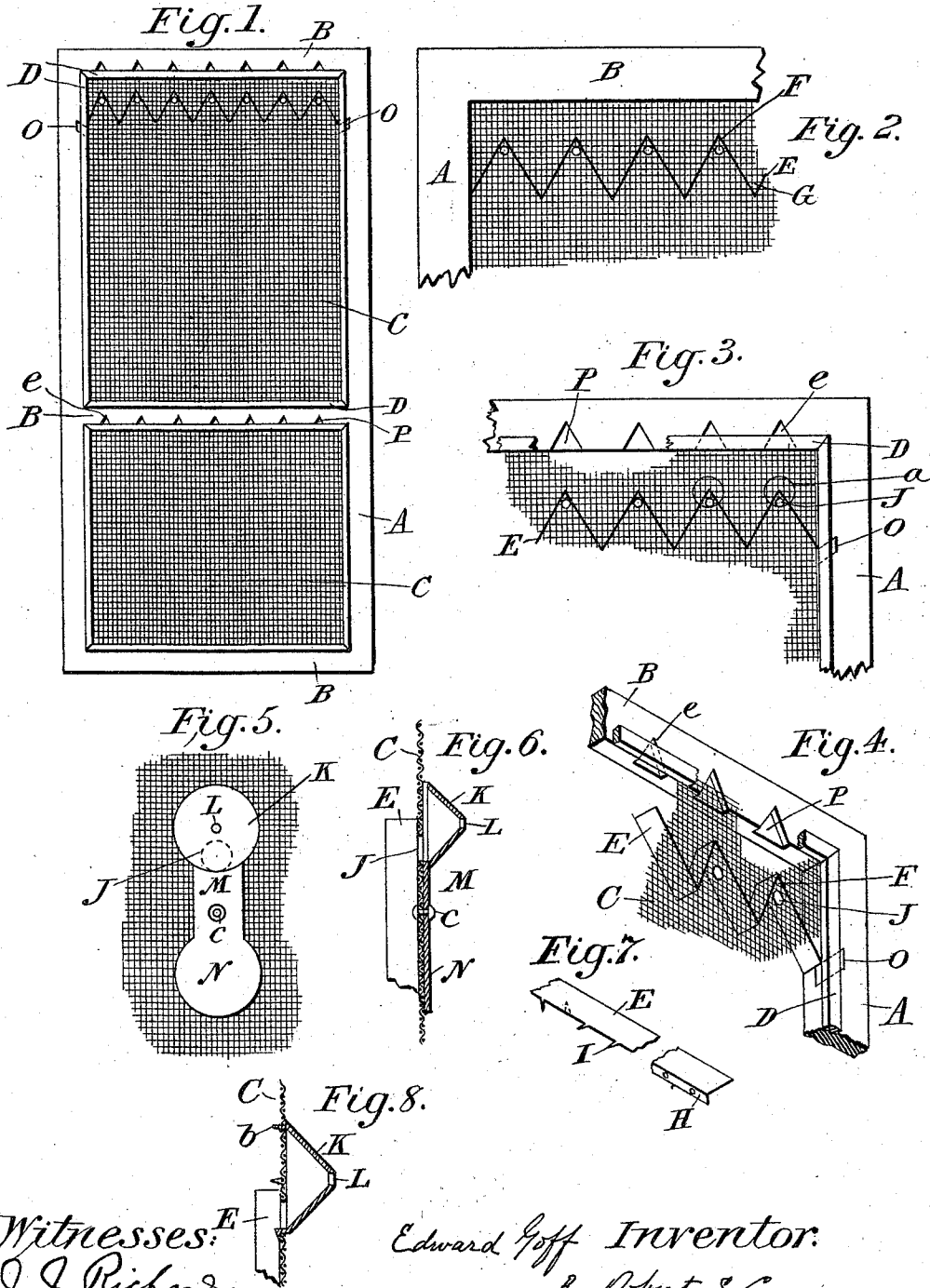


(No Model.)

E. GOFF.
DOOR OR WINDOW SCREEN.

No. 535,132.

Patented Mar. 5, 1895.



Witnesses:
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UNITED STATES PATENT OFFICE.

EDWARD GOFF, OF FRANKLIN COUNTY, INDIANA.

DOOR OR WINDOW SCREEN.

SPECIFICATION forming part of Letters Patent No. 535,132, dated March 5, 1895.

Application filed April 29, 1893. Serial No. 472,301. (No model.)

To all whom it may concern:

Be it known that I, EDWARD GOFF, of Franklin county, Indiana, have invented certain new and useful Improvements in Door or Window Screens, of which the following is a specification.

My invention relates to door or window screens, to exclude flies or like insects from a room; and the object of my improvement is to provide suitable means for the egress of the flies that prevents their ingress. This object is obtained in the following described manner, as illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation of a screen door; Fig. 2, an enlarged rear elevation of its top portion; Fig. 3, a front elevation of Fig. 2; Fig. 4, an enlarged perspective view of the top portion of Fig. 1 with portions broken away to show the relation of parts; Fig. 5, a plan of the trap or guard attached to a portion of the screen; Fig. 6, a vertical section of Fig. 5 bisecting the rivet; Fig. 7, portions of the guide showing different provisions for attachment to the screen; Fig. 8, a vertical section of a modified form of the trap.

In the drawings A represents the stiles and B the rails that constitute the frame; C, wire cloth secured by its edges thereto; D, battens or strips secured to the frame over the edges of cloth C.

E shows a zigzag guide or lead across the inside of the screen near the top, and which projects therefrom to the extent of the thickness of the frame. Said guide is preferably formed of a narrow strip of tin or other sheet metal, by being turned in opposite directions from its plane, at equidistant points in its length respectively, to form adjacent angles F and G preferably less than right angles. A perforated flange H or points I (Fig. 7) may be formed on the inner edge of the guide to facilitate its attachment to the screen.

Below the apex of each depending angle F a circular opening J is formed through the wire cloth of larger dimensions than its mesh. Cone shaped trap K preferably of perforated sheet metal has a circular opening L through its apex larger than the other perforations therein.

The base of the trap is open, and of larger diameter than perforations J over which it is

secured on the outer side of the screen in such position that said openings or perforations J enter the trap at the lower edge of the base. The position of the base of the traps in relation to said openings is shown by circles *a* in Fig. 3. The trap as shown in Fig. 8 is adapted to be permanently secured to the screen over the openings by means of integral pins *b* projecting from its base to be clinched through the meshes of the wire. The trap may be constructed integral with one end of arm M, the other end of the arm terminating in flange N. A rivet *c* through the arm secures the same to the screen and permits the trap or the flange to be brought over opening J, the function of the flange being to close said opening.

Grooves O are formed in the stiles, and extend from the inner edges thereof in an upward and outward direction, under and beyond the wire-cloth and batten. Said grooves begin below the points where the guide terminates against the edges of the stiles.

The top and middle rails B of the frame are each provided with a series of equidistant channels, or gaps P that open under said rails inside the screen, and whose edges converge to points *e* above the batten. The front side of said channels are covered by the edge of the wire cloth and batten, except the top portion thereof, which is left open for the exit of the flies that enter from below, and within the screen. Said channels are arranged in the top rail, directly over the respective angles F in the guide. In the middle rail their location is less important.

In the operation of this device advantage is taken of the well known tendency of flies to travel upward along a screen or other transparent vertical surface in their efforts to find an exit. Consequently the channels under the middle rail offer the first convenient means of exit to them. Above the middle rail the flies are intercepted by the guide, the convergence of whose respective sections direct them through openings J and into the traps, where they are more apt to explore the interior of the traps above openings J than to return through said openings, and in so doing they take advantage of the perforations in the apex of the traps to escape. The well known curiosity shown by flies in investigat-

ing strange objects accessible to them, leads them to sometimes investigate the guide whose brightness attracts their attention. If in so doing they should pass over it they tend to follow its sides to without the apex of angles F and thence through channels P located directly above the apices of said angles.

It is evident that the external openings of the channels and trap are not convenient nor inviting for the ingress of flies; besides they are more obscured than other parts from light within the room, that would serve to attract the flies.

In window screens the middle rail may be omitted altogether without impairing the efficiency of the other parts.

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

1. The combination, with a screen having egress openings therein, of a corrugated strip or plate arranged perpendicularly to the plane of the screen and provided with angles, the converging sides of which intersect at or near the egress openings.

2. The combination of a frame provided with wire cloth secured thereto by its edges, a metal guide secured across the inside surface of the wire cloth near its top and perpendicular thereto, the direction of said guide being alternately changed to form a series of equidistant depending angles that inclose respective openings formed through the wire cloth and of larger dimensions than the mesh thereof.

3. The combination in a screen of a projecting metal guide extending across and near the top of the inside surface thereof, and inclosing by equidistant depending angles therein, respective openings formed through the screen, and of larger dimensions than its mesh, and conical metal traps with open bases and perforated by an opening through their apices, and having their bases secured to the outside surface of the screen and over said respective openings.

EDWARD GOFF.

Witnesses:

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