

FLY GUARD.

Patented Sept. 17, 1912.

Fig. 1.

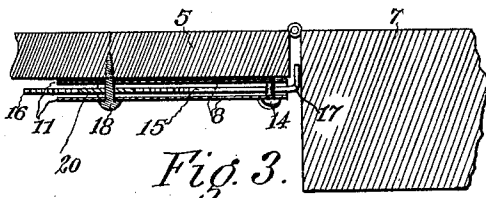


Fig. 3.

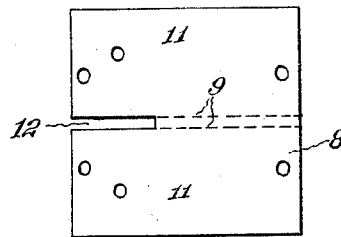


Fig. 4.

Joseph J. Tully.

S. J. Lehrer
H. G. Farcher

Mr. B. Thomas.

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOSEPH J. TULLY, OF CHICAGO, ILLINOIS.

FLY-GUARD.

1,038,688.

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To all whom it may concern:

Be it known that I, JOSEPH J. TULLY, 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-Guards, of which the following is a specification:

This invention relates to devices for attachment to screen doors for the purpose of chasing flies or other insects off the door when the latter is opened, and it is the object of the invention to provide a device of this kind which is highly efficient in operation, simple in construction, and readily applied. With these objects in view, the invention consists in a novel construction and arrangement of parts to be hereinafter described and claimed.

In the accompanying drawing, Figure 1 is a front elevation of a fragment of a screen door showing the application of the invention; Fig. 2 is an edge view thereof; Fig. 3 is a horizontal section on the line 3—3 of Fig. 1, and Fig. 4 is a plan view of the blank from which the casing of the device is constructed.

Referring specifically to the drawing, 5 denotes an ordinary screen door which is hinged at 6 to the door frame 7. To the outside of the door is secured a casing composed of a heavy sheet metal plate 8 which is bent intermediate its ends, on the dotted lines 9 shown in Fig. 4, into channel shape, the two flanges thus formed being indicated at 11. At one end of the plate is made a slot 12, which, when the plate is bent as stated, forms a slot or opening 13 in the bottom of the channel at one end thereof. The plate will be secured to the door by screws or other suitable fastening means 14 passing through perforations in the flanges and into the door. The plate is located adjacent to the hinge-end of the door, and it is so positioned that the flanges extend horizontally and point upwardly, the bend connecting the flanges being at the bottom. Within the channel of the herein-described plate, is slidably mounted a stiff metal strip 15 having in its top edge, at one end, a series of rack teeth 16. The other end of the strip has a lateral bend 17, and this end of the plate is located at the hinge-end of the door. The bend 17 is in such a direction that it may be located between the hinge-end of the door and the opposite portion of the door frame 7. Between the flanges 11 is

pivoted, on a screw 18 passing therethrough, an arm 19 having at its pivoted end an enlargement which is formed with gear teeth 20, which latter are in mesh with the rack teeth 16, so that when the strip 15 is moved in the direction of its length, the arm 19 will swing on its pivot. The arm is located close to the door and swings in a vertical plane. The free end of the arm carries a whisk 21. When the door is closed, the arm 19 extends upwardly in the direction of the top of the door, it being slightly inclined toward the free end of the door, so that it will drop down in that direction by its own weight when released. The arm is held in upright position by placing the bend 17 between the hinge-end of the door and the opposite portion of the door frame 7. With the bend in this position, the strip 15 is locked, and as the teeth 16 and 20 are in mesh, it will be evident that the arm is also locked in upright position. When the door is opened, the bend 17 slips out of the space between the edge of the door and the door frame, thereby releasing the strip 15 and permitting it to slide rearwardly, whereupon the arm is also released and permitted to drop down to pendent position as shown by dotted lines in Fig. 2. When the arm drops down, the whisk 21 sweeps across the door and past the free end thereof, thus chasing away all flies or other insects and preventing them from entering the house. The slot 13 is in the path of the arm and the latter swings therethrough. At the hinged end of the arm 19 is a shoulder 22 which engages the top edge of the strip 15 when the arm is in upright position, a stop being thus had which limits the upward swing of the arm and prevents it from dropping over to the hinged end of the door. The bend 17 may be in either direction according to the position of the door.

The device may also be used for advertising purposes by providing a stop to hold the arm in horizontal position. This stop may be a screw passing through the flanges 11, as shown, dotted, at 23, in Fig. 1. When used for this purpose, the whisk 21 may carry a sign or other advertisement.

I claim:

1. The combination with a door and its frame, of a slidable rack carried by the door and having a laterally extending member adapted to be loosely located between the hinged edge of the door and the opposite

portion of the door frame to locate the rack, and a pivoted arm having gear teeth in mesh with the rack, said arm being in erect position when the rack is locked.

5 2. The combination with a door and its frame, of a channeled member mounted on the door, a slidable rack seating in the channel of said member and having a laterally extending member adapted to be
10 loosely located between the hinged edge of the door and the opposite portion of the door frame to lock the rack, and a pivoted arm having gear teeth in mesh with the rack, said arm being in erect position when
15 the rack is locked.

3. The combination with a door and its frame, of a channeled member mounted on the door, and having a slot at one of its ends, said slot being in the bottom of the
20 channel, a slidable rack seating in the channel of said member and having a laterally extending member adapted to be located

between the hinged edge of the door and the opposite portion of the door frame, and a pivoted arm having gear teeth in mesh
25 with the rack, said arm being in line with the aforesaid slot.

4. The combination with a door and its frame, of a slidable rack carried by the door and having a laterally extending member
30 adapted to be located between the hinged edge of the door and the opposite portion of the door frame, a pivoted arm having gear teeth in mesh with the rack, said arm being in upright position when the aforesaid
35 member is located as stated, and a stop on the arm engageable with the rack, said stop determining the upright position of the arm.

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

JOSEPH J. TULLY.

Witnesses:

S. J. LEHRER,
H. G. BATCHELOR.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."