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MERCHANDISE SHELF ADAPTER AND METHOD OF MAKING SAME

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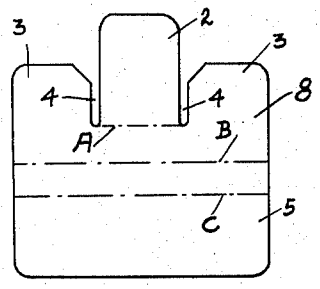


Fig. 1.

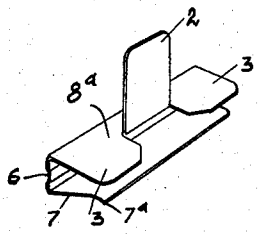


Fig. 2.

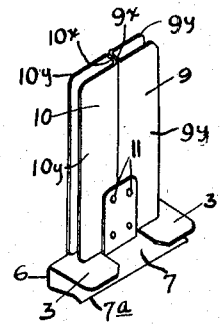


Fig. 3.

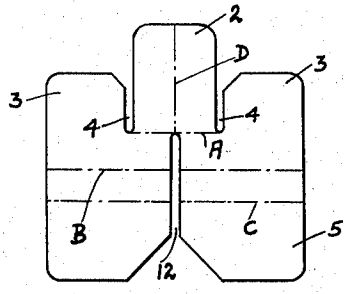


Fig. 4.

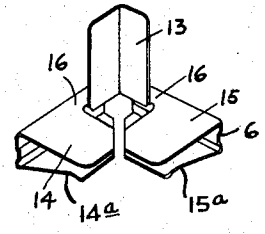


Fig. 5.

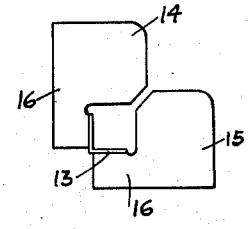


Fig. 6.

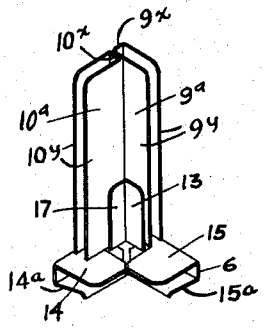


Fig. 7.

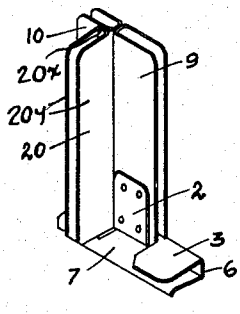


Fig. 8.

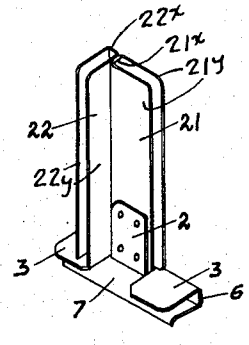


Fig. 9.

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MERCHANDISE SHELF ADAPTER AND METHOD OF MAKING SAME

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8 Claims. (Cl. 24—81)

This invention is for a shelf adapter for merchandising shelves and a method of making same.

Merchandise counters and shelves are commonly used in variety and notion stores with various arrangements of plate glass partitions dividing the shelf area into small compartments. In many instances glass display shelving is used with glass partitions on the shelving. The partitioning of the shelf area is usually done by the individual merchant or store manager, and in some cases may be employed for long periods of time without change, and in other instances the merchant may make changes from time to time. The point is that the merchant wants flexibility, and standardization is not acceptable.

The merchandise adapter is a fixture, usually formed of metal designed to be used in arranging partitions on a shelf. The present invention has for its object to provide an adapter of unique construction and neat appearance. A further object of our invention is to provide a more versatile and economical adapter than has heretofore been available. A still further object of our invention is to provide an improved base member for use in making such adapters and an improved method of manufacturing the same.

Our invention may be more fully understood by reference to the accompanying drawings, in which:

Fig. 1 is a plan view of a base member for making the adapter;

Fig. 2 is a perspective view of the base member after being formed to make one style of adapter;

Fig. 3 is a perspective view of the completed adapter of the first form;

Fig. 4 is a plan view of the blank of Fig. 1, but slitted to make a second angle form of connector;

Fig. 5 is a perspective view of the base of Fig. 4 formed to shape;

Fig. 6 is a top plan view of Fig. 5;

Fig. 7 is a perspective view of the finished second form of adapter;

Fig. 8 is a perspective view of a further construction, called a three-way adapter; and

Fig. 9 is a perspective view of a mid-shelf corner adapter.

Referring first to Fig. 1, the base of the adapter is stamped from flat sheet metal. As formed, it has a central tongue 2 disposed between and projecting beyond two other shorter tongue-like portions, 3, there being an open slit 4 between the center tongue and the ones at each side. All of the tongues project from the same edge of a rectangular main body 5.

The dotted lines in Fig. 1 indicate bend lines, and in making the adapter shown in Fig. 3 the central tongue 2 is bent up perpendicularly to the plane of the tongue-like

extensions 3 on the bend line A at the line of joinder of the tongue and base. The main base portion is folded under, on the bend lines B and C, to the shape shown in Fig. 2, where the area of the base between lines B and C is a vertical connecting wall 6 and the part folded under is a spring tongue 7 coextensive with the length of the adapter. As thus formed, the base has a shelf-engaging clamp portion at each side of the central tongue. The tongue 2 rises from the top area 8 intermediate the front and rear edges so that between the rear face of the tongue 2 as viewed in Fig. 2, there is a ledge 8*a*.

After the base member has been formed to the shape shown in Fig 2, two similar channel members, 9 and 10, spot-welded in back-to-back relation so as to face in opposite directions, are set on the ledge 8*a* and spot-welded or otherwise secured to the out-face of the upstanding tongue 2 as indicated at 11. The tongue 7 converges slightly toward the under face of the tongue-like portions 3, with the extreme edge portion turned down to form a slight lip 7*a*. This facilitates application of the base to a shelf. The metal used may be stainless steel or other metal having resilience so that when the base is slipped over the edge of glass or other shelf of conventional thickness, the base will be firmly held by its resilience and friction. The two channels 9 and 10 are also so formed by having one flange converge outwardly toward the other and are of such resilience as to firmly hold a vertical glass partition clamped therein. The webs of the channels 9 and 10 are designated 9*x* and 10*x* respectively, and the flanges 9*y* and 10*y*.

The fixture may be of polished metal or plated, and enables two glass sections to be held in end-to-end relation and at the same time tightly clamped to a horizontal shelf, with the vertical sections flush with the edge of the supporting shelf. Being of bright metal, it is attractive and therefore improves the appearance of the shelf as well as providing a connection between two upright partition elements.

The second form of fixture herein disclosed is designed to be used where two vertical pieces of glass intersect at right angles. In this case the same blank is used as is disclosed in Fig. 1, but it is further stamped to provide a central slot 12 (see Fig. 4) extending transversely across the base portion 5 from the middle of the base of the tongue 2 to the opposite edge. With this piece the tongue is bent to a plane perpendicular to the plane of the base portion about the fold line A, and then it is bent to right-angle form about the fold line D running lengthwise of the center of the tongue. This brings the two shelf clamp-forming portions of the base on opposite sides of the slot 12 into right-angular relation with each other and the tongue itself is of a right-angle section. The base is then bent about the bend lines C and D forming two clamp elements as shown in Figs. 5 and 6. The upstanding tongue is designated 13 in Figs. 5 and 6, and the two clamping portions in the base at right angles to each other are designated 14 and 15. It will be seen that each of the clamp areas 14 and 15 has a ledge portion 16 at the base of the outer face of the tongue 13. The clamping areas have a vertical connecting wall 6 corresponding to the similar part 6 in Fig. 3, and the spring tongue under the areas 14 and 15 are designated 14*a* and 15*a* respectively. Two metal channels 9*a* and 10*a* similar to the channels 9 and 10 but spot-welded together with the base of the channel 10*a* normal to one face of the channel 9*a* so as to be at right angles to one

another are set on the ledge portion 16 against the outer face of the tongue 13 and spot-welded thereto as indicated at 17 in Fig. 7.

The portions 14 and 15 have the lower fold converging upwardly toward the free edge of the upper fold, being of the shape described in connection with Fig. 2, so as to yieldably and frictionally engage the corner of a glass shelf to which the fitment is applied. The upstanding channels 9*a* and 10*a* will receive and firmly clamp glass partitions positioned at right angles to one another, and which are of course vertical with relation to the base or shelf on which the fixture is clamped. The two channels 9*a* and 10*a* are like channels 9 and 10, with webs 9*x* and 10*x* and flanges 9*y* and 10*y* respectively. The fixture shown in Fig. 7 is also made of suitable resilient metal and may be formed of polished stainless steel, for example, or other metal polished or plated to give a bright, pleasing appearance.

In either case our invention utilizes initially the same blank. In each form the blank is provided with an upstanding tongue against the outer face of which channel elements are welded to receive the edges of vertical glass partitions while the base provides a clamp at each side of the tongue. The two vertical channels in abutting relation, resting on the base and welded or otherwise rigidly secured to the tongue, form a strong, rigid column.

In Fig. 8 we have shown the fixture substantially like Fig. 3 with an addition channel 20 welded or otherwise secured at its web 20*x* to the channel 10 and with its lower end resting on the base at the side of the tongue. 2. The flanges 20*y* of the channel 20 are normal to the flanges 9*y* and 10*y* of the channels 9 and 10. Instead of the two channels 9 and 10 having their abutting bases centered on the center line of tongue 2, as in Fig. 2, the tongue 2 in this case is welded entirely to a side face or flange 9*y* of channel 9 so that the base or web 20*x* of channel 20 will be close to abutting bases of the other two channels and form a more symmetrical appearance. This fixture is used, for example, where two walls of glass are joined in end-to-end relation and a partition extends at right angles to the first two.

In Fig. 9 there is shown a fixture for use where there is to be a corner partition that does not coincide with a corner of the shelf. We call it a "mid-shelf corner". The base is the same base shown in Fig. 2. One channel 21 has a flange 21*y* welded to the outer face of the tongue 2. The second channel 22 with a web 22*x* and flanges 22*y* has one flange 22*y* set against the web 21*x* of channel 21 and the two channels are spot-welded. The second channel 22, while resting on the base, has its connection with the tongue 2 through channel 21. With this form of fixture a small bin for example can be formed at the center of a long shelf area.

The fixture as thus formed is flexible for use in a wide variety of ways, is pleasing in appearance, and firmly holds the parts together, but the partitions can be separated and changed around as the merchant desires. Short pieces of glass can be joined to long ones, and by using a combination of the two forms of clips the merchant can arrange his shelf areas, particularly his display shelf areas, as he desires, and change them from time to time.

While we have mentioned particularly the adaptability of the fixture to glass shelving and for use with glass partitions, this has been mentioned because these adapters are most widely used with glass shelving. However it will of course be understood that any of the shelving or partitions may be of plastic, fiberboard, plywood, or plain wood of the proper thickness, or of any other suitable material. The blank from which the base is formed is trimmed at the corners to avoid the presence of sharp pointed corners. The similar elements 9 and 10, or 9*a* and 10*a* as the case may be, may be of any desired height, depending upon the depths of the compartments which the partitions are designed to form.

We claim:

1. A shelf adapter of the class described comprising an integral sheet metal base member with an upstanding tongue thereon spaced inwardly from the edges of the base, the base having connected upper and lower spaced tongue-like portions at each side of the upstanding tongue forming shelf-engaging clips, and a pair of separate vertical channels with the base of one channel abutting across its full width the other channel extending upwardly from the base, at least one channel having one side face secured to the upstanding tongue.

2. A shelf adapter of the class described comprising an integral sheet metal base member with an upstanding tongue thereon spaced inwardly from the edges of the base, the base having connected upper and lower spaced tongue-like portions forming shelf-engaging clips at each side of the upstanding tongue, and a pair of separate vertical channels with the base of one channel abutting across the full width the other channel extending upwardly from the base, each channel having one side face secured to the upstanding tongue.

3. A shelf adapter of the class described comprising an integral sheet metal base member with an upstanding tongue thereon spaced inwardly from the edges of the base, the base having connected upper and lower spaced tongue-like portions forming shelf-engaging clips at each side of the upstanding tongue, a pair of separate vertical channels each with a web and two flanges with the web of one channel abutting the web of the other channel, said channels resting on and extending upwardly from the base, one of said two channels having one flange secured to the upstanding tongue, and a third channel at right angles to the first two and to one side of the upstanding tongue secured by its web to a flange of the other of said two channels and facing inwardly away from the tongue.

4. A shelf adapter of the class described comprising an integral sheet metal base member with an upstanding tongue thereon spaced inwardly from the edges of the base, the base having connected upper and lower spaced tongue-like portions forming shelf-engaging clips on opposite sides of the upstanding tongue, and a pair of separate vertical channels with the base of one channel abutting the other channel extending upwardly from the base, at least one channel having one side face secured to the upstanding tongue, one channel being at right angles to the other with the base of one abutting across its full width against a flange of the other and being welded thereto.

5. A shelf adapter as defined in claim 1 in which the base is divided transversely into two parts connected by the tongue and the tongue is of right angle section with the two parts of the base each forming a shelf-engaging clip and with one clip at right angles to the other so as to engage the corner of the shelf, the two channels being secured to the outer faces of the tongue with the base of one channel abutting a flange of the other channel so that the channels are in right-angular relation to each other.

6. A shelf adapter as defined in claim 2 in which the tongue is in a vertical plane and the base of one vertical channel butts against the base of the other channel and the two channels facting in opposite direction are secured to the outer face of the tongue.

7. The method of forming a shelf adapter of the class described which comprises forming a sheet metal blank with a rectangular base portion, a central tongue projecting from one long edge of the base portion and a shorter tongue-like extension at each side thereof, bending the tongue about a fold line where the tongue joins the base to a position perpendicular to the base, bending the base about spaced parallel fold lines traversing the length of the base to form a connecting wall and fold the portion of the base remote from the edge on which the tongue is formed under said tongue-like extensions and thereby provide shelf-engaging clamps at each side of the tongue, and then securing two channels to the outer face of the

tongue with the base of one channel butting against the other channel and the lower ends of the channels being positioned over the base.

8. The method defined in claim 7 in which the sheet metal blank is also slotted transversely of its length from the base of the center line of the tongue to the opposite edge of the blank and the tongue is bent on its center line to right angle form and the shelf clamping portions of which said tongue-like portions at the top are at right angles to each other, the two channels being welded to the outer faces of the tongue with the base of one channel abutting a side wall of the other channel.

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