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FRAME MEMBER FOR A RECEPTACLE

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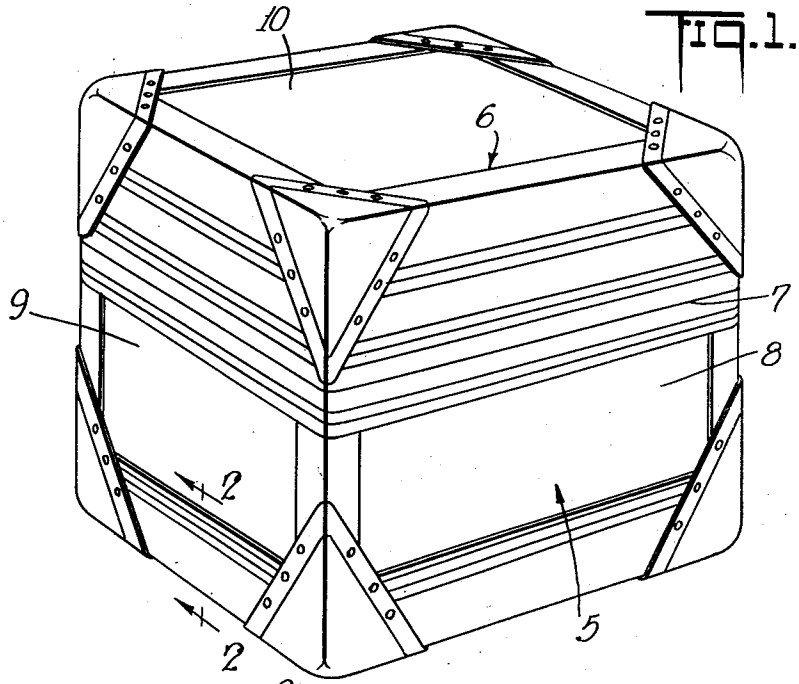


FIG. 1.

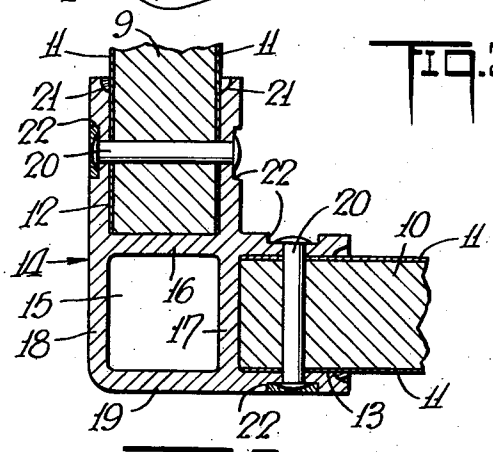
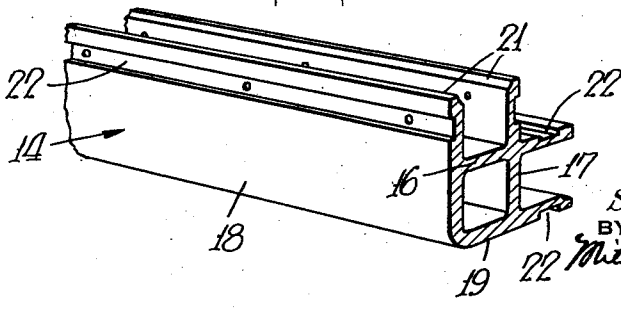


FIG. 2.

FIG. 3.



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FRAME MEMBER FOR A RECEPTACLE

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1 Claim. (Cl. 217—65)

My invention relates to a frame member for a receptacle, chest, or the like.

In the shipment of fine instruments and similar devices, it is important that the receptacles or cases be so built as to protect the contents against the entrance of moisture, and this is particularly true when shipments are made to the tropics. Receptacles are often subjected to very rough treatment and, despite the treatment that they receive, they must remain substantially watertight so as to protect the contents. Such cases or receptacles are often made of panels which are, preferably, of light wood, plywood, and the like, and are usually covered on one or both sides by metal sheets secured thereto so as to render them watertight and to increase the strength of the wooden or other panel parts.

The panels are usually fitted into channels formed in frame members which may extend along and form the edges or corners of the receptacle. Such frame members have channels for the reception of the panel edges, and the panels are usually riveted, cemented, or otherwise secured in such channels. In the usual prior art frame members, which have channels at right angles to each other for the reception of panels, the channels are often so arranged that the edge of one of the panels in a deep channel extends beneath the adjacent edge of the other panel in its channel. The outside edges (formed by frame members) of the case are often distorted or injured by contact with other articles, and, if the frame member at the edge is actually punctured so as to allow moisture to get into and through the joint between the frame member and the panel, the waterproof character of the receptacle is completely lost.

It is an object of my invention to provide an improved frame member for a chest, receptacle, or the like.

It is a more specific object to provide a frame member for a receptacle or the like which, even if injured or punctured at the outer edge, will still serve to protect the joint between a panel or panels and the frame member.

It is a further object to provide a frame member for a receptacle or the like which, along the outer edge, is hollow and will have a measure of resiliency or yield so as to absorb some shock and which, even if pierced or ruptured, will not likely expose the edge of either panel in the channels.

Another object is to provide a frame member having channels wherein the outer edge or corner is substantially removed from the adjacent bottoms of both channels and panel edges therein.

Other objects and features of novelty and invention will hereinafter be pointed out or will become apparent to those skilled in the art.

In the drawings which show, for illustrative purposes only, a preferred form of the invention,

Fig. 1 is an isometric view of a receptacle or case illustrative of the invention;

Fig. 2 is an enlarged, fragmentary, sectional view, taken

substantially in the plane of the line 2—2 of Fig. 1; and

Fig. 3 is a fragmentary view of a frame member in the form of a long strip, which, in the manufacture of a case or receptacle, would be cut to proper lengths for use in the manufacture of the chest or receptacle.

The receptacle of Fig. 1 is somewhat distorted as to proportions for purposes of illustration. The receptacle illustrated comprises a chest part 5, a cover part 6, which parts come together at the parting line 7. The panels, such as 8, 9, 10, forming sides, top, and bottom, are preferably formed of light material such as light wood, laminated wood, or other types of light material protected by metal sheets 11 at the sides, so that the light material of the panels 9 is sandwiched between the metal sheets and is given additional strength by such sheets, and the panels are rendered substantially moisture-proof.

The panels as illustrated, particularly in Fig. 2, are fitted in channels 12—13, which open at right angles to each other and are formed in the frame 14. The frame member 14 is preferably made in the form of an extrusion and may be formed of a light metal such as aluminum or aluminum alloy. In the form shown, this frame member 14 comprises what may be termed, as a whole, a stubby angle section, when viewed in section, as in Fig. 2, and the material in the outside corner of the stubby angle is removed so as to form a large void 15, which is illustrated as square in section. Each leg of the stubby angle is provided with a longitudinal channel 12—13, as heretofore noted. The channels 12—13 do not intersect each other, nor, in the form shown at least, is one any deeper than the other. The channels 12—13 at the inner ends come reasonably close to each other, but the bottoms of these channels terminate at the walls 16—17, forming the inner walls of the void 15 occupying the outside corner of the stubby angle.

The outer plane walls 18—19, forming the outer corner edge where their planes intersect, constitute the outer walls of the void section 15. The panels, such as 9—10, are fitted in the channels 12—13 and may be bedded in some kind of sealing compound and, in the form shown, are additionally held by means of fasteners such as rivets 20. In the preferred form, the edges of the channels are chamfered, as indicated at 21, and sealing compound may be poured, cast, or pressed into the little troughs or channels formed between the chamfers and the panels.

The frame member may be provided with longitudinally extending shallow grooves 22, which are sufficiently deep to substantially house the heads of the rivets, and sealing compound may be applied to those grooves and substantially cover the rivet heads. The sealing material preferably does not extend beyond the surface and therefore is not likely to become ruptured or become loose or be removed from those grooves, and hence the holes through which the rivets passed will be completely sealed up against moisture.

Frame members such as have been described may be used wherever panels come together—that is, such frame members may be used completely around the top and bottom and also in the uprights which extend along the four vertical edges of the receptacle. Thus, when my improved frame member is employed, there is a void 15 all along the case at the outer edges. It will be clear that, if the walls 18 or 19, or the corner formed where such walls come together, should be injured, such as in being deformed by forcible contact with another object, and even if such walls be punctured, there will be no direct access to the inner space of the receptacle. A hollow section having the outside walls 18—19 will also provide a considerable cushioning effect in that the

walls may bend before they rupture and thus tend to resist or to reduce shock. The hollow or void section **15** also renders the frame member much lighter and, as stated, the mere fact of having the void **15** protects the edges and prevents the direct passage to the interior of the receptacle, even if the outer edge is severely damaged or ruptured. Thus my improved frame member will give greater protection than one wherein one panel channel extends beneath the inner end of the other and there is no void along the outer edge or corner. In such a frame section a rupture of the edge will give immediate access to the panel edge and often to the interior of the case. The frame member shown is very strong and light in weight.

It will be understood that certain features of my improved frame member may be omitted and only certain features employed, and, while I have described a specific form of the invention, it is to be understood that various changes and modifications may be made within the scope of the invention, as defined in the appended claim.

I claim:

In a receptacle, corner frame members and panels therebetween, said frame members having the general cross section of stubby angle fittings, the legs of said angle sections having longitudinally extending panel receiving channels therein opening at right angles to each other, the spaces between the bottoms of said channels and the outer corner walls of the angle sections being hollow, the edges of said panels extending into said channels and the bodies thereof extending beyond said channels and to the channels of an opposite corner frame member, headed fastening members extending through the legs of said channels and said panels to secure the panels in said channels, some at least of the legs of said channels having longitudinally extending grooves therein on the sides exterior to the channels to receive the heads of said fasteners, said legs being of a thickness to have said grooves on the exterior sides so as to leave no projections on the inner sides of said channels and said grooves being deep enough to house the heads of said fasteners and sealing compound in said grooves and covering the heads of said fasteners and sealing any openings adjacent said fasteners.

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