No. 632,303. Patented Sept. 5, 1899.

E. WUERFEL.

FLY TRAP.

(Application filed Apr. 11, 1898.)

(No Model.)

Fig. 1.

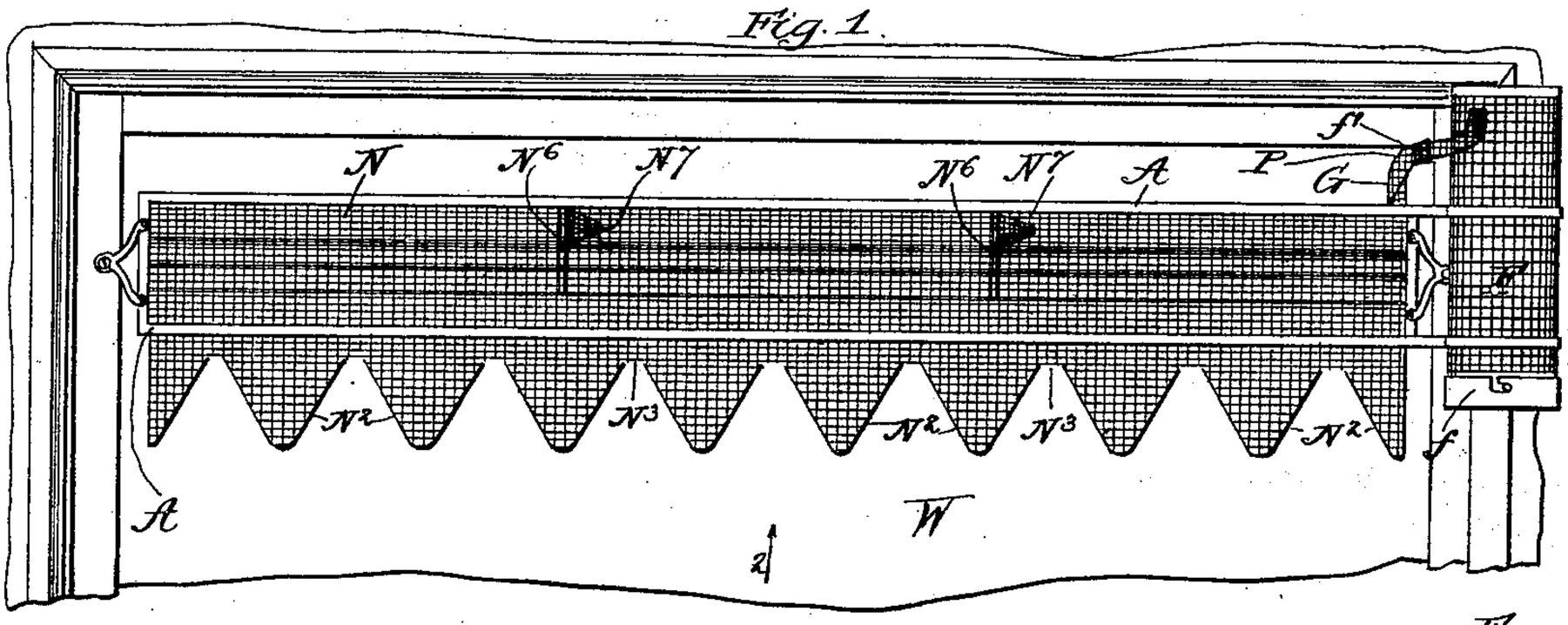


Fig. 2.

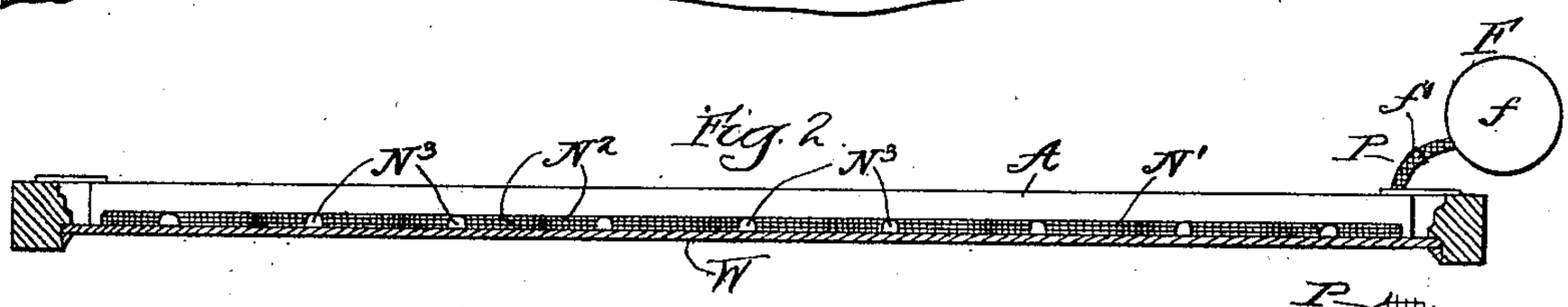


Fig. 3.

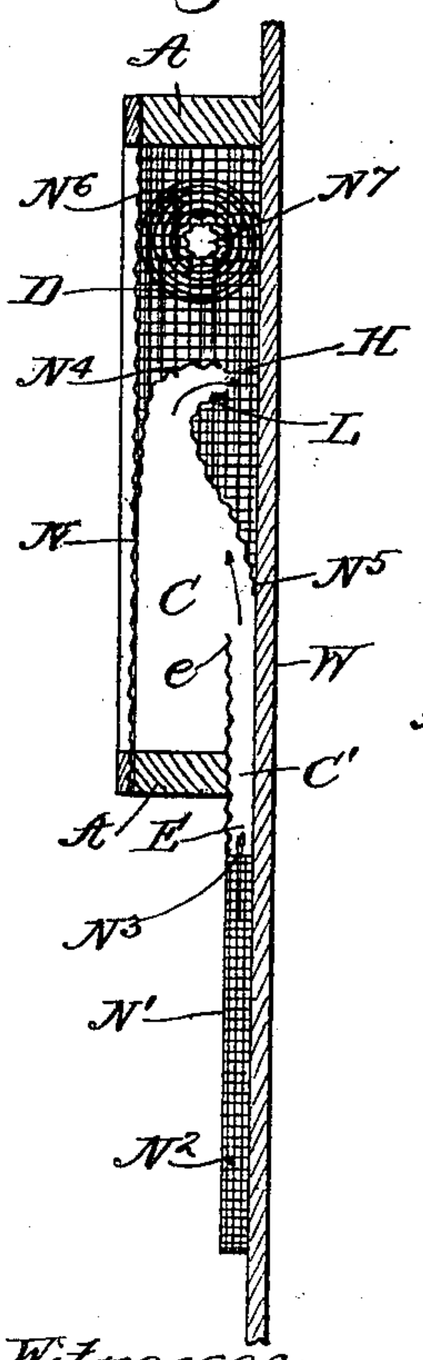


Fig. 4.

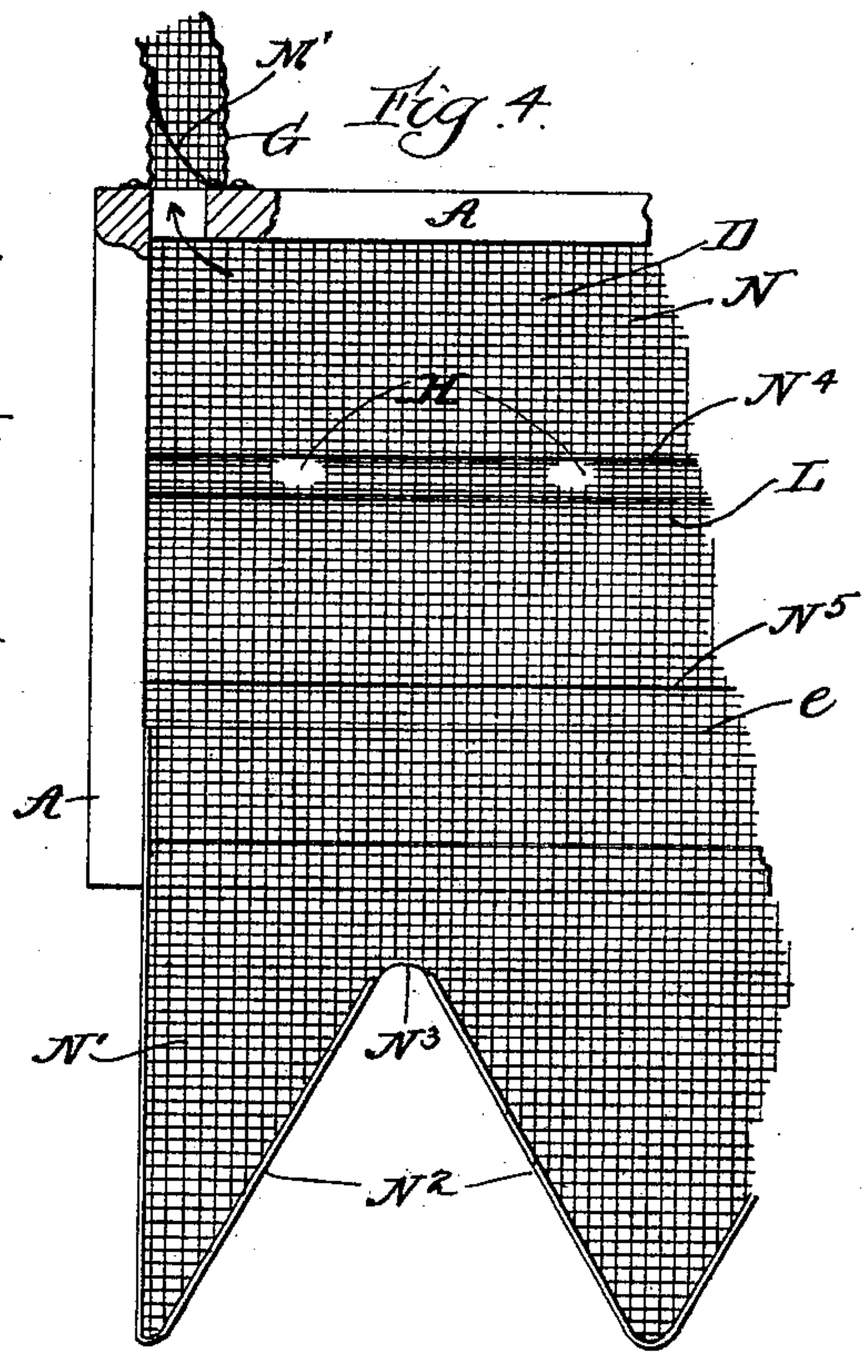


Fig. 5.

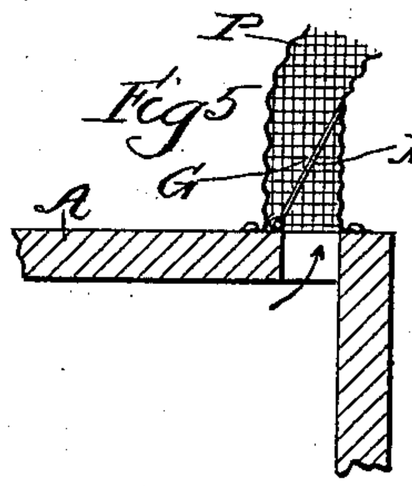
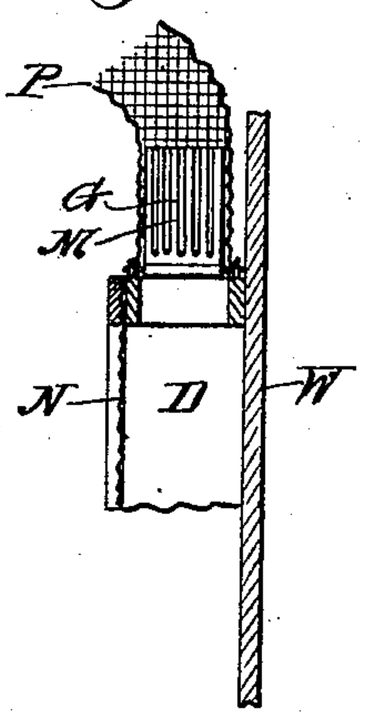


Fig. 6.



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UNITED STATES PATENT OFFICE.

ERNEST WUERFEL, OF CHICAGO, ILLINOIS.

FLY-TRAP.

SPECIFICATION forming part of Letters Patent No. 632,303, dated September 5, 1899.

Application filed April 11, 1898. Serial No. 677,173. (No model.)

To all whom it may concern:

Be it known that I, ERNEST WUERFEL, a citizen of the United States of America, and a resident of Chicago, Cook county, Illinois, have invented certain new and useful Improvements in Fly-Traps, of which the following is a specification.

The object of my invention is to provide a fly-trap of great efficiency for a window or any other suitable place; and the invention consists in the novel construction and arrangement of the parts and devices, as set forth in the claims hereof.

Reference will be had to the accompanying drawings, in which—

Figure 1 is an elevation of the trap. Fig. 2 is a bottom view looking in the direction of the arrow. Fig. 3 is a vertical section. Fig. 4 is a back elevation on the plane of the surface of the glass. Fig. 5 is a sectional detail through the escape-gate. Fig. 6 is a transverse view of Fig. 5.

My trap consists of a series of chambers made, preferably, of wire-netting mounted at the upper edge of the glass of a window or a door and peculiarly constructed so that a fly on walking up a pane of glass, which is their pastime, will be guided naturally and directly to an escape-gate and thence to a collecting-chamber, from which it cannot escape. The first chamber I call the "entry-chamber" E, and it is so designed that a fly will enter it readily. The next chamber I call the "corridor" C, which is really a continuation of the entry-chamber. From the corridor C an easy and natural exit is provided to a series of directing-chambers D, and from the last of these a gate G opens into a passage leading to the collecting or final chamber F.

In the drawings, A designates a frame which holds the several walls, chambers, and parts of the trap to the window. To the frame A is fastened the front wall of wire-netting N, which, with the frame and the window-glass W, makes a rectangular box which is divided into the chambers C and D by a peculiar-shaped netting partition N^4.

To the lower edge of the frame is fastened a piece of netting N′, which is cut into V forms at its lower edge and is set into the frame a short distance, leaving a clearance C′ from the glass to permit a fly to walk between it and the glass, and this clearance is the chamber E, and the edges of the pieces of netting N′ at its V-shaped portions are bent downward to touch the glass and make a closure therewith, as is shown by N^2, at all points save at the angles N^3, where holes are made permitting the entry of the flies, which pass directly and freely up past the end *e* of the netting N′ into the chamber C. The netting N^4 is curved, as is shown, and the edge or apron N^5 is in contact with the glass G, and the curved portion L makes a sort of a landing for the flies, along which they travel until they come to one of a series of holes H in the netting N^4, which permits the flies to enter chambers D, which are really one chamber divided into sections by vertical walls of netting N^6, provided with exit-cones N^7.

At any convenient point along the chambers D, but here shown at one side, there is located the gate G, opening into the passage P to the chamber F, which latter is provided with a removable bottom *f* and may be lifted bodily from its fastenings and disconnected from the other parts of the trap in any suitable manner, but here shown as detachable at *f*′.

The purpose of the partitions N^6 and their cones N^7 in the chambers D is to direct the flies to the gate G, and if the gate G is located at any other point the cones N^7 will be so placed as to direct the flies toward the gate. The gate G is made of a very light membrane M, Figs. 5 and 6, or some fine hairs M′, Fig. 4, and experience has proven that after a fly has reached the vicinity of the gate G it becomes so desperate that it will crowd up the membrane and pass to the final chamber.

Flies seem to delight in collecting on a window, and they walk upward by natural instinct. With my device they walk on the glass directly into the entry-chamber E and pass on to the corridor-chamber C, from which they can most readily escape to the directing-chambers D, wherein the walls that a fly will naturally walk upon permit no escape, excepting in the direction of the gate G, and, as I before stated, in this narrow chamber a fly seems to become alarmed and will readily pass the gate G on arriving at it.

The V-shaped portions of the netting N′

and the apertured part of the netting N^4 and the cones N^7 are sometimes referred to as "narrows" and are so termed in some of the claims.

The glass W also forms one wall of the chambers D, and the openings H in the partition N^4 lead toward the glass and hence toward the light. This induces the fly to pass through the holes H, and the netting at the holes being near the glass the fly will choose the glass to walk upon rather than the netting, and hence will overlook the holes.

My trap may be used in other forms than that here shown and still embody the invention, and it may be used on a wall instead of a glass, or it may be used upon a surface prepared for the purpose, and parts of it may be used with other forms of traps. I have therefore claimed separately the several special elements which are my invention.

What I claim is—

1. The combination of an entry-chamber, provided with V-shaped parts, directing the entry of the flies, of a corridor-chamber connected to a third chamber by narrows and a fourth or final chamber connected to the third chamber through a gate, which gate is lifted by the fly in passing, substantially as shown and described.

2. The combination with an entry-chamber disposed on a surface, upon which the flies may assemble, and provided with narrows for the entry of the flies; of a second chamber connected to the first chamber and provided with curved narrow N^4, having the landing L and the exit-holes H adjacent thereto, substantially as shown and described.

3. The combination with a fly-trap chamber provided with a suitable entrance below and having the wall of a window as one of its walls, of a partition rising obliquely from the glass and reaching the opposite wall, dividing the chamber into two compartments, and provided with an opening leading, toward the glass, from the first compartment into the second.

4. A fly-trap chamber having the glass of a window as one wall and netting as the opposite wall, said netting being bent sharply below to meet the glass and provided with notches forming entrances at the surface of the glass; whereby flies on the glass may enter the chamber without leaving the glass or finding variation of light.

5. The combination of an entry-chamber supported on a glass or other suitable surface, with a secondary chamber opening out of the entry-chamber, said secondary chamber provided with an apron in contact with the glass, and forming a continuation for the path of travel for the fly as it moves upward, substantially as shown and described.

6. The combination of an entry-chamber supported on a glass or other suitable surface, the glass or surface forming one wall of the chamber, a secondary chamber opening out from the entry-chamber, and a third chamber open to the second chamber by a series of holes, which holes are open in the direction of the glass or surface, substantially as shown and described.

7. The combination of a set of chambers for the confinement of flies, with a partition-wall N^4, having the landing L horizontally disposed and the holes H opening off therefrom, substantially as shown and described.

Signed by me at Chicago, Illinois, this 8th day of April, 1898.

ERNEST WUERFEL.

Witnesses:
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