

Jan. 16, 1923.

R. C. GORRANI.
WINDOW.
FILED JAN. 7, 1922.

1,442,397.

2 SHEETS—SHEET 1.

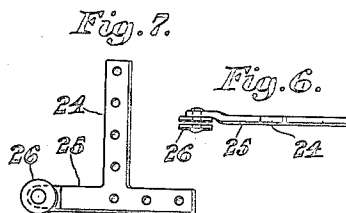
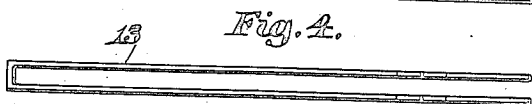
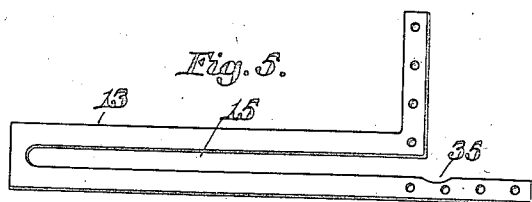
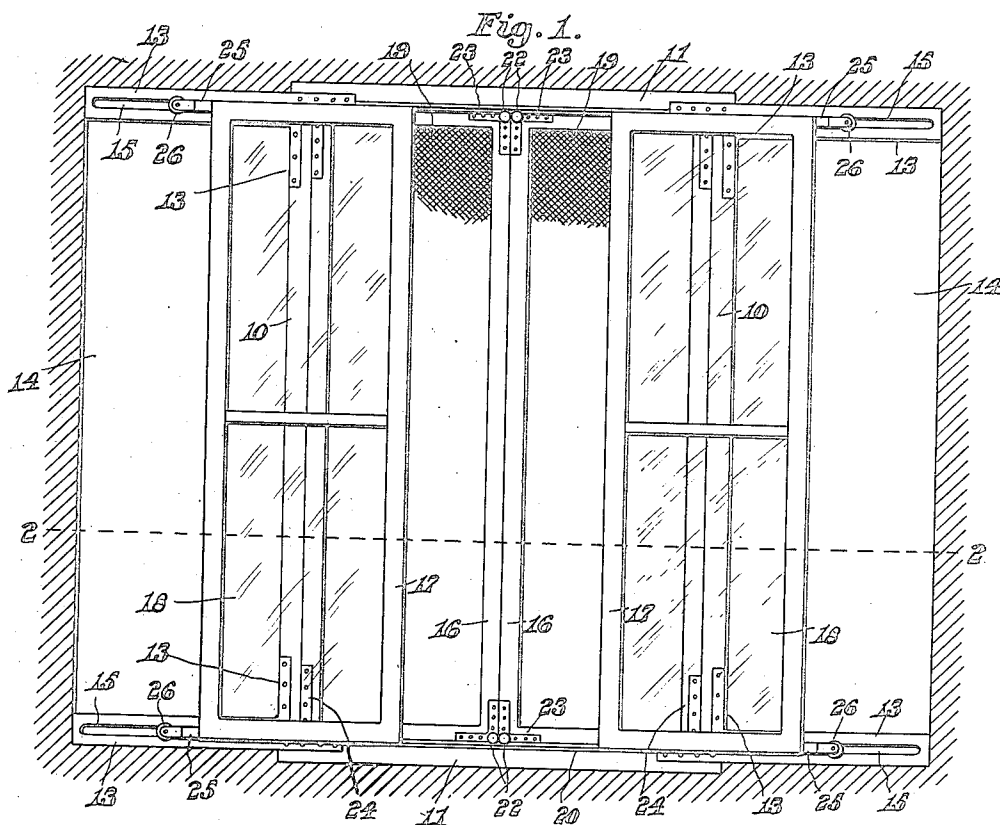
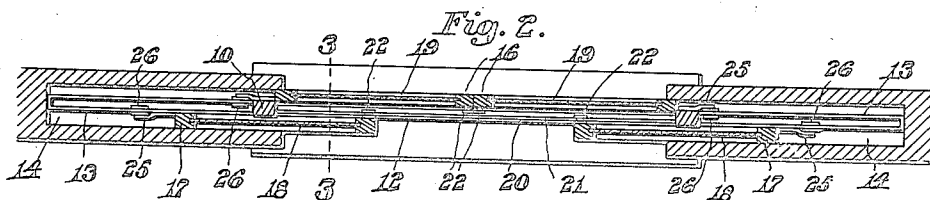


Fig. 6.

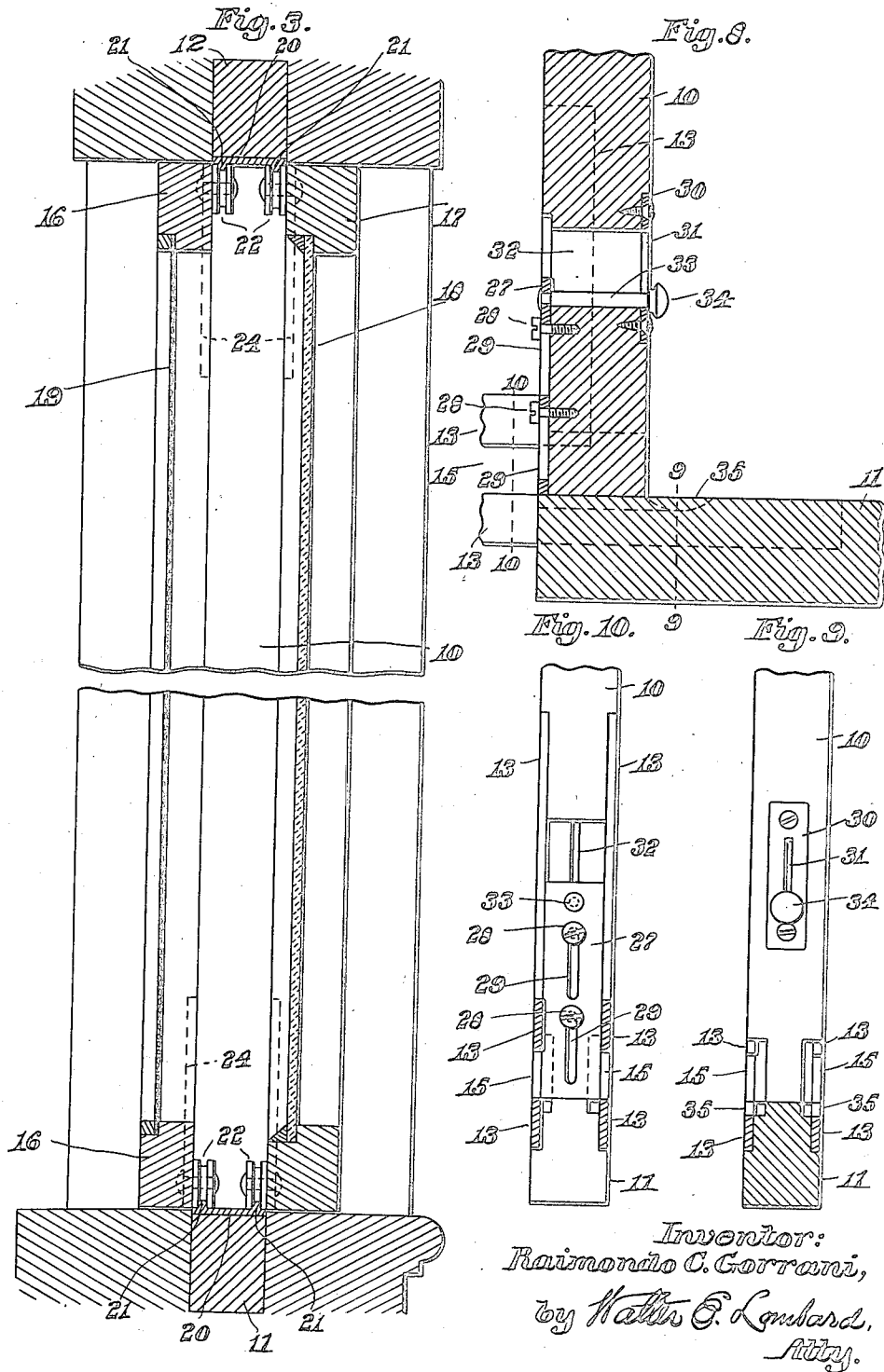
Inventor:
Raimondo C. Gorrani,
by Walter E. Lombard,
Atty.

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2 SHEETS—SHEET 2.



Inventor:
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by Walter E. Lombard,
Atty.

UNITED STATES PATENT OFFICE.

RAIMONDO C. GORRANI, OF BOSTON, MASSACHUSETTS.

WINDOW.

Application filed January 7, 1922. Serial No. 527,539.

To all whom it may concern:

Be it known that I, RAIMONDO C. GORRANI, a subject of the King of Italy, and resident of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Windows, of which the following is a specification.

This invention relates to windows and has for its object the provision of a device of this character in which two or more sets of sliding sashes may be mounted, said sashes being provided with window glass, wire cloth, blind slats, or imperforate boards, as may be desired, in order to suit various conditions of climate, weather, etc.

The invention consists primarily of a frame having oppositely disposed lateral extensions positioned in compartments in the wall of the building, and one or more window sashes slidable horizontally, and provided with supporting rollers, one pair of which are adapted to travel in slots in said extensions.

The invention further consists in certain novel features of construction and arrangement of parts which will be understood readily by reference to the description of the drawings and to the claims to be hereinafter given.

For the purpose of illustrating the invention, one preferred form is shown in the drawings, this form having been found to give satisfactory and reliable results, although it is to be understood that the various instrumentalities of which the invention consists can be variously arranged and organized and the invention is not limited to the precise arrangement and organization of these instrumentalities as herein shown and described except as required by the scope of the appended claims.

Of the drawings:

Figure 1 represents an elevation of a window frame embodying the principles of the present invention.

Figure 2 represents a horizontal section of the same on line 2, 2 on Fig. 1.

Figure 3 represents a vertical section of same on line 3, 3 on Fig. 2 and drawn to an enlarged scale.

Figure 4 represents a plan of one of the window frame extensions.

Figure 5 represents an elevation of the same.

Figure 6 represents a plan of one of the roller supports.

Figure 7 represents an elevation of the same.

Figure 8 represents a sectional detail of the stop catch for limiting the movement of the slidable sashes.

Figure 9 represents a section of same on line 9, 9 on Fig. 8, and

Figure 10 represents a section of same on line 10, 10 on Figure 8.

Similar characters indicate like parts throughout the several figures of the drawings.

In the drawings, 10, 10 are the sides, 11 the bottom and 12 the top of a window frame, which may be constructed of any well known material.

The window frame has secured to its opposite sides the lateral extensions 13 which project into compartment 14 formed in the wall of the building, where they will not be exposed to view.

These extensions 13 are U-shaped in plan as indicated in Fig. 4 of the drawings and each of the parallel sides thereof is provided with a horizontal open ended slot 15.

As shown in the drawings, the window frame is provided with two pairs of sashes 16 and 17, the sashes 17 having mounted therein panes of glass 18, while the sashes 16 have mounted thereon wire cloth 19 to form screens to prevent the admission of flies, mosquitoes, or other insects.

The lower member 11 of the window frame has secured to its upper face a plate 20 having extending upwardly therefrom the parallel tracks 21 and the under face of the top member 12 is similarly provided with a plate 20 having the parallel tracks 21 projecting downwardly therefrom.

Engaging the tracks 21 are flanged rollers 22 pivotally mounted on the plates 23, secured to the adjacent corners of the sashes 16 and 17.

Preferably the plates 23 are secured to the

inner faces of the outer sashes 16 and on the outer faces of the inner sashes 17 as clearly indicated in the drawings.

To the opposite edges of the sashes 16, 17 are similarly secured the plates 24, each having a lateral extension 25 on the end of which is pivotally mounted a flanged roller 26 adapted to travel in the slot 15 with its flanges straddling a side of the extension 13.

The window frame may be mounted in the window opening with the glazed sashes on the inside and the screened sashes on the outside as indicated, or it may be mounted with these sashes reversed if desired.

The sashes may be removed from the frame if desired and other sashes substituted for those removed according to climatic conditions, as for instance in a temperate zone the screen sashes in winter months may be replaced by glazed sashes, thus producing a double window which will effectually keep out the cold from the interior of the house.

Under other conditions boarded sashes or sashes with slats may be substituted for either of the forms shown in the drawings.

Each side member 10 of the window frame is provided with a stop catch to limit the movement of each sash toward its companion sash.

This stop catch consists of a slotted plate 27 disposed between the two sides of an extension 13 and positioned on a side bar 10 by headed screws 28 extending through slots 29 in said plate.

On the opposite side of the bar 10 is another plate 30 having a vertical slot 31 formed therein, and the member 10 is provided with a similar slot 32.

Through the slots 31 and 32 extends a member 33 riveted or otherwise secured to the plate 27 and having a head 34 on its opposite end by which said plate 27 may be raised and lowered.

In its normal position the plate is as shown in the drawings in the path of the lower rollers 26 so that when a sash is moved toward the center of the window frame the roller 26 will come into contact with the plate and further movement in that direction will be prevented.

Each extension 13 is provided with a depression 35 which permits the roller 26 to be removed from the extension when it is desired to remove a sash from the frame.

Before the roller 26 may be brought into register with the depression 35 the plate 27 must be lifted to permit the roller to pass beyond the same.

This makes a very simple and effective window frame adapted to be installed in buildings of many descriptions.

The operation and many advantages of the invention will be understood readily without further description.

Having thus described my invention, I claim—

1. A window frame having secured to the top and bottom thereof laterally extending members provided with parallel slots; a track on the lower member of said frame; a sash; and two sets of rollers on said sash, one set movable in the slots of said extensions and the other set on said track.

2. A window frame having secured to the top and bottom thereof laterally extending members provided with parallel slots; tracks on the horizontal members of said frame; a sash; and two sets of rollers on said sash, one set movable in said slots and the other set on said tracks.

3. A window frame having secured to the top and bottom thereof extensions provided with horizontal parallel slots; a sash; brackets extending from one edge of said sash; rollers thereon adapted to travel in said slots; tracks on the horizontal members of said frame; and other rollers on said sash adapted to travel on said tracks.

4. A window frame having secured to the top and bottom thereof lateral metal extensions provided with horizontal slots; a sash; brackets extending from one edge of said sash; rollers thereon adapted to travel in said slots; tracks on the horizontal members of said frame; and flanged rollers on said sash adapted to travel on said tracks.

5. A window frame having U-shaped extensions provided with horizontal slots one in each parallel side thereof; bars secured to the horizontal members of said frame and having parallel tracks formed thereon; two sashes; and rollers on said sashes adapted to travel on said tracks and in said slots with said sashes parallel to each other.

6. A window frame having U-shaped extensions provided with horizontal slots one in each parallel side thereof; bars secured to the horizontal members of said frame and having parallel tracks formed thereon; two sashes; rollers on said sashes adapted to travel on said tracks and in said slots with said sashes parallel to each other; and a slidable plate on a side member of said frame, and adapted to be moved into the path of the rollers traveling in said slots.

Signed by me at 746 Old South Bldg., Boston, Mass., this 5th day of January, 1922.

RAIMONDO C. GORRANI.

Witnesses:

WALTER E. LOMBARD,
NATHAN C. LOMBARD.