

(No Model.)

J. BOSWORTH.  
FLY FRIGHTENER.

No. 447,755.

Patented Mar. 10, 1891.

Fig. 1.

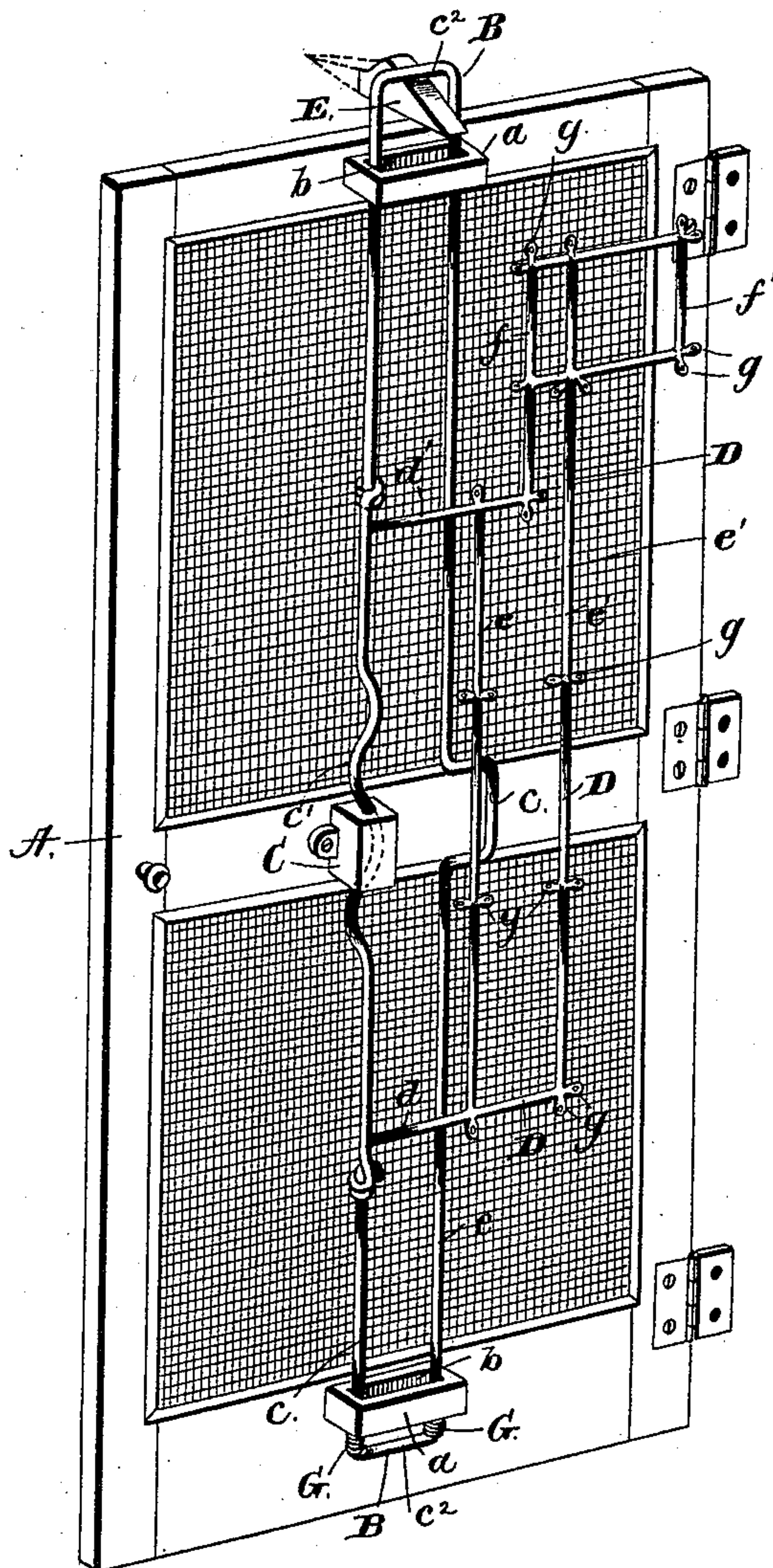
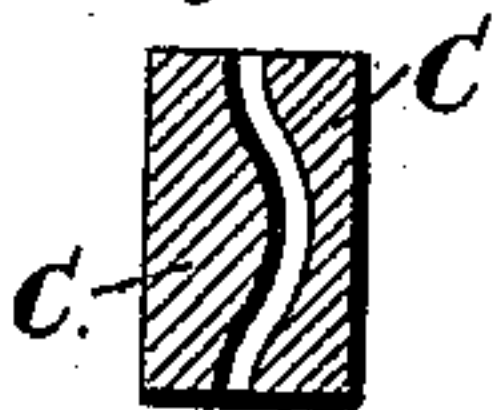


Fig. 2.



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# UNITED STATES PATENT OFFICE.

JOHN BOSWORTH, OF BATTLE CREEK, MICHIGAN.

## FLY-FRIGHTENER.

SPECIFICATION forming part of Letters Patent No. 447,755, dated March 10, 1891.

Application filed August 16, 1890. Serial No. 362,222. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN BOSWORTH, a citizen of Battle Creek, in the county of Calhoun and State of Michigan, have invented certain new and useful Improvements in Fly-Frighteners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in fly-frighteners to be applied to doors, the object of the invention being to produce an improved device to be applied to a screen or other door, and to so construct such device that when the door is opened it will operate to frighten flies which may be thereon and prevent them from entering the room.

A further object is to construct a fly-frightener and connect it with a door in such manner that when the door is opened the device will be turned in one direction, and when the door is closed said device will be turned in the opposite direction, whereby any flies which may be on the door will be frightened therefrom and thus prevented from entering the room.

A further object is to produce a fly-frightener for doors, which shall be simple in construction, easy of operation, and which shall automatically and effectually frighten flies from a door.

With these objects in view the invention consists in certain novel features of construction and combinations and arrangements of parts, as hereinafter set forth, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view of a door having my improvement applied thereto. Fig. 2 is a sectional view of a portion of the device.

A represents a screen-door, to the end piece of which two or more blocks *a* are secured, preferably in proximity to the top and bottom thereof, said blocks being provided with elongated slots *b* for the reception of the straight portion *c* of a wire frame B. This wire frame is preferably made of rectangular form, comprising the straight portion *c*, the spiral or twisted portion *c'*, and end connection-bars *c<sup>2</sup>*, the spiral portion of the frame being revolubly connected to the remaining

portion thereof. Encircling this spiral *c* is a nut C, having a central perforation of a form to receive the spiral *c'*, which nut is secured to the door A, so that when the frame is moved up and down, as presently explained, the spiral in passing through the nut will be partially rotated.

Connected to the spiral *c'* at or near its ends is a frame D of wire or other suitable material, and preferably made in two sections, one section being adapted to normally lie against the middle portion of the door and the other section adapted to normally lie against the upper portion of the door. The lower section of the frame D is composed of two horizontal rods *d d'* and two vertical rods *e e'*, the rod *e'* being extended upwardly to form one of the upright rods of the upper section of the frame D. One end of the upper smaller portion of the frame D is made by a rod *f* projecting upwardly from the horizontal rod *d'* of the lower portion of the frame, while the other end of said upper portion is made by a vertical rod *f'*. At the junctions of the several rods of the frame D loops *g* are formed, and also at points between the ends of the vertical rods *e e'* of the lower portion of the frame, by means of which screening material of any suitable kind may be fastened to the frame.

Secured to the door-frame immediately over the frame B is a block E, having its upper face inclined, so that when the door is closed the block will enter the frame B and raise it, whereby the spiral *c'* will be drawn through the nut C and the frame thereby made to make a half-revolution and frighten away any flies there might be on the door.

In order to cause the device to be lowered when the door is opened, and thus frighten flies away when the door is opened, a spring G is coiled about the lower portion of the frame B and made to bear on the lower block *a*, so that as the upper portion of the frame B rides off the inclined block E it will be drawn downwardly by the spring G and through the medium of the spiral and nut the frame D will be made to make a half-revolution.

If desired, the inclined block E may be located at the bottom of the door-frame and the spring G at the top. There may, if preferred, be a roller on the cross-bar *c<sup>2</sup>* of the frame B,



adapted to run on the inclined block E. The device may be secured to the door in proximity to the edge thereof, if desired.

5 The device constructed as above set forth is very simple, effective in operation, and cheap to manufacture and apply to a door.

10 Slight changes might be made in the details of construction of my invention without departing from the spirit thereof or limiting its scope. Hence I do not wish to limit myself to the precise details of construction herein set forth; but,

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

1. The combination, with a door, of a revoluble fly-frightener attached thereto, and devices for automatically partially revolving said fly-frightener when the door is opened or closed, substantially as set forth.

2. The combination, with a door, of a frame connected therewith and adapted to slide thereon, a portion of said frame comprising a revoluble spiral, a nut on said spiral and secured to the door, and a frame connected with the spiral and adapted to normally lie against the door and be moved therefrom by the combined action of the spiral and nut, substantially as set forth.

3. The combination, with a door and door-frame, of a frame connected to the door and

adapted to slide thereon, a portion of said frame comprising a revoluble spiral, a nut on said spiral and secured to the door, a frame secured to the spiral and adapted to lie normally against the door, a block secured to the door-frame and having an inclined face adapted to engage the first-mentioned frame to raise it, and a spring at the other end of said frame to return it to its normal position when released by the inclined block, substantially as set forth.

4. The combination, with a door, of a fly-frightener pivotally connected therewith, said fly-frightener being composed of an open frame having a series of loops thereon, and screening material secured to said loops, substantially as set forth.

5. The combination, with a door, of a fly-frightener pivotally connected thereto, said fly-frightener being composed of a wire frame having an upper portion and a lower portion, loops projecting from both portions, and screening material secured to said loops, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JOHN BOSWORTH.

Witnesses:

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