

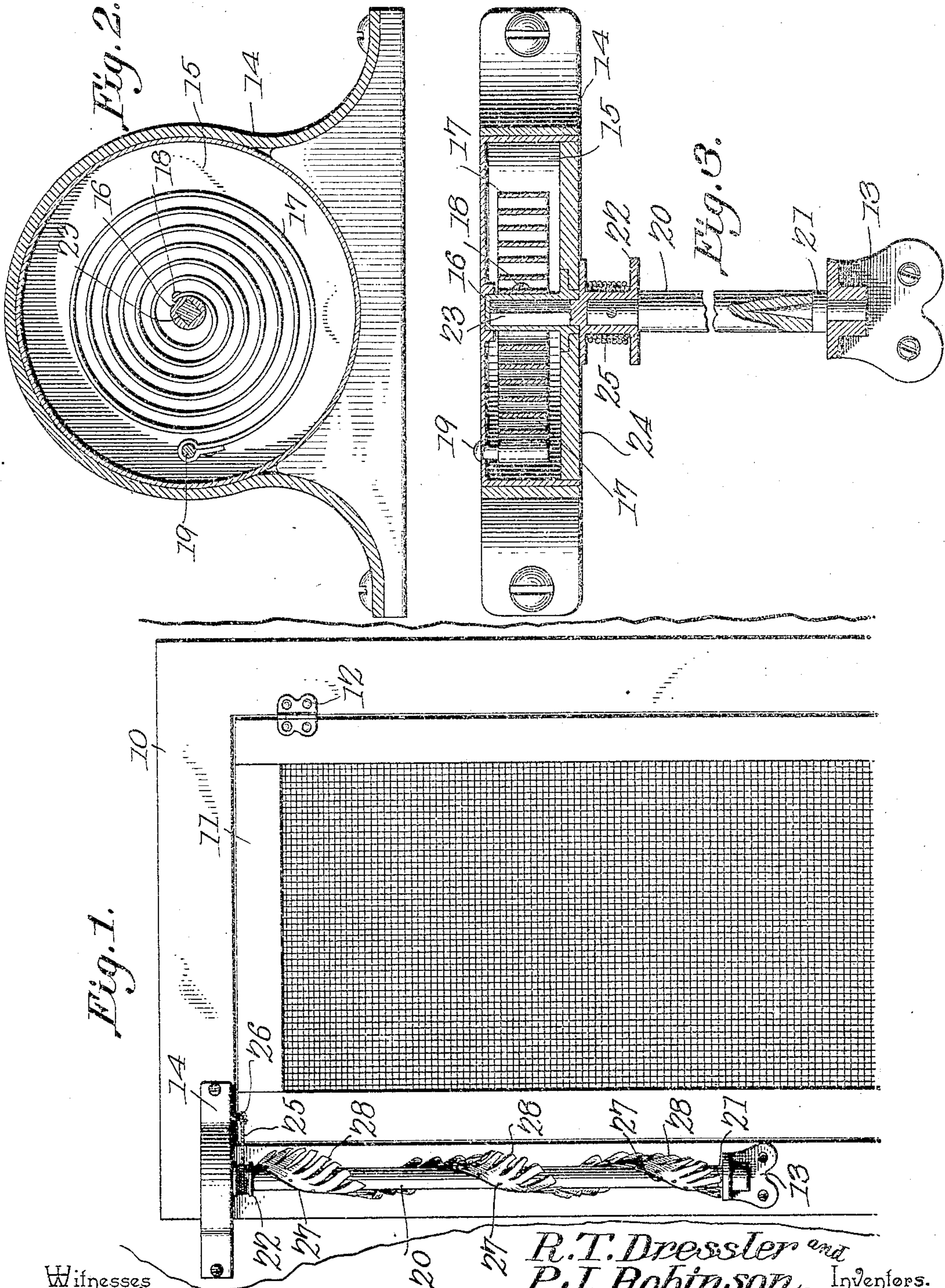
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FLY BRUSH.

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# UNITED STATES PATENT OFFICE.

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## FLY-BRUSH.

SPECIFICATION forming part of Letters Patent No. 778,532, dated December 27, 1904.

Application filed October 6, 1903. Serial No. 175,989.

*To all whom it may concern:*

Be it known that we, ROBERT T. DRESSLER and PERL J. ROBINSON, citizens of the United States, residing at Hastings, in the county of Adams and State of Nebraska, have invented a new and useful Fly-Brush, of which the following is a specification.

This invention relates to devices employed for automatically brushing flies and other insects away from screen-doors when they are opened, and has for its object to improve, simplify, and cheapen the construction of devices of this character and to produce an apparatus capable of being easily applied and operated and in which the operating parts will be protected from the weather.

The invention consists in certain novel features of construction, as hereinafter shown and described, and specified in the claims.

In the drawings illustrative of the invention, in which corresponding parts are denoted by like designating characters, Figure 1 is a view of a portion of a screen-door and its casing with the improved device applied. Fig. 2 is an enlarged sectional view of the spring-casing. Fig. 3 is an enlarged vertical section.

The door-casing and door are designated, respectively, by 10 and 11, the door being hinged at 12 to the casing and swinging by its free edge in the ordinary manner, as shown. Attached to the casing 10 adjacent to the free edge of the door and intermediately of its length is a bracket 13, and connected as by a strap 14 to the casing 10 in vertical alignment with the bracket is a casing 15, supporting a centrally-disposed sleeve or collar 16. Arranged within the casing is a spring 17, one end of which is connected to the sleeve or collar, as indicated at 18, the opposite end thereof being secured in any suitable manner, as by a pin 19, to the casing. Mounted for rotation in the bracket 13 is a shaft 20, preferably formed of wood and provided at one end with a gudgeon 21, which forms a journal for the shaft and serves to receive the strains and wear. The upper end of the shaft is connected rigidly in a drum 22, having a stud 23 extending into the sleeve 16, the latter being rotative with the stud, drum, and shaft. The casing 15 will preferably be provided with a

detachable face-plate 24 and the stud 23 formed square or of other irregular shape, so that the sleeve and spring-casing may be readily placed in position on the shaft and said sleeve caused to rotate with the shaft and wind the spring. The parts may thus be readily assembled and connected to the casing when required and may be attached to any form or size of casing, and the shaft may be of any required length.

Attached by one end to the drum 22 and wound thereon is a cord or strap 25, with the free end attached, as at 26, to the free edge of the door 11, as shown. Attached to the shaft 20 in a spiral form is a flexible strip 27 of leather or fabric having its free edges cut into a plurality of strips 28, adapted to be thrown outward by centrifugal force when the shaft is rapidly rotated. By this simple arrangement it will be obvious that when the door is opened the cord 25 will in unwinding from the drum rotate the latter, and by its connection with the sleeve 16 and spring 17 the latter will be wound upon the sleeve 16 as a drum, and when the door is released the reaction of the spring will rotate the drum in the opposite direction, wind up the cord again, and automatically close the door. The rotary movement of the shaft 20 both in opening and closing the door correspondingly rotates the "brushes" 28 and causes them to effectually drive all flies and other insects from the vicinity of the door, so that they will not enter while the door is being opened and closed.

The parts are simple in construction, easily applied, and will operate automatically both when the door is being opened and when being closed.

The casing 15 is entirely closed between its rim and upper side, and the spring and sleeve are concealed and fully protected from the weather and dust and dirt, which might otherwise deleteriously effect them, while the casing also serves as a housing for the drum, as shown.

Having thus described the invention, what we claim is—

1. The combination with a door-frame and a door hinged thereto, of a casing secured to the door-frame, a shaft, means for supporting



the shaft in one end of the casing and the opposite end thereof journaled in a bracket secured to the door-frame, a spring disposed within the casing for rotating the shaft, a drum  
5 carried by the shaft and arranged beneath the casing, brush members secured to the shaft, and a flexible connection between the free edge of the door and the drum.

2. The combination with a door-frame and  
10 a door hinged thereto, of a casing secured to the door-frame, a sleeve journaled in the casing, a spring connection between the casing and the sleeve, a shaft provided with brush  
members one end of which engages the sleeve  
15 the opposite end thereof being journaled in a bracket secured to the door-frame, a drum carried by the shaft and a flexible connection between the free edge of the door and the drum.

20 3. The combination with a door-frame and a door hinged thereto, of a casing secured to the door-frame, a sleeve having a squared socket journaled in the casing, a shaft provided with brush members, a drum secured to  
25 one end of the shaft, and provided with a squared stud fitting within the sleeve, a gudgeon carried by the opposite end of the shaft and journaled in a bracket secured to the door-

frame, a spring connection between the casing and the sleeve, and a flexible connection be- 30  
tween the free edge of the door and the drum.

4. The combination with a door-frame and a door hinged thereto, of a casing, a strap inclosing said casing and having its opposite  
ends secured to the door-frame, a sleeve hav- 35  
ing a squared socket journaled in the casing, a shaft provided with radially-disposed brush members, a drum secured to one end of the shaft and arranged beneath the casing, a stud  
carried by the drum and engaging the socket 40  
in the sleeve, a gudgeon secured to the opposite end of the shaft and journaled to a bracket fastened to the door-frame, a spring one end  
of which is secured to the casing the opposite  
end thereof being secured to the sleeve, and 45  
a flexible connection between the free edge of the door and the drum.

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

ROBERT T. DRESSLER.  
PERL J. ROBINSON.

Witnesses:

M. W. BURGESS,  
W. W. DUNGAN.