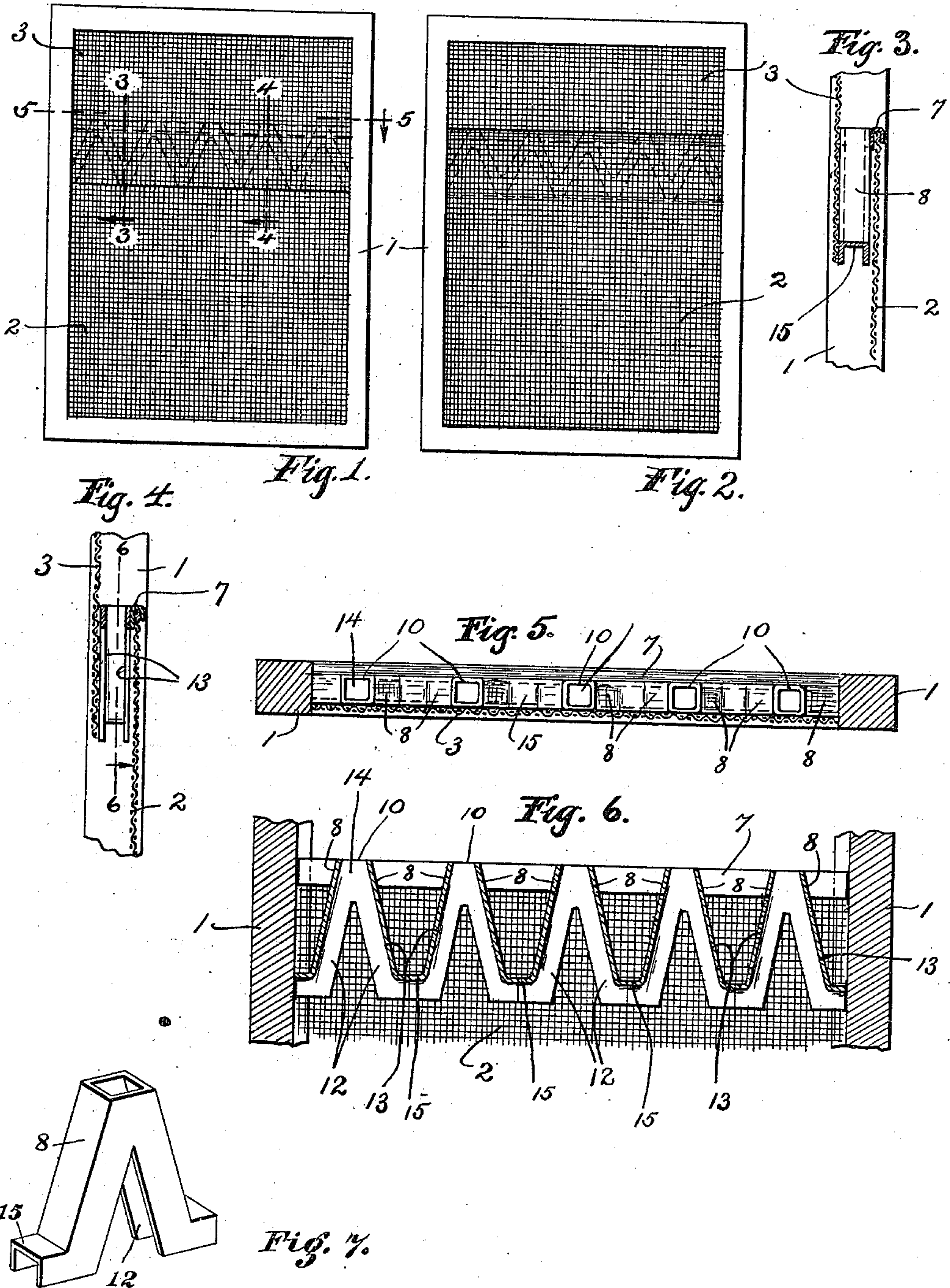


W. S. CALDWELL.
WINDOW AND DOOR SCREEN.
APPLICATION FILED MAR. 3, 1910.

975,931.

Patented Nov. 15, 1910.



Witnesses:
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UNITED STATES PATENT OFFICE.

WALTER S. CALDWELL, OF CLEVELAND, OHIO.

WINDOW AND DOOR SCREEN.

975,931.

Specification of Letters Patent. Patented Nov. 15, 1910.

Application filed March 3, 1910. Serial No. 547,010.

To all whom it may concern:

Be it known that I, WALTER S. CALDWELL, a citizen of the United States of America, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Window and Door Screens; and I 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 pertains to make and use the same.

This invention relates to new and useful improvements in window or door screens.

The object of this invention is to provide in combination with a screen of this character a series of exits or passageways through which flies or other insects may escape from the interior of a room but having such conformation as will deter flies or other insects from entering therethrough.

My invention therefore consists in the features of construction and combination of parts, described in the specification, pointed out in the claims and illustrated in the accompanying drawings.

In the accompanying drawings Figure 1 is a view of a screen showing the inner face thereof. Fig. 2 is a view of a screen showing the outer face thereof. Fig. 3 is a section on line 3—3, Fig. 1, on an enlarged scale. Fig. 4 is a section on line 4—4, Fig. 1, on the same scale as Fig. 3. Fig. 5 is a section on line 5—5, Fig. 1, on the same scale as Fig. 3. Fig. 6 is a section on line 6—6, Fig. 4. Fig. 7 is a perspective view of one of the inverted V-shaped members detached from the supporting bar.

Again referring to the drawings 1 represents the frame of the screen across which is stretched the wire netting or gauze which forms the material of the screen and which is made in two sections 2 and 3. The section 2 extends from the bottom of the frame to within a short distance of the top thereof and the section 3 extends from the top of the frame down over the upper part of the section 2, lapping over the inner face thereof. Between the overlapping portions of the upper and lower sections of the screen forming material is arranged my improved exit or passageway forming device. This device comprises a horizontally arranged binding strip 7, preferably formed of sheet metal, which embraces the upper edge of the screen section 2 and forms a supporting bar for the passageway forming devices

which consist of a plurality of inverted V-shaped members which are rigidly secured to said bar and extend down between the overlapping portion of the screen section. These V-shaped members are preferably formed of sheet metal and each member comprises side pieces 8 which are inclined toward each other at their upper ends but do not touch so that an exit space 10 is formed at the upper end of each V-shaped member. Each side piece 8 is provided at each side with a flange 12 which extends parallel with the adjacent screen section and lies flat against the same. The flanges 12 on the respective sides 8 of each V-shaped member join at the upper part of the V-shaped member. It will be seen therefore that each side piece 8 with its flanges 12 forms a passageway 13 which is completely inclosed on three sides and the two passageways unite in a completely inclosed channel 14 just below the exit opening 10. Each V-shaped member is connected at its lower end with the V-shaped members at either side thereof, as shown at 15, so that the said V-shaped members form a continuous guard across the screen between the overlapping portions of the sections 2 and 3, the only openings in which are the exits 10.

The operation of the device is as follows,—When a fly or other insect alights on the screen in seeking a way of escape it will crawl toward the upper part of the screen and will enter the lower part of one of the V-shaped members and will move from side to side until it is in one of the passageways 13, and as these are inclosed on three sides they are comparatively dark and the fly will notice the light coming through the exit opening 10 and will make its way thereto in escaping. On the other hand if an insect or fly is on the outside of the screen and approaches one of the exits 10 it will not enter therethrough because the completely inclosed channel just below the exit cuts off all light and therefore offers no attraction which would induce the fly to enter therein.

What I claim is,—

1. In a screen, the combination of a frame having two sections of screen material stretched thereon, with the upper part of one section overlapping the lower part of the other section and a guard arranged to extend horizontally between the overlapping portions of said screen sections, said guard comprising a series of inverted V-shaped

members, each member being connected with the members at each side thereof at its lower end, each member being formed of sheet metal and consisting of two side members 5 inclined toward each other and spaced apart at their upper ends to form an exit opening and each side member being provided with side flanges which extend parallel with and lie flat against the adjacent screen sections, 10 the flanges on the respective sides meeting at the top of said V-shaped members and forming channels immediately below the exit openings.

2. In a screen, the combination of a frame 15 having two sections of screen material stretched thereon, with the upper part of one section overlapping the lower part of the other section and a guard arranged to extend horizontally between the overlapping 20 portions of said screen sections, said guard comprising a series of inverted V-shaped members, each member abutting against the member at each side thereof at its lower end, each member being formed of sheet 25 metal and consisting of two side members inclined toward each other and spaced apart at their upper ends to form an exit opening and each side member being provided with side flanges which extend parallel with and 30 lie flat against the adjacent screen sections.

3. In a screen, the combination of a frame having two sections of screen material stretched thereon, with the upper part of one section overlapping the lower portion 35 of the other section and a guard arranged to extend horizontally between the overlapping portions of said screen sections, said guard comprising a binding strip arranged to engage the upper edge of the lower screen 40 section, a series of inverted V-shaped mem-

bers connected at their upper ends to said strip and at their lower ends to each other, each V-shaped member comprising two side members inclined toward each other and spaced apart at their upper ends to form an 45 exit opening and each side member being provided with side flanges which extend parallel with and lie flat against the adjacent screen sections.

4. In a screen, the combination of a frame, 50 having two sections of screen material stretched thereon, with the upper part of one section overlapping the lower part of the other section and a guard arranged to extend horizontally between the overlap- 55 ping portions of said screen sections, said guard comprising a strip of sheet metal arranged to engage the upper edge of the lower screen section and a series of inverted V-shaped members connected at their upper 60 ends to said strip and at their lower ends to each other, each V-shaped member consisting of two side members inclined toward each other and spaced apart at their upper ends to form an exit opening and each side 65 member being provided with side flanges which extend parallel with and lie flat against the adjacent screen sections, the flanges on the respective sides meeting at the top of said V-shaped members and forming 70 channels immediately below the exit openings.

In testimony whereof, I sign the foregoing specification, in the presence of two witnesses.

WALTER S. CALDWELL.

Witnesses:

VICTOR C. LYNCH,
N. L. McDONNELL.