Aug. 10, 1943. K. C. WELCH, JR 2,326,507

FURNITURE CONSTRUCTION

Filed March 16, 1942

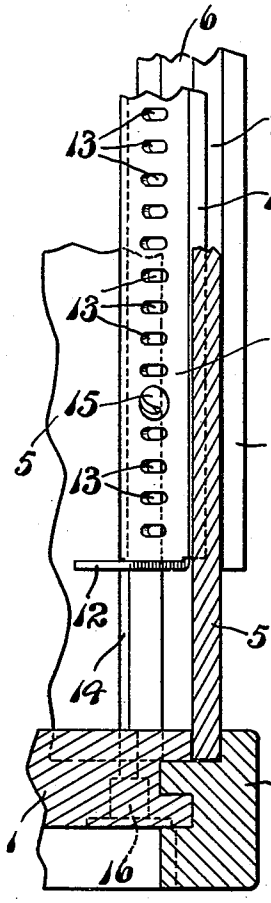


Fig. 3.

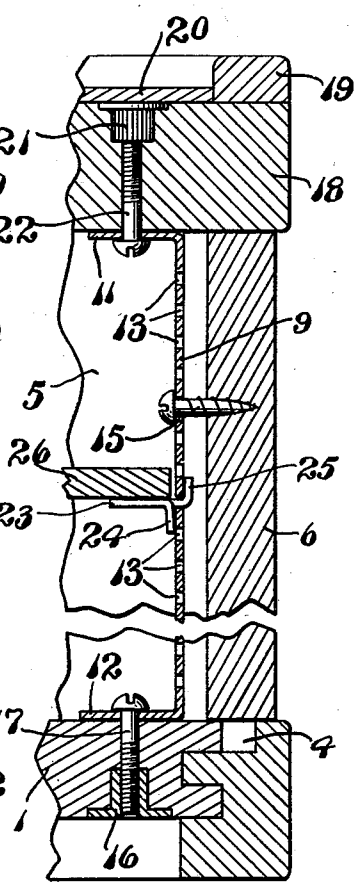


Fig. 2.

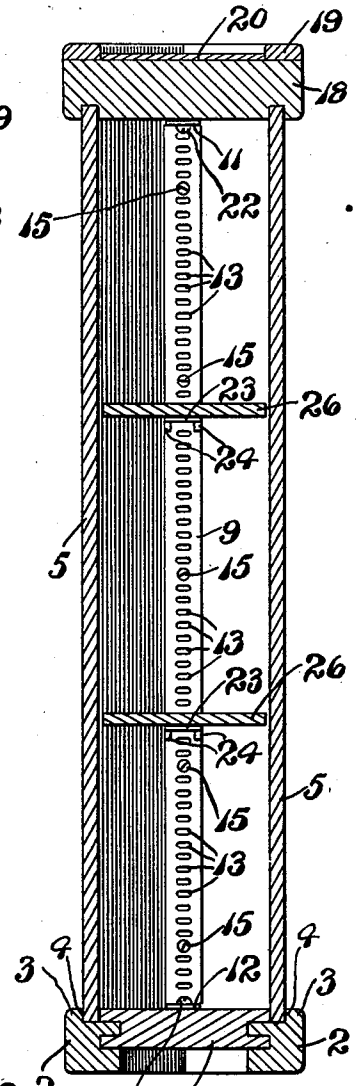


Fig. 1.

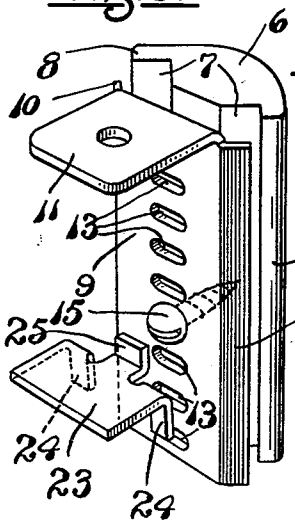


Fig. 5.

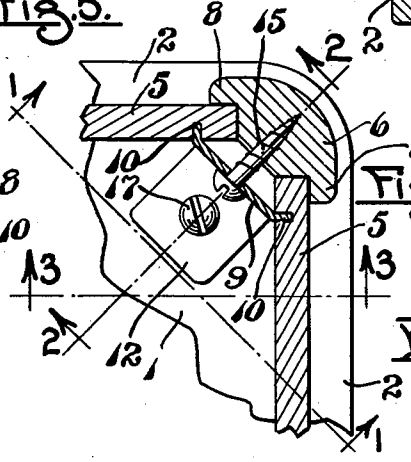


Fig. 4.

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FURNITURE CONSTRUCTION

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1 Claim. (Cl. 312—143)

This invention relates to a furniture construction particularly one for use at the corner of a case, cabinet, counter or many other like or analogous constructions. Such corner construction as I have devised is of great utility in connection with so-called "knock-down" constructions which may be readily assembled at their places of use. The corner construction which I have devised when assembled and secured in place serves to securely tie the various parts, base, sides and ends and top of the construction together and make a completed construction which will retain permanence until such time, if it occurs, that it may be desired to separate the parts for removal and reassembly, or for any other purpose.

The invention may be understood from the following description taken in connection with the following drawing, in which,

Fig. 1 is a vertical section substantially on the plane of line 1—1 of Fig. 4, looking in the direction indicated at the inside of a corner of a case, counter or other construction utilizing my invention.

Fig. 2 is a vertical section on the plane of line 2—2 of Fig. 4.

Fig. 3 is a vertical section on the plane of line 3—3 of Fig. 4.

Fig. 4 is a fragmentary horizontal section through one corner of the structure and between its upper and lower ends looking downwardly, and

Fig. 5 is a fragmentary perspective view of the vertical corner post and vertical metal member associated therewith, one of which may be used at selected corners or all corners of a case, cabinet or other similar structure.

Like reference characters refer to like parts in the different figures of the drawing.

In the construction described, illustrating one embodiment and use of my invention, a bottom or base is provided having a floor 1 in a horizontal plane, around which is a frame having side and end members 2 which have a tongue and groove glued connection with the floor 1 as shown in Figs. 1, 2 and 3. At the outer and upper corner portions of each of the sides and ends 2 of the frame, an outside vertical rib 3 is provided, between the inner side of which and the adjacent edge of the floor 1 is a continuous groove 4 rectangular in cross section as shown. In the grooves at the sides and ends of the bottom of the case structure, the lower edges of vertical sides and end panels 5 are received. It will be understood that, for example in a counter having a vertical front and two ends that the vertical adjacent edges of said front and ends of the counter do not come together but are separated a distance from each other at such adjacent edges as illustrated in Fig. 4.

At the corners of the structure vertical corner posts are located and connected in place. Each corner post 6, having a curved or rounded outer surface (Fig. 4), at its inner side is provided with two spaced vertical grooves of triangular shape, indicated at 7, into which the adjacent vertical edges of the panels 5 are received, said edges of said panels bearing against one of the sides of the grooves 7. Associated with each corner post 6 is a vertically positioned elongated metal member 9 which, adjacent each vertical edge, is provided with an angularly disposed continuous flange 10. At the opposite upper and lower ends of the strip 9 flanges 11 and 12 respectively are turned at right angles as shown. The strip 9 is provided with a plurality of spaced apart openings 13 cut therethrough, preferably horizontally elongated. At the inner sides of the panels 5 adjacent their edges vertical grooves 14 are cut in which the tongues 10 are slidably received. Screws 15 pass through the strip 9 at spaced apart distances and are driven into the corner posts 6.

In the assembly after two panels 5 have been located at their lower edges in their appropriate grooves 4 at a side and end of the base, the corner post 6 with its attached metallic member 9 is assembled with the panels by lifting it above the upper edges of the panels, entering the tongues 10 into the grooves 14, and sliding the post and connected member 9 downwardly until the lower end of the post comes against the floor and surrounding border frame (Fig. 2), and the lower flange 12 comes against the upper side of the floor 1. During the time this is done the screws 15 are in a loosened position with respect to the position to which they will be driven after the post is in place. After it is fully in place the screws 15 are driven farther into the post 6 drawing said post, the plate 9 and the associated panels 5 into tight and secure engagement with each other.

In the floor 1 a vertical opening is made through it in alinement with an opening in the flange 12. At the lower side of the floor 1 an interiorly threaded sleeve member 16 with a bottom flange, as shown in Fig. 2, is embedded in the floor so that a screw 17 may be passed through the flange 12 and screwed into the sleeve as in Fig. 2.

The top of the case, counter or the like may be of a number of forms in detail of construction. There is shown a top 18 which has grooves at its under side and adjacent its outer edges into which the outer edge portions of the panels 5 are received (Fig. 1). A border frame 19 is shown placed and secured around the top, with a linoleum covering 20, for example, covering the entire top within the border frame. The top likewise has vertical openings adjacent its corners where the corner post construction is to be used, and in the upper side of the top and underneath the linoleum covering 20 an interiorly threaded flanged sleeve 21, which may be identical with the sleeve 16, is embedded whereby a screw 22 is passed through the upper flange 11 through the opening in the top 18 and screwed into the sleeve 21. The sleeve 21, and the same will be true of the sleeve 16, is preferably knurled or ribbed at its outer surface so that when forced into place there will be a penetration of the wood holding the sleeve against turning.

The corner posts with the numerous vertically but closely spaced openings 13 are adapted to serve as supports for adjustable shelf brackets which may take various forms. The one illustrated, as shown in Fig. 5, comprises a horizontal section or plate 23 of sheet metal with downturned legs 24 one at each of the corners at one side of the plate and a rearwardly and upwardly turned extension or lip 25 between the legs. The lip 25 is adapted to be inserted through a slot 13 and the legs bear against the face of the metal member 9. Of course, the shelf brackets may be selectively inserted in desired slots 13 at different heights and in this manner horizontal shelves 26 may be supported adjustably at a desired position, which position may be very quickly and easily changed.

If, for example, in a counter, one side, usually the back, is open, there would be two of the corner constructions described used at the front of the counter and the front corner portions of the shelves supported on the shelf brackets, the rear corner portions of the shelves being adjustably supported in any one of a large number of well known and conventional ways. It is of course further to be understood that very narrow panels at the back of a counter might be used leaving the major portion of the back of the counter open so that the corner post construction could be used at all corners of the counter. Numerous case or cabinet structures may have entrance to the interior thereof through doors cut in the front or back panel of the case. Or a cabinet may be open at the front.

This construction is particularly practical and effective. It ties and binds the bottom, top, sides and ends and corners of the structure securely and in effect permanently together so long as permanence is desired. It is easy to knock down the structure for disassembly by removing the screws 17 and 26, loosening the screws 15 and lifting the corner posts upwardly after the top has been removed, so that the structure is readily and easily moved from one room or floor of a store to another room or floor thereof without the necessity of leaving the structure in its bulky assembled shape during the moving. And of course, the shipment from the manufacturing plant to the destination where it is to be used may and preferably will be in the knock down form and the assembly of the parts done at the store where the structure is to be in use, the only tool required being a screw driver.

The invention is defined in the appended claims and is to be considered comprehensive of all forms of structure coming within their scope.

I claim:

In a construction of the class described, a horizontal base having a border therearound at a side and ends, with a groove in the upper side thereof between said base and border at said side and at its ends, vertical panels at said side and ends having lower edge portions seated in said grooves, said panels at the corners of the structure approaching each other but being separated, a post at each of said corners resting upon the base and extending upwardly to a point a short distance below the upper edges of said panels, a top lying over the posts and panels provided with grooves at its under side to receive the upper edge portions of the panels, said top resting on the upper ends of the posts, said posts each having a portion extending between the vertical edges of the panels at said corners into the spaces separating said panels, a vertical elongated sheet metal member lying inwardly of and paralleling each post and spaced therefrom, a flange at each of the ends of said members turned at right angles to lie underneath the top and over the base, other flanges turned from the vertical side edge portions of the sheet metal member at an obtuse angle to the plane of the body of said member, said panels having cooperating vertical grooves at their inner sides and adjacent said posts into which the last mentioned flanges are received, a plurality of spaced apart screws passing through said sheet metal members and driven into the posts, and screw connections passing downwardly into the base and upwardly into the top through the first mentioned flanges, as and for the purposes specified.

KENNETH C. WELCH, JR.