Oct. 13, 1931. G. I. THOMSON 1,827,494

COMBINATION WINDOW AND SCREEN

Filed Oct. 31, 1929

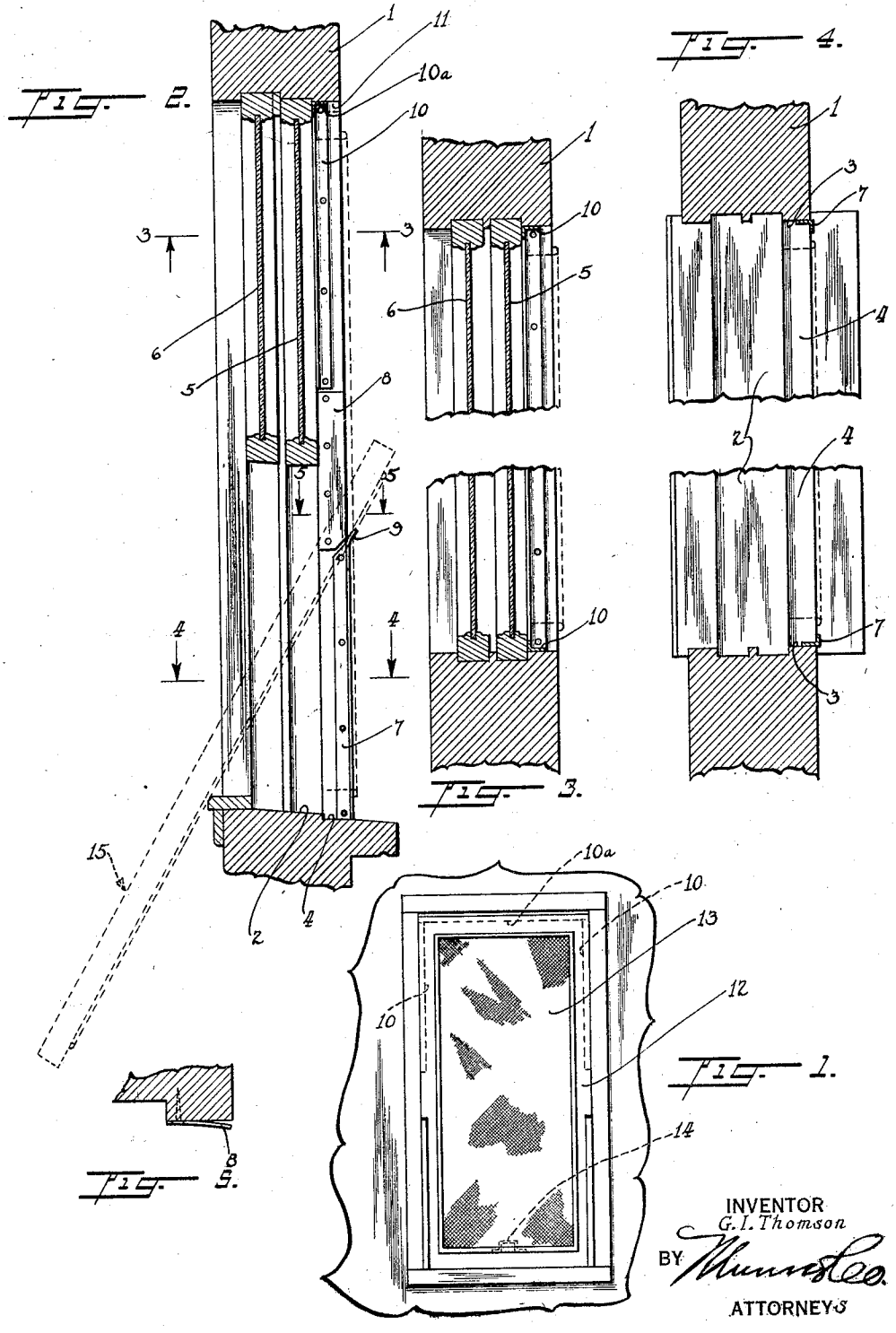


Fig. 2.

Fig. 3.

Fig. 4.

Fig. 1.

Fig. 5.

Patented Oct. 13, 1931 1,827,494

UNITED STATES PATENT OFFICE

GEORGE IRVING THOMSON, OF KANSAS CITY, MISSOURI

COMBINATION WINDOW AND SCREEN

Application filed October 31, 1929. Serial No. 403,884.

My invention relates to improvements in combination window and screens, and it consists in the combinations, constructions and arrangements herein described and claimed.

An object of my invention is to provide a window and screen construction in which a window screen with a plain frame may be employed and which may be readily inserted in place from the inner side of the window.

A further object of my invention is to provide a device of the type described in which the screen is automatically secured in place and requires no locking or latching means.

A further object of my invention is to provide a device of the type described by means of which the screen frame may be constructed so as to allow for considerable expansion and contraction, due to weather conditions, without forming spaces for the passage of flies, mosquitoes, or the like.

A further object of my invention is to provide a device of the type described which has resilient means for preventing rattling of the screen and for providing a sealing means.

Other objects and advantages will appear in the following specification, and the novel features of the invention will be particularly pointed out in the appended claims.

My invention is illustrated in the accompanying drawings, forming part of this application, in which

Figure 1 is a front elevation of my device,

Figure 2 is an enlarged vertical sectional view showing the screen in dotted line positions,

Figure 3 is a section along the line 3—3 of Figure 2,

Figure 4 is a section along the line 4—4 of Figure 2, and

Figure 5 is a section along the line 5—5 of Figure 2.

In carrying out my invention I provide a window frame 1 having a sill 2 and side walls 3. The sill 2 is cut away to provide a retaining recess 4 which extends the full length thereof. Windows 5 and 6 are movably carried by the window frame.

Lower retaining members 7 are secured to the side walls 3 of the window frame and are angular in cross section. The lower retaining members 7 extend from the recess 4 to resilient sealing members 8. The members 8 are secured to the walls 3 at the inner edges thereof and have their outer edges normally spaced away from the walls 3, see Figure 5. The ends of the lower retaining members 7 adjacent the members 8 are provided with arcuate-shaped flanges 9 for a purpose hereinafter described.

Upper retaining members 10 are angular in cross section and are secured to the side walls 3 of the window frame at the upper half thereof. A connecting or horizontal member 10*a* is disposed adjacent the upper wall 11 of the window frame and is thus secured in place.

A screen frame 12, provided with a screen mesh 13 and a gripping handle 14, is arranged to be passed through the frame 1, as indicated in dotted lines at 15. As the screen is moved into place the sides of the frame will ride upon the flanges 9 until the bottom edge of the frame will free the sill 2. Then, by moving the bottom portion of the screen outwardly, the screen may soon be positioned adjacent the retaining members 7, 10, and 10*a*. By moving the screen downwardly so that the bottom edge will be received in the recess 4 the screen will be firmly held in place.

While the screen is in this position it will be noted that the bottom edge thereof is sealed in the recess 4 while the bottom portions of the side edges will be sealed behind the lower retaining members 7. The central portions of the sides of the screen will be sealed by the resilient sealing members 8, and the upper portions of the sides will be sealed by the connecting member 10*a* and the retaining members 10. The top of the screen is sealed by the connecting member 10*a*. The connecting member 10*a* allows the screen to be spaced a sufficient distance beneath the top wall of the window frame so that the screen may be moved upwardly the desired distance for freeing the bottom edge from the window sill. When this has been accomplished the screen may be swung over the arcuate-shaped flanges 9, as pivots, and then

moved inwardly until the screen has been removed from the window frame.

It is obvious that with this construction the ordinary half length window screen may be used as well as the full length, which is shown.

I claim:

1. The combination with a window frame having sides, a sill portion and a lintel portion, of means whereby a screen may be disposed within the window frame, said means comprising a bar member U-shaped in formation and connected with the sides and lintel portion of the window frame, said bar member being spaced away from the edge of said window frame, each side of the window frame being provided with a bar member mounted on the lower portion adjacent the edge thereof, each of said bar members being disposed in offset and parallel relationship with the U-shaped bar member.

2. The combination with a window frame having sides, a sill portion and a lintel portion, of means whereby a screen may be disposed within the window frame, said means comprising a bar member U-shaped in formation and connected with the sides and lintel portion of the window frame, said bar member being spaced away from the edge of said window frame, each side of the window frame being provided with a bar member mounted on the lower portion adjacent the edge thereof, each of said bar members being disposed in offset and parallel relationship with the U-shaped bar member, said sill portion being provided with a shoulder portion in alignment with said U-shaped bar member.

3. The combination with a window frame having sides, a sill portion and a lintel portion, of means whereby a screen may be disposed within the window opening, said means comprising an angle bar member U-shaped in formation, a side of said angle bar being connected with the sides and lintel portion of the window frame, the other side of said angle bar extending within the window opening, said angle bar member being spaced away from the edge of said window frame, and an angle bar mounted on each side of the window frame and positioned adjacent the edge thereof, each of said angle bars having a side connected with the window frame and the other side extending within the window opening, said angle bars being disposed in offset and parallel relationship with respect to said U-shaped angle bar.

4. The combination with a window frame having sides, a sill portion and a lintel portion, of means whereby a screen may be disposed within the window opening, said means comprising an angle bar member U-shaped in formation, a side of said angle bar being connected with the sides and lintel portion of the window frame, the other side of said angle bar extending within the window openings, said angle bar member being spaced away from the edge of said window frame, and an angle bar mounted on each side of the window frame and positioned adjacent the edge thereof, each of said angle bars having a side connected with the window frame and the other side extending within the window opening, said angle bars being disposed in offset and parallel relationship with respect to said U-shaped angle bar, said sill portion being provided with a shoulder portion in alignment with said U-shaped angle bar member.

Signed at Chicago, in the county of Cook and State of Illinois, this 23rd day of October, A. D. 1929.

GEORGE IRVING THOMSON.