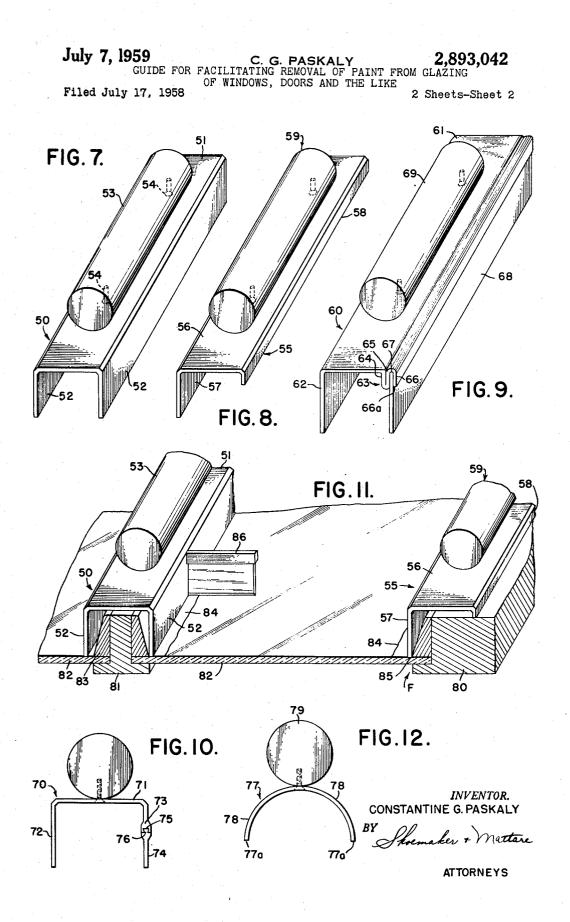


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GUIDE FOR FACILITATING REMOVAL OF PAINT FROM GLAZING OF WINDOWS, DOORS AND 5 THE LIKE

Constantine G. Paskaly, Lincoln Park, Pa. Application July 17, 1958, Serial No. 749,149 7 Claims. (Cl. 15--257)

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This invention relates to the art of painting windows, doors and like glazed structures.

In painting the outside of glazed structures, such as windows, doors and the like, it is considered important 15 to apply the paint so that a portion of it will extend onto the glass surface to form a weather seal between the same and the adjacent surrounding portion of the frame.

Some windows and doors of wood construction have the glass panes held, and sealed in around their edges, 20 by putty or a sealing compound. Other such structures, if of wood, have border strips of wood set in the frame around and covering an edge bordering portion of the glass pane. In the case of metal frames, strips of sealing compound border the glass as in the wood frames.

These covering and sealing strips are always on the outside of the structure and are therefore exposed to the elements and in painting the structures the paint is, of course, applied over these strips.

Obviously, unless the edges of the sealing strips where 30 they join the glass surface, are properly covered or protected, water will penetrate between the glass and strips to the inside of the structure, resulting in eventual destruction of the frame.

To avoid the development of the foregoing condition, 35 it is the general practice when painting the glazed structures on the outside, to carry the paint beyond the edges of the strips onto the glass surface so as to cover and seal the joint and then, after the paint has dried, to scrape away excess paint close to but spaced from the edge of 40 the strips. This operation is tedious; it does not result in a neat appearing job, and more importantly it usually results in cutting or scraping into the putty or wood strip so that the desired seal is broken and the job has to be done over or, if left, a place is left by which water can 45get in.

In view of the foregoing, it is an object of the present invention to provide a new and novel device by which the difficulties attendant upon following the procedure 50 now in vogue are entirely overcome. That is, the tediousness of the present procedure is avoided and, more importantly, there results a neat clean job without breaks in the seal where moisture can get through.

Another object of the invention is to provide, in a manner as hereinafter set forth, a guide device formed in a novel manner whereby a portion of the paint layer on the glass may have a narrow band portion covered adjacent to the seal strip and parallel therewith, while a scraper blade is run along the guide on the side thereof away from the seal strip to remove any paint not covered 60by the guide.

A still further object of the invention is to provide a guide device of a form to straddle and extend along a substantial portion of the length of a mullion strip separating two panes and adapted for selectively cover-65ing the paint on the panes along the adjacent sealing strips to facilitate removal of the undesired portion of the paint in the manner stated.

A still further object is to provide a guide device embodying two long parallel legs of different height, adapted 70 the device having equal length legs and in which the body for use along the side of a pane which is joined to a side, top or bottom rail of a window or door frame, whereby

the taller leg while resting on the painted surface of the pane will be supported in proper working position by the shorter leg resting upon the face of the adjacent frame rail.

A still further object of the invention is to provide, in a manner hereinafter set forth, a novel guide device adapted for use in the manner above described, which is constructed in two parts to be used together to provide a form in which the two long parallel legs are of equal height or, when the parts are separated, to provide for the use of one part in the second described form wherein the legs are one shorter than the other.

Still another object of the invention is to provide, in a manner as hereinafter set forth, a novel guide device for use in the manner stated, wherein the device comprises three interchangeable parts which may be combined or put together to give equal length legs or legs of unequal length and whereby the height of one leg may be varied for use on glazed structures of different dimensions.

The invention will be best understood from the following detailed description taken in connection with the accompanying drawings forming part of the specification, with the understanding, however, that the invention is not confined to a strict conformity with the showing of the drawings but may be changed or modified so long as such changes or modifications mark no material departure from the salient features of the invention as expressed in the appended claims.

In the drawings:

Fig. 1 is a view in perspective of the preferred form of the invention showing the adjustable leg plate fully extended to form a long leg and with the reversible plate set to provide a short leg and illustrating the means by which the height of the long leg may be varied;

Fig. 2 is an end elevational view of the structure of Fig. 1 showing the head unit and reversible plate associated to provide two short legs of the same height;

Fig. 3 is an end elevational view of the device illustrating the adjustable leg plate attached to the head and set to provide the long leg;

Fig. 4 is an end elevational view of the device showing the reversible plate attached to the head in reversed position from that shown in Fig. 2 and showing the adjustable leg plate attached to the head for cooperation with the reversible plate to provide the device with two long legs of equal height;

Fig. 5 is a perspective view of the reversible leg plate; Fig. 6 is a perspective view of the head unit to which the handle is attached;

Fig. 7 is a view in perspective of a simplified form of the invention in which the legs are of equal height:

Fig. 8 is a perspective view of the simplified form of 55 the invention in which the legs are of unequal height;

Fig. 9 is a perspective view of a two-part form embodying a removable leg plate whereby the device when assembled will have legs of equal height or when disassembled will provide legs of unequal height;

Fig. 10 illustrates another manner in which the detachable leg plate may be joined to the short leg to provide a complete leg of the same height or vertical extent as the integral long leg;

Fig. 11 is a partial or fragmentary perspective view exemplifying, by the illustration of the simplified forms, the use of all of the different forms of the invention on a window frame structure and in association with a mullion and a side rail of the frame;

Fig. 12 illustrates diagrammatically another form of of the device is arcuate in cross section.

Referring now more particularly to the drawings, it

will be seen that the device embodying the present invention may be made in several different forms or embodiments and that in all of the forms illustrated the device is of substantial length and of substantially U-shaped cross sectional form.

Figs. 1 to 6 inclusive illustrate the preferred form of the invention while the forms of the remaining figures are of simpler design.

The preferred form of the invention illustrated in the first six figures referred to, is designed so that it may be 10 changed, as desired, from a construction for use over and in connection with the mullions separating the panes in a glazed structure to a construction for use where the glazing joins an outer rail of a window or door frame.

In the illustrations of the preferred construction, the 15 complete device having the several components thereof assembled for use as illustrated in Fig. 1, is generally designated 10, and comprises a head member generally designated 12, a reversible member which is generally designated 14, and an adjustable member which is generally designated 16. These different members may be assembled or put together in different arrangements to adapt the device to different uses and the several arrangements for the different uses will be hereinafter described after the description of the construction of the individual 25 components.

The head member 12 comprises an elongate plate 18 of substantial width having a portion of one longitudinal edge turned to form the right angled flange 20. On the longitudinal center of the plate 18 there are 30 formed a series of apertures, here shown as four in number, and the two middle apertures are designated 21 while the outer or end apertures are designated 22. Spaced from the end apertures 22 outwardly or transversely of the plate 18 and adjacent to the free edge of the plate 35 are apertures 23, the use of which will be hereinafter described.

The head member has secured to the top or outer side thereof a handle body 24. This handle is here illustrated as being in the form of a cylindrical member of ma- 40 terially less length than the head member and it is disposed longitudinally of the top of the plate 18 over the apertures 21 to receive securing elements in the form of screws 25 or the like passed through the apertures and into the handle as illustrated.

The handle is, as stated, shown to be of circular or cylindrical form as this is considered the preferred shape to facilitate handling the device, but it is to be understood that the invention is not limited to a handle of this specific design but that any type of handle form suit-30 able for the purpose may be employed.

The flange 20 of the head member is provided with an aperture 26 substantially midway between its ends and fixed to the inner side of the flange 20, as by brazing or in any other suitable manner, is a threaded nut 27 the aperture of which is aligned with the aperture 26 for the reception of a securing or set screw hereinafter described.

Adjacent to each of its ends the flange 20 is provided with an outwardly projecting button 28 which may be formed by punching the material from the inner side of the flange so as to force the material outwardly to a desired extent and these buttons cooperate together with the hereinbefore referred to set screw for securing against the outer side of flange 20 the adjustable member 16, in the manner to be described. bolt illustrated. This arrangement adapts the device to use with a mullion strip of small size or minimum height, as will be described hereinafter in connection with the exemplary illustration of the invention in its different forms in Fig. 11. Where a mullion strip of substantial height is encountered, the elements may be assembled in the manner shown in Fig. 4. Here, as shown, the reversible member

The reversible member 14 is of similar design or form to the head member 18 in that it comprises a long plate 29 of slightly less width than the plate 18 but of substantially the same length, and, along one longitudinal 70 edge, a downturned or right angularly extending flange portion 30, which is of a height slightly less than the height of the flange 20.

The plate 29 of the reversible member has formed edge of the plate 35 flush with the top of the plate 18 therein adjacent to each end and substantially on its longi- 75 and in this position the buttons 28 will be engaged in

tudinal center, the two apertures 31. These apertures are so located that when the plate 29 is placed with its top side against the underside of the plate 18, the apertures 31 will align with the apertures 22 for the reception of a wing nut bolt 32 extended upwardly from the under-

side of the plate 29 to receive the wing nut 33 whereby to secure the two members in working relation. The flange 30 has adjacent to each end an aperture

34 and these apertures are properly spaced with respect to the free longitudinal edge of the flange so that when the outer face of the flange 30 is placed against the under face of the head plate 18, the apertures may be aligned with the apertures 23 of the head plate 18 and the wing nut bolt 32 is then used to secure the members together by being passed through these aligned apertures, as will be readily obvious.

The adjustable member 16 is in the form of a flat plate body 35, the length of which is the same as the length of the members 12 and 14 and the width of which is preferably the same as the width of the head plate 18. This adjustable member, which functions in the use of the device as a supporting leg, is designed to be placed for use longitudinally of and against the outer side of the flange 20 of the head member and to facilitate maintaining it in operative position against this flange there is provided the long slot 36 in the plate body 35, transversely thereof and midway between its ends for alignment with the aperture 26 and the fixed nut 27 secured to the inner side of the flange 20.

For extension through the slot 36 and threaded engagement in the nut 27 there is provided the set screw 37, the threaded shank of which is designated 38 while the head 39 of the screw is of substantial width so as to span the slot 36 and act as a guide whereby when the set screw is loosened in the nut 27 the plate 35 can be shifted across the width of the flange 20 to different set positions.

In addition to the slot 36 the plate 35 has formed therethrough adjacent to each end and transversely thereof a row of apertures 40. These apertures are positioned so as to selectively receive the out-pressed buttons 28 of the flange 20 when the plate 35 is moved for adjustment on and across the flange 20.

The members 14 and 16 are adjustable on the head 12 with respect thereto and with respect to one another whereby to provide three different arrangements or forms of the guide device for use in different locations on a glazed window or door structure and to accommodate the device to door and window constructions of different sizes.

Fig. 2 illustrates the use of the reversible member 14 alone with the head member 12, whereby the device is given two short parallel leg members along opposite sides thereof and formed by the flanges 20 and 30. Here, as will be readily apparent, the plate portion 29 of the reversible member is disposed full width against the underside or full width of the plate 18 and is secured to the plate 13 of the head member by the wing nut and bolt illustrated. This arrangement adapts the device to use with a mullion strip of small size or minimum height, as will be described hereinafter in connection with the exemplary illustration of the invention in its different forms in Fig. 11.

Where a mullion strip of substantial height is encountered, the elements may be assembled in the manner shown in Fig. 4. Here, as shown, the reversible member is shifted to position the flange 30 thereof against the under side of the head member plate 18 to be secured by means of the wing nut and bolt, as hereinbefore described, so that the width of the plate 29 extends perpendicular to the head member plate 18.

The plate 35 is then placed against the outer side of the flange 20 of the head member with a longitudinal edge of the plate 35 flush with the top of the plate 18 and in this position the buttons 28 will be engaged in the uppermost ones of the apertures 40 of the two rows thereof and the set screw 37 will also be located in the top end of the slot 36 and will firmly secure the plate 35 to the head member. The dimensions of the two plates 29 and 35 are such that when they are secured to the head member in the manner shown in Fig. 4, the bottom edge 35a of the plate 35 will be in the same plane across the width of the device as the bottom edge 29aof the plate 29. Thus the two plates will provide supporting legs of equal height for straddling the device 10 across the mullion strip.

In the use of the device on glazed structures wherein the mullion strips to be straddled may be small or of low height, the arrangement of the parts shown in Fig. 2 will be used. Here the adjustable plate member 35 is 15 completely removed and the reversible member is secured by the wing nut and bolt with the plate portion 29 secured against the under side of the plate 18 of the head member. In this position the free longitudinal edges of the two flanges 20 and 30 will lie in a common plane 20 transversely of the device, as illustrated in Fig. 2.

In the use of the preferred form of the device at the outer side of a window or door frame where the glass joins the top or side rail hereinafter particularly identified in reference to Fig. 11, the flange 30 of the reversible 25 member will provide a short leg as shown in Fig. 3 and the plate 35 attached to the flange 20 of the head member plate 18 will provide a long leg in which the bottom longitudinal edge will rest upon the glass and the flange 30 will rest upon the window or door top or side rail. 30

By the provision of the series of apertures 40 in the plate 35 the working height of the plate or the leg which this plate provides, can be changed or altered within certain limits, as will be readily apparent, by loosening the set screw 37 and shifting the plate vertically across 35 the flange 20 to engage the buttons 28 in selected ones of the apertures 40.

Figs. 7 and 8 illustrate in two separate units simplified embodiments of the invention wherein one unit such as that shown in Fig. 7, provides mullion straddling 40 supporting legs of fixed length while the unit shown in Fig. 8 provides in a unitary structure the device with legs of different lengths for use on the window or door frame side or top rails.

In the non-alterable simplified construction of Fig. 7, 45 the device comprises a channel shaped body of substantially U-shaped cross section and of substantial length, which is generally designated 50, which comprises the flat top or back plate 51 and the longitudinal edge flanges 52 which are of the same height from the free edges to 50the back portion 51. The top plate has secured thereto in a suitable manner a means for conveniently grasping and holding the device in operative position such as the elongate handle 53, of less length than the plate 51 and preferably of cylindrical cross section. This is se-55 cured to the plate 51 by screws 54 or any other desired attaching means.

In the unitary form of the simplified structure shown in Fig. 8, designed for use at the frame rail side of the glass pane and generally designated 55, there is also a top plate 60 designated 56, corresponding to the plate 51, and corresponding also to the plate 18 of the head member 12. One longitudinal edge of this plate is defined by the flange 57 which forms the long leg of the device while the opposite longitudinal edge of the plate 56 is defined by a 65 narrow flange 58 which is of less height than the flange 57 and forms the short leg which is intended to rest on the side rail of the glazed structure while the free longitudinal edge of the flange 57 forming the longer leg, rests upon the glass pane. 70

The numeral 59 generally designates the handle for the unit 55 which, of course, is preferably of the form shown in Fig. 7 and is secured to and longitudinally of the top plate 56.

vention intermediate between the preferred multicomponent construction illustrated in Figs. 1 to 6, and the simplified single unit constructions of Figs. 7 and 8.

The embodiment of the invention illustrated in Fig. 9 is such that it can be converted from a form corresponding to the form shown in Fig. 7, to a long and short leg form corresponding to that shown in Fig. 8. Here, in this two-part embodiment of the invention which is generally designated 60, and which is substantially U-shaped in cross section, there is embodied the long flat top plate 61 defined on one longitudinal edge by the integral flange 62 which, in use, provides the long supporting leg. At the opposite longitudinal edge the top plate 61 has a portion folded upon itself in such a way as to provide a short supporting leg corresponding to the leg 58 of the structure shown in Fig. 8 and corresponding to the leg provided by the flange 30 of the plate 29 according to the showing of Figs. 2 and 3. This short leg portion is generally designated 63 and in the folding of the material to produce this leg the material is first bent down as indicated at 64 and then folded back on itself to extend upwardly in the portion 65 which lies against the outer side of portion 64 and then the remaining longitudinal edge portion of the material is folded down across the outer side of the portion 65 to produce the terminal band portion 66 which is maintained in spaced relation with the portion 65 whereby to provide the downwardly opening longitudinal slot 67. The free longitudinal edge 66a of this band portion 65 provides the resting or supporting surface for the leg when the latter is used as hereinafter described in association with the longer leg 62.

Associated with the short leg forming portion 63 is a detachable extension plate 68 which is designed to have a longitudinal edge inserted into the slot 67 to be frictionally retained therein and the width of this plate 68 is such that when one of its edges is so inserted into the slot 67 to the full depth of the slot, the opposite longitudinal edge will be coplanar with the longitudinal edge of the flange 62. Thus there will be provided the desired construction for use over or in straddling relation with a mullion.

The numeral 69 generally designates the required handle member secured as in the previous forms in a suitable manner as by the use of screws or the like.

Fig. 10 illustrates another method of attaching an extension plate to a short leg in a two-part structure corre-sponding to that shown in Fig. 9. In this figure, in which the device is generally designated 70, and which shows the same in end elevation, the top plate and integral long side flange corresponding to the plate 61 and flange 62, are designated respectively 71 and 72. The opposite flange of shorter length than the flange 72 and constituting the short leg, is designated 73 while the extension plate intended for attachment to the fiange 73 to provide therewith a long leg, is designated 74. The means here illustrated for coupling the flange 73 and extension plate 74 together comprises a slot 75 formed in one of the two parts, here shown as in the flange part 73, and a tongue 76 formed along the edge of the other part, here shown as the extension plate 74. The cross sectional form of the slot and tongue may be that of a dovetail, as shown, or any other form which will accomplish the desired purpose. Attachment of the extension plate 74 is readily accomplished as will be apparent, by sliding the tongue 76 into the slot or groove 75 and when the parts are so connected the free edges of the flange 72 and plate 74 will lie in a common plane for use.

An alternative form of the simplified structure adapted for use in association with or to straddle a mullion is shown in Fig. 12 wherein the body of U-shaped cross section is of semi-cylindrical contour. Such body is generally designated 77 and it will be readily seen that when made of the proper dimensions, it may function in exactly the same manner as the embodiment illustrated in Fig. 7. The portions of the semi-cylindrical body 77 lying at op-Fig. 9 illustrates still another embodiment of the in- 75 posite sides of the longitudinal center provide supporting legs 78 of equal height similar to the flanges 52, thus locating the free longitudinal edges or edge surfaces 77a in a common plane to rest upon the glass panes on opposite sides of a mullion straddled by the body.

The numeral 79 designates a suitable handle secured to and longitudinally of the top or convex side of the body 77.

Fig. 11 illustrates the manner in which the simplified forms of the invention shown in Figs. 7 and 8 would be used. While these simplified forms are illustrated in this 10 figure, it is to be understood that this figure is primarily exemplary, as it will be readily apparent from the same how the preferred construction will be employed by proper rearrangement and adjustment of the reversible and adjustable members 14 and 16, respectively, with 15respect to the head member 12. In other words, considering the preferred embodiment of the invention, when the arrangement of Fig. 2 is set up, the device can be used over or in straddling relation with a low mullion in the manner illustrated in Fig. 11 or, if the mullion is of sub- 20 stantial height from the glass, the members 14 and 16 will be arranged as shown in Fig. 4.

With the arrangement of the members as shown in Fig. 3 the device in the preferred construction may be used in the manner shown for the simplified construction 25 of Fig. 8.

In Fig. 11 the reference character F, generally designates a portion of a glazed frame structure, which might be a window or a door.

The numeral 80 designates an outer rail which may 30 be at the top, bottom or side of the structure, while the numeral 81 designates a portion of a mullion separating two glass panes 82. This construction is standard and in some structures, such as certain doors, the panes are held in place by wood strips 83, on the outside of 35 the glass and secured to the adjacent rails and mullions. These strips 83, here shown, may represent also strips of putty or glazing compound used in other cases on some doors and window structures.

In painting the outside of the structure the paint is 40 carried onto the glass surface as at 84, as previously stated, across the angle or joint 85, between the sealing strip 83 and the pane.

In the use of the guide device of the present invention for trimming or scraping away a part of the paint $_{45}$ from the glass along the sides of the mullion, for example, the guide having legs fixed at or adjusted to the same height, as shown in Figs. 2, 4, 7, 9, 10 and 12, is placed in straddling position over the mullion **81** and over the sealing strips **83**, with the longitudinal edges 50 of the legs resting on the glass panes. It is then shifted sideways to bring one leg against the wood or putty sealing strip **83** and then any paint exposed on the glass pane on the side of the leg away from the sealing strip, as at **84**, is scraped or cut away by running a cutter, or 55 scraper, such as a razor blade **86**, along the guide and upon the surface of the pane.

The same procedure is followed for removing the excess paint from the surfaces of the panes adjacent to the sealing strips 83 bordering the outer rails 80, by 60 using the guide adjusted to have a long and a short leg, such as the one shown in Fig. 3, or the combination device from which plate 35 of Fig. 4, or the extension plate 68 or 74 of Figs. 9 and 10 has been removed. As will be seen, the short leg provided by flanges 20, 30, ⁶⁵ 58, 68 or 74, then rests upon the face of the rail 80 while the longer leg functions in the illustrated and obvious manner.

It will be readily apparent from the foregoing that there is provided by the present invention a new and novel device for carrying out the described method of finishing a painted surface, whereby a neat and clean removal of excess paint from the glass surface can be effected without damage to the wood or putty scaling 75 1,411,462

strips and without breaking the paint seal between the strips and the glass.

The claims:

1. A guide device for use in painting glazed structures, said device comprising an elongate body of substantially U-shaped cross section and formed of at least two members, one member forming the head of the device and embodying an elongate plate of substantial width having a flange along one longitudinal edge, said flange forming a support leg, the other member embodying an elongate plate having a flange along one longitudinal edge, means for securing the plate of said other member longitudinally of and against the under side of the plate of said one member with the flange of said other member in spaced parallel relation with the flange of said one member to form a second support leg, means for reversing the said other member and for securing the flange thereof to and lengthwise of the plate of the head member in spaced relation with the flange thereof for use as a support leg of greater height than said second support, and a handle secured to said one member plate.

2. The invention according to claim 1, wherein the said flanges are of the same width to give support legs of the same height when the plates are secured together. 3. The invention according to claim 2, wherein the said plates are of approximately the same width.

4. The invention according to claim 1, wherein each of said plates is provided with at least two apertures in longitudinally spaced alignment and wherein the flange of said other member is provided with at least two apertures in longitudinally spaced alignment, the apertures of the two plates being arranged to be located in registry when the plates are positioned one against the other, detachable securing elements for engagement through the registered apertures, and the apertures in the flange of said other member being positioned to be arranged in registry with the apertures of the plate of said one member upon the said reversal of said other member to receive the said securing means.

5. The invention according to claim 1, with a third member embodying a flat elongate plate and means for securing said third member plate longitudinally against one face of the flange of said one member for use as a support leg in association with a leg forming part of said other member.

6. The invention according to claim 5, wherein the said means for securing the third member plate to the flange of said one member is designed to facilitate adjustment of the third member plate widthwise across the width of the flange of said one member.

7. The invention according to claim 1, with a third member embodying a flat elongate plate, said third member plate having adjacent to each end a transversely arranged series of apertures and having intermediate said series of apertures a transversely extending slot, the said flange of said one member having adjacent to each end an outwardly projecting button and having an aperture therethrough intermediate said buttons, said buttons and the transverse rows of apertures of the third member plate being adapted for interengagement when the third member plate is disposed longitudinally against the outer side of the flange of said one member and said slot being positioned for registry with the aperture in the flange of said one member when the third member plate is so positioned, and securing means extending through said slot and engaged in the aperture in registry therewith facilitating together with the selective engagement of the buttons in said rows of apertures the widthwise adjustment of the third plate member on the flange of said one member.

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