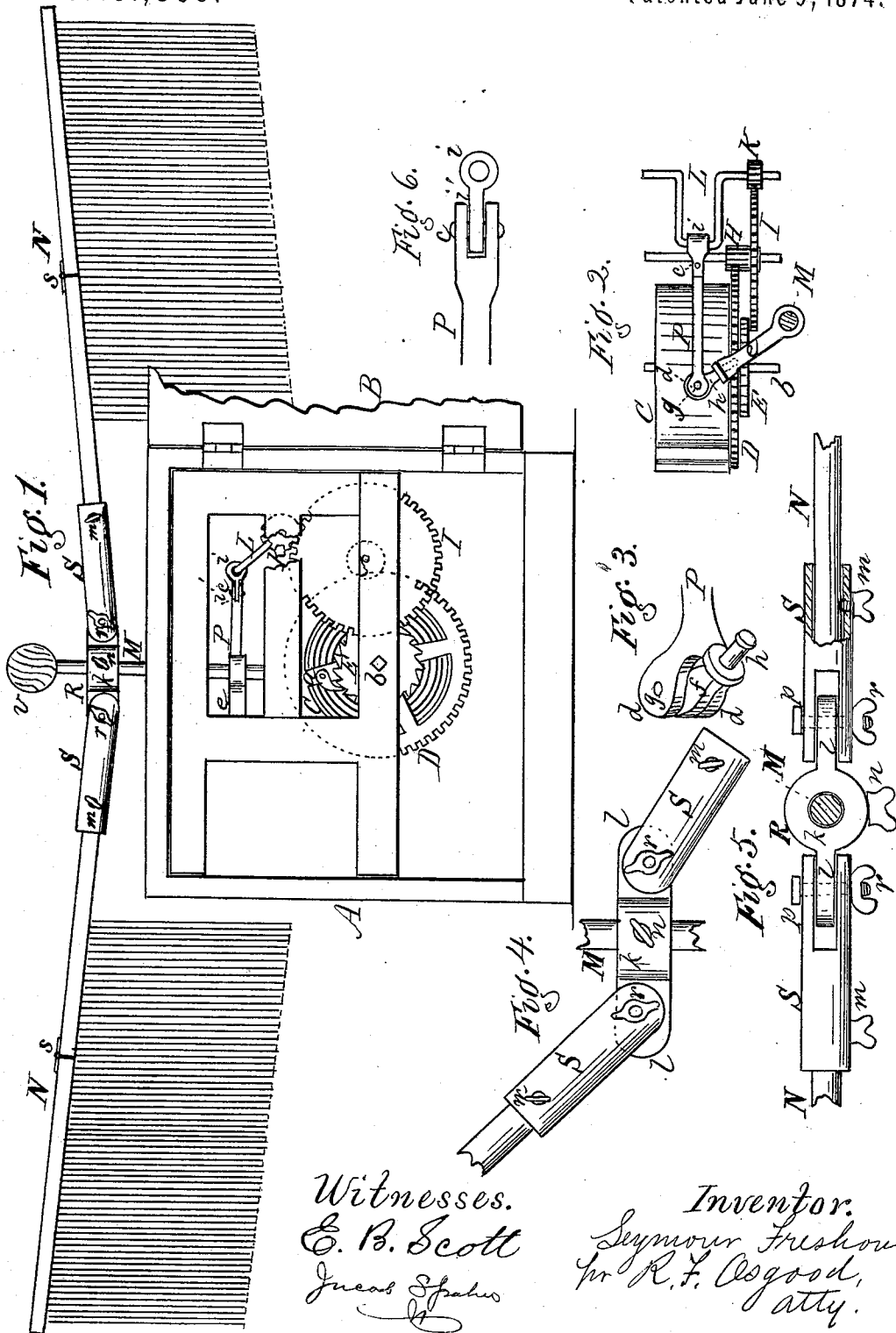


S. FRESHOUR.
Automatic Fans.

No. 151,869.

Patented June 9, 1874.



Witnesses.
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UNITED STATES PATENT OFFICE.

SEYMOUR FRESHOUR, OF CANANDAIGUA, NEW YORK.

IMPROVEMENT IN AUTOMATIC FANS.

Specification forming part of Letters Patent No. **151,869**, dated June 9, 1874; application filed April 21, 1873.

To all whom it may concern:

Be it known that I, SEYMOUR FRESHOUR, of Canandaigua, in the county of Ontario and State of New York, have invented a certain new and useful Improvement in Automatic Fans, which I denominate the "Shoo-Fly;" and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same.

My invention relates to automatic fans for brushing flies, &c.; and consists more especially in the arrangement of the pitman, by which power is applied to the fan-spindle, and in the construction of the cross-head to which the fans are attached, as hereinafter described.

In the drawings, Figure 1 is an elevation of my device, with the door open to show the interior arrangement. Fig. 2 is a plan of the crank and gearing removed from place. Fig. 3 is a perspective view of the swivel end of the pitman. Figs. 4 and 5 are an elevation and plan, respectively, of the cross-head or bearing to which the fans are attached. Fig. 6 is a detail view.

A represents a case or box of ordinary form, which contains the working arrangement and is provided with a door, B, by which the whole is inclosed. C, Fig. 2, is the spring by which power is imparted. D is a gear-wheel, and E a ratchet-wheel on the same shaft with C, the whole being so arranged, in connection with the detent *a*, that the spring may be wound up, like an ordinary clock, from the square stem *b*. The gear E meshes with a pinion, H, and on the same shaft with this is another gear, I, which engages with a pinion, K, by which the crank L moves. The above includes all the gearing employed, which is of ordinary arrangement. M is a vertical spindle, extending up through the case and carrying the fans N N. At a suitable point within the case the spindle has a stiff crank-arm, *e*, to the end of which and the crank L is connected the pitman P. It will be seen that as the crank is turned by the gearing an alternate reciprocating vibration will be given to the crank-arm *e*, through the pitman P, and consequently to the fans, which will sweep around in the arc of a circle. The end of the pitman which connects with the crank has a separate eye or bearing piece, *i*, which consists of the bearing proper, that

rests on the crank, and a shank, *i'*, which passes into a slot formed in the end of the pitman, to which the shank is pivoted by a pivot, *c*. This constitutes a horizontal joint between the pitman and the eye or bearing piece. At the opposite end of the pitman, which connects with the crank-arm *e*, is a swivel which allows both a horizontal and vertical turning of the parts. To form this swivel I make the end of the pitman with two horizontal forks or jaws, *d d*, between which rests the swivel-head *f*, being secured thereto by the vertical pivot *g*, Fig. 3. The swivel-head is provided with a projecting stem or journal, *h*, which is inserted in a corresponding socket in the end of the crank-arm in such a manner as to allow a free turning movement. A free turning motion is thus attained at each end of the pitman—that connecting with the crank being simply horizontal on the pivot *c*, and that connecting with the crank-arm being both horizontal and vertical—the first on the pivot *g* and the last on the stem *h*. This jointing of the ends of the pitman is to accommodate the motions of the crank and the crank-arm and prevent binding and strain in different positions. The turning of the stem *h* compensates for the vertical motions of the crank in revolving, while the horizontal joints on the pivots *c* and *g* compensate for the swinging motions of the crank-arm on its center. R is a cross-head or bearing, which consists of a hub, *k*, and two arms, *l l*. The hub rests on the spindle M, and is made adjustable, both vertically and circumferentially, by means of a set-screw, *n*, which clamps it at any position. To the arms are connected sockets S S, which receive the shafts of the fans, the same being secured in the sockets by set-screws *m m*. The inner ends of the sockets are slotted to fit over the arms, and are secured by pivots consisting of headed bolts *p p*, on which screw thumb-nuts *r r*.

By the means above described the cross-head and arms may be adjusted higher or lower to raise or lower the fans, or turned circumferentially to change the position over which the fans sweep; or the sockets themselves, irrespective of the cross-head, may be set at any angle, up or down, as shown in Fig. 4, to carry the fans at a corresponding angle, as necessity may require. This is important in adjusting

the fans to the position in which they are to be used over the dishes of a table, or in any other place. In addition to the above, the fan-shafts are made in two parts, hinged together at *s*, so that the outer part may be turned over the inner one, thereby shortening the fans when desired. The fans may be provided with feathers, fringe, or any other material.

The spindle *M* may be surmounted by an ornament, *v*, of any desired kind.

Having thus described my invention, I would say that I am aware that automatic fans driven by gearing are known; also, cranks for driving a fan-shaft.

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

1. The pitman *P*, provided with the horizontally-jointed eye or bearing piece *i* at one end

and the pivoted swivel *f*, with its journal *h*, at the other, in combination with the crank *L* and spindle *M* of an automatic fan, as and for the purpose specified.

2. The combination, with the cross-head *R*, made adjustable both vertically and circumferentially on the spindle, of the sockets *S S*, pivoted to the arms *l l* and adjustable to any angle by means of bolts *p* and nuts *r*, as shown and described.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

SEYMOUR FRESHOUR.

Witnesses:

ADDISON STEARNS,
GEO. D. FRESHOUR.