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Munn

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[54] **JOINT MEMBER AND RAIL WITH CLIPS FOR PICTURE FRAMING**

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[51] **Int. Cl.** **G09f 1/12**

[58] **Field of Search** ..... 40/152, 156, 152.1; 52/502, 753 D, 758 H; 49/466

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[57] **ABSTRACT**

Framing for mounted pictures wherein mitered rails are secured in tight abutted engagement at the corners by means of a joint member that forcefully slides into optimum working position wherein it positively locks with the abutted rails, the cross sectional configuration of the rails being provided with opposed channels cooperating with both the aforesaid joint member and with unique clips that secure picture mountings, thick and thin, tightly engaged within the site opening of the assembled framing.

3 Claims, 6 Drawing Figures

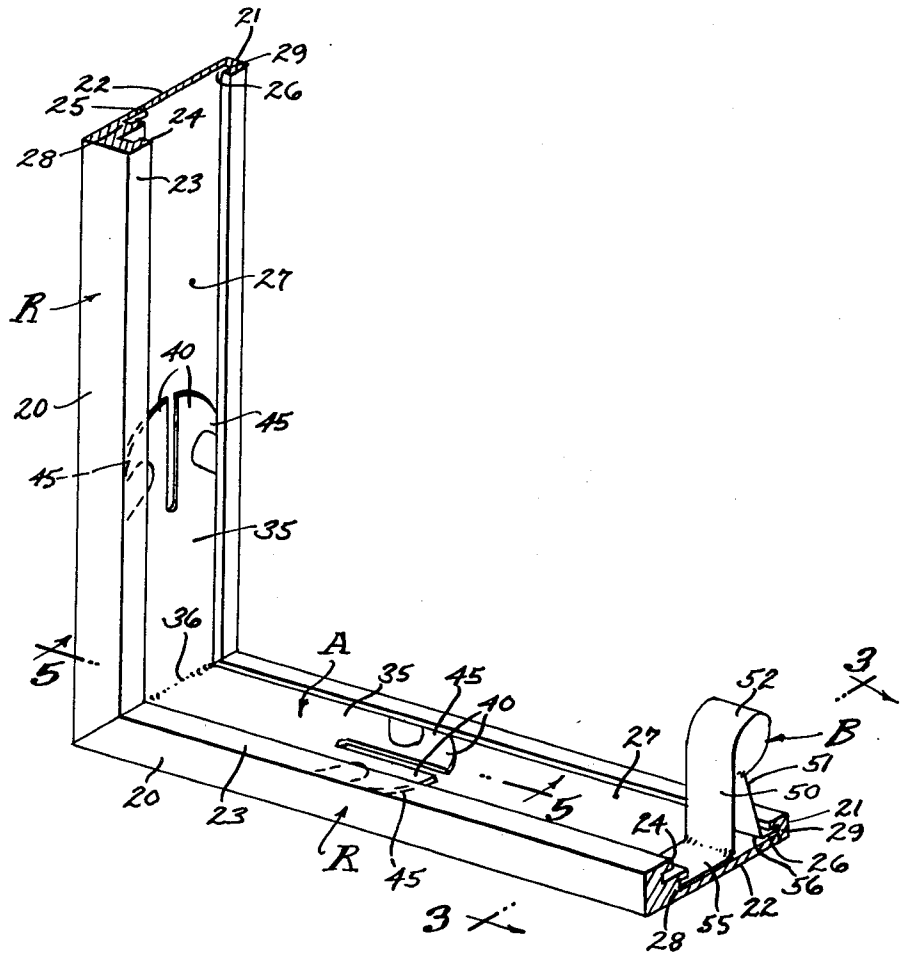


FIG. 1.

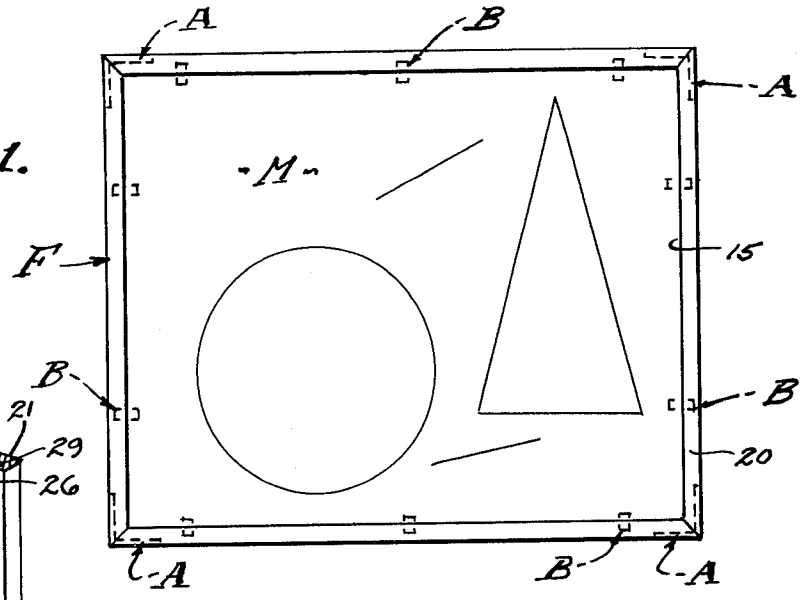


FIG. 2.

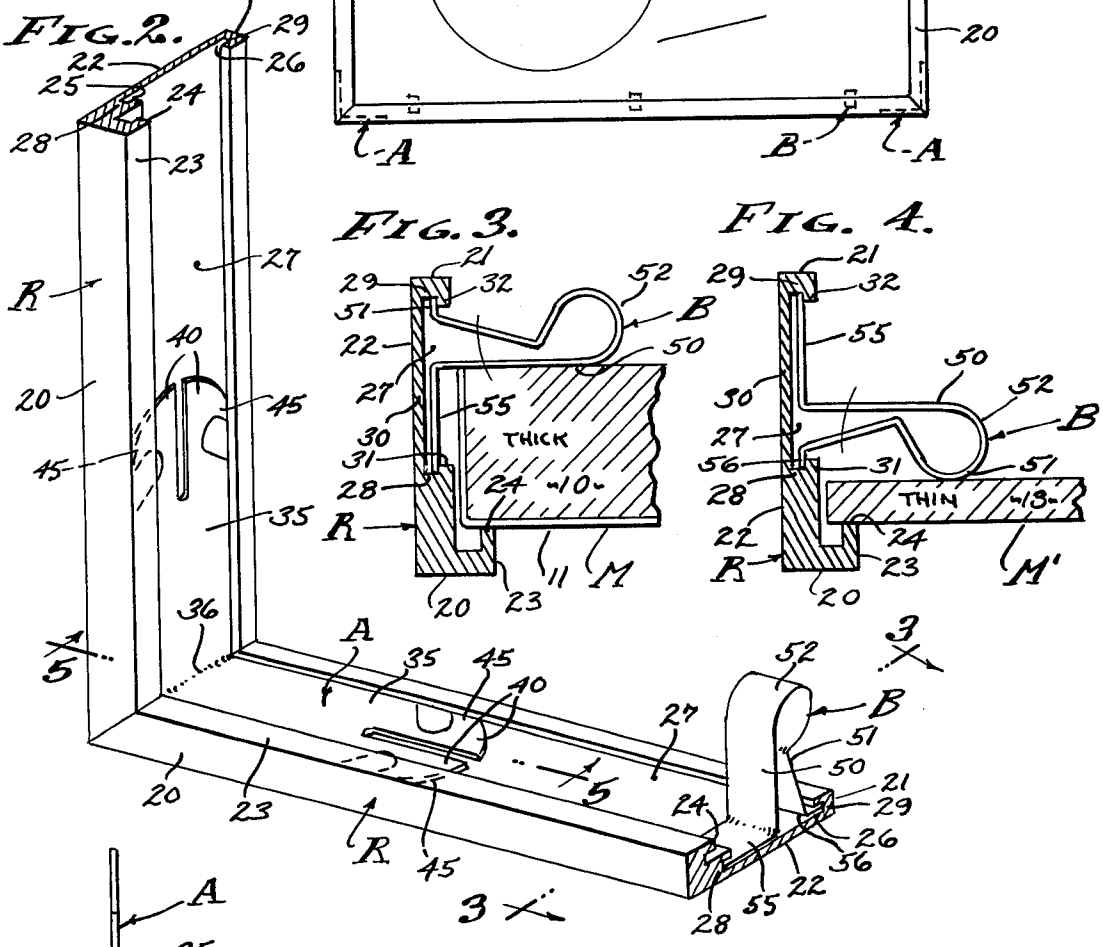


FIG. 3.

FIG. 4.

FIG. 5.

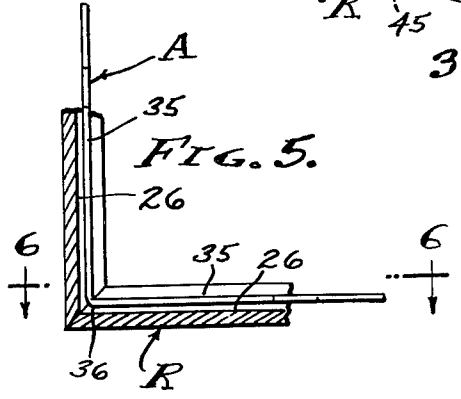
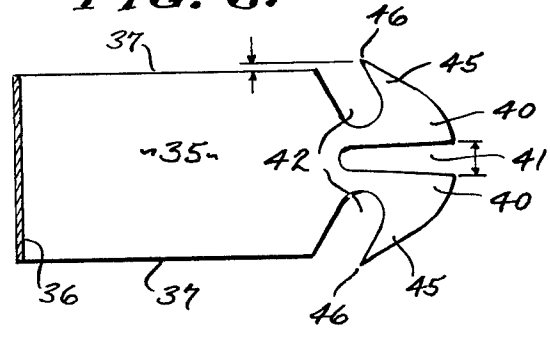


FIG. 6.



JOINT MEMBER AND RAIL WITH CLIPS FOR PICTURE FRAMING

BACKGROUND

Picture frames require the precise assembling of right angularly related members and the uniform reception therein of the picture mounting. Equipment is available for mitering the corners of the framing, and picture mountings are ordinarily held in place thereto by fasteners or blocking and the like. Extruded cross sections are commercially available and it is a general object of this invention to provide a picture frame rail, joint member and clip, all of which are cooperatively combined to produce a precision picture framing. The rail is advantageously formed as by extrusion of decorative materials, such as aluminum or brass. The joint member is unique in its cooperative engagement with the said rail to anchor right angularly related rail members in tight mitered engagement. And the clip is unique in its cooperative engagement with the said rail to receive and hold a picture mounting with uniform conformity to the framing that is established.

Heretofore, difficulty has been experienced in joining together the mitered corners of picture frames. Most often the picture frame is structurally weak, being made up of rails having minimized cross section, and consequently little material to fasten into. As a result, frames are likely to separate and/or come apart at the corners, and the fasteners are likely to loosen and/or split out. It is an object, therefore, to provide a rail and joint member combination which securely maintains a tight interengagement at each corner of a picture frame or the like. With the present invention, the rail member is of uniform continuing cross section advantageously formed as by the process of extrusion or the like. The rail is readily extended in the decorative cross section desired, and includes channels for the cooperative reception of the joint member and mounting clip.

The common use of nails and screws for the securement of mitered rail members has resulted in weaknesses and separation at the corners of picture frames, and it is an object of this invention to provide a joint member which obviates weakness at the abutment of mitered rails by forcefully inserting a reinforcement that anchors itself in optimum position to each of the rails respectively. With the present invention, the anchor means involves friction means that bite into the rails to positively lock therewith when in working position.

Picture mountings are ordinarily tacked into, taped, or in some like manner held within the picture frame, and it is another object of this invention to provide clips that are cooperative with rail features provided also to cooperate with the joint member hereinabove referred to, said clip functioning to secure a picture mounting in tight engagement within the frame. Further, it is an object to provide a versatile clip that accommodates both thick and thin picture mountings, reference being made to thick mountings such as canvas stretched onto wooden frames and the like, and to thin mountings such as paper mounted onto hard board and the like. In each instance, the thick and/or thin dimension is nominal and is adjusted to by the clip hereinafter described.

DRAWINGS

The various objects and features of this invention will be fully understood from the following detailed description of the typical preferred form and application thereof, throughout which description reference is made to the accompanying drawings, in which:

FIG. 1 illustrates a typical embodiment wherein a picture mounting is installed in the frame assembled of the elements hereinafter described.

FIG. 2 is an enlarged detailed perspective view of a fragment of the frame taken at one corner thereof.

FIG. 3 is an enlarged detailed sectional view taken as indicated by line 3—3 on FIG. 2.

FIG. 4 is a view similar to FIG. 3 showing an alternate use of the clip shown in FIG. 3.

FIG. 5 is a sectional view taken as indicated by line 5—5 on FIG. 2.

FIG. 6 is a view taken as indicated by line 6—6 on FIG. 5, showing the joint member which characterizes the reinforced mitered joint of the present invention.

PREFERRED EMBODIMENT

Referring to FIG. 1 of the drawings, a typical embodiment is shown of an assembled picture frame F and picture mounting M installed therein. The picture mounting M is nominally thick as shown by the detail of FIG. 3, and it involves a frame 10 of wood or the like wherein the rail members are of flattened rectangular cross section. The frame 10 is suitably joined at the four corners thereof and the canvas 11 on which the painting is executed is stretched over the frame and fastened at its margins. Alternately and as shown by the detail in FIG. 4, the picture mounting M' is nominally thin and it involves a panel 13 over or upon which the picture is applied, being of rectangular form with opposite parallel edge portions.

The rail member R as provided for coordination with both a joint member A and clip B and is best illustrated in FIG. 2 is comprised of an extruded section of material such as aluminum or the like. The assembled frame is to have substantial depth and accordingly the rail member R is of suitable depth between the front face 20 and back face 21, and between which the outside face 22 extends. The site opening 15 is defined by the inside face 23 that returns to rearwardly disposed face 24 adapted to be engaged by the front face of the picture mounting or a like associated face thereof. As shown, the rail member R is of a simple rectangular solid outer appearance, it being understood that the angularity, contour and complexity of configuration can vary as circumstances require. In the form illustrated the front and back walls 20 and 21 are parallel with each other and with the face 24, while the outside and inside faces 22 and 23 are also parallel with each other. It is a rail member of this general configuration which can be extruded in elongated form of unlimited length to be cut angularly at its opposite ends and abuted by mitered joinder.

The joint members A and clips B are each adapted to cooperate with and combine with the one cross sectional configuration of the rail member R and which is accordingly characterized by opposed channels 25 and 26 at the inside of said rail member R. In practice, there is a recess 27 between front and back walls 28 and 29 which form the bottoms of the two channels respectively, the recess opening inwardly and coextensively with member R to open at its cut and/or truncated mitered ends. In accordance with this invention, the channels 25 and 26 are spaced a distance substantially

greater than the thick nominal dimension of the picture mounting M and the front channel **25** is spaced rearwardly from face **24** a distance substantially greater than the thin nominal dimension of picture mounting M'. The channels are defined by the walls **28** and **29,** the recess wall **30** extending therebetween, and by opposed lips **31** and **32** disposed parallel with wall **30** respectively. The lips **31** and **32** are minimal.

In accordance with this invention, I have provided the joint member A which involves angularly related legs **35,** opposite arms **40** and anchor fingers **45.** In carrying out this invention, the rail members are made of a softer material, while the joint members A are made of relatively harder material such as spring steel or the like. Spring steel is available in strip or ribbon form easily fabricated by shearing and bending, and to this end the features **35, 40,** and **45** are established integrally as shown in FIGS. **2** and **6.** In the usual rectangular frames, other geometrical forms are not to be excluded, the two legs **35** are right angularly related and extend from each other at a corner bend **36,** the inner and outer faces of the material being substantially less than the channel spacing **25** and **26.** Each leg is divided at its extended end portion into a pair of arms **40** at opposite sides of its center line, formed as by means of a center slot **41** and opposite matches **42.** The anchor fingers **45** project laterally from each arm **40** and terminate at sharpened points **46,** faced rearwardly and set outward (see FIG. **6**) of the opposite edges **37** of the legs **35.** As shown, the anchor arms are acutely tapered in their divergent rearward projection as defined by the undercutting matches **42,** the outward set being established by deforming the arms **40** to spread them outwardly as indicated by the double headed arrow in FIG. **6.**

From the foregoing it will be seen that each leg is inserted into the opposed open ended channels **25** and **26** and adapted to be forcibly entered therein. The two legs and associated arms and fingers thereof, can be simultaneously inserted and entered into the mitered and correspondingly related rail members R, and the penetration of either leg into its complimentary rail member cannot exceed the optimum depth of penetration. The mitered termination of the channels **25** and **26** stops the angularly related leg in the optimum position, whereupon retraction is prevented by the sharpened fingers which dig or bite into the channel walls **28** and **29.**

In accordance with this invention, I have provided the clip B which is used in plurality as circumstances require. As shown, the clip B involves a strip or ribbon of spring material such as steel having opposite supports **50** and **51** for engagement with thick and thin picture mounts M and M', individually. The clip comprises a center spring member **52** that yieldingly spreads the supports **50** and **51,** the member **52** projecting inwardly for manual access behind the picture mountings, As shown, the support **50** has a tongue **55** engageable in channel **25** and with a right angle bend set inwardly from face **24** a distance to accommodate the thickness of picture mounting M, in which case the tongue of support **51** yieldingly engages in channel **26.** The support **51** has a tongue **56** engageable in channel **25** and with an enlarged loop forming the spring member **52** set inwardly from face **24** a distance to accommodate the thickness of picture mounting M' in which case the tongue of spring **50** yieldingly engages in channel **26.** Thus, the clip B is reversable to accommodate thick or thin picture mountings. Note that the supports **50** and **51** are separated so as to be manually depressed for installation and/or disengagement as indicated.

Having described my invention, I claim:

1. The combination of picture framing rails and a picture mounting clip therefor: said rail comprising, an elongated body of uniform cross section with a decorative front and outside contour, a rearwardly disposed face at the inside to engageably receive a picture mounting, and an inside recess rearward of said face, said recess being defined by spaced and opposed front and back channels; a picture mounting of nominal thickness to engage upon said rearwardly disposed face; and said mounting clip comprising a continuous strip of spring material yieldingly separating a pair of mounting means and each of a tongue releasably engageable in one of said front and back channels respectively, one mounting means being offset by its tongue to releasably engage a thick picture mounting and reversly the other mounting means being offset by its tongue to releasably engage a thin picture mounting thereby engaging with a thick or thin picture mounting to secure it to the said rearwardly disposed face.

2. The combination of angularly abuted mitered rails and cooperative joint member and picture mounting clip for picture framing: said rail comprising, an elongated body of uniform cross section with a decorative front and outside contour, a rearwardly disposed face at the inside to engageably receive a picture mounting, and an inside recess rearward of said face, said recess being defined by space and opposed front and back channels; said joint member comprising, a flat and continuous reinforcement body with angularly related legs entered into the inside recess of the abuted rails respectively, opposite marginal edges of said legs being slideably engaged in the opposed front and back channels and lock means comprised of a pair of sharpened fingers set apart to forcibly enter the front and back channels of and to bite into the rail body thereby securing the legs in said recesses respectively; a picture mounting of nominal thickness to engage upon said rearwardly disposed face; and said mounting clip comprising a spring member yieldingly separating a pair of mounting means and each with a tongue releasably engageable in one of said front and back channels respectively, said foremost mounting means being engageable with the picture mounting to secure it to the said rearwardly disposed face.

3. The mitered rail and joint member and clip as set forth in claim **2** wherein the mounting clip is made of a continuous strip of spring material with one mounting means thereof offset by its tongue to releasably engage a thick picture mounting, and reversly with the other mounting means thereof offset by its tongue to releasably engage a thin picture mounting.

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