

W. H. BETTS & F. ROUGHT.
 FLY SCREEN.
 APPLICATION FILED JULY 13, 1916.

1,237,284.

Patented Aug. 21, 1917.
 2 SHEETS—SHEET 1.

Fig. 1.

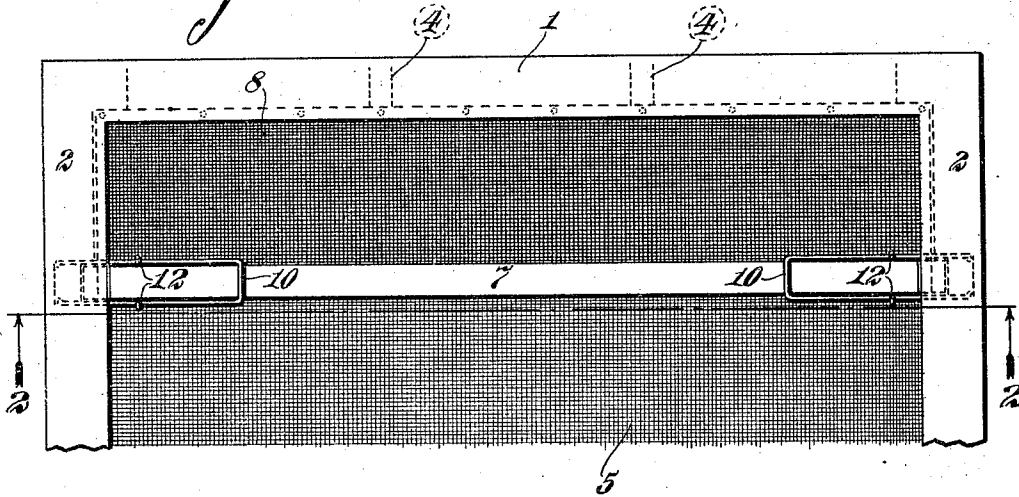


Fig. 2.

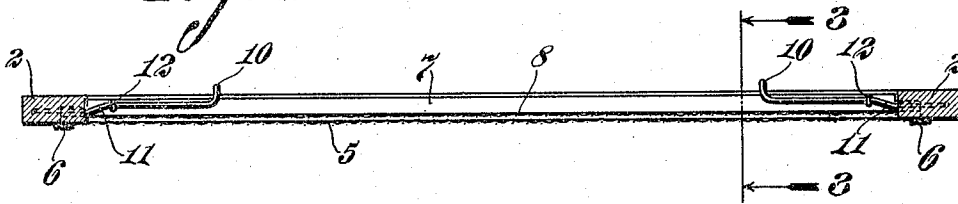


Fig. 3.

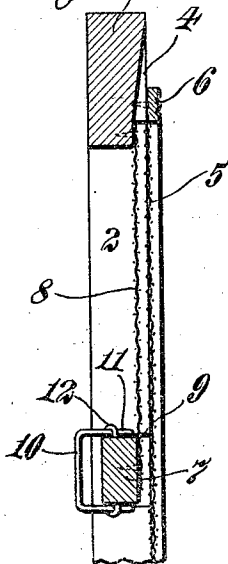


Fig. 4.

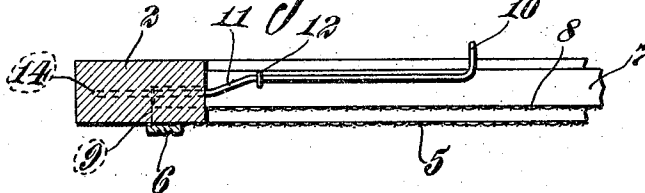
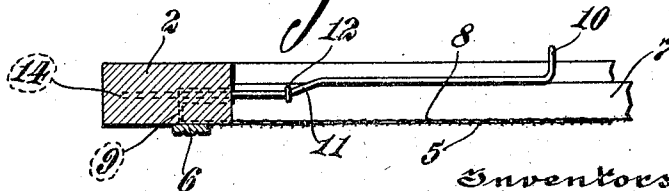


Fig. 5.



Inventors:
 WILLIAM H. BETTS & FRANK ROUGHT,
 By *John C. Higdon*
 Their Attorney.

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Fig. 6.

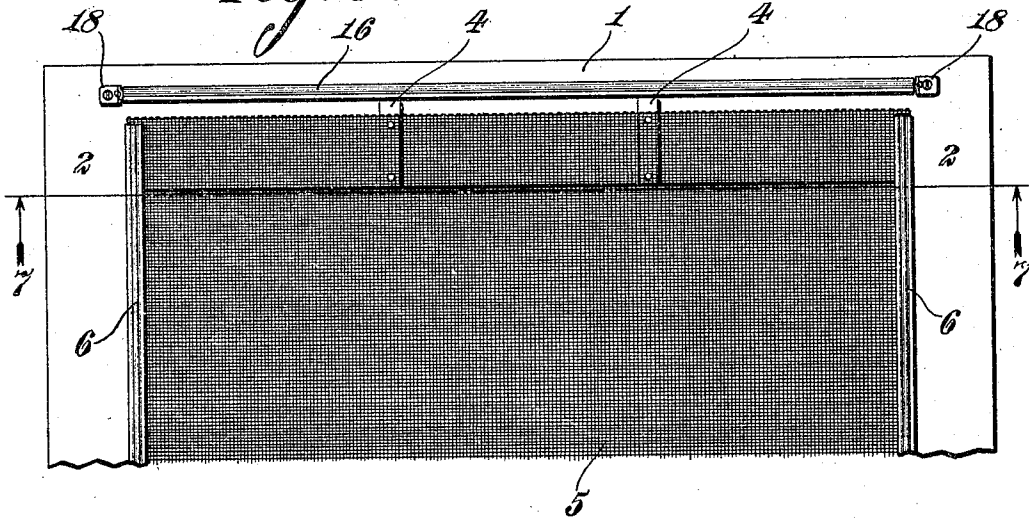


Fig. 7.

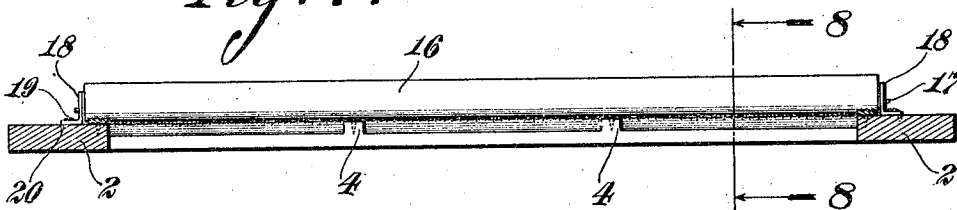


Fig. 8.

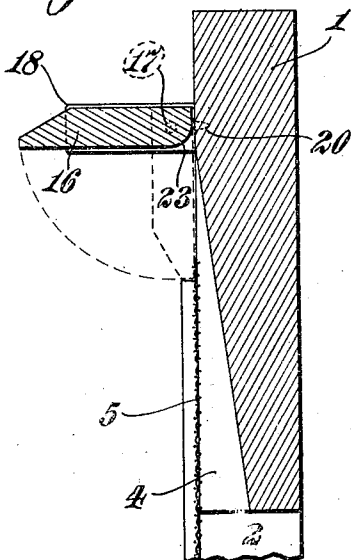


Fig. 9.

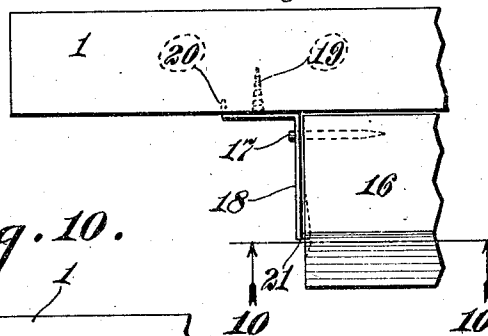
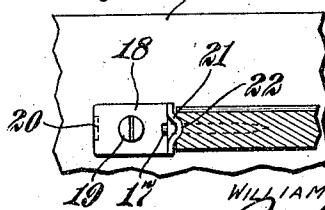


Fig. 10.



Inventors:
 WILLIAM H. BETTS, FRANK ROUGHT,
 By *John C. Higdon*
 Their Attorney.

UNITED STATES PATENT OFFICE.

WILLIAM H. BETTS AND FRANK ROUGHT, OF ST. LOUIS, MISSOURI.

FLY-SCREEN.

1,237,284.

Specification of Letters Patent.

Patented Aug. 21, 1917.

Application filed July 13, 1916. Serial No. 109,167.

To all whom it may concern:

Be it known that we, WILLIAM H. BETTS and FRANK ROUGHT, citizens of the United States, and residents of St. Louis, Missouri, have invented certain new and useful Improvements in Fly-Screens, of which the following is a specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

The object of our invention is to provide an improved door and window screen, which will easily permit the flies to escape from a room, and yet make it very difficult for flies and bugs to enter the room, day or night.

Our invention consists in the novel construction and arrangement of parts, as hereinafter described, and specifically pointed out in the appended claims.

In the drawings:

Figure 1 is an inside face view of the upper end of our improved door or window screen.

Fig. 2 is a horizontal section, taken on the line 2—2 of Fig. 1.

Fig. 3 is a vertical section, with the parts enlarged, taken on the line 3—3 of Fig. 2.

Fig. 4 is an enlarged horizontal section, of the parts at the left-hand of Fig. 2, and showing the exit-door in an open position.

Fig. 5 is a view like the last, but showing the exit-door closed against the entrance of bugs, as it should be at night.

Fig. 6 is an outside face-view of the upper end of our improved door or window screen, with a modified form of exit-door.

Fig. 7 is a horizontal section, taken through the same on the line 7—7 of Fig. 6.

Fig. 8 is a vertical section, enlarged, taken on the line 8—8 of Fig. 7.

Fig. 9 is a detail plan-view, of a portion of the upper end of the screen, showing the same parts that appear in Fig. 8, and

Fig. 10 is a detail section, taken on the line 10—10, of Fig. 9.

The numeral 1 designates the top horizontal bar of a door or window screen, and 2 the upright bars of the same.

The outer face of the said top bar 1 is cut away on an incline at intervals of its length, to form inclined chutes or passages 3, for the exit of the flies, between the vertical partitions 4, to which latter the upper edge of the screen-wire 5 is attached by the usual tacks and clamping-strip 6.

A movable horizontal bar 7, forms the lower edge of an exit-door, a section of screen-wire 8 being attached to the said bar by means of suitable fastening tacks, and extends up to the said top bar 1, and has its upper edge secured to said top bar in any common manner, so that said section will act as a hinge for movably suspending said movable bar, as shown more clearly in Fig. 3.

It will be seen that the exit-door thus formed is on the inside of the screen-wire 5, and extends parallel thereto, to form a passage-way for the flies in making their exit through said chutes 3.

To close the exit-door during the night, for preventing entrance of bugs and other insects, it will only be necessary to move the said bar 7 outwardly, until its screen-wire comes in contact with the screen-wire 5 of the door or window screen, thereby effectually closing the lower edge of the passage-way between the two screen-wires, and preventing entrance to the room of all obnoxious bugs and the like.

To hold said movable bar 7 in either an open or closed position, we loosely mount its ends in mortises 9 formed in the opposite vertical bars 2, and provide sliding camlocks 10, preferably made of wires, bent to the form shown, with cams 11 and set astride of said bar 7, with the inner portions of said wires bent inwardly, to form a handle, and with the outer ends of said wires passed through suitable eyes or staples 12 driven into the top and bottom of said bar, and thence passed loosely into a guiding-socket 14, bored in said bars 2, so that when said handles are moved outwardly, to the position in which one is shown in Fig. 4, the cams 11 will engage said staples and force said movable bar and its screen-wire inwardly, and open the exit-door.

When said handles 10 are moved inwardly, toward each other, to the position in which one of them is shown in Fig. 5, the said cams 11 will force said bar 7 outwardly, and securely close the said exit-door against the entrance of bugs and the like.

Referring now to the modification, illustrated in Figs. 6 to 10, the screen-wire 5 of the door or window is extended upon the frame in the manner described in connection with Figs. 1 to 5 inclusive, but the interior

exit-door is done away with, and we locate an exit-door 16 on the exterior of the top horizontal bar 1, pivoted at 17 between opposite brackets 18 secured to said bar by
5 suitable tacks or screws 19 and integral prongs 20, which latter are to prevent said brackets from turning.

Said brackets 18, as shown more clearly in Fig. 10, are adapted to hold said door 16
10 in an open position, by reason of cam locking lugs 21 engaging a recess 22 in the end of said door.

The said door will stay closed by reason of its weight holding it in the closed position. (See Fig. 8).
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The inner lower corner of said door 16 is rounded off, at 23, to permit said door to close and open readily.

In the modified form of our invention, the
20 vertical partitions 4, and the exit-passages between them, are located on the outside of the door or window screen, it will be observed, substantially the same as in the form previously described.

We claim:

25 1. An improved door or window screen, having at its upper end inclined exit-passages with vertical-bars between them, screen-wire attached to said vertical-bars covering all but the upper edges of said exit-
30 passages, a suitable movable exit-door arranged to control said passages and prevent the passage of bugs and other insects into the room, at night, and cam-locks which
35 hold the said door after its adjustment.

2. An improved door or window screen, having exits for flies at its upper end, a door hinged to open or close said exits, and
40 cam-locks which hold the said door after its adjustment.

In testimony whereof, we have signed our names to this specification in the presence of two subscribing witnesses.

WILLIAM H. BETTS.
FRANK ROUGHT.

Witnesses:

HENRY L. HIGDON,
JOHN C. HIGDON.

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