

March 25, 1930.

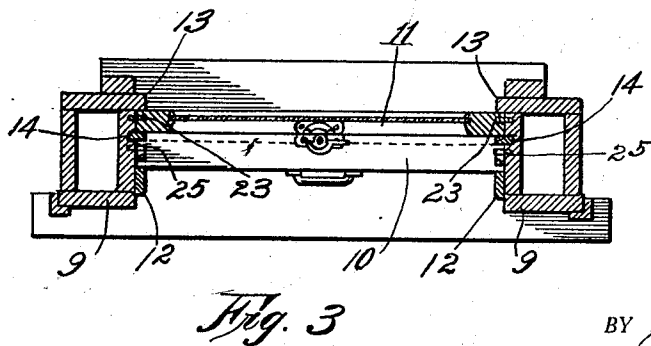
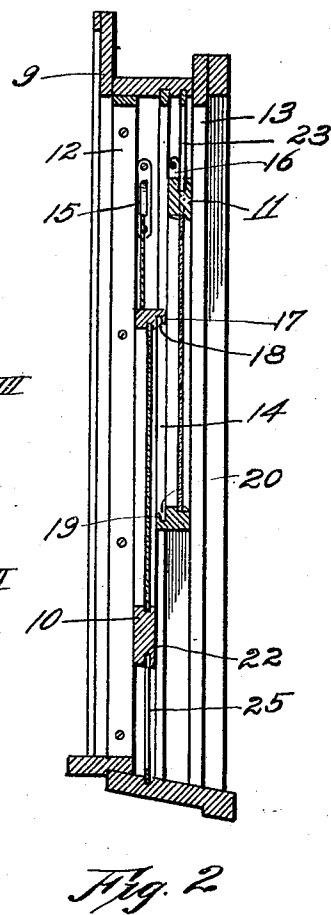
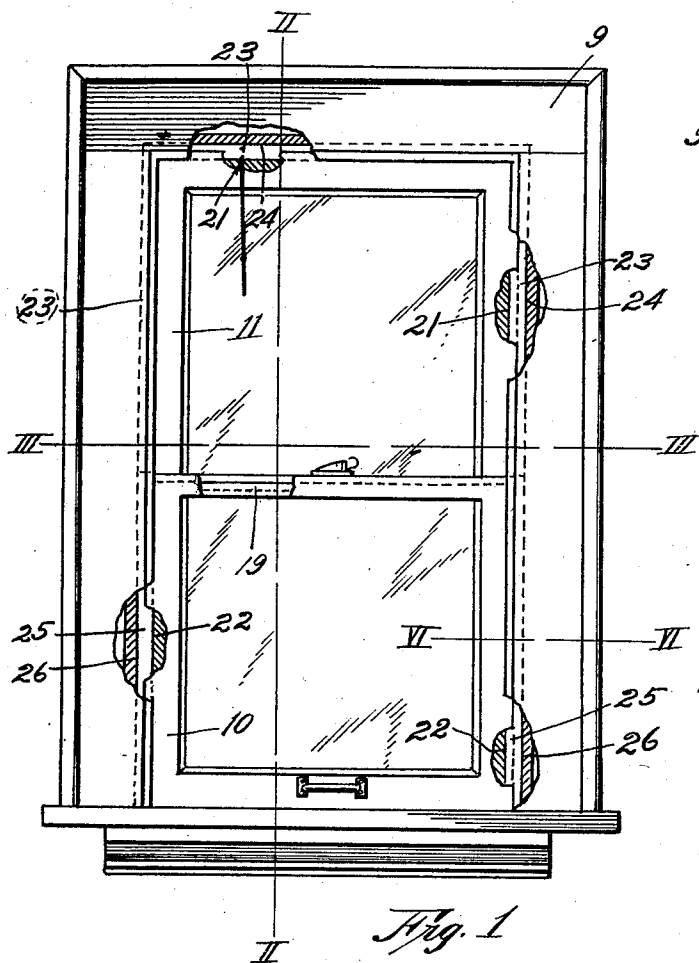
H. B. FORESMAN

1,752,271

WINDOW

Filed Dec. 27, 1927

2 Sheets-Sheet 1



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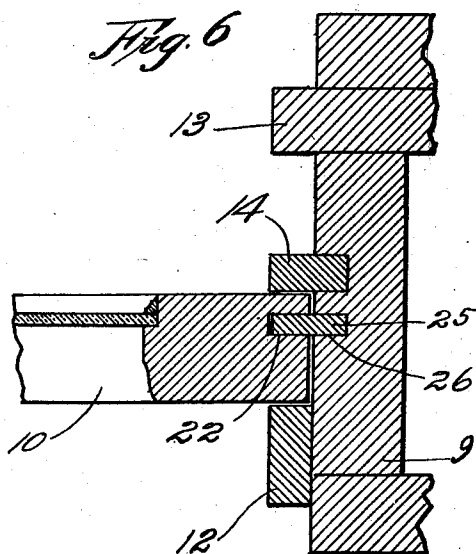
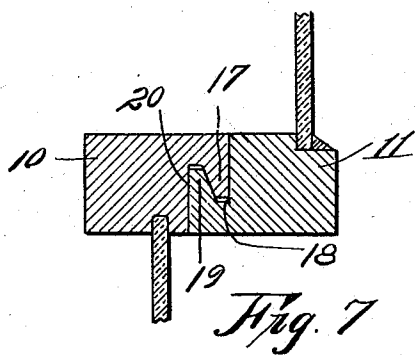
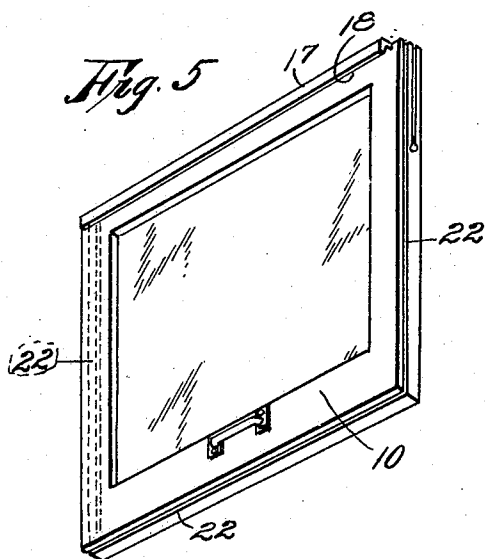
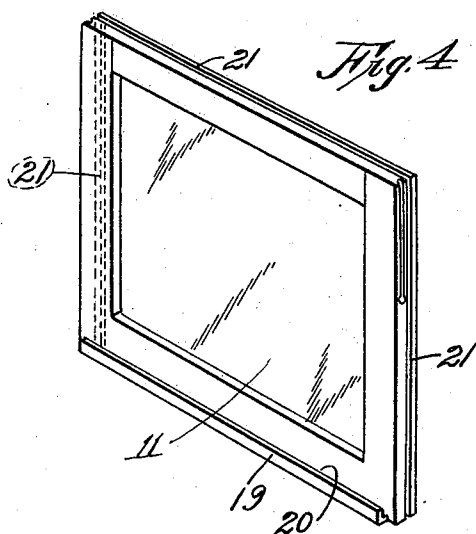
H. B. FORESMAN

1,752,271

WINDOW

Filed Dec. 27, 1927

2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

HARRY B. FORESMAN, OF ENID, OKLAHOMA, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO LOCK JOINT WINDOW COMPANY, OF KANSAS CITY, MISSOURI, A CORPORATION OF DELAWARE

WINDOW

Application filed December 27, 1927. Serial No. 242,719.

This invention relates to windows and particularly to that type which is made of wood, and is provided with means for effectually sealing it against the elements when in the closed position without the necessity of added parts.

The general method of sealing windows against the elements is to provide weather strips that are attached to the sash or frame by means of nails or screws. It is sometimes difficult to obtain a tight joint between the frame or sash, and weather strips in this manner, and also the fastening means loosen and eventually give way. Another difficulty experienced in this old type of weather stripping is that the meeting rails are not drawn together by the action of the window construction itself, nor by the weather strips which are usually made of a frail flexible metal construction.

An object of this invention is to provide interlocking meeting rails which tend to draw the rails together as the sashes are moved to the closed position. Each rail is made of a single piece of material with the locking means integral therewith.

Another object is the contemplation of a window in which both sashes are effectually sealed when in the closed position by means of interlocking members which are a part of the window construction.

A further object of the present invention is a window in which the sashes are provided with guides which are imbedded in the window frame, which prevent undue binding against the stops and also eliminates the play and rattle of the windows.

With these general objects in view, as well as minor objects, which will appear during the course of the detailed specification, the invention will now be described with reference to the accompanying drawings illustrating a construction embodying the improvements of this invention.

In the drawings—

Figure 1 is an inside elevation of a window partly broken away, embodying this invention.

Figure 2 is a vertical section taken on line II—II of Fig. 1, with the lower sash raised

and the top sash lowered to better illustrate the main features of this invention.

Fig. 3 is a horizontal section taken on line III—III of Fig. 1.

Fig. 4 is a perspective view of the upper sash.

Fig. 5 is a perspective view of the lower sash.

Fig. 6 is an enlarged fragmentary sectional view taken on line VI—VI of Fig. 1.

Fig. 7 is an enlarged fragmentary view of the meeting rails in the locked position.

Similar reference characters refer to like parts throughout the several views, and the numeral 9 designates a window frame of the ordinary wood construction. 10 is a lower vertically slidable sash, and 11 is a top vertically slidable sash. The upper and lower sashes 10 and 11 are mounted in the frame 9 and are held in position by means of the stops 12 and 13, and are held separated from each other by means of the usual parting stop 14. The sashes shown are of the ordinary counter-balanced type, but may be made in any form, limited only by the fact that they must be slidably mounted in the frame. A portion of the counter-balancing means is shown at 15 and 16.

As clearly shown in Figs. 2, 4, 5 and 6, the upper rail of the lower sash is provided at its outer side with a depending flange 17, thus forming a corresponding recess 18, while the inner side of the lower rail of the upper sash is provided with an upwardly extending flange 19 and a corresponding recess 20. These flanges and recesses are so positioned relatively to each other that when the sashes are moved to their closed position, as shown in Fig. 7, the flange 17 will enter recess 20 and flange 19 will enter recess 18, thus interlocking the two rails against transverse movement. The inner wall of flange 17 extends outwardly and downwardly, while the outer wall of flange 19 extends inwardly and upwardly, so that when these two surfaces engage and are moved to their closed position, the tendency is to draw the meeting rails tightly together.

As shown in Fig. 4, the upper sash is provided with a groove 21 in its outer edge and

extending the entire length of both sides and across the top thereof. The lower sash 10 is provided with a groove 22 in its outer edge which extends the entire length of the two sides and across the bottom thereof. 5 Tongues 23, which are securely imbedded in grooves 24 in the frame 9 are adapted to engage the grooves 21 in the upper sash when the sash is in the closed position. Also, 10 tongues 25, which are mounted in the grooves 20 in the frame between stop 22 and parting stop 14, are so positioned that they will engage all of the groove 22 in the lower sash when in the closed position. In the ordi- 15 nary wood constructed window, the fit between the sash and the frame necessarily is made loose to take care of the expansion and contraction of the wood parts due to weather conditions, and because of this neces- 20 sary construction, a great deal of air passes thru the window joints, thus making it difficult to heat the enclosed apartment. One of the objects of this invention is to eliminate this leakage by providing the tongues 23 and 25, which may be tightly fitted together at the factory when the window is manufac- 25 tured, thus effectually sealing the joint between said sashes and frame.

These interfitting members as described 30 above serve as a perfect slide for the sashes, thus making an easier operated window construction.

It will be noted that the tongues 23 extend vertically just the length of the upper sash, and that the tongues 25 extend only to the 35 top of the lower sash, thus permitting the sashes to be moved out of engagement with said tongues and removed from the frame in the usual manner. With this construction, 40 when the sashes are in the closed position, all rattling of the window is eliminated.

I do not limit this invention to the construction shown and described, as many modifications may be made within the scope 45 of the appended claims without departing from the spirit thereof.

What is claimed as new and desired to be secured by Letters Patent is:

1. A window, comprising a frame having 50 an upper and a lower sash slidable therein, a continuous groove in the outer edges of each of said sashes extending across three sides thereof, respectively, tongues carried in said frame to engage said grooves, said 55 tongues being coextensive with said grooves when said sashes are in the closed position, and means integral with said sashes to interlock and draw said sashes together and against said tongues as they are moved to 60 the closed position.

2. A window, comprising a frame having an upper and a lower sash slidably mounted therein, said sashes having meeting rails, means integral with said rails for interlock- 65 ing and drawing said rails together as they

are moved to their closed positions, a continuous groove formed in the top edge and two adjacent side edges of said upper sash, and tongues carried by said frame adapted to engage said top and side sash grooves 70 when the sash is in the closed position and adapted to be disengaged from said sash grooves when said sash is moved downwardly to the open position.

3. A window, comprising a frame having 75 an upper and a lower sash slidably mounted therein, said sashes having meeting rails, means integral with said rails for interlocking and drawing said rails together as they 80 are moved to their closed positions, a continuous groove formed in the top edge and two adjacent side edges of said upper sash, a continuous groove formed in the bottom edge and two adjacent side edges of said 85 lower sash, and tongues carried by said frame adapted to engage said sash grooves when said sashes are in the closed position and adapted to be disengaged therefrom when the sashes are moved to the opened position.

In testimony whereof, I hereunto affix my 90 signature.

HARRY B. FORESMAN.

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