April 12, 1932. I. ABRAMS ET AL 1,853,531

COMBINATION SLIDE AND LOCK FOR WINDOW SCREENS

Filed Dec. 6, 1930

Fig. 1.

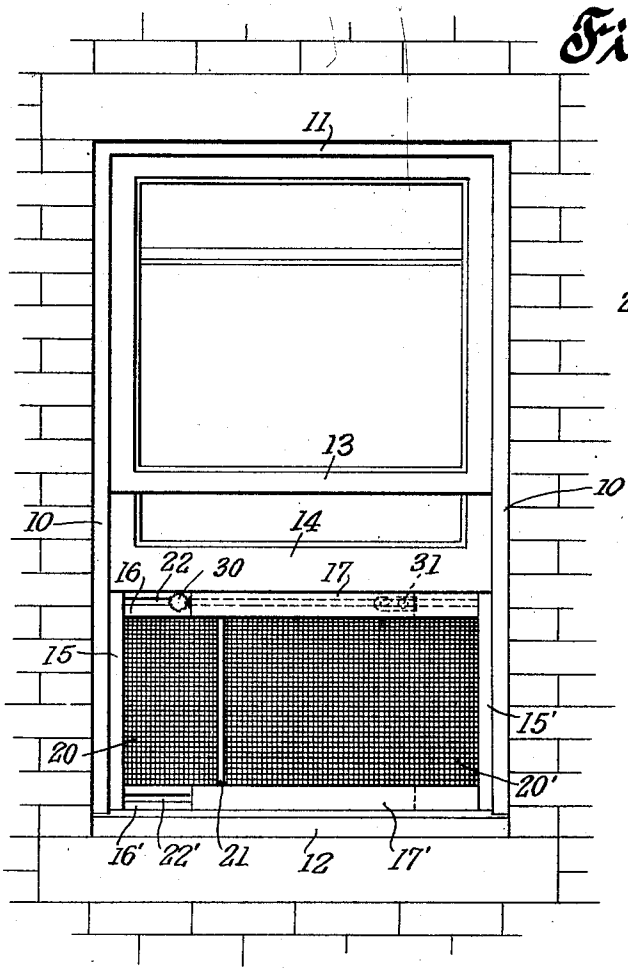


Fig. 3.

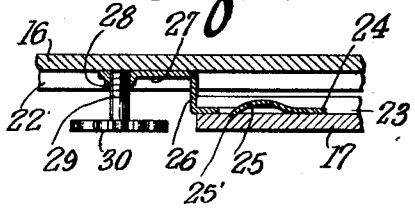


Fig. 4.

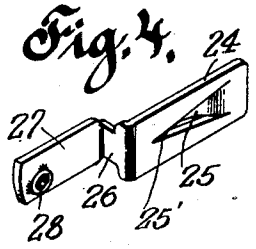


Fig. 2.

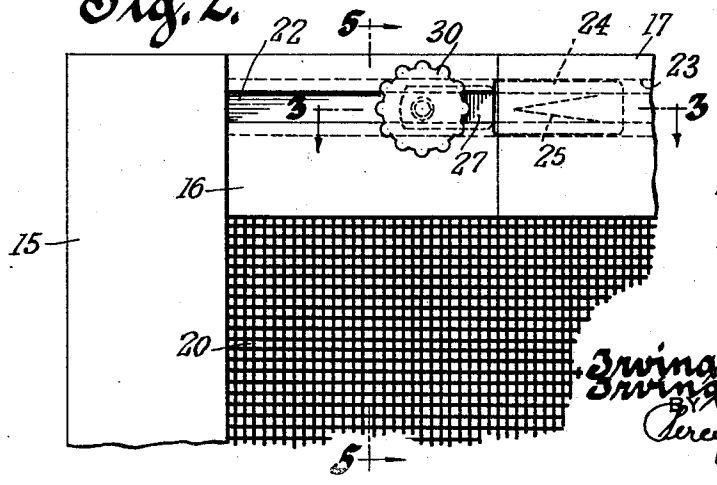
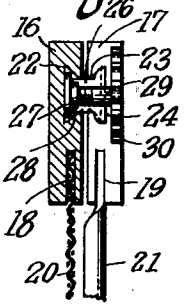


Fig. 5.



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UNITED STATES PATENT OFFICE

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COMBINATION SLIDE AND LOCK FOR WINDOW SCREEN

Application filed December 6, 1930. Serial No. 500,451.

This invention relates to screens as disposed in window openings and the like to permit ventilation but prevent the entrance of insects.

While screens for the foregoing purpose are well known, they are generally subject to certain disadvantages, such as rattling by the wind, accidental and mischevious displacement by children, due to adjustment from the inner side of the window, and smooth operation when adjusting and removing from the window.

Having these matters in mind, it has been an object of the present invention to provide a two part screen adjustable to any ordinary window below the sash and which is positively anti-rattling when adjusted.

A further feature is the provision of a positive locking means, inaccessible from the inner side of the window, but readily adjusted upon raising the sash.

Another aim is to produce an inexpensive screen; easily applied or removed, and which is entirely free from rattling when properly adjusted.

These several advantageous objects are accomplished by the novel construction, combination and arrangement of few and simple parts as hereinafter described and illustrated in the accompanying drawings, constituting an important part of this disclosure, and in which:

Fig. 1 is a front elevational view of a conventional type of window, showing an application of an embodiment of the invention, looking from the outer side thereof.

Fig. 2 is an enlarged fragmentary view of a corner of the improved screen.

Fig. 3 is a sectional view taken on line 3—3 of Fig. 2.

Fig. 4 is a perspective view of the adjustable clamp member in detail.

Fig. 5 is a transverse sectional view taken on line 5—5 of Fig. 2.

Referring to the drawings in greater detail, the numeral 10 designates the side members of an ordinary window frame connected at the top by a stile 11 and at the bottom by a sill 12.

Movable in the frame are upper and lower sashes respectively 13 and 14, the latter being shown in a raised position and resting on a screen the end members 15—15′ of which are entered in the sash channels of the jambs 10.

Fixedly secured on the screen end 15 are horizontal strips 16—16′, respectively upper and lower, these strips being slidable with reference to corresponding strips 17—17′ fixed to the opposite upright frame member 15′.

Held within grooves 18 of the members 15, 16 and 16′ are the edges of a screen 20, similar grooves 19 in the other frame members carrying a like screen 20′.

Near the free ends of the members 17—17′ is inserted a metal tie bar 21 retaining the screen frame members in proper relation.

Formed in the adjacent sides of the strips 16—16′ are undercut grooves 22—22′, while in the opposed strips 17—17′ are similar undercut grooves 23—23′.

The upper strips 16—17 are connected in the usual manner by slides 31 having members engaging in the grooves 22—23.

Also slidably engaged in the groove 23 is a plate 24, sheared and bent to present a prong 25 having a sharp point 25′ adapted to catch and become permanently fixed in the material of the strip 17 at the bottom of the groove, as best seen in Fig. 3.

The plate is turned at a right angle and reduced in width, as at 26 to clear the inreaching edges of the grooves 22—23, and thereafter extending in parallel with the part 24, as at 27, and is provided near its end with a screw threaded boss 28.

A screw 29, having an enlarged corrugated head 30, engages the boss 28 and obviously upon setting up the screw the screen elements may be firmly clamped in adjustment.

It is to be noted that the screw 30 is disposed on the outer side of the screen and is thus inaccessible from the interior except by raising the sash 14, thereby being essentially safe from molestation.

Due to the prong 25, the frame members cannot move relatively while the screw 30 is tight, but upon relaxation of the screw adjustment is easily accomplished.

As changes in construction might be made without the exercise of inventive genius, what is claimed as new and sought to secure by Letters Patent, is:

1. The combination with an adjustable screen frame having relatively slidable horizontal bars containing undercut grooves in their adjacent faces, of a metallic clip having two offset members disposed in parallel planes, each member being seated in the wider inner portion of the undercut grooves, a prong sheared from one member adapted to embed in the bottom of the groove in which it is seated, and means carried by the other member to be adjustably fastened in the opposed groove, to lock the adjacent bars relative to each other.

2. The combination with an adjustable screen frame having relatively slidable horizontal bars containing undercut grooves in their adjacent faces, of a metallic clip having two offset members disposed in parallel planes, each member being seated in the wider inner portion of the undercut grooves, a prong sheared from one member adapted to embed in the bottom of the groove in which it is seated, a boss on the other member, and a thumb screw engaged in said boss to impinge on the bottom of the opposite groove.

3. The combination with a two part window screen frame adjustable relatively below a window sash, the upper members of both parts of said frame containing undercut longitudinal grooves arranged in opposed facing relation, a sheet metal clip offset to present flat elements to seat in the bottom of said grooves, a prong sheared from one of said elements to embed in the bottom of one groove, a boss on the other of said elements, and a set screw engaged in said boss, the head of said screw being accessible from the outer side of said frame upon raising the window sash.

4. The combination with a two part window screen frame adjustable relatively below a window sash, the upper members of both parts of said frame containing undercut longitudinal grooves arranged in opposed facing relation, a connector engaging in each groove whereby the parts of said screen frame are held in intimate relation at one end, a sheet metal clip offset to present flat elements to seat in the bottom of said grooves, a prong sheared from one of said elements to embed in the bottom of one groove, a boss on the other of said elements, and a set screw engaged in said boss, the head of said screw being accessible from the outer side of said frame upon raising the window sash.

Signed at New York, in the county and State of New York, this 14th day of November, 1930.

IRVING SAGER.
IRVING ABRAMS.