

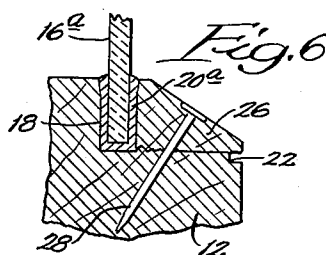
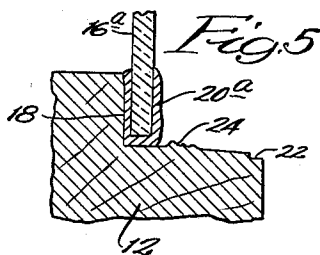
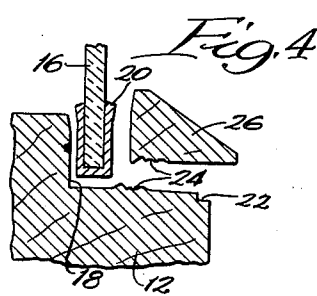
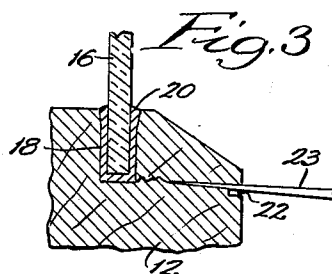
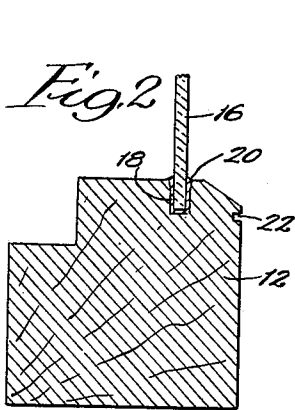
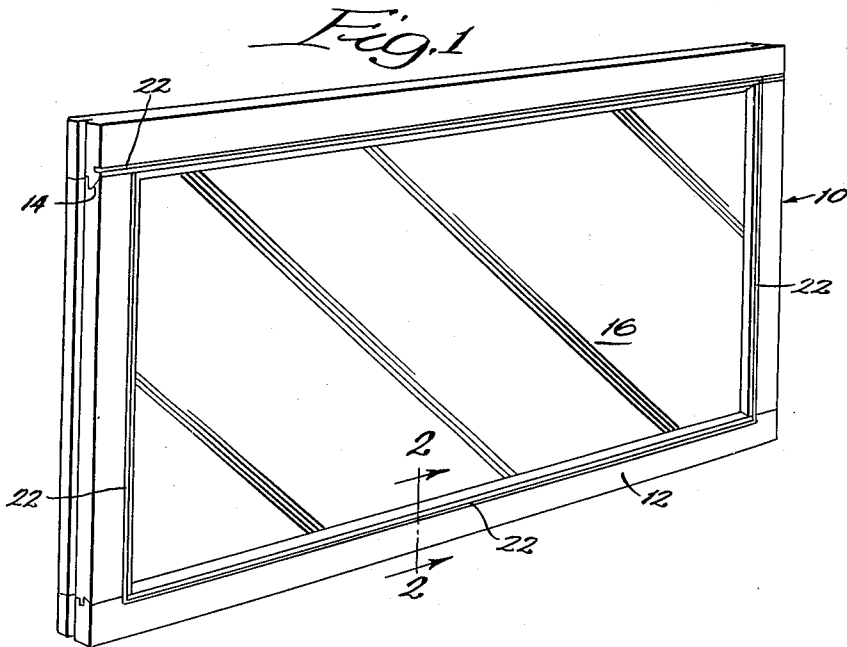
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SASH AND REGLAZING METHOD THEREFOR

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SASH AND REGLAZING METHOD THEREFOR

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2 Claims. (Cl. 20—56.4)

This invention relates to a window sash construction, and to the utilization of such a construction in a method of reglazing.

The present invention contemplates improvements in window sash constructions of the type wherein the glass is set in a rabbet and embedded therein by means of a suitable sealing compound. The installation of window glass in sash constructions provided with a rabbet for retaining the glass in position avoids the shortcoming inherent in conventional sealing methods wherein the glass is set in a sash with a glazing compound applied in a peripheral bead on the face of the sash. It has been my experience that conventional glazing methods of the aforementioned type have been unsatisfactory because of the failure of commercially available putties and glazing compounds to maintain a water tight seal over long periods of time.

Although the practice of setting glass in a rabbet to achieve an improved seal has been attempted before, the problem of glass replacement and reglazing in the event of breakage or other damage is a difficult one, and necessarily requires disassembly of the sash. I propose by the present invention to employ a longitudinal groove or kerf in the face of the sash, whereby it will be possible to break out the retaining edge portions of the sash with a chisel or putty knife, replace the glass with a new pane and fresh sealing compound, and then tack or otherwise secure the glass stop or retaining sash portion back in its former place.

It is a primary object of the present invention, therefore, to provide a window sash construction employing a frame having a rabbet formed about its inner periphery, and having a longitudinal groove or kerf in the face of the frame extending in depth toward the rabbet, whereby deepening of the groove to intersect with the rabbet effects removal of the glass restraining portion of the frame, thereby permitting replacement of the glass and sealing compound and subsequent return of the removed frame portion to its original position to again serve as a restraining means for the glass.

It is another object of the present invention to provide a removable glass stop which is initially an integrally formed portion of the window frame and of sufficient strength to suitably secure a glass pane of substantial mass in permanent fixed relation within the frame until such time as replacement of the glass pane may be desired.

It is a further object of this invention to provide a method of reglazing in which portions of the window frame constituting glass retaining means are broken out, new glass is installed within the frame and embedded in fresh sealing compound, and the restraining means are returned to their original place and fixedly secured in position.

With these and other objects in view, my invention consists in the construction, arrangement and combination of the various parts of my sash, and in the performance of my reglazing method therewith, whereby the objects contemplated are obtained as hereinafter more fully set

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forth, pointed out in my claims and illustrated in the accompanying drawing wherein:

Fig. 1 is a perspective view showing a sash construction provided with grooves in accordance with the present invention.

Fig. 2 is a cross sectional view taken in the direction 2—2 on Fig. 1, showing the cooperative relation between the glass receiving rabbet and the adjacent cooperating groove.

Figs. 3 to 6, inclusive, are other sectional views similar to Fig. 2, showing the sequence of steps in performing the method of reglazing of the present invention.

Referring to the drawing, I have used the numeral 10 to designate a window sash construction, generally.

The window sash comprises a plurality of non-metallic, conventionally wooden, side elements 12. The side elements 12 are suitably notched and grooved as at 14 (see Fig. 1) for interconnection to form a generally rectangular window frame defining an opening therethrough. A pane of glass, or other suitable translucent material, is indicated at 16.

The side elements 12 of the frame construction are each provided with a rabbet 18 extending longitudinally along the inner peripheral edge thereof, as clearly shown in Fig. 2. During assembly of the side elements to provide an integral rectangular frame, the edges of the pane of glass 16 are suitably positioned within the rabbets 18 and embedded therein with a sealing material 20.

In general, a material like putty or caulking compound is placed in the rabbet 18 to permit the pane of glass 16 to be securely pressed into place. The exact nature of the sealing compound is not an important feature of this invention, but it is preferably a type of material which is resistant to weathering, remains plastic indefinitely, and maintains a permanent water tight seal. As best seen in Fig. 2, the front faces of each of the side elements 12 are provided with a longitudinally extending groove or kerf 22. The grooves 22 are of relatively shallow depth and extend into the frame in a direction substantially perpendicular to the plane of the rabbet 18. Each groove 22 is so positioned below the surface of the top edge of the respective side element 12 that a deepening thereof toward the rabbet 18 will serve to effect an intersection therewith.

As clearly seen in Fig. 2 of the drawing, the grooves 22 are very shallow in depth as compared to the rabbets 18. It is an important feature of the present invention to provide a substantial thickness of window frame material between the grooves and rabbets in order to provide an integrally formed glass stop of sufficient strength to satisfactorily retain the substantial mass of a pane of glass in permanent fixed relation within the window frame. This is of particular importance in the construction of a frame intended for relatively permanent installation, wherein the need for glass replacement may not arise until long after the initial assembly of the window. It is essential, therefore, that the glass stop provided by the present invention be more than a mere separate strip of material which may be removed and replaced at will. It is a novel feature of this invention that the glass stop be formed integrally with the window frame. Preferably, the grooves 22 terminate substantially short of intersection with the rabbets so as to provide an integral frame thickness therebetween which is of several times greater extent than the depth of the groove.

In performing the method of the present invention the steps as indicated in Figs. 3 to 6 are required. Assuming that a window construction as shown in Fig. 1 has been suitably installed in a wall or the like, and that it has become necessary because of breakage or other reasons to replace the glass pane, the following sequence is performed. First, as shown in Fig. 3, a suitable tool, such

as a chisel, putty knife, or other instrument having a sharp edge, is inserted in the groove 22. Upon application of necessary force to drive the tool toward the rabbet 18, breakage or cutting will be effected to separate the glass restraining portion of the frame element 12.

As seen in Fig. 4, the cutting or breaking will generally occur along an irregular breakage line such as that indicated at 24. In this way, the restraining portion of the frame element 12 is separately defined as a removable glass stop 26. The glass stop 26 is then lifted away to permit removal of the glass pane 16, or fragments thereof, as well as the residue of the old putty or sealing compound 20.

As seen in Fig. 5, a new pane of glass 16a is next inserted within the remaining side and bottom portion of the rabbet 18, and embedded thereagainst in fresh putty or sealing compound 20a.

Finally, as seen in Fig. 6, the glass stop 26 is returned to its former position and fixedly secured in place by means of tacks or nails 28. In performing the step of Fig. 3, the glass stop will generally break out quite easily, even though the line of cleavage may be irregular. In performing the replacement step of Fig. 6, the stop 26 may be readily fitted along the complementary break lines of the frame side element 12, and irregularities of the breakage lines 24 will not in any way render the replacement step difficult.

The steps shown in Figs. 3 to 6 may be performed quickly and without difficulty. Inasmuch as the putties and glazing compounds presently available are frequently difficult to remove during glass replacement, because of age-hardening, the operation of breaking out the glass stop 26, as shown in Fig. 4, is simpler, quicker than the removal of old putty from conventional sash constructions having the glazing compound applied in a bead on the face of the frame. In the event that any of the stops 26 of the four frame sides 12 should be accidentally damaged in removal to such an extent as to prevent their reuse, it is, of course, possible to reglaze the replaced window glass by conventional methods employing an exposed surface bead of glazing compound.

Changes may be made in the construction and arrangement of the parts of my sash and reglazing method therefore without departing from the real spirit and purpose of my invention, and it is my intention to cover by my claims any modified forms of structure or use of mechanical improvements which may be reasonably included within their scope.

I claim as my invention:

1. In a window sash construction, a non-metallic frame formed of a number of pieces adapted to be assembled and defining a window opening therethrough, said frame having a rabbet formed substantially completely about its inner periphery and extending in depth in a plane parallel to that of said frame, a pane of window material disposed in said rabbet when the frame is initially assembled, said frame having an elongated shallow groove formed closely adjacent the inner peripheral edge thereof substantially in line with the bottom of the rabbet and extending substantially completely about the

periphery of the frame, said groove extending in depth in a plane substantially perpendicular to that of said rabbet and terminating a substantial distance short of intersection therewith for defining an initially integral stop means capable of being subsequently severed to afford removal of said initially disposed window material, the integral frame thickness between said groove and said rabbet being at least twice the depth of said groove so as to provide substantial material strength for retaining said pane of window material within said frame.

2. A method of initial window construction and subsequent reglazing comprising the construction steps of first assembling a non-metallic frame from a number of pieces adapted to be interconnected to define a window opening, forming each of said frame pieces prior to assembly so as to provide a rabbet along an edge thereof whereby the assembled frame provides a rabbet extending substantially completely about its inner periphery and extending in depth in a plane parallel to that of said frame, positioning a pane of window material in said rabbet when the frame is assembled to provide a unitary window, forming each of said frame pieces prior to assembly so as to provide an elongated shallow groove along a face thereof closely adjacent said inner peripheral edge and substantially in line with the bottom of the rabbet whereby the assembled frame provides a groove extending substantially completely about the periphery of the frame, forming the groove of said frame pieces so as to extend in depth in a plane substantially perpendicular to that of said rabbet and terminating a substantial distance short of intersection therewith for defining an initial integral stop means capable of being subsequently severed to afford removal of said initially positioned pane of window material, and predetermining the integral frame thickness between said groove and said rabbet so as to be at least twice the depth of said groove to provide substantial material strength for retaining said pane of window material within said frame after initial assembly, and the reglazing steps of first cutting said integral stop means from said assembled frame by deepening said groove to effect intersection with said rabbet, next removing the stop means separated from the frame by the intersecting rabbet and groove, next replacing the former pane of window material with a new pane of window material, next returning the severed stop means to substantially its same original position as before removal along the complementary lines of separation previously formed during the cutting step, and then fixedly securing said stop means to said frame to complete the reglazing.

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