W. R. FOWLER.

FLY-FAN.

No. 186,243. Patented Jan. 16, 1877.

Fig. 1.

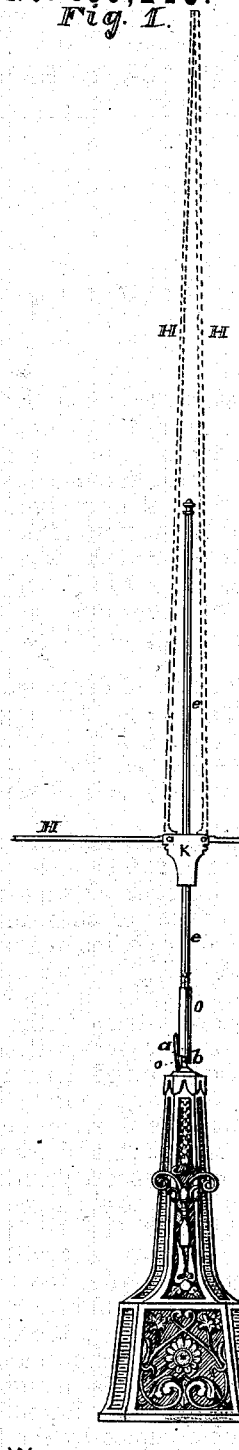


Fig. 2

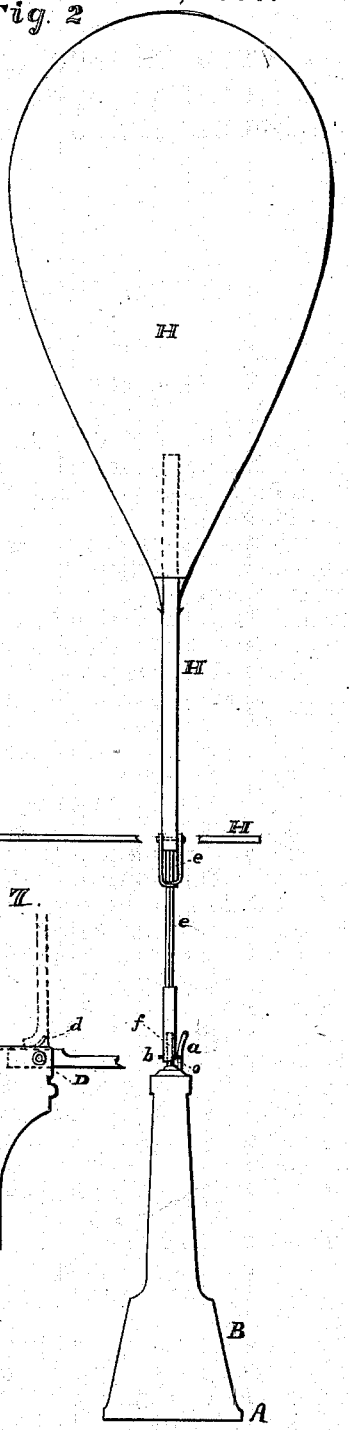


Fig. 3

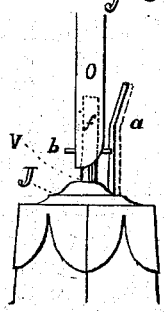


Fig. 4

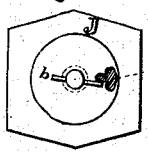


Fig. 6

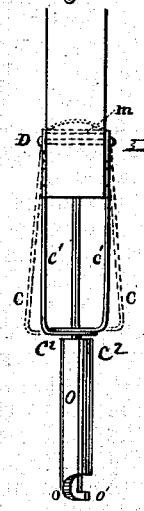
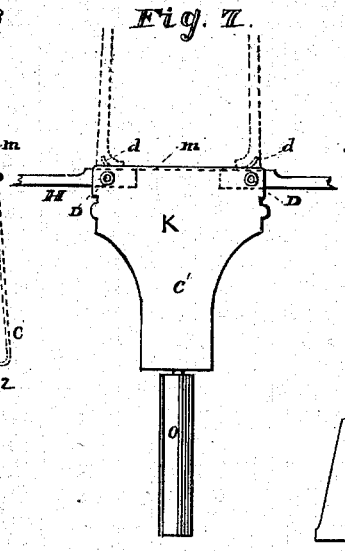


Fig. 7.



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IMPROVEMENT IN FLY-FANS.

Specification forming part of Letters Patent No. **186,243**, dated January 16, 1877; application filed June 13, 1876.

To all whom it may concern:

Be it known that I, WM. R. FOWLER, of Baltimore, county of Baltimore, and State of Maryland, have invented certain Improvements in Fly-Fans, of which the following is a specification:

My invention relates to certain improvements on my invention described in Letters Patent granted me May 12, 1874, for a combined table-caster and fly-fan.

My invention consists of a staff-head, which is constructed of one piece of metal, the outer ends of which are bent downward nearly at right angles to the central portion, forming two jaws, between which the fan-arms are pivoted, one on each side. The extreme outer ends of the jaws are again bent inwardly, so as to stand at right angles to the jaws, and parallel to the central portion or top of the staff-head. They lap over each other, and are perforated for the passage of the fan-staff through them in that position. The holes are of square or polygonal form, so that the fan-staff of corresponding size and form will not turn in them. When the outer ends of the plate of metal are bent down to form the jaws they are not bent enough to form right angles with the central portion, and, therefore, they will have to be compressed into that position before the fan-staff is passed through the holes in them. The result will be that the jaws will act as springs in opposite directions to each other, and cause so much friction that they will hold their position on the staff wherever placed. By compressing the jaws the staff-head can be easily adjusted to any height desired.

The fan-arms upon which the fans are placed are inserted deeply between the jaws, so that there will be a considerable frictional surface between their sides and the inner surfaces of the jaws. They are pivoted by horizontal headed pins, which hold the jaws with a certain degree of force against the sides of the arms. The result of this construction is, that the fan-arms are held steadily in position when in use. But in order that the fans, when not in use, shall be out of the way, and occupy as little space as possible, they may be folded up, turning upon the headed pins until they pass the perpendicular, and meet, or nearly meet, over the center of the staff-head, where they are held partly by their weight, and partly by their friction in the jaws of the staff-head. In order, however, that the fans, when turned up, may not go too far in the opposite direction, ears are struck up from the material of the top of the staff-head, which act as stops.

My invention will be further described with reference to the accompanying drawings, in which Figure 1 represents a side elevation of a machine embracing the same; Fig. 2, a front view; and Figs. 3, 4, 6, and 7, detail views of parts of the same.

A B is the stand or base, containing the clock-work for revolving the shaft *v*, which gives motion to the fan-staff *e* by means of the projecting pin *b*, which catches against the lower end of the sleeve *o*, secured to the fan-shaft, and provided with the socket *f*, for receiving the upper end of the driving-shaft *v*. *a* is a suitable spring, fastened in the base, and its tension and action are in the direction of sleeve *o*, through the T-formed slot *i* in the cap J of the stand. When the spring is in the stem of the slot next the sleeve *o*, the pin *b* will come in contact with it, and the rotation of the fan-staff will consequently be stopped. In order, however, to avoid too sudden a stop, the lower end of the sleeve *o* is sloped, as shown in Fig. 6, so that it will turn a little, by rising upon pin *b*, after the latter strikes the spring. K is the staff-head; c^1 c^1, the jaws; H H, the fan-arms; *m*, the top of the staff-head; *d d*, the ears or stops, and D D the headed pins holding the jaws together upon the fan-arms. In Fig. 6 the dotted lines *c c* indicate the position occupied by the jaws c^1 c^1 before being compressed, and before having the fan-staff passed through the holes in their lower ends or ears c^2 c^2, and through the top *m* of the staff-head K. The inner or lower ends of the fan-arms H H are made preferably of sheet metal, and are made wide, as shown in Fig. 7, in order to secure two objects, one of

which is friction, and the other is steadiness of the fan-arms when in use, and when being folded up or turned down.

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

1. In an automatic fan, the staff-head K, having the perforated top *m*, the perforated ears c^2 c^2, and the spring-jaws c^1 c^1, in combination with the fan-staff *e*, substantially as and for the purpose set forth.

2. The stops *d d*, constructed as described, in combination with the fan-arms H H, substantially as and for the purpose set forth.

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Witnesses:
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