

(No Model.)

S. G. STODDARD.
Fly Fan.

No. 229,337.

Patented June 29, 1880.

Fig. 1.

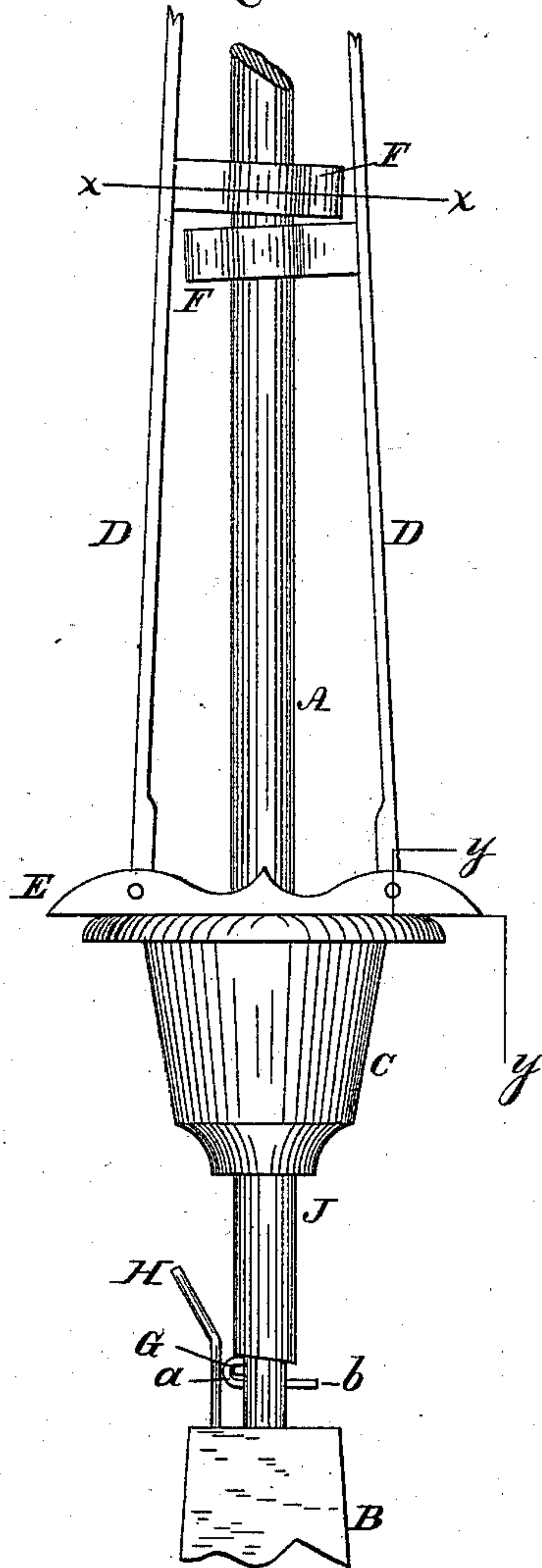


Fig. 3.

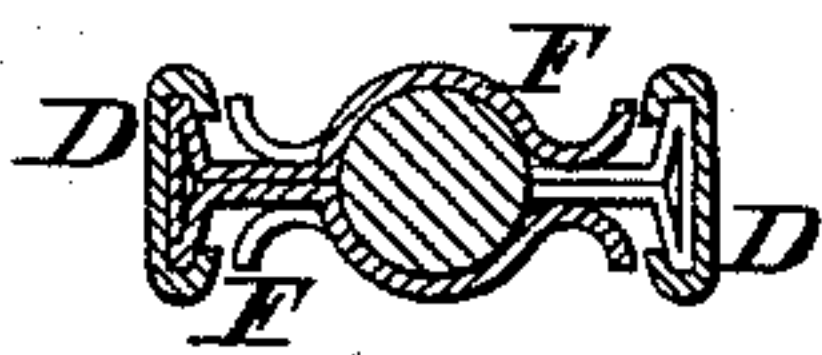


Fig. 4.

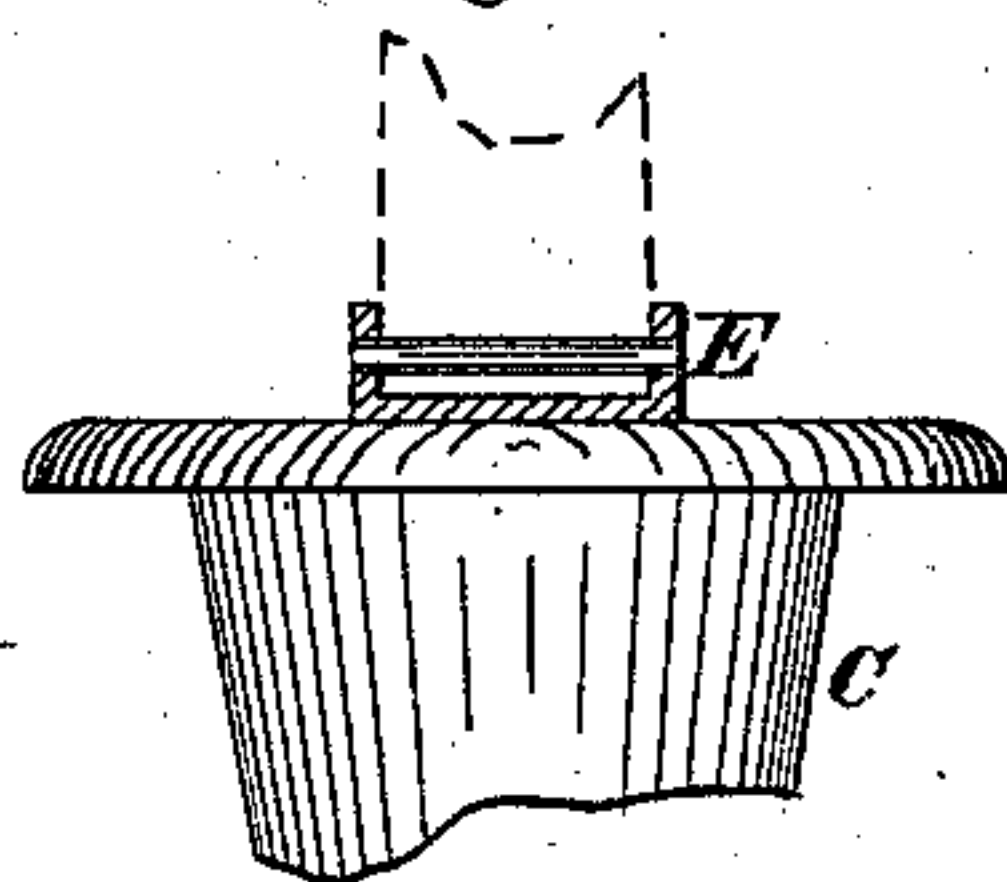
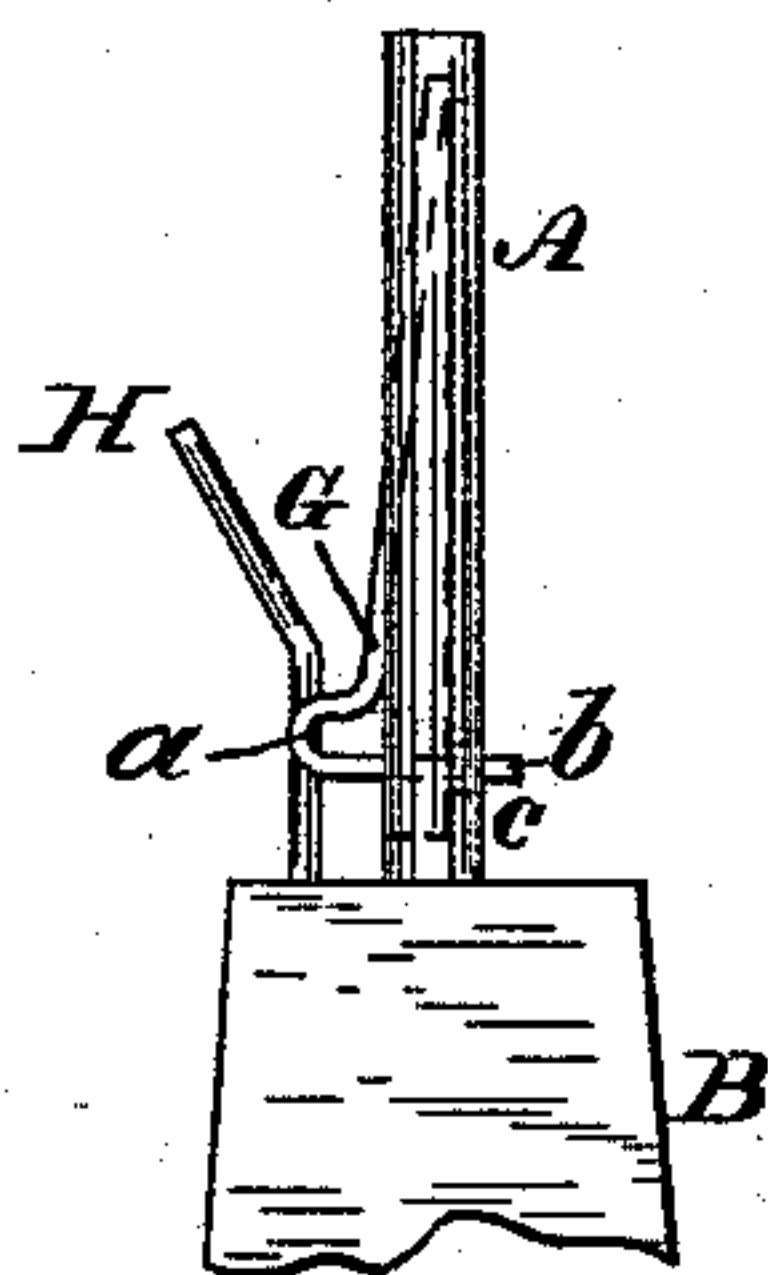


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

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FLY-FAN.

SPECIFICATION forming part of Letters Patent No. 229,337, dated June 29, 1880.

Application filed March 20, 1880. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL G. STODDARD, a citizen of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented a new and useful Improvement in Fly-Fans, which improvement is fully set forth in the following specification and accompanying drawings, in which—

10 Figure 1 is a side elevation of a portion of a fly-fan embodying my invention. Fig. 2 is a side elevation of a portion thereof. Fig. 3 is a horizontal section in line *xx*, Fig. 1. Fig. 4 is a vertical section in line *yy*, Fig. 1.

15 Similar letters of reference indicate corresponding parts in the several figures.

My invention relates to improvements in fans which have arms connected to a staff, the rotation whereof is occasioned by a train of gearing, after the manner of clock-work, the motion of the blades which are attached to said arms serving to frighten flies and other insects.

25 The invention consists of the fan-arms provided with spring-clasps, which are adapted to engage with the rotary staff in a convenient and expeditious manner and securely hold the fan-blades in upright or folded positions.

30 It also consists of a spring-stop rendered operative when the blades are removed and inoperative when the blades are applied in position.

Referring to the drawings, A represents a two-part staff or shaft rising from a stand or base, B, containing a mechanical power, such as clock-work, for rotating said staff, as is well known in the class of fly-fans.

40 C represents a collar or piece clamped to the upper section of the staff, and adapted to be raised and lowered, so that the arms D of the fan-blades, hinged to a flanged plate, E, on the top of said collar or piece, may be adjusted relatively to the height required for the fan-blades.

45 Secured to the arms D, on what are the upper faces when the blades are extended, are spring-clasps F, which are so disposed that when the blades are to be folded, and accordingly raised to upright positions, the clasps

embrace the staff A, and thus hold the blades 50 in said positions. When the blades are to be unfolded or render service they are drawn away from the staff, and as the power of the spring-clasps is overcome the blades readily assume operative positions. The clasps may 55 be shiftable on the arms for purposes of adjustment.

It will be noticed that the plate E at the top of the collar or piece C is flanged, and the flanges are turned up from the base of said 60 plate. The inner ends of the arms are pivoted to said flanges, and the adjacent portions of said arms rest on the base of the plate when the blades are in operative positions, so that the flanged plate, being, as it were, 65 crimped, provides a strong structure for the attachment of the blade-arms and a long bearing for the said arms, whereby the latter are firmly sustained.

G represents a catch, which is let into the 70 upper end of the lower section of the staff A, and consists of a piece of metal, preferably wire, secured at its top to said section of the staff, then extends diagonally, and is bent to form a nose, *a*, at bottom, the end *b* passing 75 freely through an opening, *c*, in the staff-section, the catch being adapted to engage with the stop lever or arm H of the fan, which, consisting of a piece of wire connected to the stand or base, and by means of shoulders at 80 the top of said stand, may be held against the catch or held back therefrom, so that the fan may be stopped or permitted to rotate.

The upper section of the staff A has fixed to its lower end the sleeve J, which is fitted 85 on the top of the lower section of the staff, and consequently over the spring-catch G, thus forcing in the nose *a*.

When the fan is running, and it is desired to stop the same, the stop-lever H is directed 90 against the catch G, thus preventing rotation of the staff A, and the fan-blades may be removed by lifting the sleeve J from the lower section of the staff A. Should, however, any one lift the fan-blades without operating the stop-lever H, the displacement of the sleeve J releases the catch G, which flies out from the groove which it is let into, and its nose *a* 95

strikes said lever H, thus stopping the rotation of the lower section of the spindle and preventing its running away.

When it is desired to operate the fan the sleeve J is fitted in position on the lower section of the staff, thus drawing in the catch G and moving its nose clear of the stop-lever H, whereby the rotation of the staff is immediately occasioned.

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

1. The combination, with the rotary staff or

spindle A, of the fan-arms D, provided with the spring-clasps F, which are open on one side and adapted to engage with said spindle by lateral pressure.

2. The sleeve J, in combination with the rotary staff A, stop H, and spring-catch G, whereby the removal of said sleeve allows the spring-catch to automatically stop the shaft, substantially as set forth.

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Witnesses:

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