

[54] DETACHABLE SUPPORT DEVICE FOR
PEGBOARDS

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248/DIG. 3
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[56] References Cited

UNITED STATES PATENTS

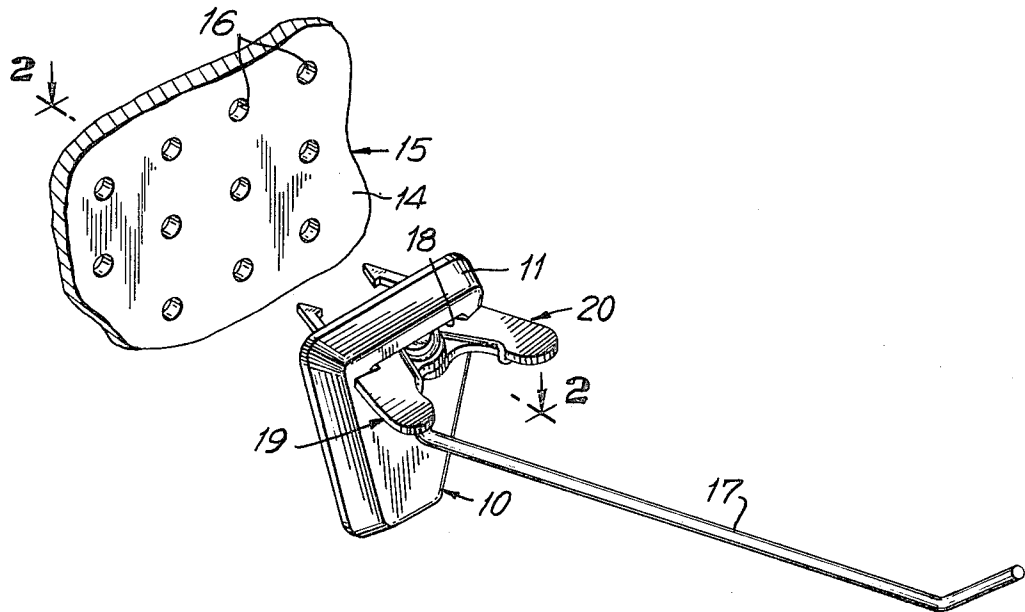
2,166,533	7/1939	Oettel	248/226 C
3,301,161	4/1962	Hawie	248/DIG. 3
3,200,960	8/1965	Banse	248/223 X
3,409,260	11/1968	Bleed	248/225 X

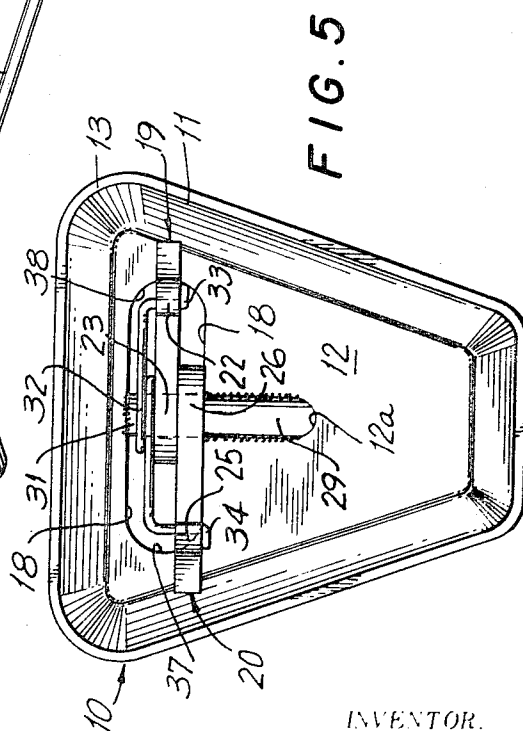
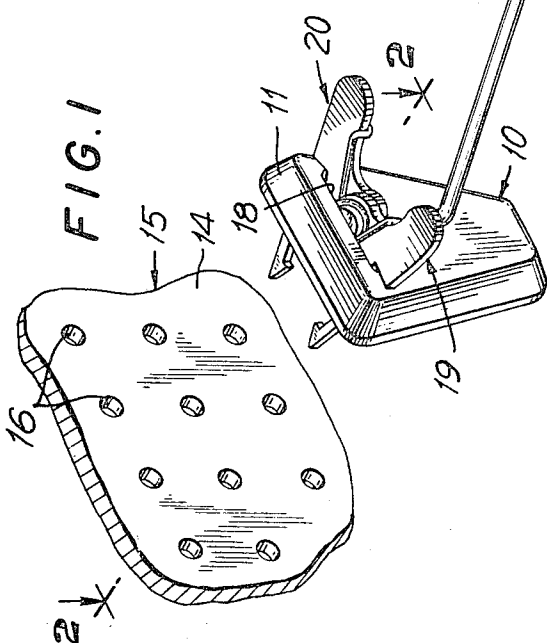
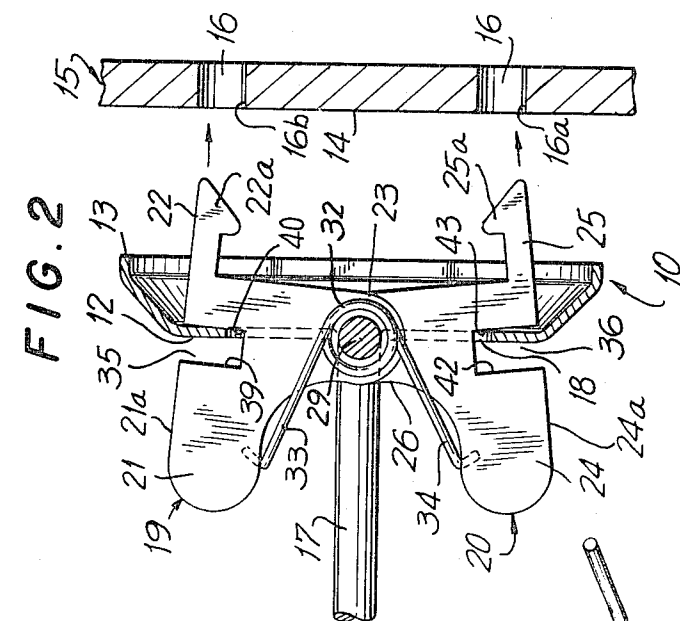
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[57] ABSTRACT

A support device for detachable connection to two adjacent holes in a pegboard or other perforated panel. A hollow casing of dished-in configuration has extending from the front wall thereof a support rod the rear end of which extends through said front wall and is bent upwardly. Two laterally opposite clamping members with overlapping wings extend through an upper horizontally disposed slotted portion in the casing and are pivotally mounted over said upwardly bent rod, said members having front arms adapted for manual grasping, and rear arms with hooked portions adapted for insertion through two adjacent holes in the pegboard and for holding engagement with the rear surface of the pegboard. The respective clamping members have notched portions the respective opposite sides of each of which straddle the adjacent sides of said slotted portion and are engageable therewith to limit the pivotal movement of said clamping members between two limiting positions. At one of said positions the said hooked portions are spaced apart a predetermined distance, which is equal to the spacing between two adjacent holes in the pegboard, the other of said positions determining the holding positions of the said hooked arms. Spring means are provided to normally yieldably urge said hooked members into their operative holding positions.

9 Claims, 5 Drawing Figures





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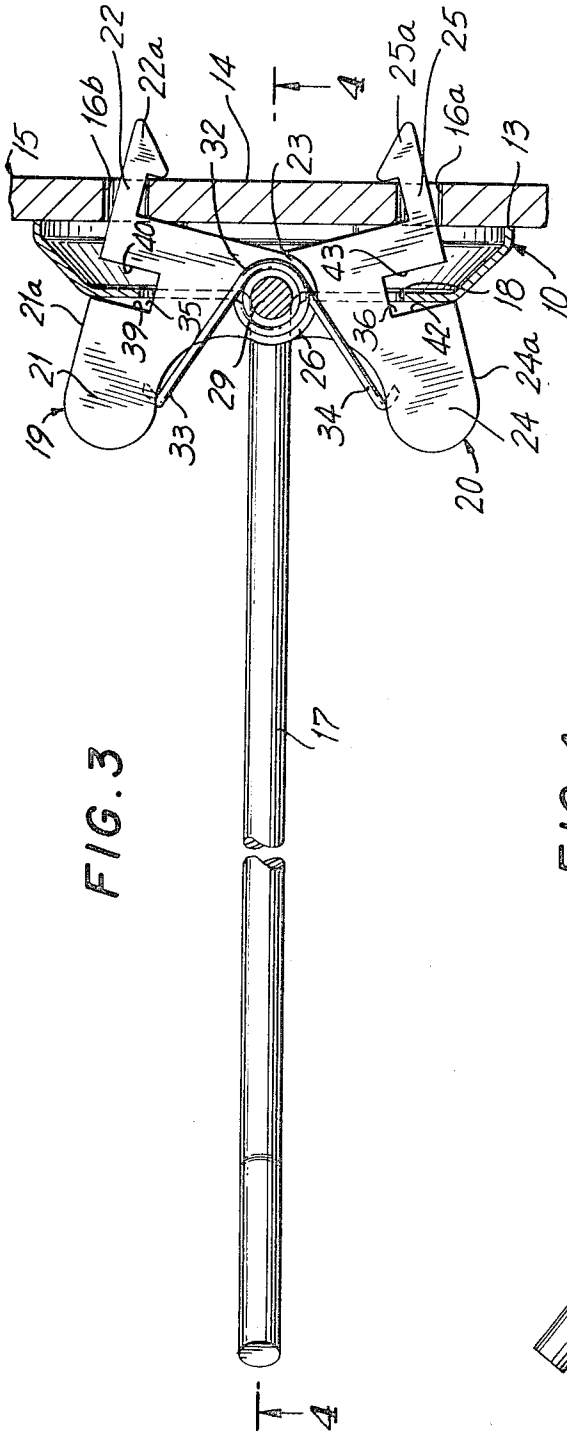


FIG. 3

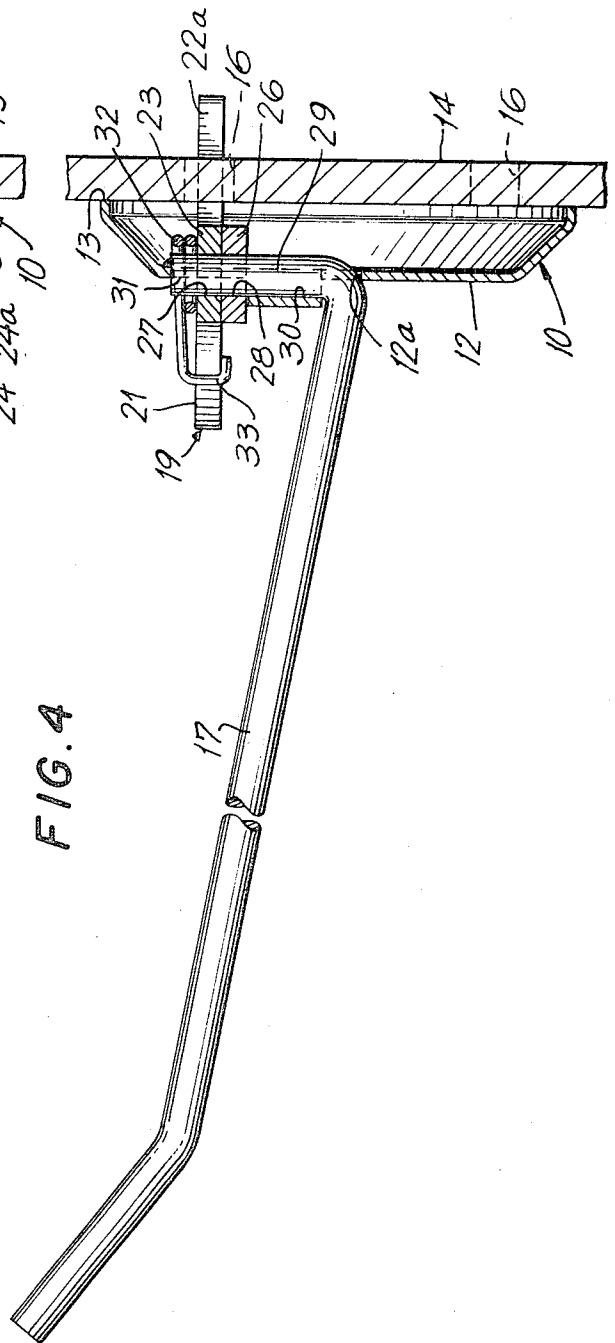


FIG. 4

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DETACHABLE SUPPORT DEVICE FOR PEGBOARDS

BACKGROUND OF THE INVENTION

1. The Field of the Invention

This invention relates to detachable support devices, and is particularly directed to devices for supporting display articles and shelves and which are adapted for detachable connection to perforated panels such as pegboards.

2. The Known Art

The most commonly used pegboard supports of the above-mentioned category comprise single rods the forward portions of which are adapted to support an article, the rear portions being bent for insertion through and positioning behind a pegboard aperture. These devices have the disadvantages of not being rigidly secured in place, not providing a firm support, and of being subject to inadvertent detachment. The known two-hole pegboard attachments, that is, those having means for connection to two adjacent apertured portions of the panel, are relatively complex and costly and have certain shortcomings which do not render them suitable for display pegboard uses. Among the latter category of pegboard supports are those which comprise a number of separate components that must be assembled before each use, those which require careful manual manipulation and spacing adjustment for properly engaging the spaced apertured portions thereby entailing loss of time and frequently resulting in the mutilation of the pegboard in the region of the holes, and those that require considerable effort and manual dexterity for their removal from the panel.

OBJECTS OF THE INVENTION

It is the objective of this invention to provide a pegboard support of the above-mentioned category having none of the aforesaid shortcomings. Specifically, among the objects of this invention are the provision of means that will readily enable the device to be attached to two adjacent pegboard apertures with a minimum of manipulation, that will enable the device to be readily detached from the panel with little effort, that will securely maintain its position on the pegboard without displacement, that is of unitary construction requiring no assembling of components, and that can be readily fabricated at a relatively low cost.

Other objects, features and advantages will appear from the drawings and the description hereafter given.

SUMMARY OF THE INVENTION

In the preferred form of this invention a support rod is firmly attached to the front plate of a dished-in casing defined peripheral wall the rear peripheral edge of which is adapted for engagement with the front surface of a pegboard panel, the forward portion of said rod being adapted to support an article in known manner. The said front plate of the casing contains at the upper portion through a horizontally disposed slot through which extend two pivotally mounted clamping members, said members having respective laterally opposite front arms and rear arms, the front arms being adapted for manual grasping and the rear arms being adapted for insertion through two adjacent holes of the pegboard, the rearmost terminals of said rear arms being hooked for holding engagement with the rear surface of said pegboard. Said clamping members contain two inwardly extending overlapping wings with congruent holes through which extends a pivot pin. In the preferred embodiment illustrated, the said pivot pin is a rear upwardly bent continuation of the support rod affixed to the rear surface of the front plate of the casing. A spring is mounted over said pivot pin and is coactively connected to both of said front arms to yieldably urge them outwardly in opposite directions so that the rear hooked portions are urged inwardly towards each other into closer positions and normally yieldably maintained in their operative holding positions.

The said clamping members contain at their laterally opposite outer edges respective notched portions, interengaged with the respective adjacent laterally opposite margins of said

horizontal slot in said plate. The said two notched portions each has a pair of opposite sides adapted alternately to engage the said margins at the operative projected and retracted positions of the clamping members, the arrangement being such that the said notched portions constitute limiting means for the said respective projected and retracted portions. The clamping members are so proportioned and positioned that in one of said limiting positions the rear hooked portions of the rear arms are spaced to correspond with the spacing between two adjacent apertures of the panel, and in other of said limiting positions the said hooked portions are in their operative holding positions in engagement with the rear surface of the panel. Thus by a squeezing manipulation of both of the front arms the device is in position for insertion into or removal from the pegboard; and upon a release of said front arms the inserted hooked portions are yieldably urged into their projected holding positions.

DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of the detachable support device for pegboards according to this invention, a fragment of a pegboard being shown in spaced relation thereto.

FIG. 2 is a section of FIG. 1 taken substantially along line 2—2, the clamping members being shown in retracted position ready for operative attachment to the pegboard.

FIG. 3 is a view substantially like FIG. 2, but showing the device operatively attached to the pegboard with the clamping members in their operative projected positions.

FIG. 4 is a section of FIG. 3 taken along line 4—4.

FIG. 5 is a rear view of the support device.

DESCRIPTION OF PREFERRED EMBODIMENT

In the illustrated embodiment of this invention the casing 10 is of dished-in configuration being defined by the peripheral wall 11 surrounding the front plate 12, the rear of the casing 10 being open. The rearmost edge 13 of said peripheral wall is in one plane, whereby it is adapted for engagement with the front surface 14 of the perforated panel or pegboard 15, said pegboard being of conventional construction and having therein a plurality of equally spaced holes 16. Attached to and extending forwardly from the said front wall 12 of the casing is the support rod 17 for supporting a display article in known manner.

The plate 12 contains near the top thereof the horizontally disposed slotted portion 18 through which extend the two pivotally mounted clamping members 19 and 20. Said clamping member 19 comprises the front arm 21, the rear arm 22 and the inwardly extending wing 23; and the said member 20 comprises the front arm 24, the rear arm 25 and the inwardly extending wing 26. The said wings are in overlapping engagement and have therein the respective holes 27 and 28 which are in congruent relation. Extending upwardly through said two holes 27 and 28 is the pivot pin 29, the arrangement being such that the said clamping members 19 and 20 are pivotally mounted over said pin. In the preferred form illustrated said support 17 extends rearwardly through the hole 12a in plate 12, the rearmost portion being bent upwardly at right angles thereby constituting the said pivot pin 29. The particular construction shown in the drawings indicates a forwardly grooved portion 30 in plate 12 accommodating at least a portion of said pivot pin 29, the latter being welded or otherwise affixed to the rear of said plate 12.

Mounted above said clamping members 19 and 20 and in engagement with the uppermost terminal portion 31 of said pivot pin 29 is the spring 32, said spring having forwardly and outwardly extending arms 33 and 34 in engagement with said respective front arms 21 and 24 to urge them outwardly into the operative projected positions. The said rear arms 22 and 25 of said clamping members contain the respective hook elements 22a and 25a, these being adapted to engage the rear surface 28 of said pegboard 15 when said forward arms 21 and 24 are in their said projected positions at which they are yieldably maintained by the said spring 32.

The said front arm 21 contains the notched portion 35 and the said front arm 24 contains the notched portion 36, each of said notched portions extending inwardly from the respective outer edges 21a and 24a of said respective front arms. Said notched portions 35 and 36 are interengaged with the respective laterally opposite margins 37 and 38 of the said slotted portion 18, so that the pair of sides forming each of said respective notches are positioned for alternate engagement with the said adjacent margins 37 and 38 of the slot 18. More specifically, the pair of sides 39 and 40 of notch 35 straddle and are engageable with the margin 37 of the said slotted portion 18, and the pair of sides 42 and 43 of the notch 36 straddle and are engageable with the margin 38 of said slotted portion 18.

The said respective sides 40 and 43 of the respective notches 35 and 36 are so positioned with respect to the plate 12 that they will engage the respective marginal portions 37 and 38 when the said hooked portions 22a and 25a are spaced apart a distance corresponding substantially to the distance between adjacent pegboard apertures 16; and the sides 39 and 42 are so positioned with respect to said plate 12 that they are in engagement with the said respective portions 37 and 38 when said hooked portions 22a and 25a are closer together, that is, in their projected holding positions at which said hooked portions are in engagement with the rear surface 28 of the pegboard 15.

In the operative use of this device, prior to its operative attachment to the pegboard 15 the said arms 21 and 24 are manually pressed inwardly towards each other until the said sides 40 and 43 are brought into engagement with the said marginal portions 37 and 38 of the slotted plate 12. The clamping members 19 and 20 are now at their retracted positions, one of their two limiting positions. In this position the rear arms 22 and 25 can readily be inserted through the two adjacent holes 16a and 16b, (see FIG. 2), the said rear arms being proportioned for longitudinal movement through said holes and the distance between said hooked portions 22a and 25a being now substantially equal to the distance between the holes 16a and 16b. After the rear arms 22 and 25 are operatively in place, the front arms 21 and 24 are released, whereby the arms 33 and 34 of the spring 32 yieldably urge said arms outwardly, the consequent pivotal action of said clamping members 19 and 20 urging said rear arms 22 and 25 into their projected holding positions (see FIG. 3).

The hooked portions 22a and 25a are so positioned with respect to the said peripheral edge 13 of the casing 10 that when said hooked portions are in operative engagement with the rear surface 28 of the pegboard 15 the said peripheral edge 13 will be in flat engagement with the front surface of the pegboard 15. In this position the entire device is firmly maintained in place, without any possibility of displacement from its rigid holding position.

It is especially noteworthy that inasmuch as said notched portions 35 and 36 determine the proper predetermined limiting positions of the hooked portions 22a and 25a, the above-described manual manipulation of said forward arms 21 and 24 enable the entire device to be quickly and accurately secured in place without any danger of mutilating the portions of the panel adjacent to the holes, and also enables the entire device to be quickly removed with a minimum of effort.

In the above description, the invention has been disclosed merely by way of example and in preferred manner; but obviously many variations and modifications may be made therein. It is to be understood, therefore, that the invention is not limited to any particular form or manner of practicing same.

I claim:

1. A support device for detachable connection to two adjacent apertured portions of a perforated panel, comprising a bracket with a front plate, a support rod attached to and extending forwardly from said plate, a slotted portion in said plate, two pivotally mounted clamping members extending through said slotted portion, each of said members having a front arm positioned forwardly of said plate and a rear arm with a hooked portion positioned rearwardly of said plate and

proportioned for longitudinal movement through said panel's apertured portions, said clamping members being pivotally movable between two limiting positions, one of said positions being a retracted position at which said hooked portions are spaced apart substantially the distance between said panel's two apertured portions, the other of said positions being a projected position at which said hooked portions are at predetermined closer positions, whereby when said rear arms are operatively extending through said apertured portions and said respective clamping members are at said projected positions said hooked portions will be behind and engageable with the rear surface of said panel, means on said clamping members to limit their operative movements between said limiting positions, and yieldable means holding said clamping members in said projected positions.

2. A support device according to claim 1, said bracket being of dished-in configuration in the form of a casing having at the front thereof said plate and a peripheral wall surrounding said plate, the rear peripheral edge of said peripheral wall being in one plane, whereby it is adapted for engagement with the front surface of said panel when the device is in operative position on said panel.

3. A support device according to claim 2, the distance between said hooked portions and said peripheral edge being substantially equal to the thickness of said panel.

4. A support device according to claim 1, said limiting means comprising notched portions on the respective outer edges of said clamping members interengaged with the adjacent lateral margins of said slotted portion of said plate, each of said notched portions having a pair of opposite sides straddling the adjacent lateral margin of said slotted portion, one of the said sides of each pair being engageable with the adjacent lateral margin of said slotted portion when the corresponding clamping member is in one of its said limiting positions, and the other of said sides of each pair being engageable with the adjacent lateral margin of said slotted portion when the corresponding clamping member is in the other of its said limiting positions.

5. A support device according to claim 1, said support rod extending through said plate and being bent substantially at right angles at the rear of said plate, said bent portion constituting a pivot pin, said clamping members being pivotally mounted on said pivot pin.

6. A support device according to claim 5, said clamping members having inwardly extending overlapping wings with congruent holes therein, said pivot pin extending through said holes.

7. A support device according to claim 6, said yieldable means comprising a spring having a looped portion in engagement with said pivot pin and two arms in operative engagement with said respective clamping members.

8. A support device according to claim 2, said support rod extending through said plate and being bent substantially at right angles at the rear of said plate, said bent portion constituting a pivot pin, said clamping members being pivotally mounted on said pivot pin, said plate having a forwardly grooved portion, said pivot pin being disposed at least partly within said grooved portion and being fixedly secured to said plate.

9. A support device according to claim 2, said support rod extending through said plate and being bent substantially at right angles at the rear of said plate, said bent portion constituting a pivot pin, said clamping members being pivotally mounted on said pivot pin, said limiting means comprising notched portions on the respective outer edges of said clamping members interengaged with the adjacent lateral margins of said slotted portion of said plate, each of said notched portions having a pair of opposite sides straddling the adjacent lateral margin of said slotted portion, one of the said sides of each pair being engageable with the adjacent lateral margin of said slotted portion when the corresponding clamping member is in one of its said limited positions, and the other of said sides of each pair being engageable with the adjacent lateral margin

of said slotted portion when the corresponding clamping member is in the other of its said limiting positions.

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