No. 811,974. PATENTED FEB. 6, 1906.

H. W. TUTHILL.

WINDOW SCREEN.

APPLICATION FILED NOV. 15, 1905.

Fig. 1

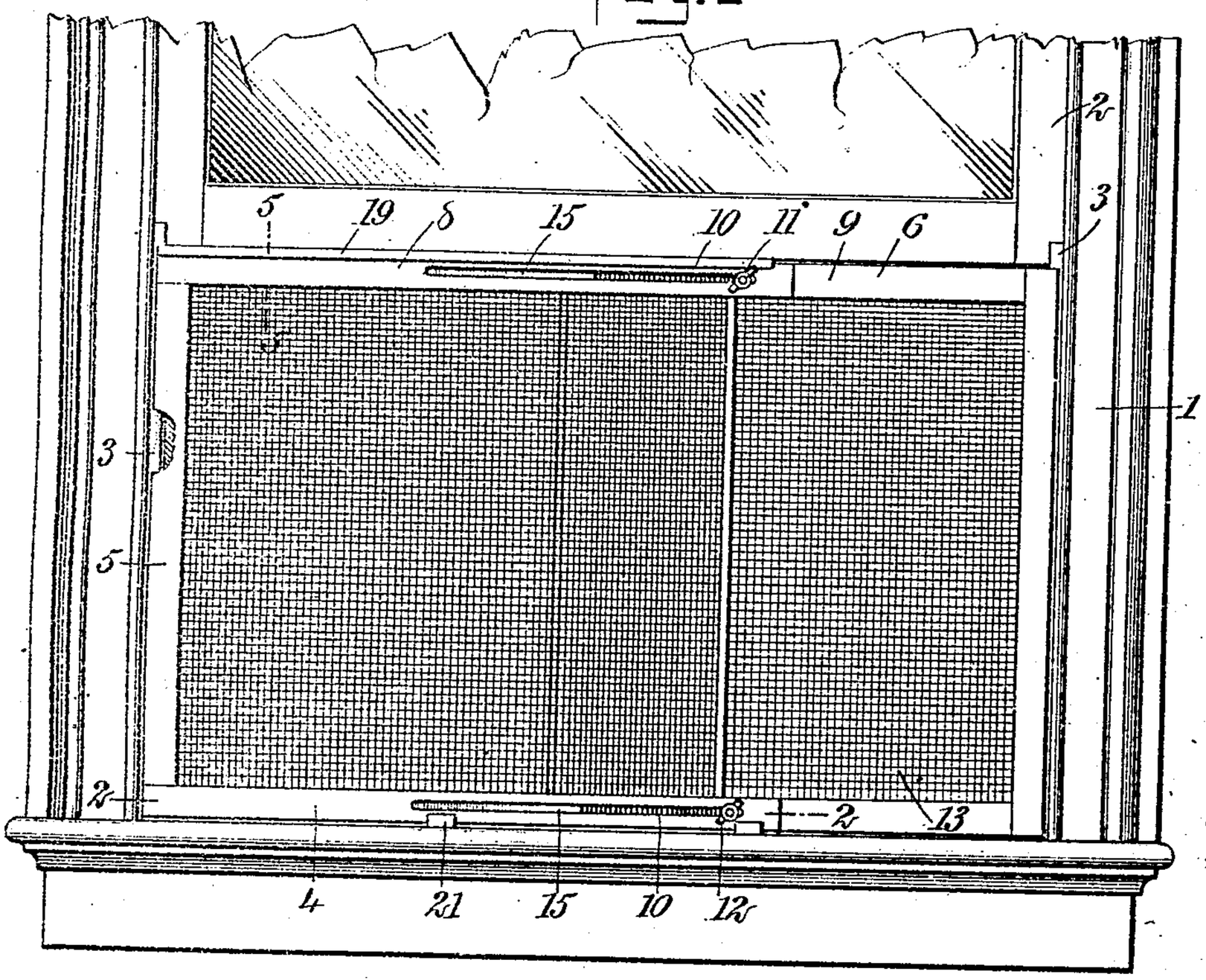


Fig. 2

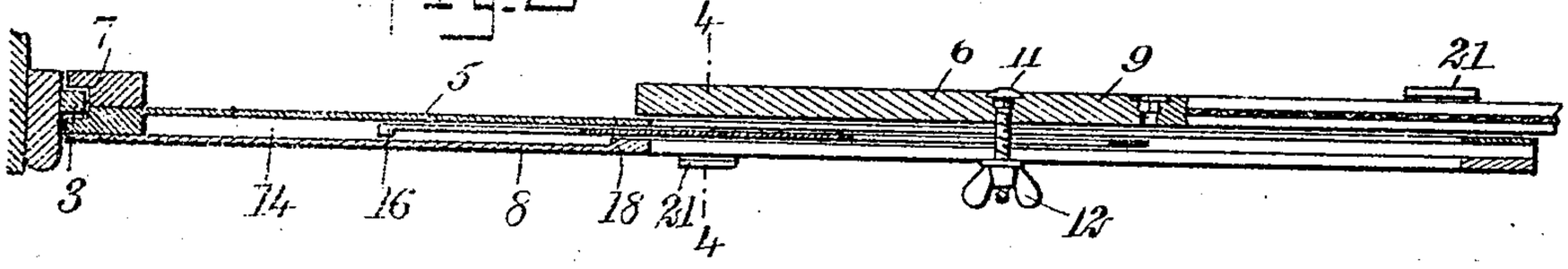


Fig. 3

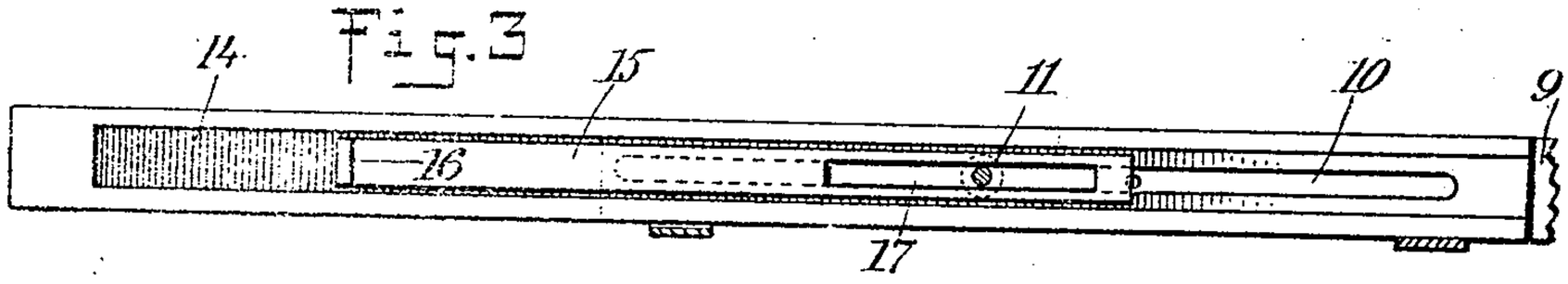


Fig. 4

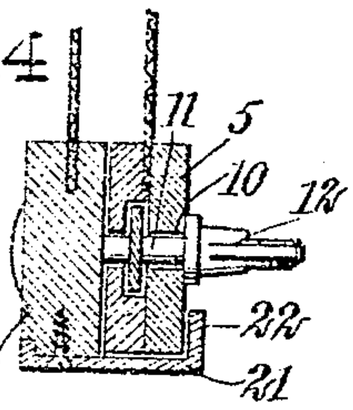
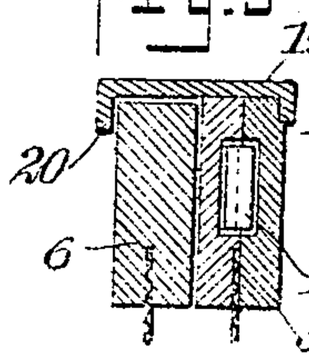


Fig. 5



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HARRY W. TUTHILL, OF MIDDLETOWN, NEW YORK.

WINDOW-SCREEN.

No. 811,974. Specification of Letters Patent. Patented Feb. 6, 1906.

Application filed November 15, 1905. Serial No. 287,462.

To all whom it may concern:

Be it known that I, HARRY W. TUTHILL, a citizen of the United States, and a resident of Middletown, in the county of Orange and State of New York, have invented a new and Improved Window-Screen, of which the following is a full, clear, and exact description.

The object of the invention is to provide an adjustable screen the sections of which may be extended to fit windows of different widths and to provide means for rigidly securing the screen-sections together.

A further object is to increase the range of adjustability of extensible screens.

The invention consists in the construction and combination of parts to be more fully described hereinafter and definitely set forth in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is an elevation showing the lower portion of a window-casement and the lower portion of a sash, the window being provided with my screen. A portion of the screen-frame is broken away at one side. Fig. 2 is a cross-section through the lower portion of the screen-frame and taken on the line 2 2 of Fig. 1. Fig. 3 is a longitudinal section taken through a portion of the screen-frame and illustrating its construction in detail. Fig. 4 is a cross-section substantially on the line 4 4 of Fig. 2, and Fig. 5 is a cross-section on the line 5 5 of Fig. 1.

Before proceeding to a detailed description of the invention it may facilitate the disclosure to state at the outset that the specific purpose of the invention is to provide means for enabling the screen to be extended to its limit without opening a slot connection which constitutes a feature of the invention. With this end in view I provide a sliding plate which is concealed within the frame of the screen, but which is extended when the screen is extended, so as to close the slot, which is opened by the extending of the screen beyond a certain limit.

Referring more particularly to the parts, 1 represents a window-casement, the same having a sash 2, adapted to be raised in the usual manner. In applying my screen I provide vertical cleats 3, which are attached to the sides of the casement, as shown most clearly in Figs. 1 and 2.

The screen comprises a frame 4 of substantially rectangular form and composed of two sections 5 and 6, adapted to slide one upon the other in a common manner. At their side edges these sections 5 and 6 are provided with vertical grooves 7, which are adapted to receive the aforesaid cleats 3 in the manner indicated in Fig. 2. The screen-sections 5 and 6 when put together present a substantially rectangular form, as shown. The section 5 comprises upper and lower horizontal bars 8, which lie in front of and slide upon corresponding horizontal bars 9, which constitute parts of the screen-section 6. The bars 8 are provided with longitudinally-disposed slots 10, and the bars 9 at suitable points are provided with bolts 11, which project through these slots and carry wing-nuts 12 for the purpose of clamping the sections in any position desired. It should be understood that the body 13 of the screen is made of suitable wire mesh or suitable material and formed in sections which are attached, respectively, to the sections 5 and 6 in a well-known manner. It should be understood, also, that these sections of the screen-body 13 lie close to each other, so that it is impossible for insects to pass between them.

I form the bars 8 each with an elongated recess or groove 14, and these are disposed near the side of the window-casement, while the slots 10 aforesaid are disposed remotely therefrom and near the extremities of the bars. These grooves or recesses 14 extend, however, throughout substantially the entire length of the bars 8, so that they communicate with the slots 10 aforesaid. Within each of these grooves 14 is provided a sliding plate 15, which consists of a long flat strip, as shown most clearly in Fig. 3. Its inner extremity, which lies near the casement, is formed with a laterally-projecting nib or head 16, the purpose of which will appear more fully hereinafter. The outer extremity of this sliding plate or slide is formed with a longitudinally-disposed slot 17, which coincides with the slots 10, and through each of these slots 17 a corresponding bolt 11 passes. The grooves 14 are contracted in width near their point of connection with the slots 10 in such a manner that a projecting shoulder 18 is formed in each slot. This shoulder is for the purpose of arresting the extending movement of the sliding plate in a manner which will be described more fully hereinafter.

At the upper edge of the screen-sections 5 and 6 I provide a channel-plate 19, (shown

most clearly in Fig. 5,) the same being provided with downwardly-extending flanges 20 at its edges, which overlap the side faces of the bars of the screen-sections and hold the same together, as will be readily understood. This channel-plate may be attached, if desired, by any suitable means to the one or the other of the screen-sections. At the lower edge of the screen I provide a pair of saddles or clips 21, one of which is shown most clearly in Fig. 4. Each of these clips consists of a bent plate attached in any suitable manner to one of the screen-sections and having a flange 22 formed at its extremity retaining the opposite screen-section, as will be readily understood.

In using the screen it should be understood that it will be placed in the window in the manner shown in Fig. 1. The sections 5 and 6 will then be drawn out, so as to fit them to the width of the window. When the sections are drawn apart in this manner, the bolts 11 will run along in the slots 10. In doing so, if the window is a sufficiently wide window, the bolts 11 will come against the extremities of the slots 17 in the slide-plates 15. After this occurs a continued movement of the bolts operates to draw out the slides 15, so that they move with the screen-section 6. In this way the bodies of the sliding plates operate to close the slots 10, which may be opened on the outer side by the extension movement of the bars 9. When the screen reaches its limit of extension, the heads or nibs 16 of the slides strike against the shoulders 18, and when this occurs the slide plates 15 cannot be further extended. After the screen is adjusted in this manner to suit the width of the window the clamping-nuts 12 will be screwed up, so as to securely hold the parts in an extended position. In closing the screen the bolts 11, striking the outer extremities of the slots 17 in the sliding plates, return the sliding plates to their normal and extended position.

I desire it to be understood that in constructing my improved screen I may employ either wood or metal, as may be found desirable.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A screen having sections adapted to slide one upon the other, one of said sections having slots therein, bolts carried by the opposite sections and received respectively through said slots, and sliding plates attached to one of said screen-sections and adapted to move therewith to close said slot.

2. A window-screen comprising in combination, a section having bars with slots therein, a second section having bars with bolts passing through said slots, sliding plates carried by said first bars and having openings therein receiving said bolts, whereby the movement of said bolts when said screen is extended, will extend said sliding plates.

3. A window-screen comprising in combination, a section having bars with slots therein, a second section adapted to slide thereupon and having bars with bolts passing through said slots, said first bars having grooves therein, sliding plates mounted respectively in said grooves, and having slots therein receiving said bolts.

4. A window-screen comprising in combination, a section having bars with slots therein, a second section adapted to slide thereupon and having bars with bolts passing through said slots, said first bars having grooves therein, sliding plates mounted respectively in said grooves, and having slots therein receiving said bolts, whereby the extension of said screen-sections will extend said sliding plates, and means for limiting the extension movement of said sliding plates.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HARRY W. TUTHILL.

Witnesses.
EDWIN T. HANFORD,
E. AUGUSTUS SKINNER.