March 30, 1937. G. F. WILD ET AL 2,075,596

SAFETY CLAMP FOR HOLDING PANES OF GLASS OF SHOWCASES AND THE LIKE

Filed Sept. 3, 1936

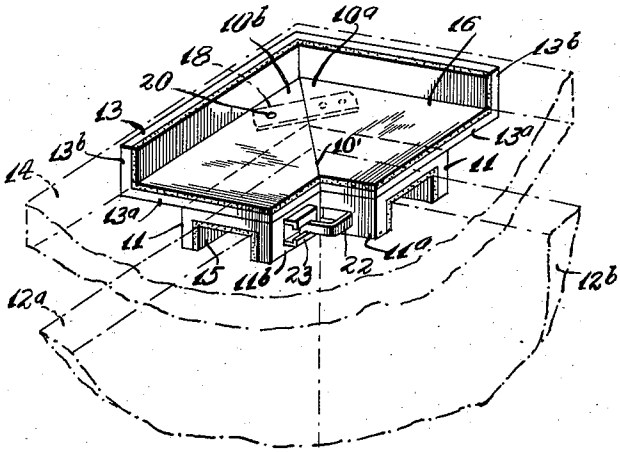


Fig. 1.

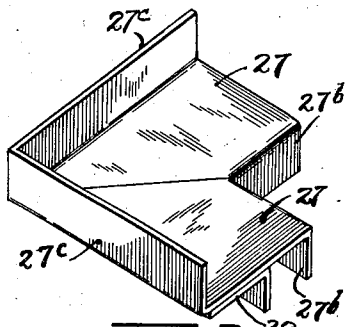


Fig. 7.

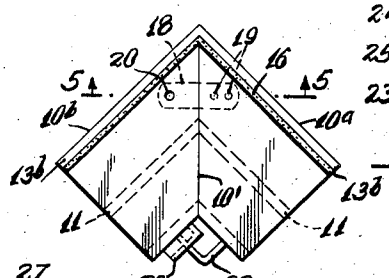


Fig. 2.

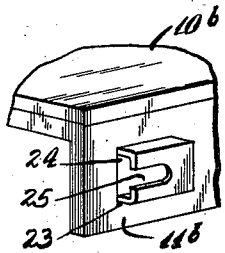


Fig. 3.

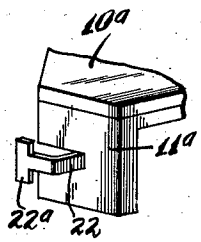


Fig. 4.

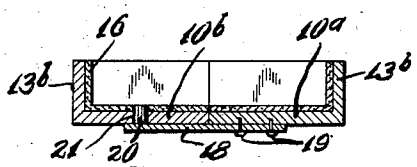


Fig. 5.

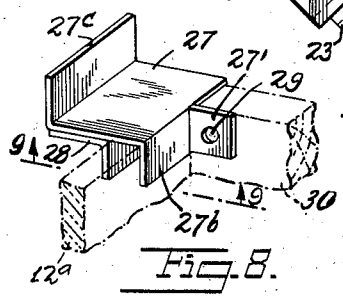


Fig. 8.

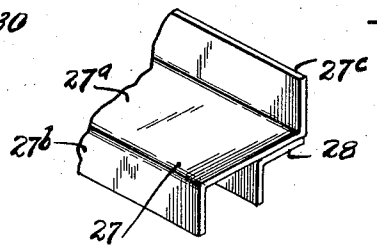


Fig. 6.

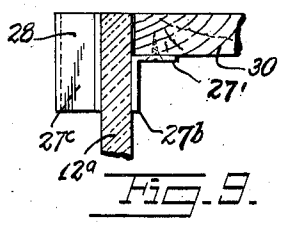


Fig. 9.

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SAFETY CLAMP FOR HOLDING PANES OF GLASS OF SHOWCASES AND THE LIKE

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Application September 3, 1936, Serial No. 99,222

4 Claims. (Cl. 312—140)

This invention relates to new and useful improvements in a safety clamp for holding the panes of glass of a show case together.

The invention has for an object the construction of a safety clamp which is characterized by a pair of adjacent members each comprising a channel portion for engaging the top edge of a vertical pane of glass and a flange portion fixedly attached on said channel portion for engaging the edge of a top horizontal pane of glass.

Furthermore, the invention contemplates the forming of said members with their adjacent sides cut at 45° and joining with each other, and jointly forming a right angle clamp as viewed in plan view, so as to be capable of engaging, for example, the top corners of a glass show case.

Another one of the objects of this invention is the provision of means for holding the members releasably together.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawing, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawing forming a material part of this disclosure:—

Fig. 1 is a perspective view of a safety clamp constructed according to this invention and a schematic showing of it applied to hold the panes of glass of a show case.

Fig. 2 is a plan view of Fig. 1.

Fig. 3 is a fragmentary enlarged perspective view of a portion of Fig. 1 showing one of the members.

Fig. 4 is a fragmentary enlarged perspective view of a portion of Fig. 1 showing a portion of the other member.

Fig. 5 is a sectional view taken on the line 5—5 of Fig. 2.

Fig. 6 is a fragmentary perspective view of material which may be used for manufacturing the safety glass.

Fig. 7 is a perspective rear view of the safety clamp.

Fig. 8 is a perspective view of the safety clamp but illustrating a modified construction of the same.

Fig. 9 is a bottom horizontal view, taken on the line 9—9 of Fig. 8.

The safety clip, according to this invention, comprises a pair of adjacent members 10[a] and 10[b] each comprising a channel portion 11 for engaging upon the top edge of a vertical pane of glass 12[a] or 12[b], and a flange portion 13 fixedly attached on the channel portion and adapted to engage the edge of a horizontal top pane of glass 14. The members 10[a] and 10[b] have their adjacent edges 10′ cut at 45° for engaging each other, and jointly forming a right angle clamp when viewed in plan view as clearly shown in Fig. 2.

Sheet rubber material or other padding 15 is secured within the channel portions 11. Similar padding material 16 is mounted on the flange 13. These padding materials are adapted to engage against the glass and keep the glass out of direct contact with the metal clip, thus lessening loss from breaking or chipping of the panes of glass.

The flange portion 13 comprises a base section 13[a] which is soldered or in any other manner secured to the channel portion 11, and a vertical edge portion 13[b] which continues at right angles from the portion 13[a].

A means is provided for holding the members 10[a] and 10[b] together so that they may be separated and replaced when desired. This means comprises essentially a flat spring 18 attached by several rivets 19 at one of its ends on the bottom of the flange portion 13[a] of one of the members 10[a] and extending across the flange portion of the other member, the member 10[b]. At the free end the spring 18 is provided with a peg 20 which engages a receiving opening 21 in the member 10[b].

Holding elements are also arranged upon the inner corner of the safety clamp and comprises a prong 22 stamped from the material 11[a] of one of the channel shaped members. This prong 22 is provided with a head 22[a]. A loop element 23 is stamped from the face 11[b] of the adjacent channel member. This loop has an open end portion 24 and a slot 25 in its front side. The arrangement is such that the head 22[a] may engage in the open end 24 and the prong portion 22 project out from the slot 25. The device is shown in this condition in Figs. 1 and 2.

The operation of the device is as follows:—

The spring 18 may be flexed to disengage the stud 20 from the opening 21. Then the members 10[a] and 10[b] may be pivoted around the prong 22 as a pivot and moved so that the head portion 22[a] passes out through the opening 24. Then the members 10[a] and 10[b] are separated. They may be joined by reengaging the parts.

In Fig. 6 a strip of material is shown from which the safety clip, according to this invention, may be constructed. This strip of material consists of an outer portion 27 having a horizontal central portion 27[a], an end portion 27[b] turned

at right angles downwards from the central portion, and another end portion 27c turned at right angles upwards from the central portion. An angle member 28 has one of its arms secured along the bottom of the center portion 27a and its other arm extending parallel to the end portion 27b. Thus, the projecting of the arm of the angle and the adjacent portion 27b form a channel by which the strip may be engaged on the edge of a pane of glass. The upward extending portion 27c forms a flange for holding a horizontal pane of glass. The material as shown in Fig. 6 may be cut into pieces having side portions disposed at 45° from the length of the material. These angle portions may then be set together to form a corner piece as illustrated in Fig. 7. The adjacent edges of these angle portions may be soldered or brazed together.

In Figs. 8 and 9 a modification of the invention has been disclosed in which the safety clamp is adapted to be secured upon the side wall of a wooden show case. According to this form of the invention a lug portion 27' is bent outwards from the end portion 27b. This lug portion 27' is formed with an aperture 29 through which a headed screw may be engaged to attach the lug to the wooden side of a show case, as for example, the wooden portion 30. In other respects this form of the invention is similar to the preferred form and identical parts may be recognized by the same reference numerals.

While we have illustrated and described the preferred embodiments of our invention, it is to be understood that we do not limit ourselves to the precise constructions herein disclosed and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claims.

Having thus described our invention, what we claim as new, and desire to secure by United States Letters Patent is:—

1. A safety clamp comprising a pair of adjacent members each comprising a channel portion for engaging on the top edge of a vertical pane of glass and a flange portion fixedly attached on said channel portion for engaging the edge of a top horizontal pane of glass, and said members having adjacent sides cut at 45° and engaging each other and jointly forming a right angle clamp in plan view, and means for holding said members together, comprising an element formed from one of said portions and engaging in a receiving member formed from the other of said portions for holding one edge of said clamp together, a leaf spring fixedly mounted on one portion of said clamp, and a peg on said leaf spring engaging a receiving opening in the other portion of said clamp for holding the other edge of said clamp together.

2. A safety clamp comprising a pair of adjacent members each comprising a channel portion for engaging on the top edge of a vertical pane of glass and a flange portion fixedly attached on said channel portion for engaging the edge of a top horizontal pane of glass, and said members having adjacent sides cut at 45° and engaging each other and jointly forming a right angle clamp in plan view, and means for holding said members together, including a spring element mounted on one member and supporting a peg engageable in a receiving opening in the other member.

3. A safety clamp comprising a pair of adjacent members each comprising a channel portion for engaging on the top edge of a vertical pane of glass and a flange portion fixedly attached on said channel portion for engaging the edge of a top horizontal pane of glass, and said members having adjacent sides cut at 45° and engaging each other and jointly forming a right angle clamp in plan view, and means for holding said members together, including a spring element mounted on one member and supporting a peg engageable in a receiving opening in the other member, and a prong stamped from the inner corner of said right angle clamp from one of the members thereof and engaging a receiving loop element formed from the adjacent member.

4. A safety clamp comprising a pair of adjacent members each comprising a channel portion for engaging on the top edge of a vertical pane of glass and a flange portion fixedly attached on said channel portion for engaging the edge of a top horizontal pane of glass, and said members having adjacent sides cut at 45° and engaging each other and jointly forming a right angle clamp in plan view, and means for holding said members together, including a spring element mounted on one member and supporting a peg engageable in a receiving opening in the other member, and a prong stamped from the inner corner of said right angle clamp from one of the members thereof and engaging a receiving loop element formed from the adjacent member, said loop element having an open end and a slot, said prong having a head engageable into said open end and a body portion extending from said slot.

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