

Sept. 18, 1934.

H. F. KEIL

1,974,050

SHELF BRACKET CONSTRUCTION

Filed July 21, 1931

2 Sheets-Sheet 1

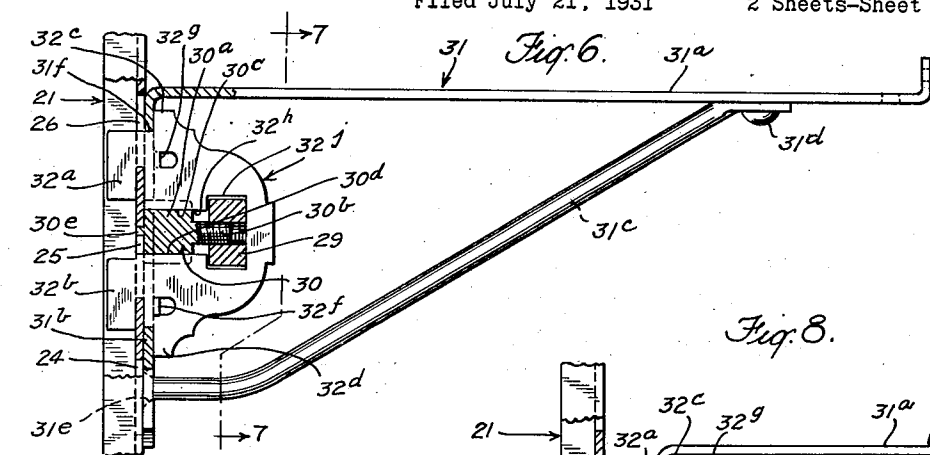
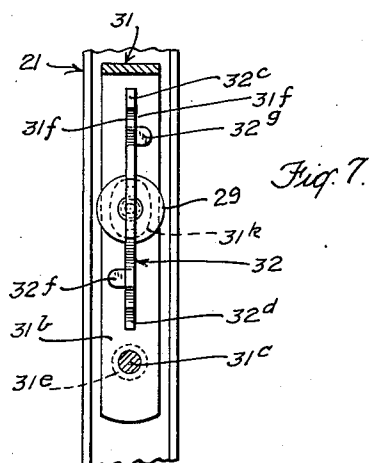
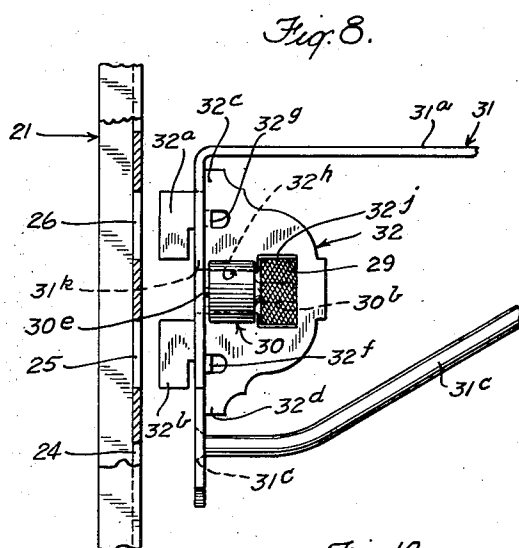
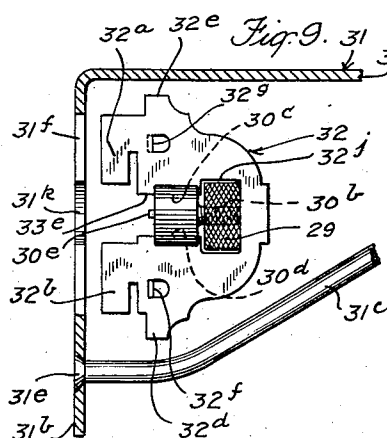
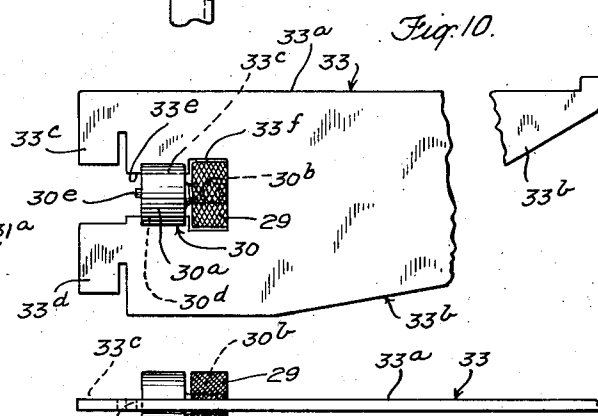


Fig. 11.

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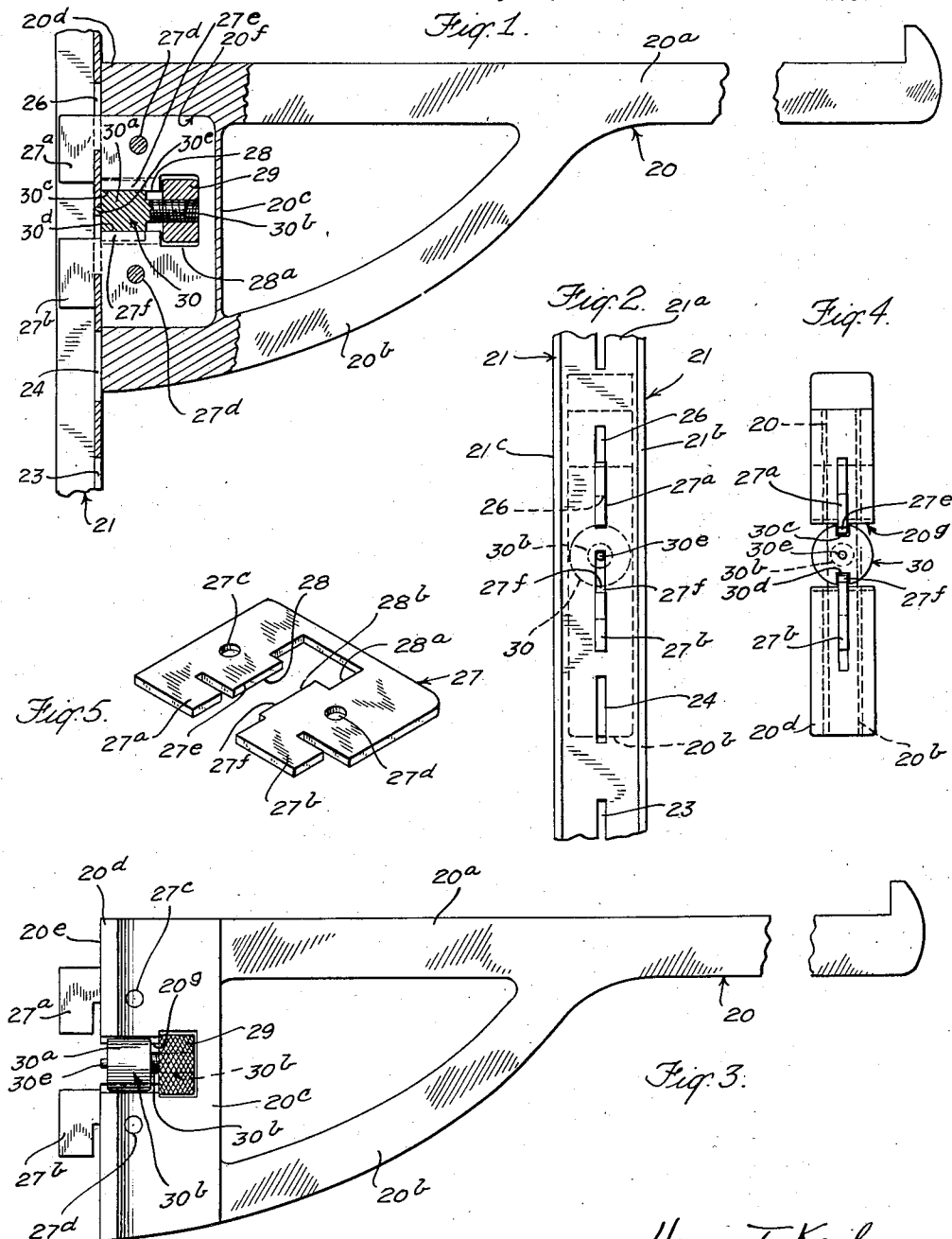
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SHELF BRACKET CONSTRUCTION

Filed July 21, 1931

2 Sheets-Sheet 2



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1,974,050

SHELF BRACKET CONSTRUCTION

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York

Application July 21, 1931, Serial No. 552,084

18 Claims. (Cl. 248—19)

This invention relates to shelf bracket construction or the like.

One of the objects of this invention is to provide a simple and thoroughly practical bracket construction for supporting a shelf or the like, that will be of rugged construction and reliable action. Another object is to provide a construction of the above-mentioned character which is inexpensive to manufacture and capable of simple and rapid adjustment, attachment, or manipulation in practical use. Another object is to provide a shelf bracket construction in which the attachment of the bracket to its supporting member may be quickly and dependably achieved and, moreover, in a manner that will be free from causing marring or defacement of the supporting member. Another object is to provide a simple and thoroughly practical and inexpensive assembly of the bracket per se with its manually operable securing device or devices.

Another object is to provide a construction of the above-mentioned nature which will be compact and neat and well adapted for use particularly in display cases, and which will have a wide range of flexibility of adjustment to meet the varying requirements of practical use in such a showcase, without, however, causing defacement or marring when the position of the bracket is changed. Another object is to provide a bracket construction that will be adjustable and capable of being decorated, for example in colors, as by paint, enamel, or the like, but constructed so that rearrangement of the bracket with respect to its supporting member will not affect the finish or decoration of the parts. Other objects will be in part obvious or in part pointed out hereinafter.

The invention accordingly consists in the features of construction, combinations of elements, and arrangements of parts as will be exemplified in the structure to be hereinafter described and the scope of the application of which will be indicated in the following claims.

In the accompanying drawings in which are shown several of the various possible embodiments of certain features of my invention,

Figure 1 is a side elevation, partly in section, of a bracket construction including a bracket and its support;

Figure 2 is an elevation as seen from the left in Figure 1;

Figure 3 is a side elevation of the bracket per se ready for attachment to its support;

Figure 4 is an end elevation as seen from the left in Figure 3;

Figure 5 is an asymmetric view of a part embodied in the bracket of Figures 1, 3 and 4;

Figure 6 is a side elevation of a modified form of bracket construction;

Figure 7 is a vertical sectional view as seen along the line 7—7 of Figure 6;

Figure 8 is a side elevation of the bracket of Figure 6 shown ready for assembly with respect to its supporting member, the latter being shown in section;

Figure 9 is a vertical central sectional view of the bracket of Figure 8 showing certain of its parts ready for assembly;

Figure 10 is a side elevation of a modified form of bracket, and

Figure 11 is a plan view of the bracket of Figure 10 as seen from above in the latter figure.

Similar reference characters refer to similar parts throughout the several views in the drawings.

As conducive to a clearer understanding of certain features of my invention, it might at this point be noted that bracket constructions have heretofore been employed in which the vertically extending support for the bracket is provided with so-called "keyhole" slots or openings into which suitably shaped pairs of projections on the bracket itself are received; these keyhole slots are unsightly and ungainly in appearance and have certain other objections among which may be noted that they do not permit the achievement of suitable decorative effects, particularly by way of the application to the vertical members of colored paints, enamel, or like compositions. It has also been proposed to employ vertical supports for brackets and to provide these vertical supports with slots into which certain parts of the bracket are to fit; but with known methods of securing the brackets to such slotted vertical supports, it has been found impossible to achieve such decorative effects as are above-mentioned without causing the cracking off, scratching, or marring of the applied coloring material. One of the various aims of this invention is to achieve a construction in which such disadvantages as the above are avoided in a thoroughly practical and inexpensive manner.

Turning first to Figures 1 to 5, there is shown a bracket generally indicated at 20 and its vertical support generally indicated at 21. The preferred form of support 21 is a sheet metal channel-shaped member having a front face 21^a and side flanges 21^b and 21^c, the member 21 being adapted to rest with the edges of the side flanges against a wall or like member and to be secured

thereto in any suitable manner. The front face 21^a is provided with vertically extending aligned but spaced slots 23, 24, 25, 26, etc. (Figure 2). These slots can be made relatively narrow and are therefore relatively inconspicuous throughout such portions of the support 21 as are exposed between vertically spaced brackets carried thereby. The outer or exposed faces of the front face 21^a and of the side flanges 21^b and 21^c can be finished in any suitable manner; they may be, for example, given any suitable plating or polish, or they may be colored as by the application of a suitable paint, enamel, or other appropriate coloring material.

In the embodiment illustrated in Figures 1-4, the bracket 20 takes the form of a casting of a suitable metal and may be made of any suitable weight or strength or shape, but it preferably comprises a horizontal arm 20^a with a downwardly and rearwardly extending bracing arm 20^b, the left-hand or rear ends of the two arms being joined by a vertical portion 20^c (see Figures 1 and 3). The vertical portion 20^c may be suitably flanged to either side, as at 20^d (Figure 3) and its end face 20^e suitably made plane, thus to provide a suitable expanse of surface to rest against the front face 21^a of the vertical supporting member 21 and to appropriately square the bracket off if the engaging surfaces of these two parts are dependably held in assembled relation.

Secured to the left-hand portion of the bracket 20, as viewed in Figures 1 and 3 and in a manner to be more clearly described below, is a sheet metal member 27, the shape and configuration of which is better shown in Figure 5. Member 27 may conveniently be a stamping out of sheet metal of suitable weight and it is provided with two hook-shaped parts 27^a and 27^b and it has a transversely extending slot 28 of different widths; thus, the portion 28^a of the slot 28 has a greater width than the portion 28^b which in turn is of less width than the spacing between the free end of the hook 27^a and the inner or anchored end of the hook 27^b. Also, the plate member 27 is provided with suitable apertures, illustratively two in number, which are shown at 27^c and 27^d in Figure 5.

The plate member 27 is centrally received within a suitable recess 20^f (Figure 1) appropriately formed in the vertical left-hand member 20^c of the bracket 20 so that the hook parts 27^a and 27^b project rearwardly or to the left from the rear face 20^e of the bracket 20 (see Figures 3 and 4), but the end part 20^c is provided with a transversely extending slot 20^g (Figures 3 and 4) shaped substantially as shown in Figure 3 and through which the slot portions 28^a and 28^b of the plate 27 (Figure 5) are exposed.

This recess 20^f may be formed in any suitable way. For example, I may mill the recess after the casting 20 has been completed and may insert the plate 27 either with a driving fit or give it a suitable snug fit, in the latter case employing rivets or the like that pass through the side wall portions of the recess 20^f and through the openings 27^c and 27^d in the plate 27 or, instead of milling the recess I may core the recess during the casting of the bracket 20 and then insert the plate with a driving fit or else otherwise and then secure it as by rivets, or both. Also, I may, in the process of casting the bracket, suitably position the plate member 27 in the mold to cause it to function as a core and then cast the metal, the metal flowing around the plate 27 and enter-

ing also suitable recesses such as the openings 27^c and 27^d, thus securely anchoring the plate 27 in the desired position. I may thus use any suitable metals; for example, I may use brass or bronze for the bracket 20 and a suitable steel for the plate 27. Also, I may weld the plate 27 in position within the recess 20^f.

Thus, I provide the assemblage better shown in Figure 3 in which the hooks 27^a and 27^b are well shown projecting to the left of the end face 20^e of the bracket 20 while the lips 27^e and 27^f (see Figure 5) that form the narrower portion 28^b of the slot 28 project toward each other beyond the facing walls of the narrower portion of the slot 20^g, as is better shown in Figure 3.

Into the wider portion 28^a of the plate 27 I then place a knurled nut 29 preferably provided with a left-hand screw-thread; then I provide a member generally indicated at 30 (Figures 1, 3 and 4) that has a relatively large head 30^a and a threaded shank 30^b, the latter being preferably provided with a left-hand thread and adapted to be threaded into the nut 29. The head 30^a is provided with two diametrically opposed and longitudinally extending slots 30^c and 30^d, better shown in Figure 4, into which are recessed respectively the lips 27^e and 27^f of the plate 27. The member 30, after the nut 29 has been positioned as above described, may then be slid in an axial direction toward the right as viewed in Figure 3 to bring the lips 27^e and 27^f into the external slots 30^c and 30^d and then by rotating the nut 29, the device 30 and hence its head 30^a may be brought into the position as shown in Figure 3. By reason of the configuration of these various coacting parts, these parts remain assembled and it will be seen that the necessity of especially attaching them to the bracket may thus be avoided.

At its left-hand end and coaxial therewith, the head 30^a is provided with a cylindrical projection 30^e (see Figures 3 and 4). This projection has such a dimension and the parts coacting therewith are so proportioned that, while the hooks 27^a and 27^b may pass freely through two vertically displaced slots in the support 21, such as the slots 26 and 25, respectively, the projection 30^e is in substantial alignment with the upper end of the slot 25 (in which the hook 27^b has been received) when the bracket 20 with the hooks is dropped so that the hooks engage in back of the wall 21^a of the vertical support 21.

If now the nut 29 is rotated in an appropriate direction, the device 30 is moved to the left and ultimately the parts assume the position shown in Figure 1; the nut 29 abuts against the right-hand end wall of the slot 28 in the plate 27 or against the right-hand end wall of the slot 20^g in the bracket 20, the head 30^a, presenting at its left-hand end an end face of relatively large area, is moved squarely against the front face of the wall 21^a of the channel support 21, and the projection 30^e enters the extreme upper end of the slot 25 through which the lower hook 27^b has been passed.

Appropriately tightening up the nut 29 thus causes the wall 21^a to be dependably and securely clamped between the inner faces of the hooks 27^a and 27^b and the left-hand large end face of the head 30^a. But it is to be noted that this action is achieved without causing a rotation of the head 30^a itself and that thus no relative movement between the front face of the wall 20^a, which, as above noted, may be finished or decorated in any suitable manner, and

the head 30^a is brought about. Thus, marring of the finish or decoration of the parts is dependably prevented.

The projection 30^e prevents intentional or accidental upward movement of the bracket 20 (see Figure 1) so that accidental dislodging of the bracket 20 from its vertical support cannot take place. Disassembly of the parts, however, may readily be achieved by rotating the nut 29 in reverse direction, thus drawing the clamping head 30^a directly away from the support 21 and again avoiding marring of the finish on the vertical support 21.

In Figures 6, 7, 8 and 9 I have shown a possible modified embodiment of certain features of my invention and I have there illustrated a bracket generally indicated at 31 made up of a sheet metal member of suitable weight and strength and having a horizontal shelf-supporting portion 31^a and a vertical portion 31^b adapted to rest against the wall 21^a of the support 21, the strap metal being of appropriate width to form an adequate area of surface to abut against the front face of the vertical support 21; the parts 31^a and 31^b, thus bent at right angles to each other, are reinforced and held in that position by a bracing member 31^c which extends diagonally substantially as shown in Figure 6; the bracing member 31^c may be of round stock and may be riveted or welded or otherwise secured as at 31^d and 31^e to the portions 31^a and 31^b, respectively.

The vertical part 31^b is provided with a centrally positioned vertically extending slot 31^f of sufficient width to receive therethrough certain parts of a plate member 32 not unlike, in many respects, the plate 27 above-described in connection with Figures 1-5. The plate 32, preferably in the form of a stamping of sheet metal such as steel, is given a shape substantially as shown in Figure 6 but better shown in Figure 9.

The plate 32 (Figures 6 and 9) has two hook-shaped parts 32^a and 32^b, the over-all length (in a vertical direction as viewed in Figure 9) of which is substantially equivalent to the length of the slot 31^f so that the hook portions of plate 32 may be passed from the position shown in Figure 9 to the position shown in Figure 8, shoulders 32^c and 32^d on the plate 32 abutting against the right-hand face of the bracket portion 31^b while the hooked portions 32^a and 32^b are thus positioned, as is better shown in Figure 8, to be passed through slots, such as slots 26 and 25, respectively, in the supporting member 21. Preferably, also, I provide ears or lugs 32^f and 32^g (Figure 7) cut and bent at right angles to the plane of the plate 32 and extending from opposite sides thereof, these lugs having their left-hand faces as viewed in Figure 8 preferably aligned with the left-hand faces of the shoulders 32^c and 32^d and being thus adapted to abut against the right-hand face of the bracket portion 31^b. These lugs aid in maintaining the plate 32 at right angles to the bracket portion 31^b.

Plate 32 is provided with a slot extending crosswise of its center portion, the slot having a relatively narrow portion 32^h and a relatively wide portion 32ⁱ; the latter receives the nut 29 described above in connection with Figures 1-5 while the inwardly projecting walls of the former form guides for the slotted head 30^a of the device 30; the threaded shank 30^b is received within the nut 29, the parts 32, 29 and 30 thus holding themselves automatically in assembled relation. In Figures 8 and 9 these parts are shown assembled

but with the head 30^a drawn substantially completely toward the right.

In line with the movement of the head 30^a toward the left, as viewed in Figures 8 and 9, the slot 31^f is enlarged to provide a substantially circular opening 31^k so that the head 30^a, when moved toward the left, as viewed in Figure 8, upon manipulation of the nut 29, may pass through the bracket portion 31^b for coaction with the portion 21^a of the vertical channel support 21.

The plate 32, with the parts 29-30 related to it, may be associated with the bracket 31 in various ways. For example, the plate 32 may loosely fit into or through the slot 31^f in the bracket portion 31^b, or I may proportion the parts so that plate 32 is force-fitted to the bracket portion 41^b. Or, I may otherwise rigidly secure these parts together as by welding, for example; thus, I may spot weld the lugs 32^f and 32^g to the bracket portion 31^b.

In any of these cases plate 32 with its associated parts 29-30 and the bracket 31 appear substantially as is shown in Figure 8, from which it will be seen that the hooks 32^a and 32^b are in readiness to be passed through two of the slots in the vertical support 21 so that, upon a subsequent downward movement of the assemblage with respect to the channel support 21, the hooks take in back of the front wall 21^a of the support 21, as is better shown in Figure 6.

A subsequent rotation of the nut 29 is then made effective to move the head 30^a in a direction toward the left and to cause it to abut against the front face of the wall 21^a of the channel support 21 with the projection 30^e entering the upper of the lower of the two slots through which the hooks have been passed. The nut 29, abutting against the right-hand vertical wall of the slot 32^d, in coaction with the threaded shank 30^b, thus causes a secure clamping of the wall 21^a of the support 21 between the hooks 32^a-32^b and the head 30^a itself, while the projection 30^e dependably prevents accidental displacement of the bracket in an upward direction.

In Figures 10 and 11 I have shown another possible embodiment of certain features of my invention and in these figures I have shown a bracket 33 made of a suitable heavy and strong sheet metal and thus capable of being stamped; the bracket 32 has a preferably horizontal upper edge 33^a and is tapered or curved as is indicated at 33^b so as to give a substantial vertical width at its left-hand end where it is to be attached to the supporting channel and a relatively small vertical dimension at its right-hand end with corresponding rigidity and strength to carry the load imposed upon it.

At its left-hand end it is shaped substantially as is best shown in Figure 10 to provide two hook-shaped parts 33^c and 33^d and a longitudinally extending and substantially centrally positioned slot 33^e terminating in a wider slot 33^f. Within the latter is received the nut 29 while the inwardly projecting wall portions of the former form guides for the slotted head 30^a of the device 30 already above-described. As was the case with respect to the modifications above described, the nut 29 holds the part 30^a against sliding out of the slot 33^e while the sliding or channeled interengagement between the head 30^a and the inwardly projecting parts of the slot 33^e prevents the head 30^a with the nut 29 from falling out of the slots in a direction transversely to the axis of the device 30 itself.

The hooked parts 33^c and 33^d are passed through

two slots, such as the slots 26 and 25 of the member 31, whereupon the bracket 33 is moved downwardly so that the two hooks will take in back of the front wall 21^a of the channel 21. The nut 29 is then rotated to force the head 30^a against the front face of the wall 21^a and to bring the projection 30^a into the upper end of the lowermost of the two slots, the latter action preventing the bracket 33 from being moved upwardly and thus from being, in that way, disengaged from the support 21. The nut 29, as in the other modifications described above, is rotated to a sufficient extent to clamp the vertical wall 21^a of the support 21 between the hooks 33^c—33^d and the head 30^a with the requisite or desired pressure.

With the constructions above described, it will be seen that I have achieved a high degree of simplicity of construction and action, together with thorough dependability of result. The constructions are inexpensive and it will be seen that the various objects hereinabove noted, together with many thoroughly practical advantages, are successfully achieved. Moreover, it will be seen that certain features of my invention readily meet the varying conditions of practical use or requirement; more specifically, it will be noted that I have hereinabove illustratively set forth the embodiment of these certain features of my invention with three of the various kinds or types of bracket shapes or structures that are most in demand.

It will also be noted that the assembly and disassembly of the bracket with respect to its vertical supporting member are readily and conveniently achieved and, moreover, without the need for special tools and without causing harmful or undesirable marring or marking up of coacting surfaces. I am thus enabled to employ any finish such as plating, painting, enameling, or the like, without danger of permanently disfiguring the finish in case the bracket is shifted from one position lengthwise of the vertical channel support to another. The head 30^a of the device 30 provides a relatively large area for clamping contact with the wall 21^a so that the pressure per unit area is relatively small while at the same time the bracket is properly aligned and held at right angles to the wall 21^a. Moreover, it will be seen that the construction is of simple and inexpensive manufacture and lends itself readily to quantity production.

As many possible embodiments may be made of the above invention and as many changes might be made in the embodiment above set forth, it is to be understood that all matter hereinbefore set forth or shown in the accompanying drawings, is to be interpreted as illustrative and not in a limiting sense.

I claim:

1. In bracket construction, in combination, a vertical supporting member having a plurality of slots therein, a bracket having a pair of hook-shaped members adapted to be passed through two of said slots and to take in back of said support, a member non-rotatably and slidably carried by said bracket for movement toward or away from said support, said member having a threaded shank, and a manually operable nut rotatable with respect to said shank but held against axial movement with respect to said bracket for forcing said member against said support.

2. In bracket construction, in combination, a vertical supporting member having a flat front face and a plurality of slots therein, a bracket

having a pair of hook-shaped members adapted to be passed through two of said slots and to take in back of said support, a member having a flat face extending parallel to the plane of said front face of said supporting bracket for making face to face contact with any portion of said front face depending upon which two of said plurality of slots said hook-shaped members are passed through, said second-mentioned member being non-rotatably and slidably carried by said bracket at the end thereof adjacent said supporting member for movement relative to said bracket in a direction away from said bracket and toward said support or in reversed direction and hence toward said bracket and away from said support, and means for controlling the direction of movement of said member whereby, when said means is operated to move said member away from said bracket and toward said support, said member non-rotatably engages said supporting member and when said means is operated to move said member away from said supporting member and toward said bracket, said member is non-rotatably disengaged from contact with said supporting member.

3. In bracket construction, in combination, a vertical supporting member having a flat front face and a plurality of slots therein, a bracket having a pair of hook-shaped members adapted to be passed through two of said slots and to take in back of said support, a member having a flat face extending parallel to the plane of said front face of said supporting bracket for making face to face contact with any portion of said front face depending upon which two of said plurality of slots said hook-shaped members are passed through, said second-mentioned member being non-rotatably and slidably carried by said bracket at the end thereof adjacent said supporting member for movement relative to said bracket in a direction away from said bracket and toward said support or in reversed direction and hence toward said bracket and away from said support, and threaded means for moving said member in either of said directions, whereby engagement of said member with said supporting member and disengagement of said member from said supporting member take place without relative rotation therebetween.

4. In bracket construction, in combination, a vertical supporting member having a flat front face and a plurality of slots therein, a bracket having a pair of hook-shaped members adapted to be passed through two of said slots and to take in back of said support, a clamping head, said head having a flat face extending parallel to the plane of said front face of said supporting bracket for making face to face contact with any portion of said front face depending upon which two of said plurality of slots said hook-shaped members are passed through, and means for insuring that said face to face contact is a non-rotational contact and comprising means for holding said head against rotation and for guiding it in a direction toward said support, said clamping head being exposed from the rear end of said bracket and in front of said supporting member and adapted thereby, when moved, to engage the front face of said support, and means for urging said head against said support.

5. In bracket construction, in combination, a support having a slot, a bracket having a T-shaped slot whose open end is toward said support and having adjacent thereto a hook-like member adapted to be passed through said first-men-

tioned slot and to take in back of said support, a member slidably interengaged with and non-rotatably guided by the wall portions of said open-ended part of said slot in said bracket for movement toward said support, said member being exposed at the rear end of said bracket and having a line of slidable movement whereby, upon movement thereof in a direction away from said bracket, said member contacts the front face of said support, and rotatable means accommodated within, and held against movement of translation by, the cross-bar portion of said T-shaped slot, for forcing said member against said support.

6. In bracket construction, in combination, a support having a slot, a bracket having a hook-like member adapted to be passed through said slot and to take in back of said support, said bracket having an open-ended slot of greater width at its inner end than at its open end, a member provided with guideways for sliding interengagement with the portions adjacent the narrower portion of said slot, said member having a threaded shank extending toward the wider portion of said slot, and a nut extending into the wider portion of said slot and threaded onto said shank.

7. In bracket construction, in combination, a support having a slot therein, a bracket having a recess therein, and a plate-like member having a hook-shaped portion adapted to pass through said slot and to take in back of said support, and means coacting therewith for clamping said support between said hook-shaped portion and said means, said plate-like member extending into said recess.

8. In bracket construction, in combination, a support having a slot therein, a bracket having a slot therein, and a plate-like member having a hook-shaped portion adapted to pass first through said second-mentioned slot and then through said first-mentioned slot and to take in back of said support, and means coacting therewith for clamping said support between said hook-shaped portion and said means, said plate-like member extending in the plane of said bracket.

9. In bracket construction, in combination, a support having a slot therein, a bracket having a recess therein, and a plate-like member having a portion adapted to pass through said slot and means coacting therewith for clamping said support therebetween, said plate-like member being housed within said recess and being mechanically held assembled to said bracket by the metal of the latter having been cast about said plate-like member.

10. In bracket construction, in combination, a support having a slot therein, a bracket having a recess therein, and a plate-like member having a portion adapted to pass through said slot and means coacting therewith for clamping said support therebetween, the dimensions of said recess and of said plate-like member being so proportioned that, when said plate member is inserted into said recess, it is gripped and held by the walls of said recess.

11. In bracket construction, in combination, a support having a slot therein, a bracket having a recess therein, a plate-like member having a hook-shaped portion adapted to pass through said slot and to take in back of said support, and means coacting therewith for clamping said support between said hook-shaped portion and said means, said plate-like member extending into said recess, and means for securing said plate member to said bracket.

12. In bracket construction, in combination, a support having a slot therein, a bracket having a flat portion adapted to rest against said support, said portion having a slot, a device adapted to rest against said flat portion and having a part adapted to pass through the slot in the latter and through the slot in said support and to engage in back of the latter, and means adapted to pass through said second-mentioned slot for clamping said support between itself and said part.

13. In bracket construction, in combination, a support having a slot therein, a bracket having a flat portion adapted to rest against said support, said portion having a slot, a device adapted to rest against said flat portion and having a part adapted to pass through the slot in the latter and through the slot in said support and to engage in back of the latter, a member non-rotatably but slidably carried by said device and adapted to pass through said second-mentioned slot, and threaded means for forcing said member against said support.

14. In bracket construction, in combination, a support having a slot therein, a bracket having a flat portion adapted to rest against said support, said portion having a slot, a device adapted to rest against said flat portion and having a part adapted to pass through the slot in the latter and through the slot in said support and to engage in back of the latter, a member non-rotatably but slidably carried by said device and adapted to pass through said second-mentioned slot, said member having a threaded shank, and a nut adapted to bear against a part of said device and adapted upon rotation to force said member against said support.

15. In bracket construction, in combination, a plate-like bracket having a hook-shaped part adapted to be passed through a slot in a support and to take in back of the latter, a clamping head slidably and non-rotatably carried by said bracket and having a threaded shank, a nut on said shank, and means for limiting movement of said nut in directions toward or away from said support, whereby rotation of said nut in one direction moves said clamping head against the front of said support to clamp the latter between the clamping head and said hook-shaped part, and rotation of said nut in opposite direction moves said clamping head away from the front face of said support and releases the support.

16. In bracket construction, in combination, a plate-like bracket having a hook-shaped part adapted to be passed through a slot in a support and to take in back of the latter, said bracket having an open-ended slot of lesser width adjacent its open end than at its inner end, an externally grooved clamping head slidably received in said narrower portion of said slot and held by the walls thereof against rotation, said head having a threaded shank extending toward the inner end of said slot, and a nut threaded onto said threaded shank and extending into the wider portion of said slot.

17. In bracket construction, in combination, a sheet metal bracket having at its one end a pair of vertically spaced hook-shaped parts lying in the plane of the bracket and having a substantially T-shaped slot whose open-ended base is between said hook-shaped parts, a clamping head having opposed guideways in which are received the wall portions of the open-ended part of said slot whereby said clamping head is slidably and non-rotatably supported for movement toward or away

from the space between said vertically spaced hook-shaped parts, a rotatable member accommodated in the cross-bar portion of said T-shaped slot and thereby held against movement toward or away from said hook-shaped parts, and means connecting said clamping head and said member and responsive to rotation of the latter for controlling the position of said clamping head lengthwise of said open-ended slot.

18. In bracket construction, in combination, a support having a slot therein, a bracket having a portion adapted to rest against said support, said portion having a slot, a plate-like member having a hook-shaped portion adapted to pass first through said second-mentioned slot and then through said first-mentioned slot and to engage in back of said support, said plate-like member having an open-ended slot of greater width at its inner end than at its open end, a head-like member provided with guideways for sliding interengagement with the walls of the narrower portion of said third-mentioned slot, said head-like member being thereby non-rotatably guided for non-rotational engagement with the front face of said support, and means accommodated in the wider portion of said third-mentioned slot for forcing said head-like member along said narrower portion of said third-mentioned slot and against said support, thereby to clamp said support between itself and said hook-shaped portion.

HENRY F. KEIL.

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75 150