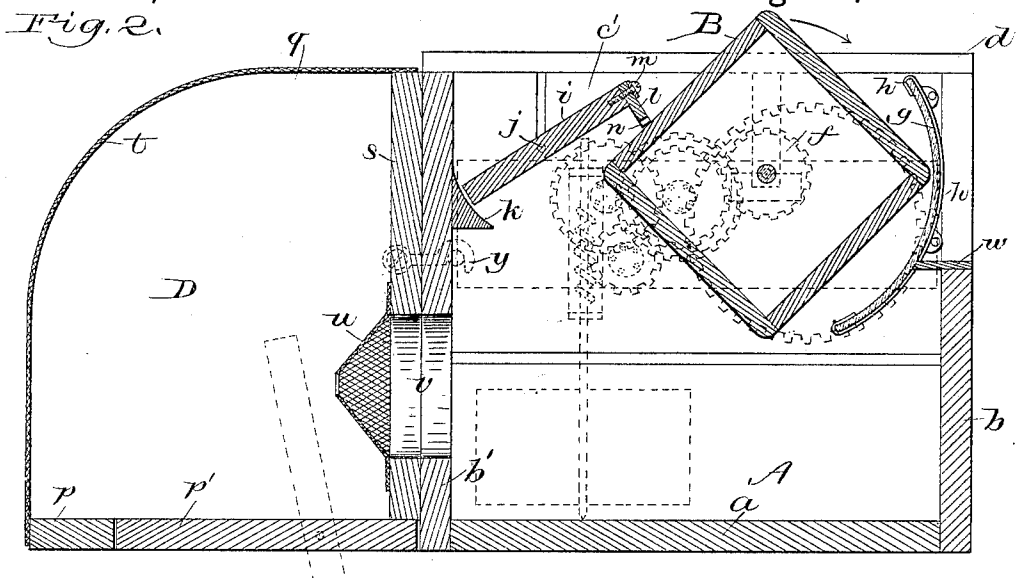
(No Model.)

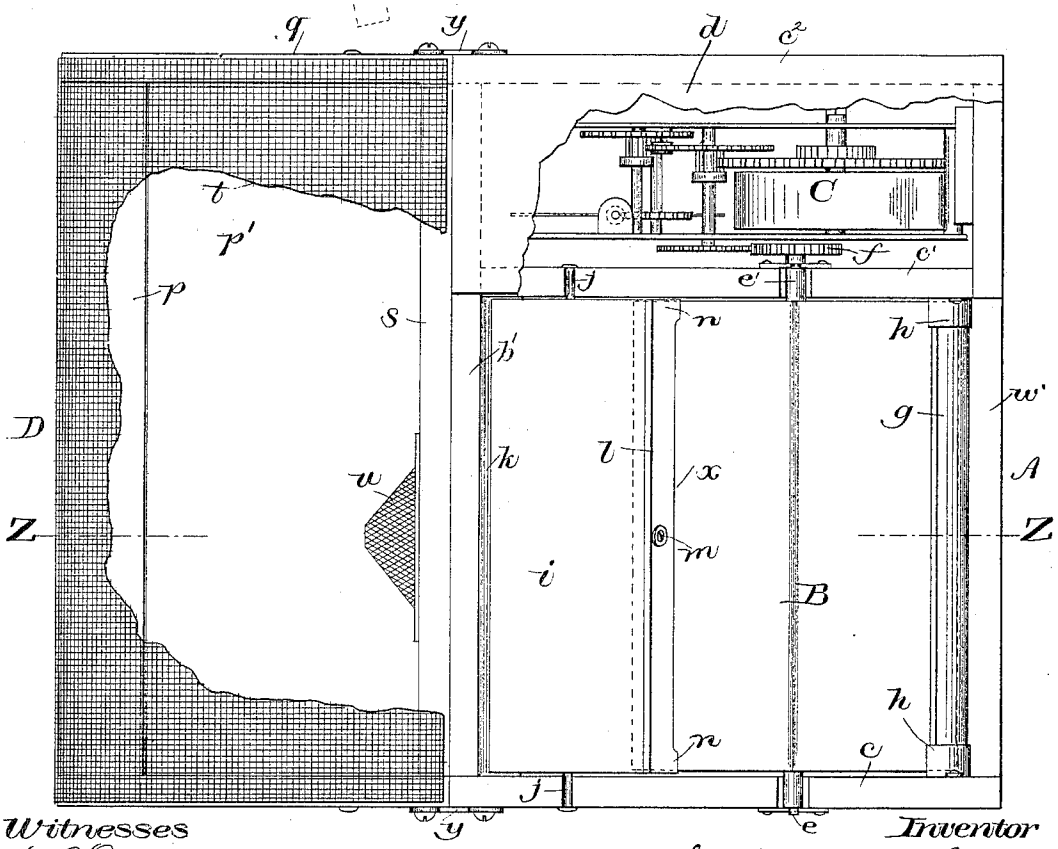
G. W. W. EDSON.

FLY TRAP.

No. 325,163. Patented Aug. 25, 1885.

Fig. 2.





Witnesses
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Fig. 1.

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UNITED STATES PATENT OFFICE.

GEORGE WASHINGTON WARREN EDSON, OF STOW, MASSACHUSETTS.

FLY-TRAP.

SPECIFICATION forming part of Letters Patent No. 325,163, dated August 25, 1885.

Application filed December 20, 1884. (No model.)

To all whom it may concern:

Be it known that I, GEORGE WASHINGTON WARREN EDSON, of Stow, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Fly-Traps, which will, in connection with the accompanying drawings, be hereinafter fully described, and specifically defined in the appended claims.

This invention relates to fly-traps; and its object is to effect certain improvements therein which will tend to the more rapid, certain, and effective extermination of those social pests known as "house-flies," and it will, in connection with the accompanying drawings, be hereinafter clearly described and claimed.

In said drawings, Figure 1 is a top or plan view of a fly-trap embodying my invention; and Fig. 2 is a vertical transverse section thereof, taken as on line Z Z, Fig. 1, and viewed as from below said line or from the bottom end of the sheet.

In said views, A represents a chamber or box open at the top, but having a bottom, *a*, sides *b b'*, and ends *c c'*. The sides *b b'* and bottom *a* are extended beyond end *c'*, and an end wall, c^2, completes another lesser box or chamber, which is closed at top by a cover, *d*. A prism is arranged in box A, and is pivotally supported by its journals *e e'*, which are seated in open slots in ends *c c'* of said box, so as to be readily placed in position therein or removed therefrom. Upon the journal *e'* of said prism is secured the gear *f*, which is engaged and driven by a gear of the clock-movement C, arranged in the described small chamber or box, and is of sufficient power to impart a slow but constant rotation to said prism. In form said prism is four-sided, each side or face of which is a plane at right angles to the two adjacent ones, and I secure to ends *c c'* of box A, by means of metal holders *h*, the arc-like transparent glass curtain *g*, the curvature of whose cross-section coincides with the radius of said cylinder at the angle of intersection of its planes, so that said angles of the prism may move close to said glass curtain when passing the same, and yet not be in contact therewith, said curtain *g* being secured closely to the ends of the box by said holders *h*, and a wooden bar, *w*, serving to close the space between the curtain and front *b* of the box, while the length of the arc of the curtain is such that one of the angles of prism B does not pass it until the next reaches it. Therefore the flies which have alighted upon a plane of the prism, and are carried forward thereon till the angle at the rearward edge of such plane has reached the upper edge of the curtain, are past all hope of escape, and will be driven by the movement of the prism into the box below.

To drive all flies from the prism after it has so carried them into the lower chamber, I employ a curtain or cover, *i*, which is supported by its pivots *j*, which are arranged at about its longitudinal center, and which are seated in open slots in ends *c c'* of box A, a concave arc, K, being arranged at the rear edge of said curtain to prevent escape of flies when the front edge of the curtain is raised by the passing angles of prism B.

To the front or upper edge of curtain *i* is pivoted by screw *m* a fly-detacher, *l*, which at its lower edge is cut away at *x*, between the short sections *n*, which alone bear upon prism B, and as said section *x* is cut away a less space than would suffice for the escape of a fly, and as the adhesive fly-bait (molasses or other fly-enticing food) is placed upon the longitudinal center of the planes of prism B to nearly but not quite the extent corresponding with section *x* of detacher, therefore the projecting sections *n*, which alone bear on the prism, are never in contact with such bait, and hence a great saving in the requisite driving force of the clock-work is effected over what would be necessary if said detacher rested its entire length upon the prism, and thereby not only engaged the bait thereon, but also, as would result in such cases, dragged and mixed the flies therein, while my detacher, instead of first fastening the legs of the flies, and then crushing their bodies in the bait, is only in contact with their heads or bodies, and thus causes them to fly from the prism, thus leaving the bait clean and undisturbed.

In order to dispose of the flies after they are entrapped in box A, I employ the usual cage, D, formed with a bottom, *p*, having a pivotal tilting section, *p'*, for discharging dead flies, the ends *q*, and side *s*, the cage being secured to the trap A by hooks *y*, as shown, a section of wire-gauze, *t*, secured to side *s*, ends *q*, and bottom *p* completing the walls of the cage. A

hole, *v*, formed coincidently in back *b'* of the trap and side *s* of the cage, is covered by the wire-gauze cone *u*, which has a small opening at its apex, and extends within the cage, and is secured to side *s*, and through said opening the captured flies pass into the cage.

I am aware that it is not new to combine in a fly-trap a rotary bait-bearing prism, a fixed arc-like curtain in front thereof, and a hinged curtain in rear thereof adapted to scrape the flies from the cylinder; but such concave front curtain was formed of wire-gauze, which, as soon as the first edge of the respective planes overlapped it, would cast a marked shadow thereon, thus frightening such of the flies therefrom as were not intently engaged in devouring the bait, while my curtain, being perfectly transparent, has no tendency to cast a shadow, and hence it will not disturb the flies that are being carried forward on the prism; and by pivoting the rear curtain, *i*, at or near its longitudinal center, and but slightly in rear of its center of gravity, its bearing, weight, and consequent friction upon cylinder B are thereby materially diminished, while by diminishing the width of detacher *l* at the main central section, *x*, it may be kept entirely clear of the bait placed upon the prism, and by pivoting said detacher at its center it conforms to any inequality of the prism and at all times bears equally upon each end thereof.

Said glass curtains may be formed with the requisite curve when the glass is manufactured; or, as I have found preferable, they may be curved by the exercise of the well-known art of the "glass-bender."

By pivoting detacher *l* near its lineal center upon the front edge of curtain *i*, the detacher, by its free action upon its own pivot, will always bear equally at each of its ends upon the cylinder, and through its said pivot it serves as the means by which the curtain is raised and controlled in its falling movements, the detacher always acting upon the lineal center of the curtain, and hence preventing that constrained or cramping action that would result if the detacher were rigidly secured to the curtain and the axis of the cylinder and detacher did not coincide in plane, as is almost certain to be their condition.

I am well aware of United States Patent No. 204,053, and I claim nothing shown, described, or claimed therein, my invention differing therefrom in that I employ a transparent shadowless curved glass curtain instead of one formed of woven wire; next, I pivot my rear curtain near its center of gravity, instead of at its rear edge; and, lastly, I pivot my detacher near its lineal center, instead of securing it rigidly to the rear curtain, with advantages pointed out in the specification.

I claim as my invention—

1. The combination, with the rotary prism of a fly-trap, of a curtain of transparent glass curved in cross-section, as an arc of a circle, corresponding with the greater circle described by said prism, and a detacher duly pivoted and arranged to co-operate with said prism and shield, substantially as specified.

2. In combination with the rotary prism of a fly-trap, the rear curtain provided with a suitable detacher and pivoted at or near the center of its width and slightly in rear of its center of gravity, substantially as specified.

3. The combination, with the rotary prism and rear curtain of a fly-trap, of a detacher pivoted upon said curtain at or near the lineal center of said detacher, substantially as specified.

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Witnesses:
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