans G, when adapted to be suspended at any point, in the manner and for the purposes shown and described.

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

OLIVER METCALF.

Witnesses:

WILLIAM H. FREEMAN,
CYRUS M. HOBBS.