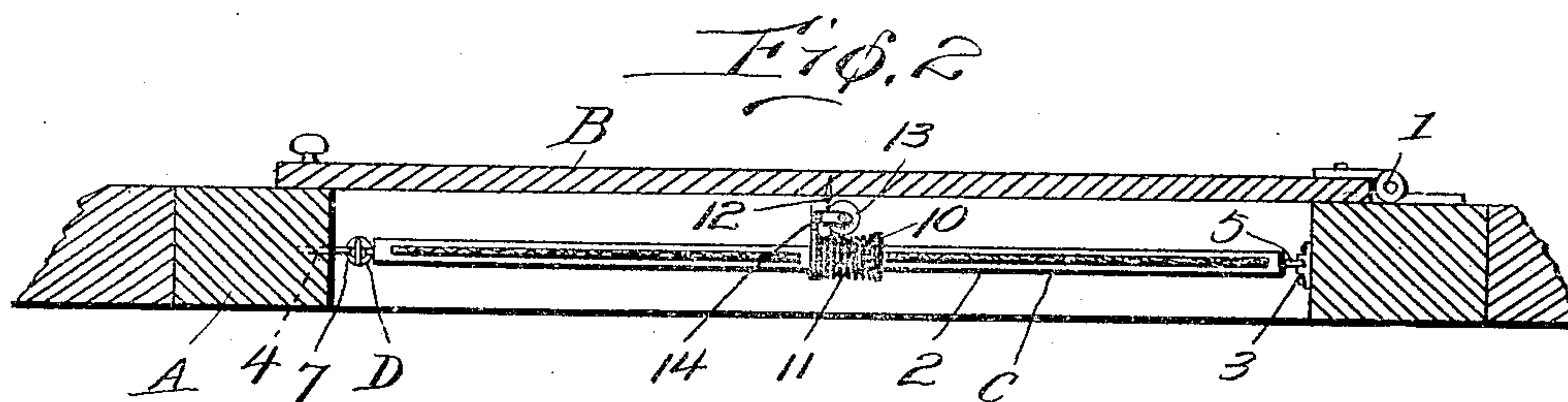
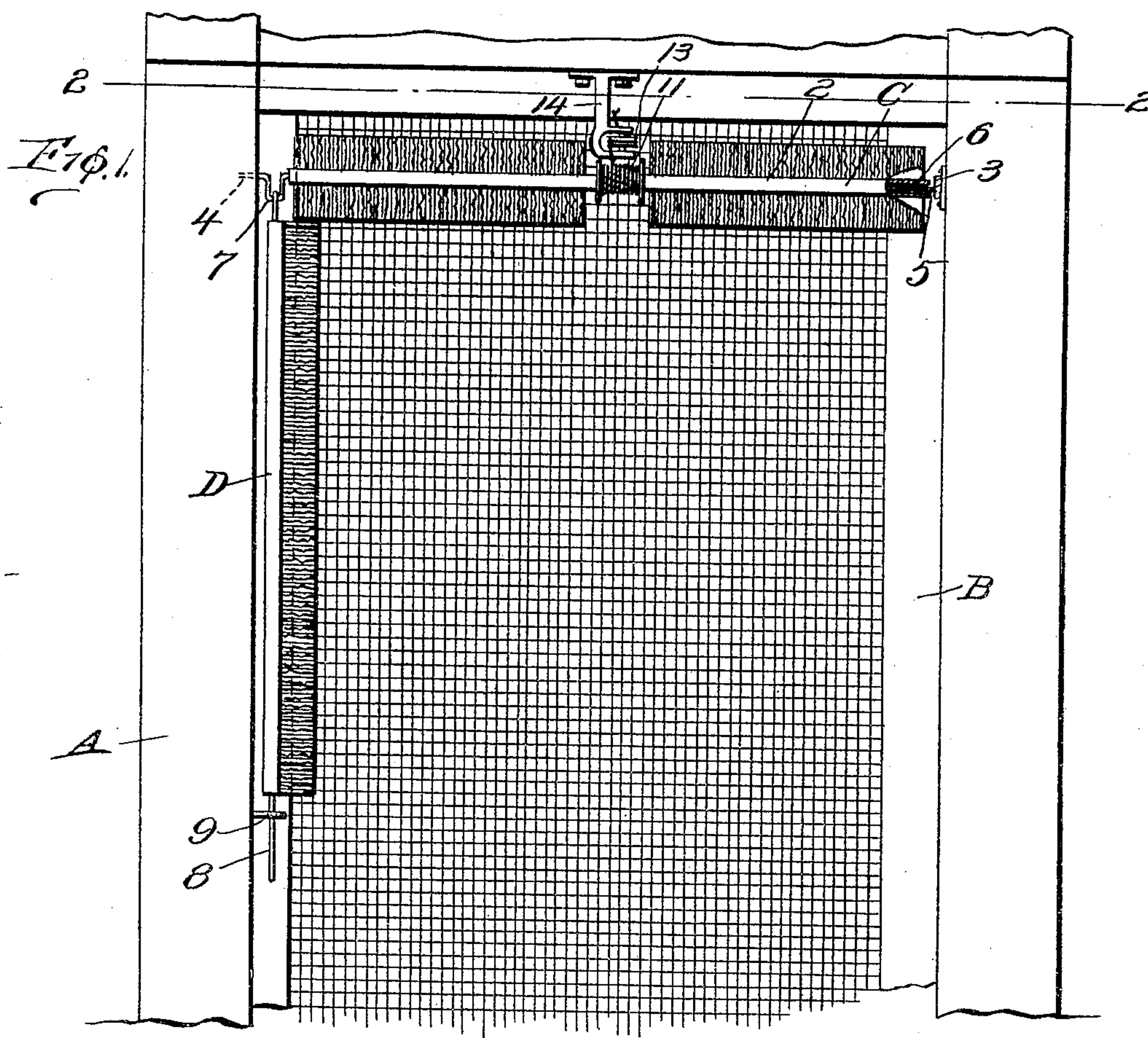


W. L. JOHNSON.  
FLY BRUSH FOR SCREEN DOORS.  
APPLICATION FILED NOV. 24, 1908.

932,474.

Patented Aug. 31, 1909.



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# UNITED STATES PATENT OFFICE.

WALTER L. JOHNSON, OF RATON, TERRITORY OF NEW MEXICO.

FLY-BRUSH FOR SCREEN-DOORS.

932,474.

Specification of Letters Patent. Patented, Aug. 31, 1909.

Application filed November 24, 1908. Serial No. 464,231.

*To all whom it may concern:*

Be it known that I, WALTER L. JOHNSON, a citizen of the United States, residing at Raton, in the county of Colfax and Territory of New Mexico, have invented new and useful Improvements in Fly-Brushes for Screen-Doors, of which the following is a specification.

This invention relates to screen door attachments and more particularly to top and side brushes that are adapted to be agitated as the screen door opens and closes so as to prevent flies from entering a dwelling as persons make their entrance and exit.

The invention has for one of its objects to improve and simplify the construction and operation of devices of this character so as to be comparatively simple and inexpensive to manufacture, reliable and efficient in use, and so designed as to be readily attached to any ordinary screen door.

Another object of the invention is the provision of a rotary brush adapted to be mounted adjacent the top of the door and which is provided with a winding device whereby the brush will rotate as the screen door opens, and which is also provided with a return spring for reversing the rotation of the brush and at the same time moving the door closed.

A further object is the provision of a vertically disposed side brush which is agitated by the movement of the rotary brush through a crank connection between the brushes.

With these objects in view and others, as will appear as the description proceeds, the invention comprises the various novel features of construction and arrangement of parts which will be more fully described hereinafter and set forth with particularity in the claims appended hereto.

In the accompanying drawing, which illustrates one embodiment of the invention, Figure 1 is a fragmentary front elevation of the upper portion of a screen door and doorway. Fig. 2 is a horizontal section on line 2—2, Fig. 1.

Similar reference characters are employed to designate corresponding parts throughout the views.

Referring to the drawing, A designates the frame of a doorway, and B, the frame of a screen door which is attached to the door frame by hinges 1. Mounted at the top of the door frame is a horizontal brush C comprising a rod 2 having its ends mounted in

bearings 3 and 4 secured to the door frame A. The pintle 5 of the brush is prevented from rotating in the bearing 3 and is connected with a helical torsion spring 6 which serves to return the roller as the screen door closes and this spring may be of sufficient strength as to serve as means for returning the screen door and holding the same closed.

The brush is provided with a crank 7 at the end that is supported in the bearing 4 for the purpose of operating a vertical brush D supported at the side of the door frame, the said brush being connected with and suspended from the crank 7. The lower end of the brush D has a rod 8 that is loosely mounted in a guide 9 secured to the door frame, whereby the lower end of the reciprocatory brush D is maintained in position. On the rod 2 of the rotary brush C is a winding drum 10 preferably located at the center, and winding on this drum is a cord 11 that has one end attached at 12, Fig. 2, to the screen door so that as the door opens, the cord will unwind and cause the horizontal brush to rotate, the spring during this movement being subjected to tension so as to return the screen door by rotating the brush in the opposite direction to cause the cord to wind on the drum 10. The cord passes over a guide pulley 13 supported in a bracket 14 mounted on the top of the door frame. As the rotary brush is actuated, the crank 7 imparts a vertical reciprocatory movement to the brush D and at the same time a back and forth horizontal movement at the upper end, due to the fact that the crank moves in a circle. By thus agitating the brushes, the flies are prevented from passing through the doorway as the screen door is opened.

From the foregoing description, taken in connection with the accompanying drawing, the advantages of the construction and of the method of operation will be readily apparent to those skilled in the art to which the invention appertains, and while I have described the principle of operation of the invention, together with the device which I now consider to be the best embodiment thereof, I desire to have it understood that the device shown is merely illustrative, and that such changes may be made when desired as are within the scope of the claims appended hereto.

Having thus described the invention, what I claim is:—

1. A device of the class described compris-



ing a rotary brush, a longitudinally reciprocatory brush, and means for actuating the brushes simultaneously.

2. An attachment for screen doors comprising a rotary brush, a reciprocatory brush, means for operating the second brush by the first, and means for actuating the rotary brush as the door opens and closes.

3. An attachment for screen doors comprising a rotary brush, a reciprocatory brush, a crank connection between the brushes, a winding device connected with the screen door and rotary brush for turning the latter in one direction as the door opens, and means for reversing the rotation of the brush as the door closes.

4. An attachment for screen doors comprising a rotary brush, a helical torsion spring mounted in the brush for returning the same, a drum on the brush, and a cord wound on the drum and connected with the

screen door for rotating the brush as the door opens, said spring serving to reverse the brush and return the door.

5. An attachment for screen doors comprising a rotary brush, a helical torsion spring mounted in the brush for returning the same, a drum on the brush, and a cord wound on the drum and connected with the screen door for rotating the brush as the door opens, said spring serving to reverse the brush and return the door, a reciprocatory brush, and a crank connection between the brushes for moving the reciprocatory brush by the rotary brush.

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

WALTER L. JOHNSON.

Witnesses:

ALFRED JELFS,  
JUDSON B. SMITH.