Dec. 6, 1955 W. SEIDEL 2,725,935

WINDOW

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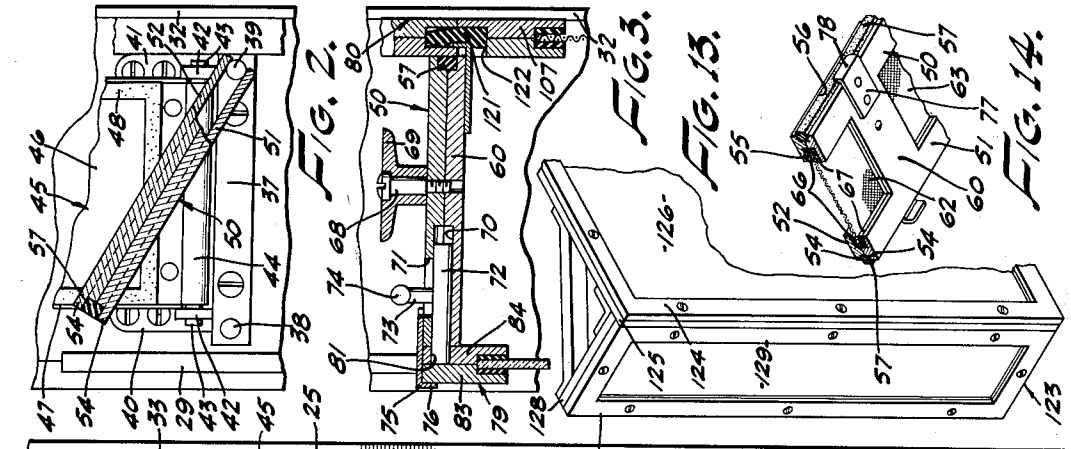


FIG. 2.

FIG. 3.

FIG. 13.

FIG. 14.

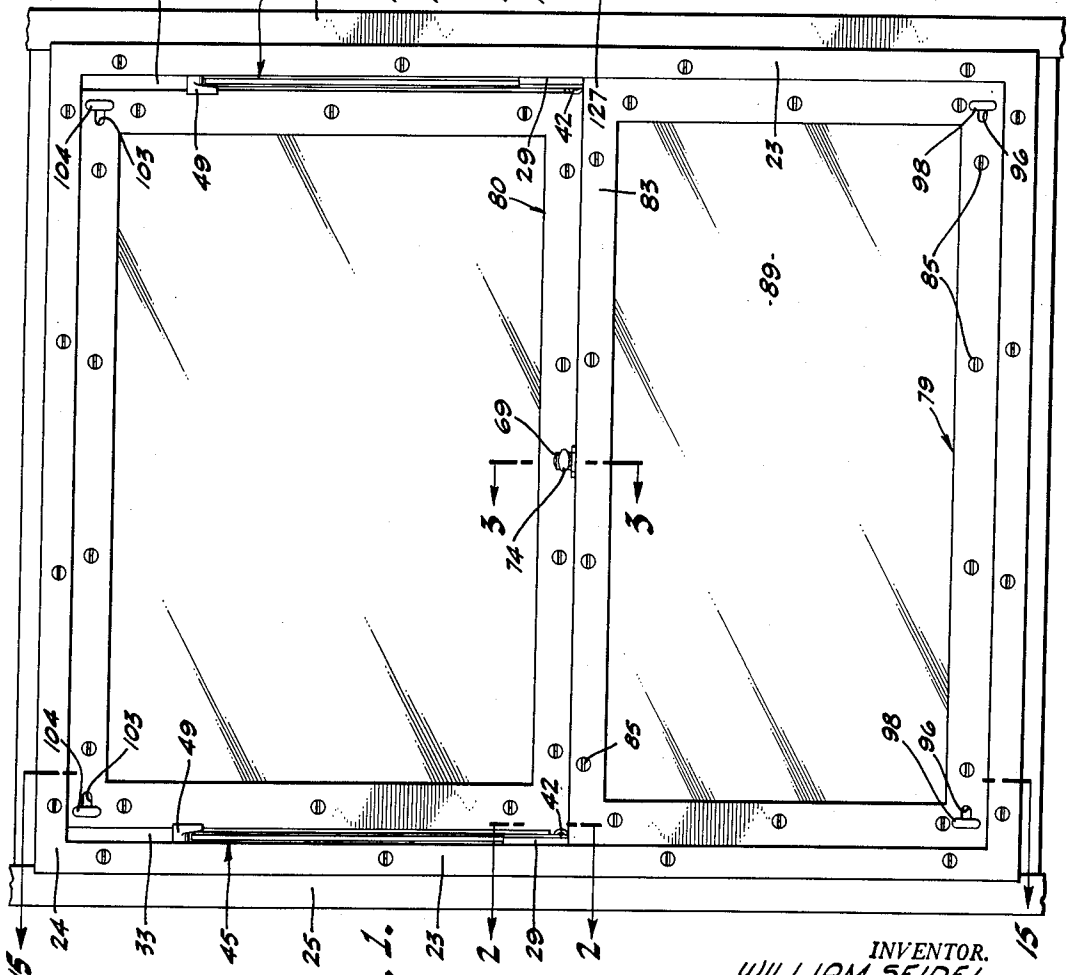


FIG. 1.

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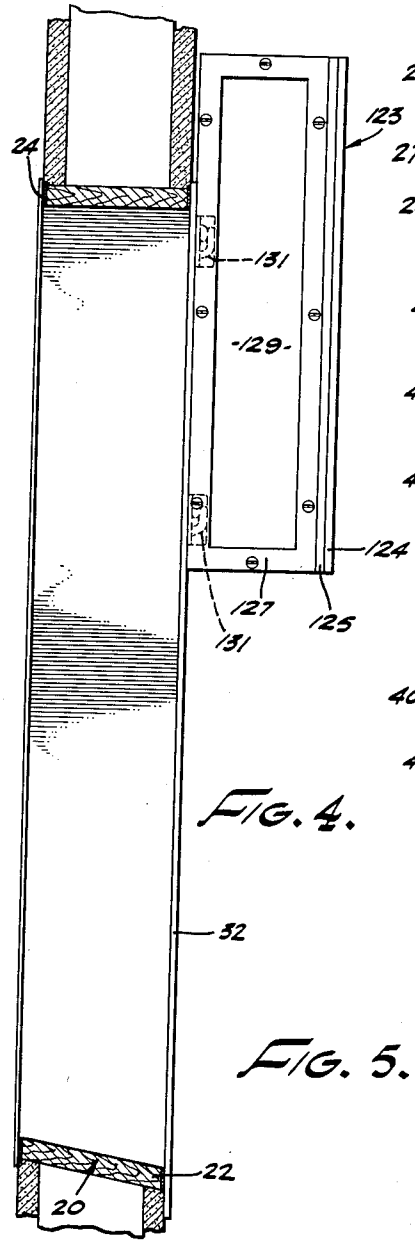
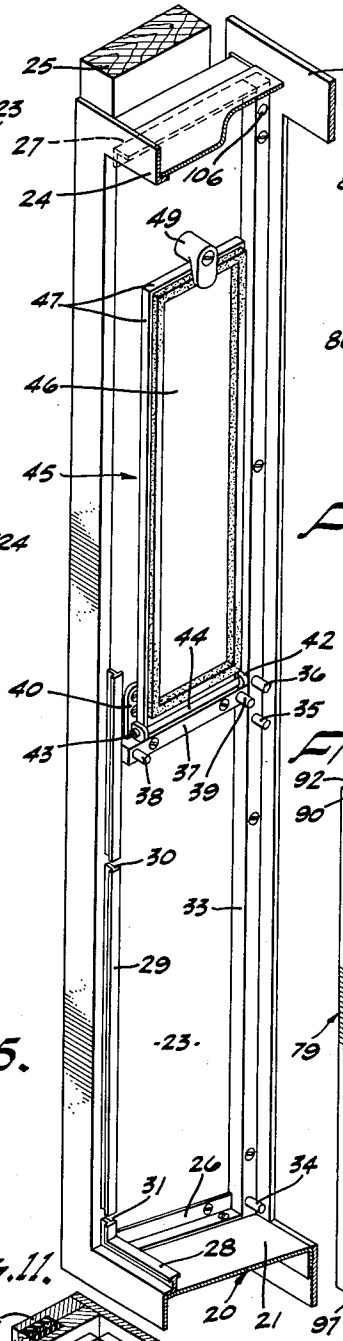


FIG. 4.

FIG. 5.



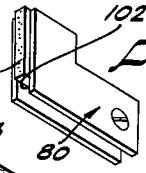


FIG. 7.

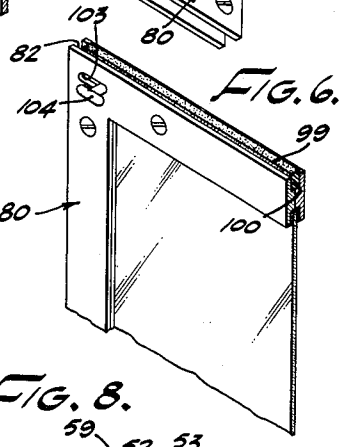


FIG. 6.

FIG. 8.

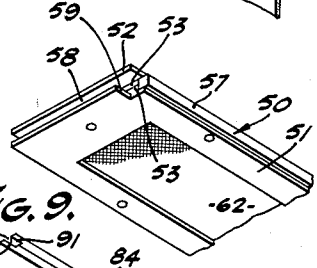


FIG. 9.

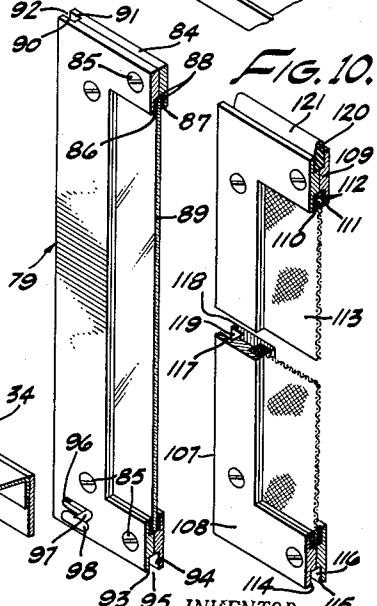


FIG. 10.

FIG. 12.

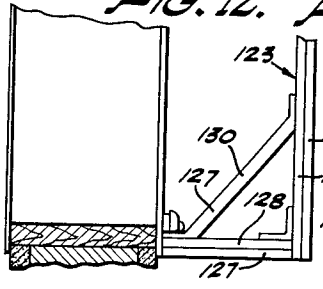
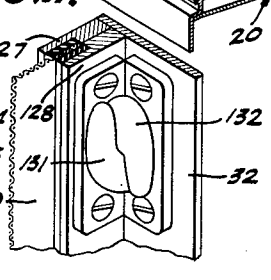


FIG. 11.



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FIG. 15.

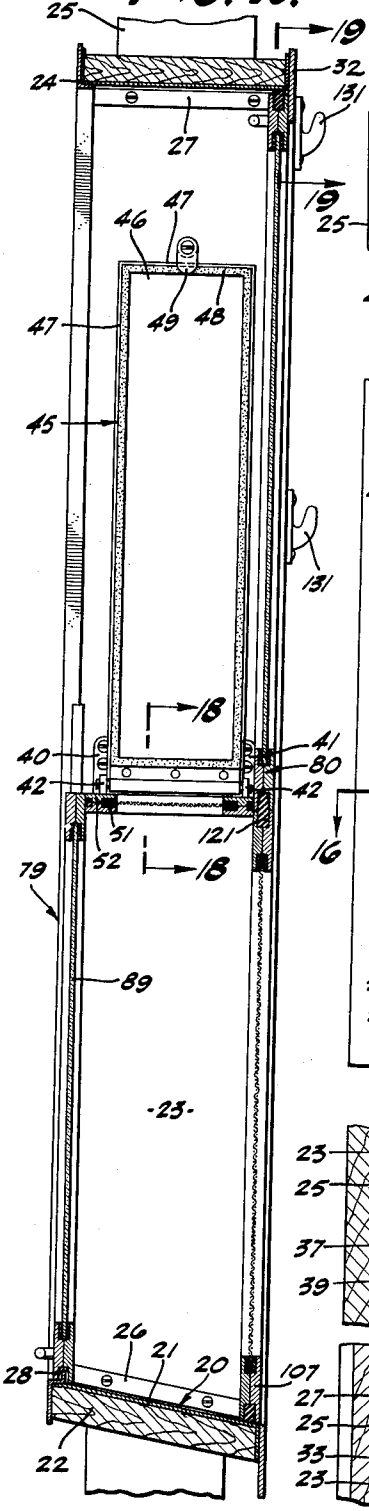


FIG. 16.

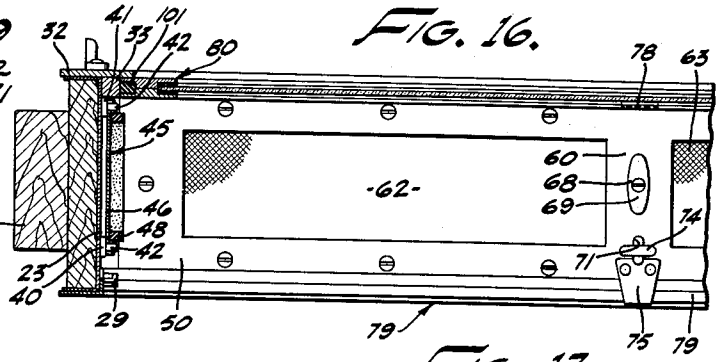


FIG. 17.

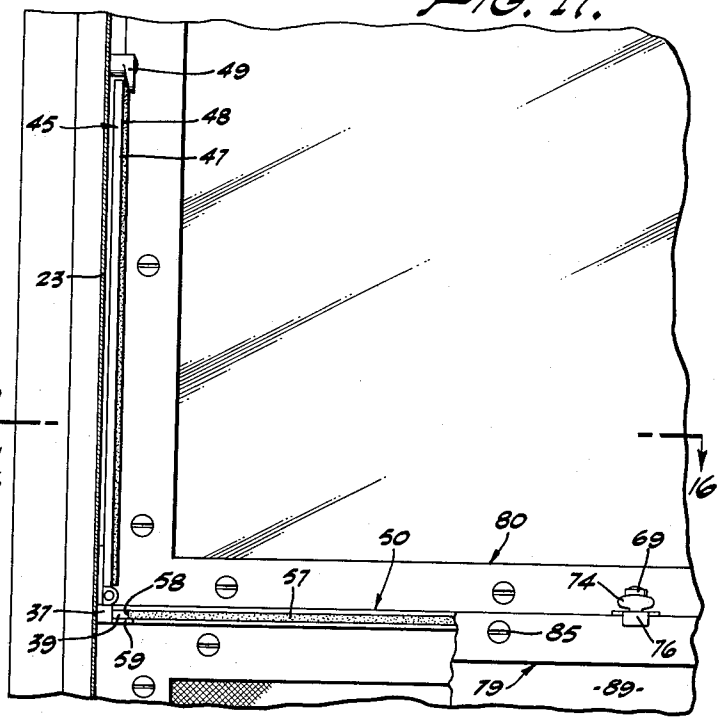


FIG. 18.

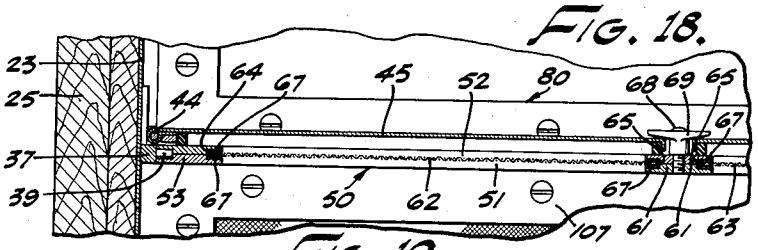
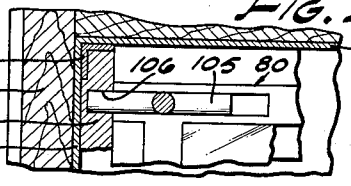


FIG. 19



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2,725,935

WINDOW

William Seidel, Glendale, Calif.

Application April 26, 1954, Serial No. 425,539

10 Claims. (Cl. 160—91)

This invention relates to a window and more particularly to an improved style window adapted in one condition to permit ventilation without moving the glass panes or the sashes and in another position to be sealed to prevent ventilation, also without moving the sashes or panes.

It is accordingly one object of this invention to provide a window of the type described in which means is provided for affording ventilation or for being sealed to prevent ventilation without movement of the sashes or panes.

It is a further object of this invention to provide a window of the type described in which the sashes and screens are easily and readily removable for cleaning.

It is a further object of this invention to provide a window of the type described which can be fabricated entirely of metal and glass.

These and other objects and advantages of the invention will be apparent from the annexed specification in which:

Figure 1 is a side view from the inside of a window made in accordance with the present invention.

Figure 2 is a section taken along the line 2—2 of Figure 1 with the window and screen removed and showing the center screen being inserted.

Figure 3 is a section taken along the line 3—3 of Figure 1.

Figure 4 is a side view thereof.

Figure 5 is a fragmentary perspective of one side of the window frame with the window and screens removed.

Figure 6 is a fragmentary perspective of one of the sashes.

Figure 7 is an enlarged fragmentary perspective of one corner of one of the sashes.

Figure 8 is a fragmentary perspective of one end of the central screen.

Figure 9 is a fragmentary perspective of one end of the sashes.

Figure 10 is a fragmentary perspective of one end of one of the screens.

Figure 11 is a fragmentary perspective showing the connection between the outside of the window and the overhanging shade.

Figure 12 is a fragmentary plan view showing the attachment of the overhanging screen of the window.

Figure 13 is a fragmentary perspective elevation of the overhanging screen.

Figure 14 is a fragmentary perspective partly in section of the central screen.

Figure 15 is a section taken along the line 15—15 of Figure 1.

Figure 16 is a section taken along the line 16—16 of Figure 17.

Figure 17 is a fragmentary vertical section of the window.

Figure 18 is an enlarged section taken along the line 18—18 of Figure 15 with the center screen down.

Figure 19 is a fragmentary section taken along the line 19—19 of Figure 15.

Referring now more particularly to the drawings, the window includes a sill 20 in the shape of a channel having a sloping web 21 adapted to be received upon the wooden sill 22 of the house. In its preferred form, a channel 20 as well as the remaining metallic portions of the window, is fashioned of aluminum. The window frame also includes jambs 23 at each side thereof similarly formed of aluminum channel and a head 24. The jambs 23 may be received on upright two-by-fours 25 constituting part of the house. Angles 26 and 27 secure the sill 20 and head 24 to the jamb, as most clearly shown in Figures 5 and 15. Across the sill 20, along the inside edge thereof, there is secured a J-shaped rail 28. On each of the jambs, along the inner edge thereof, a similar J-shaped rail 29 extends vertically and is interrupted in two places as at 30 and 31. Facing the outer edges of the sill, jambs and head is an open rectangular flange 32 which overlies the head and jambs as shown in Figure 5.

Extending vertically along the outer edges of each of the jambs 23 is one of a pair of bars 33. Each of the bars 33 is provided with inwardly extending posts 34, 35 and 36. Extending across each of the jambs 23 approximately midway thereof is one of a pair of bars 37. Each of the bars 37 is provided with a pair of inwardly extending posts 38 and 39. Mounted on each of the jambs 23 adjacent the bar 37 are a pair of brackets 40 and 41, each mounting an ear 42 adapted to receive the trunnions 43 formed by the outwardly protruding ends of a rod 44 upon which there is mounted a flap 45 comprising a rectangular plate 46 and inwardly extending flanges 47. Attached to the inner side of each of the flanges 47 is a rubber gasket 48. Each of the jambs 23 is provided with a pivotally mounted latch 49 mounted adjacent the top of the flap 45 and serving to normally retain the same in an upright position as shown in Figure 5.

A central screen 50 is provided, best illustrated in Figures 8 and 14 and comprising a pair of rectangular open frameworks 51 and 52, each having adjacent each of its ends inwardly extending spacer ribs 53 and having adjacent each outer edge thereof a pair of inwardly extending spacer ribs 54 and adjacent each inner edge a pair of inwardly extending spacer ribs 55. The ribs 54 and 55 and frameworks 51 and 52 provide channels 56 in which are seated rubber gaskets 57, along the longitudinal edges of the screen 50. They also provide open channels 58 at each end of the screen 50. The rubber gaskets terminate short of the ends of the frames so as to leave the channels 58 unobstructed. On the lower side of the inner corners of the framework 51, a notch 59 is provided. A center partition 60 extends across the middle of each of the frameworks 51 and 52, and each partition 60 is provided with inwardly extending spacer ribs 61 as shown in Figure 18. A pair of wire mesh screens 62 and 63 are secured between the two frameworks 51 and 52 with their edges received in the channels 64, 65 and 66 and retained therein by rubber gaskets 67. Pivotally mounted on the upper partition 60, as by screw 68, is a winged latch 69. A hole 70 is bored in the partition 60 and a slot 71 communicates with the hole 70 as most clearly shown in Figure 3. A latch rod 72 is mounted in the hole 70 and carries a post 73 having a finger grip 74, the post 73 being mounted to reciprocate in the slot 71. A bracket 75 overlies the inner edge of the partition 60 and has a depending flange 76. A bracket 77 having an upstanding flange 78 underlies the outer edge of the partition 60.

A pair of sashes 79 and 80 are provided, the sash 79 being identical to the sash 80 with the exception that the sash 79 has a hole 81 drilled therein, and the sash 80 is provided with a channel 82 which is absent in the sash 79. The sash 79 comprises a pair of rectangular metallic open frameworks 83 and 84 secured together as by screws

85. The inner edges of the frameworks **83** and **84** are cut away as at **86** and **87** to provide notches housing rubber gaskets **88** which secure the window pane **89** therein. The outer edges of each of the vertically extending portions of the frameworks **83** and **84** are relieved as at **90** and **91** to provide an open channel **92**. The bottom edge of each of the frameworks **83** and **84** is relieved as at **93** and **94** to provide an open channel **95**. Adjacent each lower corner of the sash **79** on the inner framework **83**, there is formed a slot **96** in which reciprocates a post **97** carrying a finger grip **98**. The post **97** is in turn carried by a reciprocating latch bar (not shown) similar to the bar **72**, which bar is adapted to be inserted, when the window is in place, in either of the openings **30** or **31** in the rail **29**. The sash **80** is generally similar to the sash **79** but has a rubber gasket **99** seated in a channel **100** formed in the top of the sash and rubber gaskets **101** seated in the channel **102** formed in each vertical side of the sash, which rubber gaskets **101** terminate short of the bottom edge of the channel as shown in Figure 7, and which gaskets **99** terminate short of the edge of the ends of the channel **100** as shown in Figure 6. Furthermore, as shown in Figure 6, the slots **103** and associated latches **104** similar to the slots **96** and associated mechanism are located adjacent the upper corners thereof and have the latch bars **105** adapted to be received in holes **106** bored in the upper ends of the bar **33**.

A screen **107** is provided formed like the sashes **79** and **80** of a pair of rectangular open frameworks **108** and **109** which are relieved on their inner edges as at **110** and **111** to form a groove in which are seated gaskets **112** which secure in said groove an open wire screen **113**. The frameworks are also relieved on their lower edges as at **114** and **115** to form an open channel **116** and on their sides as at **117** and **118** to leave open channels **119**. A similar channel **120** is formed in the top thereof, and in this channel there is seated a rubber gasket **121** which as indicated terminates short of the edges of the frame, thus leaving the channels **119** unobstructed.

The above-described window is assembled in the following manner: The screen **107** is placed in position as shown in Figure 15 with the channels **119** sliding downwardly over the posts **34**, **35** and **36**. The sash **79** is then inserted with the channels **92** engaging the rails **29**. When the sash **79** has been placed, as shown in Figure 15, the finger grips **98** are pushed towards the side thus engaging the associated latch in the openings **31** in the rail thus locking the sash **79** in position. It will be appreciated that after the window has been assembled and it is desired to open the area covered by the sash **79** in Figure 15, it is necessary only to disengage the latches, raise the window on the rails until the latches lie opposite the openings **30** and to engage the latches in the openings **30** thus leaving the sash **79** elevated on the rails **29** and opening the area previously covered by the sash **79** for free ventilation.

The screen **50** is now inserted with the ends of the channels **56** engaged upon the posts **39**. This condition is shown in Figure 2. The flange **78** extends into an opening **122** in the screen **107** and engages the rubber gasket **121** as indicated in Figure 3. The flange **76** overlies the sash **79**, and the rod **72** is engaged in the hole **81** to latch the screen **50** in place. The sash **80** is now inserted with the ends of the channels **102** engaging the post **36**. The sash is then placed into position shown in Figure 15 and the latches **104** are engaged in the holes **106** of the bar **33** to secure the sash **80** in place.

With the assembly thus described, it will be apparent that there is a sash **79** positioned in the lower portion of the window at the inside edge thereof and a sash **80** in the upper portion of the window at the outside edge thereof, a screen **107** in the position in the lower portion of the window at the outside edge thereof and engaging the lower portion of the sash **80** thus leaving a free air space through the screen **107** and the screen **50** which

spans the opening between the two sashes or between the sash **79** and the screen **107**. This opening, however, may be closed by unfolding the flaps **45** and disposing them flat upon the screen **50** and securing the same thereon by the winged latch **69** as shown in Figure 18. It will be further apparent that the screen **50**, the screen **107** and the sashes **79** and **80** are in nowise permanently connected and can be easily and readily removed for cleaning or repair.

In its preferred form, the window thus described is provided with a shade **123**. The shade **123** comprises a pair of rectangular open frameworks **124** and **125** joined together by screws, between which there is affixed a metallic screen **126** and a pair of rectangular open frameworks **127** and **128** disposed at each end of the frame **126**, one only of which is shown in Figure 13. The frameworks **127** and **128** are formed similarly to the frameworks **124** and **125** and mount screens **129** therebetween. The corners of the shade **123** are reinforced by gussets **130**. Mounted on the flange **32** are four upwardly extending hooks **131** and mounted upon the frameworks **128** are four downwardly extending hooks **132**. The hooks **131** and **132** are adapted to engage, as shown in Figures 4 and 17, and thus removably mount the shade **123** as shown in Figure 4.

While there has been described what is at present considered a preferred embodiment of the present invention, it will be appreciated by those skilled in the art that various changes and modifications can be made therein without departing from the essence of the invention and it is intended to cover herein all such changes and modifications as come within the true spirit and scope of the appended claims.

I claim:

1. A window comprising a sill, side jambs and a head forming a rectangular window frame; a pair of sashes removably mounted in said frame one above the other but in horizontally spaced planes; a screen mounted in said frame in the same plane as the outer of said sashes and together with said outer sash covering the area of said frame; and a second screen positioned extending horizontally between the bottom of the upper sash and the top of the lower sash.

2. A window comprising a sill, side jambs and a head forming a rectangular window frame; a pair of sashes removably mounted in said frame one above the other but in horizontally spaced planes; a screen mounted in said frame in the same plane as the outer of said sashes and together with said outer sash covering the area of said frame; a second screen positioned extending horizontally between the bottom of the upper sash and the top of the lower sash; and a pair of plates each respectively hinged to one of the jambs and movable from position parallel to its jamb to position to overlie and close the area of said second screen.

3. A window comprising a sill, side jambs and a head forming a rectangular window frame; a pair of sashes removably mounted in said frame one above the other but in horizontally spaced planes; a screen mounted in said frame in the same plane as the outer of said sashes and together with said outer sash covering the area of said frame; a second screen positioned extending horizontally between the bottom of the upper sash and the top of the lower sash; a pair of plates each respectively hinged to one of the jambs and movable from position parallel to its jamb to position to overlie and close the area of said second screen; and means for moving one of said sashes vertically to open the area normally closed thereby.

4. A window comprising a sill, side jambs and a head forming a rectangular window frame; a pair of sashes removably mounted in said frame one above the other but in horizontally spaced planes; a screen mounted in said frame in the same plane as the outer of said sashes and together with said outer sash covering the area of said frame; a second screen positioned extending horizontally

between the bottom of the upper sash and the top of the lower sash; a pair of plates each respectively hinged to one of the jambs and movable from position parallel to its jamb to position to overlie and close the area of said second screen; means for moving one of said sashes vertically to open the area normally closed thereby; and means releasably retaining said moved sash in said open position.

5. A window comprising a sill, side jambs and a head forming a rectangular window frame; a pair of sashes removably mounted in said frame one above the other but in horizontally spaced planes; a screen removably mounted in said frame in the same plane as the outer of said sashes and together with said outer sash covering the area of said frame; and a second screen removably positioned extending horizontally between the bottom of the upper sash and the top of the lower sash.

6. A window comprising a sill, side jambs and a head forming a rectangular window frame; a pair of sashes removably mounted in said frame one above the other but in horizontally spaced planes; a screen removably mounted in said frame in the same plane as the outer of said sashes and together with said outer sash covering the area of said frame; a second screen removably positioned extending horizontally between the bottom of the upper sash and the top of the lower sash; and a pair of plates each respectively hinged to one of the jambs and movable from position parallel to its jamb to position to overlie and close the area of said second screen.

7. A window comprising a sill, side jambs and a head forming a rectangular window frame; a pair of sashes removably mounted in said frame one above the other but in horizontally spaced planes; a screen mounted in said frame in the same plane as the outer of said sashes and together with said outer sash covering the area of said frame; a second screen positioned extending horizontally between the bottom of the upper sash and the top of the lower sash; each of said sashes comprising a pair of metallic open frameworks and a glass pane clamped therebetween, and at least one of said sashes having an open channel at each side thereof; and a pair of rails carried respectively by each of said jambs and adapted to slidably receive said open channels thereon to removably mount said one sash.

8. A window comprising a sill, side jambs and a head forming a rectangular window frame; a pair of sashes removably mounted in said frame one above the other but in horizontally spaced planes; a screen mounted in said frame in the same plane as the outer of said sashes and together with said outer sash covering the area of said frame; a second screen positioned extending horizontally between the bottom of the upper sash and the top of the lower sash; each of said sashes comprising a pair of

metallic open frameworks and a glass pane clamped therebetween, and at least one of said sashes having an open channel at each side thereof; a pair of rails carried respectively by each of said jambs and adapted to slidably receive said open channels thereon to removably mount said one sash; and a pair of plates each respectively hinged to one of the jambs and movable from position parallel to its jamb to position to overlie and close the area of said second screen.

9. A window comprising a sill, side jambs and a head forming a rectangular window frame; a pair of sashes removably mounted in said frame one above the other but in horizontally spaced planes; a screen mounted in said frame in the same plane as the outer of said sashes and together with said outer sash covering the area of said frame; a second screen positioned extending horizontally between the bottom of the upper sash and the top of the lower sash; each of said sashes comprising a pair of metallic open frameworks and a glass pane clamped therebetween, and at least one of said sashes having an open channel at each side thereof; a pair of rails carried respectively by each of said jambs and adapted to slidably receive said open channels thereon to removably mount said one sash; and said rails extending substantially above the area normally covered by said one sash when in closed position.

10. A window comprising a sill, side jambs and a head forming a rectangular window frame; a pair of sashes removably mounted in said frame one above the other but in horizontally spaced planes; a screen mounted in said frame in the same plane as the outer of said sashes and together with said outer sash covering the area of said frame; a second screen positioned extending horizontally between the bottom of the upper sash and the top of the lower sash; each of said sashes comprising a pair of metallic open frameworks and a glass pane clamped therebetween, and at least one of said sashes having an open channel at each side thereof; a pair of rails carried respectively by each of said jambs and adapted to slidably receive said open channels thereon to removably mount said one sash; said rails extending substantially above the area normally covered by said one sash when in closed position; and means for supporting said one sash on said rails in elevated position.

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