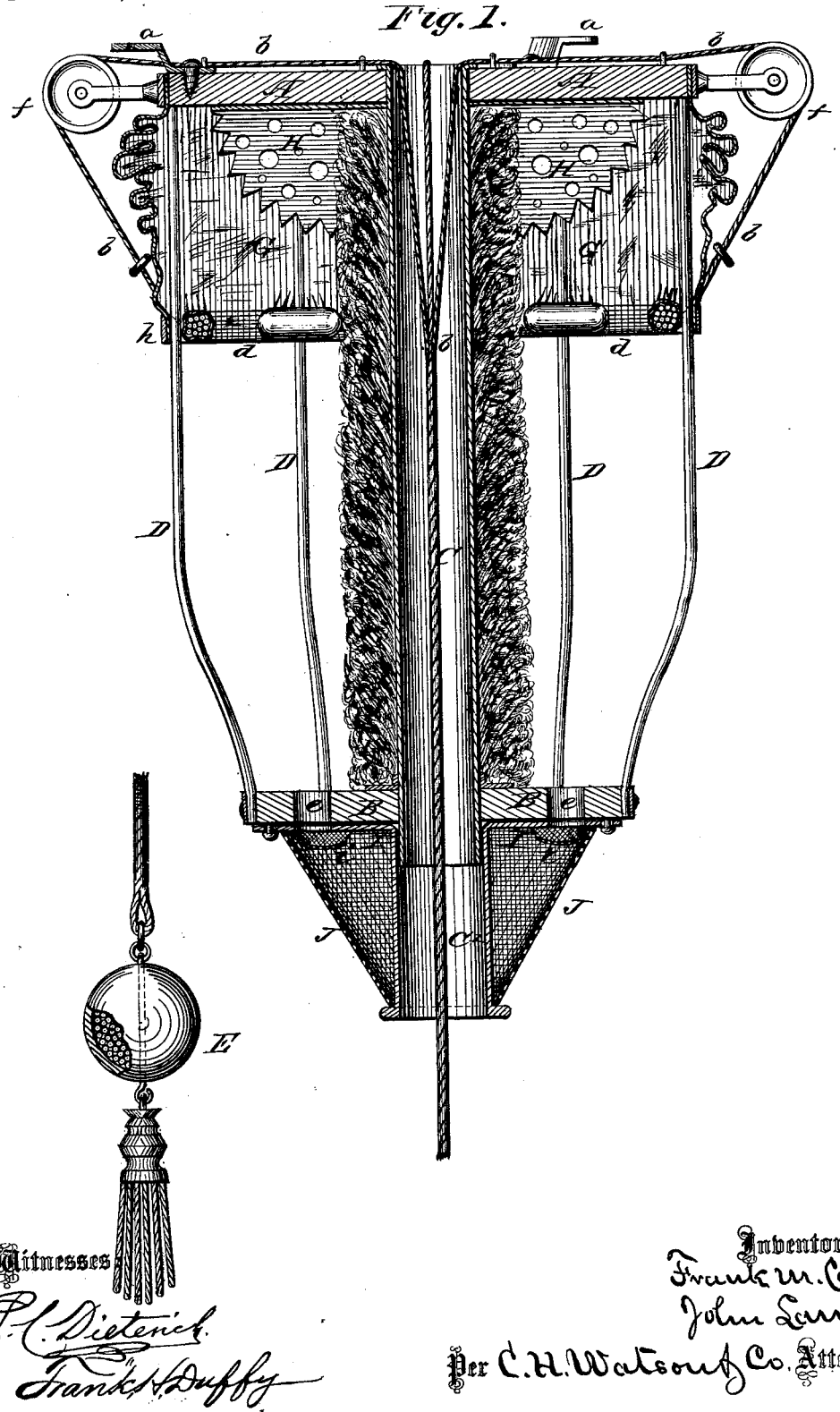
2 Sheets—Sheet 1.

F. M. CARROLL & J. LAMB.

FLY-TRAP.

No. 191,652. Patented June 5, 1877.

Fig. 1.



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2 Sheets—Sheet 2.

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FLY-TRAP.

No. 191,652. Patented June 5, 1877.

Fig. 2.

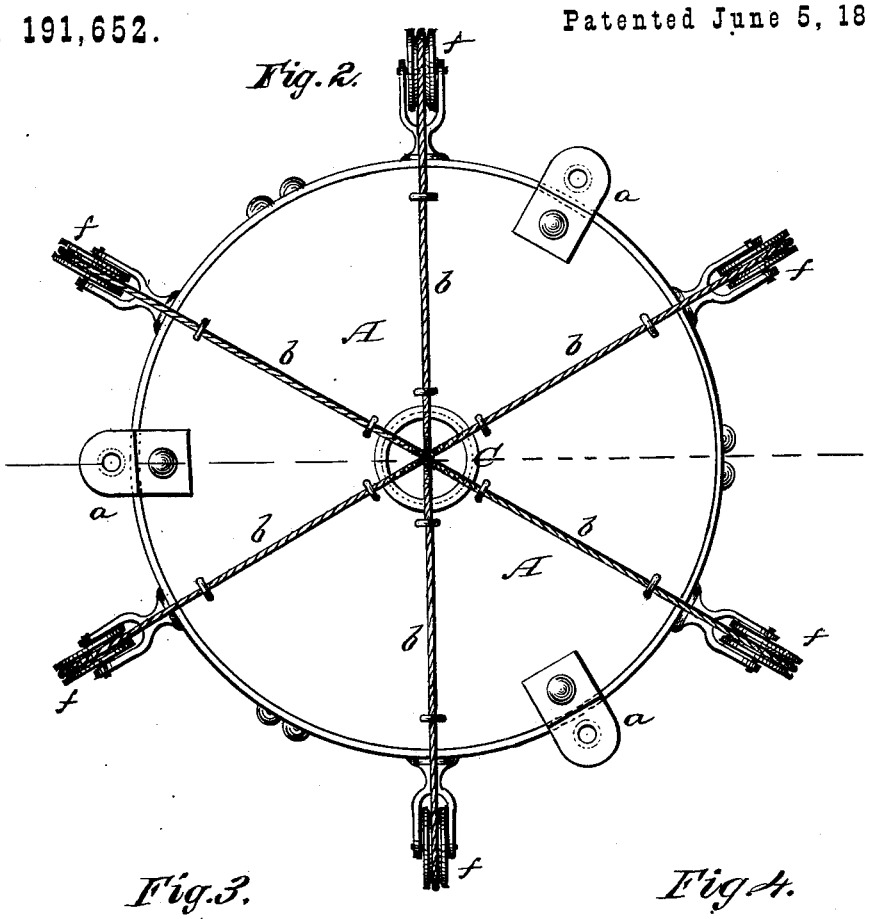


Fig. 3.

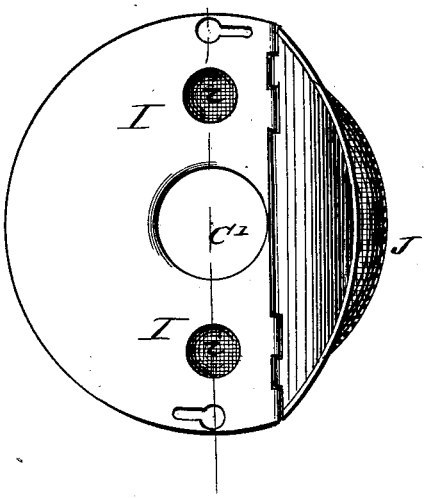
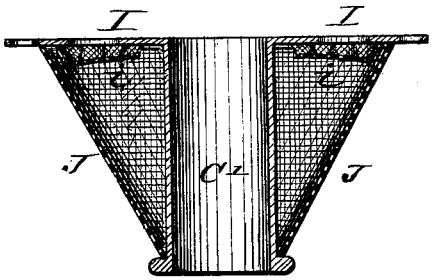


Fig. 4.



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UNITED STATES PATENT OFFICE.

FRANK M. CARROLL AND JOHN LAMB, OF GRAND RAPIDS, MICHIGAN.

IMPROVEMENT IN FLY-TRAPS.

Specification forming part of Letters Patent No. **191,652**, dated June 5, 1877; application filed March 13, 1877.

To all whom it may concern:

Be it known that we, FRANK M. CARROLL and JOHN LAMB, of Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Fly-Traps; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The nature of our invention consists in the construction and arrangement of a fly-trap, as will be hereinafter more fully set forth.

In the annexed drawing, which fully illustrates our invention, Figure 1 is a central vertical section of our invention. Fig. 2 is a plan view of the same. Figs. 3 and 4 are detailed views of parts thereof.

A and B represent two circular disks of different diameters, and made of any suitable dimensions and material, and connected by a central tube, C. The two disks are also connected by a series of wire guards, D D, attached to the edges of the disks at suitable distances apart. The upper, larger, disk A is to be secured to the ceiling of a room by means of screws or nails passed through metallic flanges *a a*, projecting from the same, said flanges being so constructed as to leave a space between the disk and the ceiling sufficient for the passage of the cords *b b*. G represents a curtain, made to surround the frame formed of the disks A B and guards D, the upper edge of said curtain being permanently fastened to the edges of the disk; and in the lower edge of the curtain is inserted an elastic band, *d*, so as to draw the same tightly around the wire guards, whether it is at the top or bottom thereof. The lower edge of the curtain is also provided with a bent metal plate, *h*, opposite each wire guard D, so as to prevent the curtain from being worn by contact with said guards in being drawn up and down.

The cords *b b* are attached to the lower edge of the curtain between the guards D, and pass upward over pulleys *f f* attached to the edge of the upper disk A, and then down through the center tube C, and are connected to a weighted tassel, E, underneath. This weighted tassel overbalances the curtain, so that it will draw the same up to the upper disk A. By raising the weighted tassel E the action of the elastic band *d* and metallic plates *h*, which latter form slides, on the inclined wire guards D causes the curtain to descend automatically until it entirely incloses the frame A B D. In the smaller, bottom, disk B are one or more holes, *e*, corresponding with similar holes in a metal plate, I, which forms the top of the trap proper, and is attached to the under side of the disk B by having slots passing over pins, as shown, or by any other suitable means that will allow of its being easily removed and replaced, as required. Part of the plate I is made separate and hinged to it, forming a door for the removal of the dead flies. The body J of the trap proper is funnel-shaped, and made of perforated sheet metal, wire-cloth, or other suitable material that will allow light to pass through. Through the center is a tube, C′, forming a continuation of the tube C in the structure above, and through which the cord from the tassel E is passed, said tassel being hooked thereto, so as to be easily disconnected. Surrounding the tube C, as well as on the under side of the disk A, is attached tissue-paper H, or other suitable airy material, to attract the flies.

The trap is used as follows: The weighted tassel E holds the curtain G drawn up, and when flies have collected or congregated on the tissue-paper H, the tassel E is raised or removed, when the curtain closes, darkening the chamber between the two disks. The flies, being then attracted by the light through the apertures *e*, will pass down into the trap proper I J, and are prevented from returning by means of guards *i i* within the same, as shown. The curtain may now be raised again by attaching the tassel, or the trap I J removed for killing the flies. This latter is, however, not necessary until the trap is full, as the upper chamber may be set time and again to allow the flies to congregate.

Bait may be used to attract the flies into the trap I J, if desired.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a fly-trap, the disks A B, wire guards D, and curtain G, constructed and arranged to operate substantially as and for the purposes herein set forth.

2. The combination, with the frame A B D, of the curtain G, with elastic band *d* and slide-plates *h*, and the elevating cords *b*, with weighted tassel E, substantially as and for the purposes herein set forth.

3. The combination of the frame A B D, curtain G, and the removable trap I J, all constructed and arranged to operate substantially as and for the purposes herein set forth.

In testimony that we claim the foregoing as our own we affix our signatures in presence of two witnesses.

FRANK M. CARROLL.
JOHN LAMB.

Witnesses:
C. H. SCRIBNER,
J. L. SCRIBNER.