Oct. 12, 1954 R. E. WISSINGER 2,691,193

WINDOW SEALING STRIP

Filed Nov. 13, 1950

FIG-1

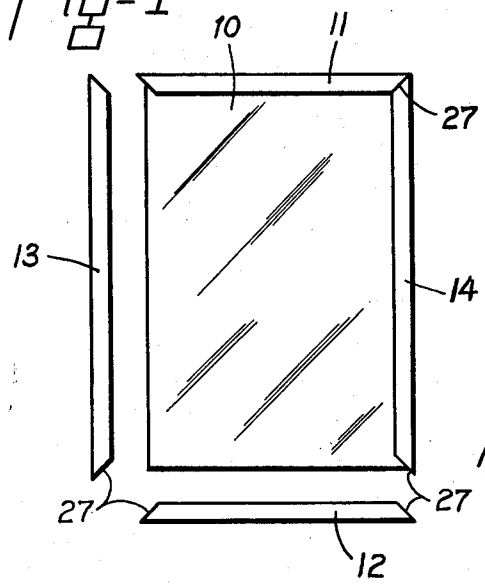


FIG-2

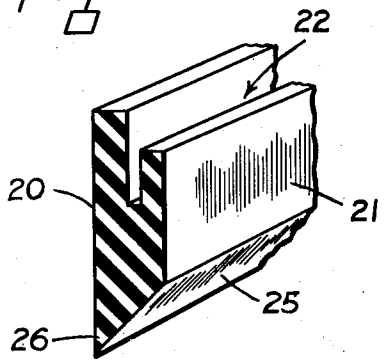


FIG-3

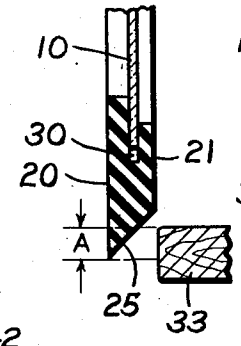


FIG-4

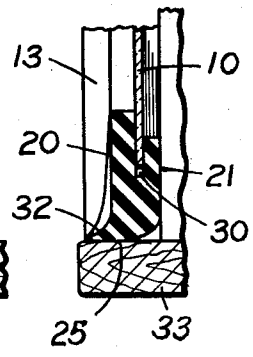


FIG-5

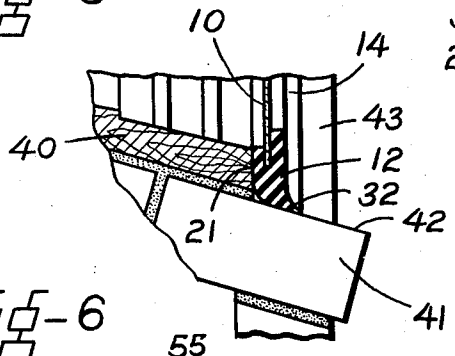


FIG-6

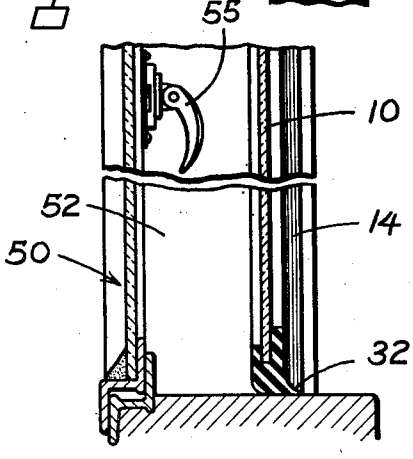
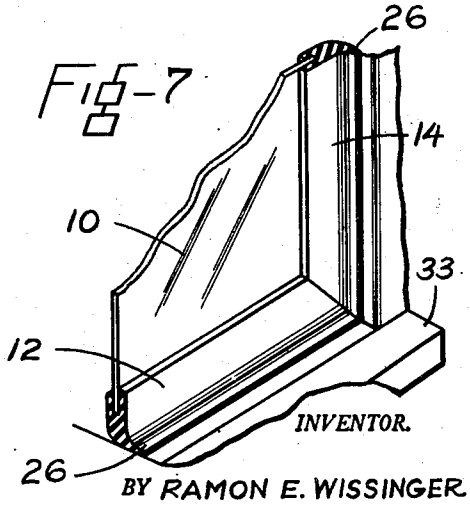


FIG-7



INVENTOR.

BY RAMON E. WISSINGER

Irwin V. Glaim

ATTORNEY

Patented Oct. 12, 1954

2,691,193

UNITED STATES PATENT OFFICE

2,691,193

WINDOW SEALING STRIP

Ramon E. Wissinger, Dayton, Ohio

Application November 13, 1950, Serial No. 195,171

1 Claim. (Cl. 20—55)

1

This invention relates to a composite sash for window apertures in the walls of a building or the like, and more particularly to a sash in combination with a window panel or pane and adapted for use as a principal sash or coincident with other sash and window installations.

One of the principal objects of the invention is to provide an article of manufacture as a sash in combination with a glass panel which can be readily assembled and installed in window apertures without the use of screws, nails or other hardware to secure same to a window frame or opening.

A further object of the invention is to provide a separate sash for window openings, which is self-attaching and having means to adapt itself to the irregularities of window frames or openings to assure an air-tight, dust and water-tight seal.

Another object of the invention is to provide an auxiliary sash in combination with a pane of translucent or transparent material for window openings, which may be economically produced in quantities, shipped or stored in flattened condition, and quickly and easily set up for installation.

A still further object of the invention is to provide a sash which is readily adapted for use with varying dimensions of window frames or apertures, which is positive in operation, highly durable and serviceable.

Other objects and advantages of the invention will be apparent from the following description, the accompanying drawings and the appended claim.

Reference is made to the drawings which illustrate a preferred embodiment of the invention and in which like parts are designated by the same numerals.

Fig. 1 is a front elevational view of a partially assembled window sash of this invention in combination with a pane of glass;

Fig. 2 is a perspective view of a segment of a sash of the invention;

Fig. 3 is a vertical sectional view of an auxiliary window sash constructed in accordance with this invention and fitted to a pane of glass before installation in a window frame;

Fig. 4 is a vertical sectional view of an auxiliary window sash fitted to a pane of glass after installation in a window frame;

Fig. 5 shows in section a typical outside installation of a sash of the invention positioned in a window opening of a brick structure;

Fig. 6 illustrates in section an example of an interior installation of an auxiliary sash of the invention in connection with a steel casement window; and

2

Fig. 7 is a diagrammatic perspective corner fragmentary view of a complete sash and window installation embodying the invention.

Referring in detail to the drawings, with particular reference to Fig. 1, a formed sheet or panel of glass **10** is shown as having top and bottom sealing members or strips **11**, **12** and side sealing members **13**, **14** respectively. The sealing members **11**—**14** are preferably formed of a frictional material, as for example, rubber or like material, somewhat resilient but at the same time firm enough to retain a particular formed glass panel. A typical sealing member is shown in detail in Fig. 2 as a continuous strip approximately 1" thick and 2½" wide. It is formed by extrusion or is molded to include rear face **20** and front face **21**. A slot **22** of a suitable depth is provided to receive the edges of the glass **10**. The width of the slot is determined by the thickness of glass being employed, i. e. double, triple strength or plate glass, and is such as to engage the glass firmly to prevent ingress of air, water, etc.

The lower or outer portion of the strip is bevelled at **25** at an angle of approximately 45°, the purpose of which is to provide a lip portion **26** increasingly more resilient or flexible toward the outer edges, the tapered or bevelled portion constituting the outer edge when assembled to the glass.

To assemble, the sealing strips **11**—**14** are cut to a proper length with mitered ends **27**. The length of the strips and size of glass are so cut to fit any size window opening or aperture in such a manner as to leave a space **30** between the edges of the glass and bottom of slot **22** and at the same time allowing a substantial amount of overlap of the sealing strip on all sides of the opening. The overlap is shown in Fig. 3 and indicated by the dimension A.

With the auxiliary sash and window unit assembled as described, it is positioned in a window opening with the overlapping portions of the sealing strip equalized in all directions. By gently pushing the unit inwardly, the lip portions **26** will be subsequently forced to curl or curve rearwardly as shown at **32** in Fig. 4, portion **32** being shown in contact with a window sill **33** to effect positive engagement with contacting surfaces of the window opening and at the same time causing the mitered corners **27** to be forced into positive locking engagement. The over-

lapped portion A also provides, by means of force fitting, a substantial amount of the sealing strip to be in intimate contact with the surface against which it is contacting, this being the bevelled portion 25.

From the above it can be seen that the auxiliary sash and window unit of the invention is firmly secured in a customary window opening by frictional engagement of the sealing strips and contacting surfaces. By providing such an auxiliary window sash and window mounted by friction, it is apparent that it is highly desirable in that the need for nails, screws or other fastening hardware is totally dispensed. An additional desirable feature of the rubber sealing strip is that the lip portions 26 and bevelled surface 25 will conform to any irregularities in a window frame, brick or stone structure adjacent the window frames when mounted on the outside or rough plaster or sand finished walls when mounted on the inside of a window. This last mentioned feature assures positive engagement with contacting surfaces to complete insulating for which purpose the unit is primarily designed. The sealing strips will not mar or damage painted or finished surfaces and for interior installations may be of a color to match or blend with interior finished surfaces. Moreover, when desired, the unit may be removed from a window frame by inserting a flat thin bladed tool between the lip and bevel portions of the sealing members and the window frame.

Fig. 5 shows a sash unit of the invention positioned in a window opening from the outside of a brick structure. The front face 21 of the bottom sealing strip 12 formed of elastic material is in contact with a wood sill 40 while the bevel portion 25 is in contact with the brick sill 41. In this type of installation, the resilient lip portion 26 adapts itself to a number of conditions, namely the bottom strip 12 is in frictional contact with a slanting surface 42 while the side strip 14 is frictionally engaging a level surface 43, without need of any modification necessary, as is the case in custom built storm windows, and at the same time is adaptable to conforming to any irregularities of the bricks or mortar between the bricks.

Fig. 6 shows a sash unit installed in a window opening of a steel casement type window 50, the installation being made from the inside of a building. In this particular application, the unit can be installed a suitable distance from the window to provide a maximum air-well 52 and accommodate a window opening handle 55 or other projecting window hardware.

Fig. 7 diagrammatically illustrates a fragment of a thick glass pane or panel 10, such as a picture window pane mounted in a window frame of predetermined dimensions having a sill 33 of usual construction. As shown, the panel 10 has been provided with enlarged sealing members 12 and 14 and is retained in the grooves or slots 22 thereof while the lip and bevel portions 25 and 26 respectively are in frictional engagement with the window frame and sill, thereby providing a window and sash which is hermetically sealed against varied weather conditions.

There has thus been provided simple, composite and efficient devices of the kind described and for the purposes specified.

While the articles herein described constitute preferred embodiments of the invention, it is to be understood that the invention is not limited to these precise articles, and that changes may be made therein without departing from the scope of the invention which is defined in the appended claim.

What is claimed is:

A sealing strip of the character described comprising a body of resilient material having parallel inner and outer sides, an outer face beveled toward said outer side, and an inner face having a longitudinal slot for the reception therein of an edge of a glass panel, said slot dividing the inner portion of said body into a relatively longer outer leg and a relatively shorter inner leg.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
2,050,733	Ross	Aug. 11, 1936
2,093,727	Julien	Sept. 21, 1937
2,296,985	Cresswell	Sept. 29, 1942
2,456,486	Berghoff	Dec. 14, 1948