

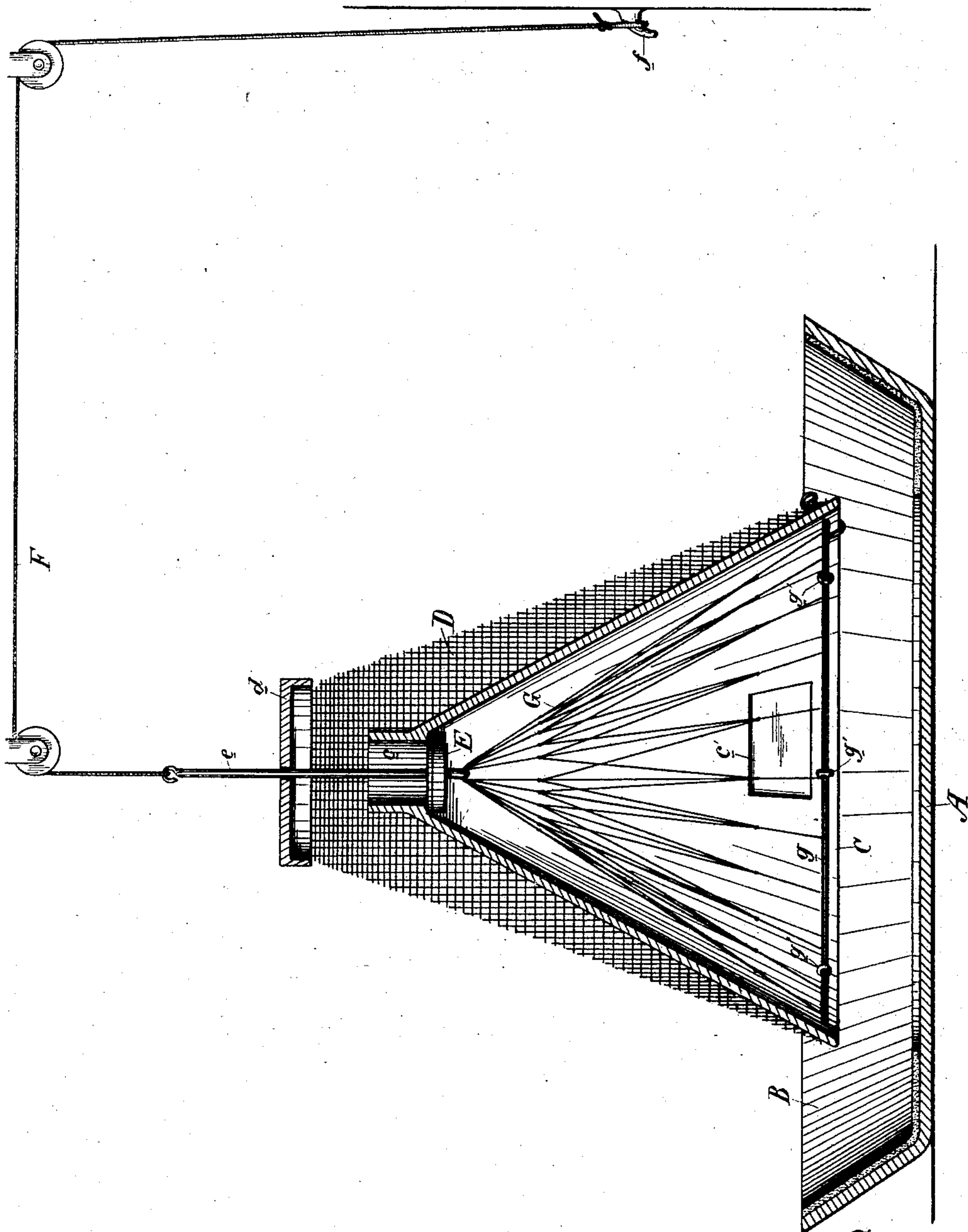
(No Model.)

B. SANFORD.

FLY TRAP.

No. 333,676.

Patented Jan. 5, 1886.



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UNITED STATES PATENT OFFICE.

BENJAMIN SANFORD, OF SMARTSVILLE, CALIFORNIA.

FLY-TRAP.

SPECIFICATION forming part of Letters Patent No. 333,676, dated December 5, 1886.

Application filed June 22, 1885. Serial No. 169,474. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN SANFORD, of Smartsville, Yuba county, State of California, have invented an Improvement in Fly-Traps; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to the class of fly-traps in which an opaque vessel carrying an external casing of wire-gauze is lowered into a pan in which the flies are feeding; and my invention consists in certain new and useful improvements relating to the lining of the pan with soft dark cloth, a small slide-door connecting the exterior or light chamber with the interior or dark chamber, whereby the dead flies are removed, a self-regulating valve or gate in the top of the dark chamber through which the flies pass to the light chamber, and a netting in the dark chamber adapted to be vibrated for the purpose of accelerating the movements of the flies therefrom, all of which, together with their several objects and uses, I shall hereinafter fully explain.

Referring to the accompanying drawing, the figure is a vertical section of my trap, showing it suspended.

A is a shallow pan, the inner surface of the rim of which and a part or the whole of the bottom thereof, as may be desired, is lined with soft dark cloth B. In this pan is placed food of which the flies are fond, and which is known to attract them.

C is a conical or pyramidal vessel having a top port or passage, *c*. This vessel is made of opaque material, preferably tin.

D is a casing of wire cloth or gauze surrounding the vessel C, being secured thereto at its base and having a cap, *d*. The space within the opaque vessel C is the dark chamber and that between the exterior of said vessel and the wire gauze is the light chamber, the two chambers communicating through the port or passage *c*.

In the vessel C is made a small slide-door, *c'*.

E is a loosely-hung gravity valve or gate, bearing up under the port or passage *c*. It consists of a small disk or plate of suitable material, and having weight sufficient to drop from its seat and open the port or passage unless held up to it.

Secured to the valve E is a stem, *e*, which passes up through the port *c* and through the

cap *d*. Its upper end is hooked, adapting it to be suspended from a cord, F, which passes upward over suitable pulleys and down to a cleat, *f*, or other fastening within easy reach. This cord while suspending the vessel C also keeps the valve or gate closed; but by slackening the cord and allowing the vessel to find a rest below the valve or gate will drop from its seat.

G is a netting consisting of a number of strings or wires, chains, &c., the upper ends of which are secured to the valve and the lower ends to a wire, *g*, loosely suspended by loops *g'* on the bottom of the vessel C.

The operation of my trap is as follows: The opaque vessel C, with all the parts attached to it, is suspended by means of the cord F a few inches above the pan A. In this position the port or passage *c* is closed. The flies having gathered in suitable numbers in the pan, the operator slackens up the cord F and allows the vessel C to drop suddenly into the pan. The flies are now confined in the dark chamber, which is rendered perfectly dark by the soft dark cloth lining the pan. The vessel C resting in the pan, and the cord F being slackened, the valve or gate E drops of its own weight, admitting light through the port or passage *c*. The flies pass up to the light and go through the open port into the light chamber. Their passage will ordinarily be rapid enough, but to accelerate their movements the operator may lift the vessel C a little by hand and vibrate the netting G by seizing and pulling quickly the wire-ring base of said netting. This will agitate the flies to such an extent that they will at once pass up through the open port or passage. When they have all gone up, the operator again lifts the vessel C and suspends it by means of cord F. This closes and holds closed the valve or gate E, as described, thus confining the flies in the light chamber. When a sufficient number have been entrapped, they may be killed by wet or dry heat or in other ways. The dead flies are removed through the slide-door in vessel C.

I am aware that a valve or gate has been used to control the port or passage of the dark chamber, and I do not claim such, broadly, but only a self-acting valve rendered so by reason of the suspension-cord F.

In other traps the valve or gate is opened

by hand, and in most of them it has to be held open while the flies pass through; but in mine the suspending of the trap keeps it closed while its drop opens it, and therefore my
5 trap requires no other attention than to slacken or tighten the cord F.

I am also aware that gates have been provided for the removal of the dead flies; but none as far as I know connect the light cham-
10 ber and the dark.

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

1. The combination, in a fly-trap, of the pan
15 A, lined with dark cloth B, the opaque vessel C, adapted to be lowered into the pan to form a dark chamber, the exterior wire cloth or gauze, D, forming a light chamber, and a port or passage connecting the dark with the light
20 chamber, substantially as herein described.

2. In a fly-trap, the pan A, in combination with the opaque vessel C, having port or passage *c* in its top, the loosely-hung gravity valve or gate E, controlling the port or passage, and
25 having a stem, *e*, the suspending-cord F, attached to the stem *e*, and the exterior wire gauze or cloth, D, all arranged and adapted to operate substantially as and for the purpose herein described.

30 3. In a fly-trap, the combination of the pan A, the opaque vessel C, having port or passage *c*, the exterior wire gauze or cloth, D, and

the slide-door *c'* in the vessel C, whereby the flies are removed, substantially as herein described.

4. In a fly-trap, the opaque vessel C, forming the dark chamber and having a port or passage in its top through which the flies pass, as described, in combination with the loosely-
40 hung or slack netting G within the vessel, substantially as and for the purpose herein described.

5. In a fly-trap, the combination of pan A, opaque vessel C, forming with said pan the dark chamber, said vessel having a port or
45 passage, *c*, in its top, the wire gauze or cloth D, encircling the vessel C and forming the light chamber, the gravity valve or gate E, controlling the port or passage, and having stem *e*, the valve-actuating cord F, secured to
50 the stem, whereby the vessel C is suspended above the pan and is adapted to be lowered therein, and the loose or slack netting G, secured to the valve or gate and having the wire *g* at its base secured to vessel C, all ar-
55 ranged and adapted to operate substantially as herein described.

In witness whereof I have hereunto set my hand.

BENJAMIN SANFORD.

Witnesses:

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