April 7, 1953 K. G. PRICE 2,633,611

WINDOW OF THE LATERALLY SLIDABLE SASH TYPE

Filed Feb. 27, 1950

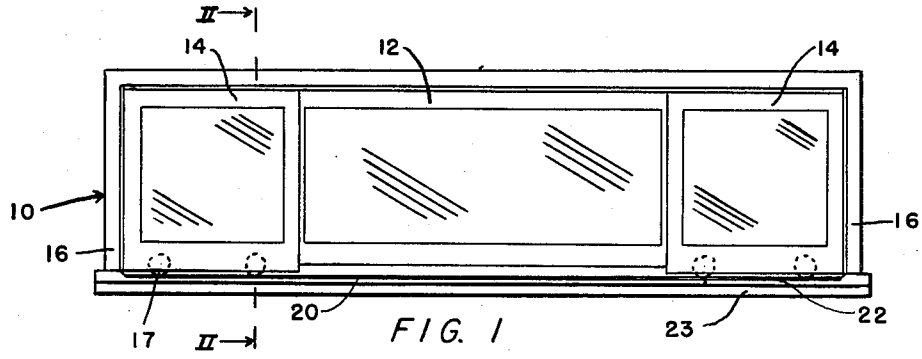


FIG. 1

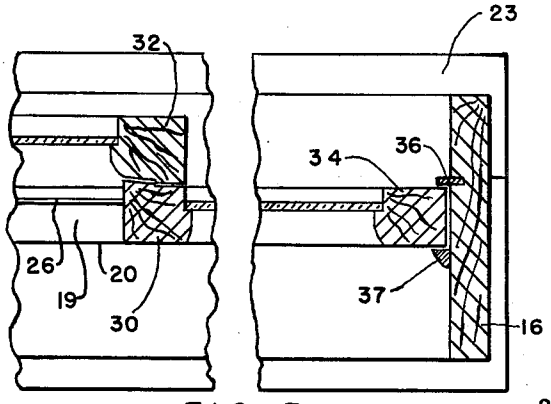


FIG. 3

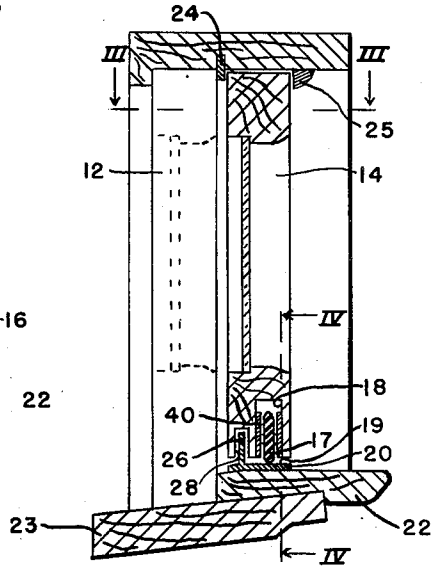


FIG. 2

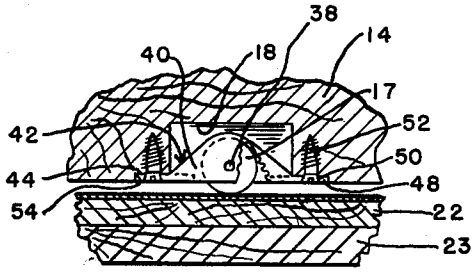


FIG. 4

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Patented Apr. 7, 1953

2,633,611

UNITED STATES PATENT OFFICE

2,633,611

WINDOW OF THE LATERALLY SLIDABLE SASH TYPE

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Application February 27, 1950, Serial No. 146,513

1 Claim. (Cl. 20—52)

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This invention relates generally to windows and is directed particularly to a window of the type incorporating a laterally slidable sash.

In recent years the trend of modern home architecture has been away from the double-hung type window. In its place a window of shorter height mounted farther from the floor is often used. This type of window allows greater latitude in arranging furniture and is especially desirable in bedrooms and bathrooms because of the increased privacy it affords.

Heretofore the majority of these shorter windows have been of the pivoted-sash type, wherein the sash is pivotally mounted at its lower portion to the sill of the window frame. Most of these pivoted-sash type windows are arranged so as to open outwardly. Since it is impractical to use an outside screen therewith, an inside screen is normally provided. Such inside screen, however, soon becomes coated with dirt in most locations whereby any curtains, drapes or the like hung adjacent the window are easily soiled. Additionally, a rather complicated and expensive sash-operating mechanism must be provided when an inside screen is used. If the sash is arranged so as to open inwardly rather than outwardly, it will interfere with any curtains, drapes or the like hung adjacent thereto at such time as it is opened.

In view of the aforementioned disadvantages inherent to the pivoted-sash type window, various forms of windows having one or more laterally slidable sashes have been suggested. Such windows, however, have heretofore failed to gain wide acceptance. The chief disadvantage of such windows has been the tendency of the movable sashes to stick within the window frame after a few months' use whereby they can only be slid open or closed with considerable effort. It is a principal object of this invention to provide a window incorporating a laterally slidable sash which will remain easily movable within its frame.

It is a further object of this invention to provide a window incorporating a laterally slidable sash which will effectively restrain the entrance of water, dirt and drafts at such time as the sash is in a closed position.

It is another object of this invention to provide a window incorporating a laterally slidable sash which is easily and quietly movable within its frame. This window also provides another advantage in that it may be simply and economically constructed from standard inexpensive parts.

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Other objects and advantages of the present invention will be apparent from the following detailed description of a preferred embodiment of the invention, taken in conjunction with the accompanying drawing wherein:

Figure 1 is an inside elevational view of a window constructed in accordance with the present invention.

Figure 2 is an enlarged vertical sectional view thereof taken on line II—II of Figure 1.

Figure 3 is an enlarged horizontal sectional view thereof taken on line III—III of Figure 2.

Figure 4 is an enlarged fragmentary sectional view, taken on line IV—IV of Figure 3.

With particular reference to Figure 1, a window incorporating the present invention is shown, which window comprises broadly, a conventional frame, generally designated **10**, wherein are mounted a central fixed sash **12** and two substantially identical laterally slidable sashes **14**, one on either side of the central frame. The movable sashes **14** are each shown in a closed position in Figure 1. They are laterally slidable within the frame **10** parallel to the longitudinal axis of the sill **23** to overlap the fixed sash **12** so as to leave an opening of variable size between the fixed sash and the side element **16** of the frame.

In order that each of the laterally slidable sashes **14** will be easily movable within the frame, each sash **14** mounts two or more freely rotatable roller elements **17** within hollowed recesses **18** formed in the bottom portion of each such sash. These roller elements are adapted to ride upon the horizontal portion **19** of a metal guide track **20** secured to either a stool **22** affixed upon the sill **23**, or secured directly to the sill itself, so as to support the weight of the sashes **14**.

Referring to Figure 2 the movable sashes are guided in their travel at their upper ends by a top parting bead **24** and an inside stop **25** and at their bottom ends by an upstanding vertical flange **26** integrally formed upon the metal guide track **20**, which flange extends upwardly within a vertical groove **28** formed within the lower portion of each sash **14**.

It should be noted that in addition to its function as a guide for the movable sashes **14**, the upstanding flange **26** also serves as weatherstripping between the stool **22** and the bottom of the movable sashes. Hence, at such time as these sashes are in a closed position the flange **26** will restrain the entrance of water, dirt and drafts under these sashes. With reference to Figure 3, it will be seen that when the sashes **14** are in

a closed position the inner meeting rails 30 thereof and the corresponding side meeting rails 32 of the fixed sash 12 are rabbeted, so as to restrain the entrance of water, dirt and drafts at this point. Likewise, the outer rail 34 of the movable sashes enters a weathertight recess formed by the side frame elements 16, the side parting beads 36 and the inside stops 37.

In Figure 4 there is shown a broken-away view of a preferred means for mounting the roller elements 17 within the hollowed recesses 18 formed in the bottom portion of the movable sashes. Each roller element 17 is shown rotatably supported upon an axle 38 which extends between the spaced vertical side elements 40 of a metal support member, generally designated 42. This member includes a horizontal base element 44 formed integrally with the side elements 40. The side elements do not extend to the ends of the base element 44 but terminate at a point inwardly therefrom whereby are formed flat extensions 48. Each extension is bored at 50 to receive a mounting screw 52. Preferably, each recess 18 includes end portions 54 wherein the extensions 48 may be disposed in such a manner that at such time as the support member 42 is mounted within the recess, the lower surface thereof will be flush with the lower surface of the movable sash 14. The support member 42 is adapted to be secured to the sash by the mounting screws 52.

The roller elements 17 are preferably formed of rubber whereby a minimum amount of noise will be produced when the sashes 14 are moved within the frame 10. Also, it has been found desirable to form the metal support members 42 and the guide track 20 of corrosion-resistant material such as brass, aluminum or stainless steel. It should be noted that the frame 10 and the side, top and bottom elements of the sashes are shown constructed of wood, inasmuch as it is believed that the use of this material affords the most economical and simplest construction.

It will be apparent to those skilled in this art that various other modifications may be made without departing from the spirit of the invention or the scope of the following claim.

I claim:

A window, comprising: a wooden frame including a wooden sill having a generally flat upper surface; a metal guide track secured to the upper surface of said sill having a horizontal portion abutting said upper surface and a vertical portion extending upwardly from said horizontal portion; a wood-framed sash disposed above the longitudinal axis of said guide track for sliding laterally within the frame parallel to said sill, between an open position and a closed position, the bottom portion of said sash being formed with a plurality of upwardly extending recesses open only at the underside of said sash, the bottom portion of said sash also being formed with a longitudinally extending vertical guide groove for receiving the vertical portion of said guide track, whereby said vertical portion will guide the movement of the lower portion of said sash, between said positions within said frame and said vertical portion will act as weatherstripping between said sill and the underside of said sash when the latter is in said closed position; longitudinally extending means formed upon the upper portion of said frame for guiding the movement of the upper portion of said sash within said frame; and, rollers mounted within said recesses for rotation upon the horizontal portion of said guide track as said sash is moved laterally within said frame.

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