

UNITED STATES PATENT OFFICE

2,546,430

GLASS RETAINER

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1 Claim. (Cl. 108—16)

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This invention relates to new and useful improvements and structural refinements in retainers for glass panels or panes such as are commonly employed on roofs of green houses, and the like, and the principal object of the invention is to facilitate proper securing of such panels to their supporting rafters.

This object is achieved by the provision of a retainer assuming the form of a channel intended for securing upon the rafters and provided with outturned flanges to engage the upper surfaces of the glass panels, whereby the latter are prevented from lifting.

An important feature of the invention lies in the provision of angulated lugs on the flanges of the retainer channels, these lugs not only engaging edges of the panels so as to prevent them from sliding downwardly, but also, the lugs of one channel supportably engaging the lugs of the next adjacent channel, whereby the entire assembly is firmly and securely interlocked, so to speak, in position.

An important advantage of the invention lies in its simplicity of construction, ease of installation, and in its adaptability to economical manufacture.

With the above more important objects and features in view, and such other objects and features as may become apparent as this specification proceeds, the invention consists essentially of the arrangement and construction of parts as illustrated in the accompanying drawings, in which:

Figure 1 is a fragmentary perspective view showing a plurality of panels supported by a rafter and illustrating a plurality of retainers constructed in accordance with the teachings of the invention;

Figure 2 is a group perspective view of a pair of retainers, and

Figure 3 is a cross-sectional view, taken substantially in the plane of the line 3—3 in Figure 1.

Like characters of reference are employed to designate like parts in the specification and throughout the several views.

Referring now to the accompanying drawings in detail, the reference character 10 designates an inclined rafter of a conventional type, including an up-raised, longitudinally extending center portion 12 flanked by longitudinal, panel supporting rails 14 disposed at a substantially lower level with respect to the portion 12, as will be clearly apparent.

Suitable glass panels, or the like, 16 are in-

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tended for positioning on the rails 14 in an overlapped relation, that is, with the lower edge portion of one panel overlapping the upper edge portion of the next adjacent panel, as is best shown in Figure 1.

The invention resides in the provision of suitable retainers designated generally by the reference character 18 for securely holding the panels 16 in position on the rafter 10, each of the retainers 18 being formed from a single sheet of material angulated to provide a channel 20 having a flat mid-portion 22, a pair of downturned side portions 24, and a pair of outturned flanges 26, as is best shown in Figure 2.

The retainers 18 are intended for positioning on the up-raised center portion 12 of the rafter 10 in an overlapped relation as shown in Figure 1, being secured thereto by suitable screws 28 extending through suitable apertures 30 with which the center portions 22 of the retainers are provided. When the retainers are so secured, the flanges 26 thereof engage the upper surfaces of the panels 16, and it is to be noted that the flanges 26 are provided at their upper ends with upturned lugs 34, while the lower ends of these flanges terminate in similar but down-turned lugs 36.

The upturned lugs 34 of the retainers are intended to supportably engage the lower edges 38 of the panels 16, while the down-turned lug 36 of each retainer supportably overlaps the upturned lug 34 of the next underlying retainer, substantially as shown in Fig. 1. In this manner, the several retainers are interlocked, so to speak, when installed in position and upward lifting as well as downward riding of the panels 16 is effectively prevented.

It is believed that the advantages and use of the invention will be clearly apparent from the foregoing disclosure and, accordingly, a further description thereof at this point is deemed unnecessary.

While in the foregoing there has been shown and described the preferred embodiment of this invention, it is to be understood that minor changes in the details of construction and arrangement of parts may be resorted to without departing from the spirit and scope of the invention as claimed.

Having described the invention, what is claimed as new is:

In combination with an inclined rafter having a raised center portion and a pair of longitudinally extending shoulders at the opposite sides thereof, and sets of panels resting on said

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shoulders with the lower edge portion of each panel overlapping the upper edge portion of a next panel, panel retaining means comprising a row of inverted channels positioned on the raised portion of said rafter with the lower end portion of each channel overlapping the upper end portion of a next channel, outturned flanges provided at the lower edge of said channels and engaging upper surfaces of the respective panels at opposite sides of the rafter, upturned lugs provided at upper ends of said flanges and abutting lower edges of said panels, downturned lugs provided at lower ends of the flanges of each channel and disposed in overlapping abutment with the upturned lugs on the flanges of the next underlying channel, and fastening elements

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extending through said channels into the raised portion of said rafter for securing the same thereto.

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The following references are of record in the file of this patent:

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