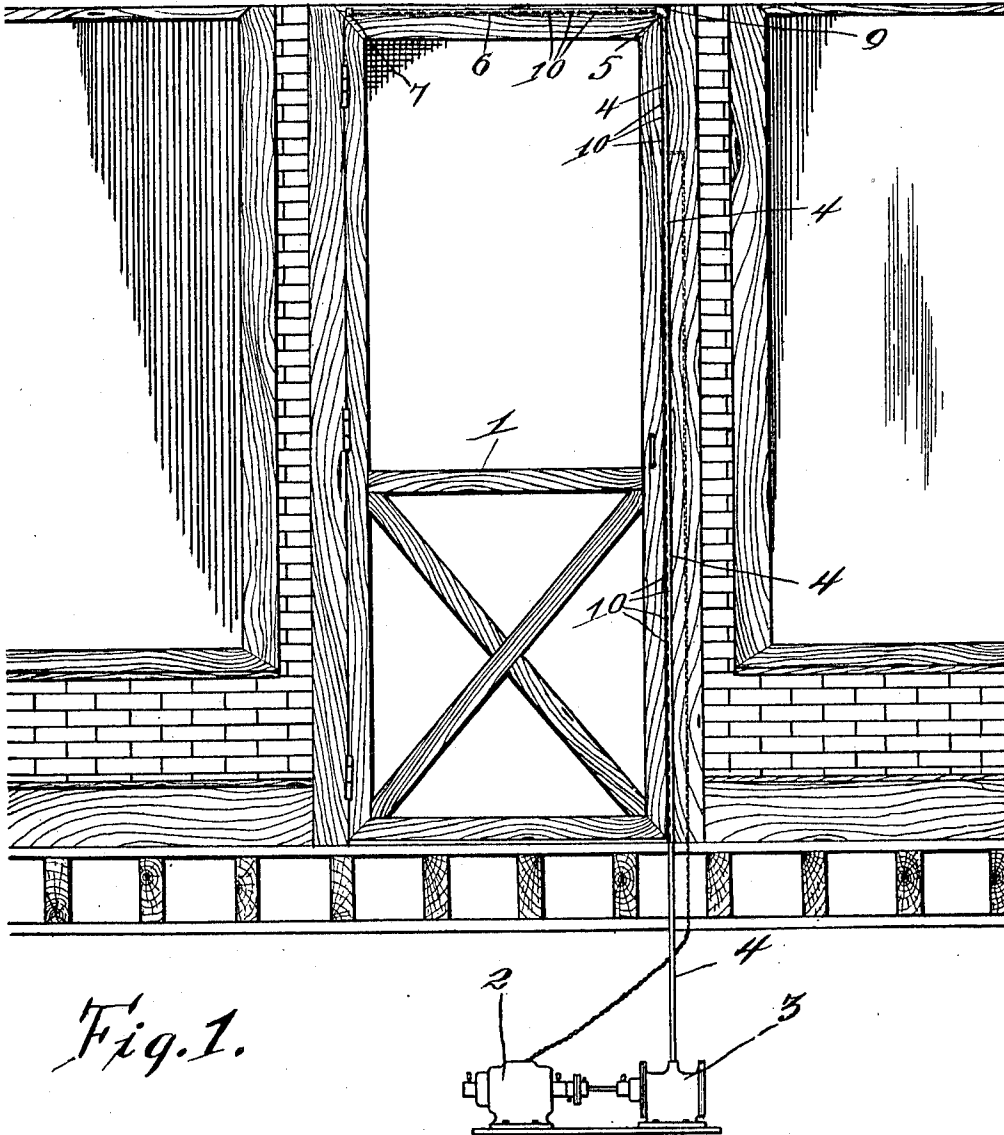


969,857.

A. W. GROVE.
FLY FRIGHTENER.
APPLICATION FILED NOV. 4, 1909.

Patented Sept. 13, 1910.

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

AUGUST W. GROVE, OF CHICAGO, ILLINOIS.

FLY-FRIGHTENER.

969,857.

Specification of Letters Patent. Patented Sept. 13, 1910.

Application filed November 4, 1909. Serial No. 526,224.

To all whom it may concern:

Be it known that I, AUGUST W. GROVE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Fly-Frighteners, of which the following is a specification.

My invention has relation to fly frighteners and is particularly designed for use in connection with screen doors and the like.

The principal object of my invention comprehends the production of a device of the above character in which a blast of air is employed as a means for preventing the flies or other insects from entering the room, and also having means operated by the opening and closing of the door for automatically controlling the blast of air.

In the drawings which form a part of the specification, and in which like reference numerals indicate corresponding parts throughout the several views—Figure 1 is a front elevation of a portion of a building showing a screen door and the application of my invention. Fig. 2 is a fragmental view looking toward the inner face of the door jamb, and showing the door closed. Fig. 3 is a similar view showing the door partially open. Figs. 4, 5, and 6 are details.

Reference being had to the drawings and the numerals indicated thereon, 1 indicates a screen door which may be of any desired construction, 2 an electric motor, and 3 a blower, the shaft of which is connected directly to the shaft of the motor. Both the motor and the blower may be located in the basement of the building or in any other suitable place.

Passing through the upper side of the casing of the blower 3 is the lower end of a pipe 4 which extends upwardly along the outer side of the door jamb adjacent the free vertical edge of the door, and is provided at its upper end with an elbow 5 to which is connected one end of a short longitudinal pipe 6 which extends along the outer side of the door jamb adjacent the upper longitudinal edge of the door 1, and has its other end closed by a suitable plug 7. These pipes 4 and 6 are securely fastened in place against the outer side of the door jamb by means of a screw which passes through an apertured ear 9 formed on the elbow 5.

The sides of the pipes 4 and 6 adjacent the

edges of the door 1 are provided with a plurality of elongated openings 10 through which the air from the blower exhausts. These openings are close together and are presented at an angle with respect to the longitudinal centers of the pipes and in an outward direction, whereby the blast of air exhausting therefrom will travel in an outward direction and flies or other insects attempting to enter the room through the open door will encounter said blast of air and be blown back thereby, and away from the door.

The means I employ for automatically controlling the motor 2, comprise a contact plate 11 secured, at any suitable point, to the inner edge of the door jamb, and a grooved plate 12 secured to the free edge of the door 1 directly opposite said contact plate 11. As will be seen by referring to Figs. 2, 3, 4, and 5 the contact plate 11 has a stationary contact point 13 and a pivoted arm 14 which forms the other contact point. Said arm 14 is pivoted to said plate 11 at a point thereon directly opposite, or on a line, with the contact point 13, as at 15, and has its outer free end provided with a projection or stud 16, said stud 16 adapted to engage the sides of the groove 17 formed in the plate 12. The said groove 17 is so arranged in the plate 12 that the lower end or mouth thereof will be directly opposite the contact point 13, while its upper end will be a short distance thereabove. By this arrangement it will be seen that when the door 1 is closed the stud 16 will occupy a position at the upper end of the groove 17 and the arm 14 will be up and out of engagement with the contact point 13 thereby opening the electric circuit and stopping the motor 2. Immediately on opening the door, however, the stud 16 will slide down the groove 17, to a horizontal position, as shown in Fig. 3, and engage the contact point 13 thereby closing the circuit and starting the motor 2, which in turn operates the blower 3. A suitable stop 18 formed on the plate 11 serves to limit the downward movement of the arm 14.

From the foregoing it will be seen that I provide an extremely simple and inexpensive device of the kind described, which will effectually serve the purpose for which it is intended.

I claim—

In a device of the kind described, the combination with a door, a motor, a blower op-

erated by said motor, pipes connected to said
blower and extending adjacent the vertical
free edge and upper longitudinal edge of
said door, said pipes having openings formed
5 therein for directing a blast of air from the
blower, and means carried by the door jamb
and the door for automatically starting and
stopping the motor when said door is opened

and closed, respectively, substantially as de-
scribed.

In testimony whereof I affix my signature,
in presence of two witnesses.

AUGUST W. GROVE.

Witnesses:

ARTHUR NERLEY,
ERNEST O. BEST.