

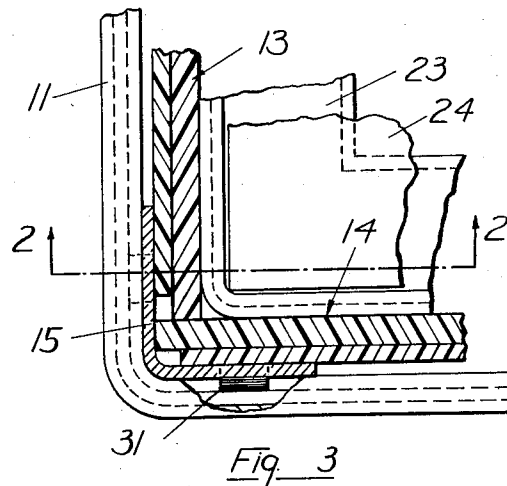
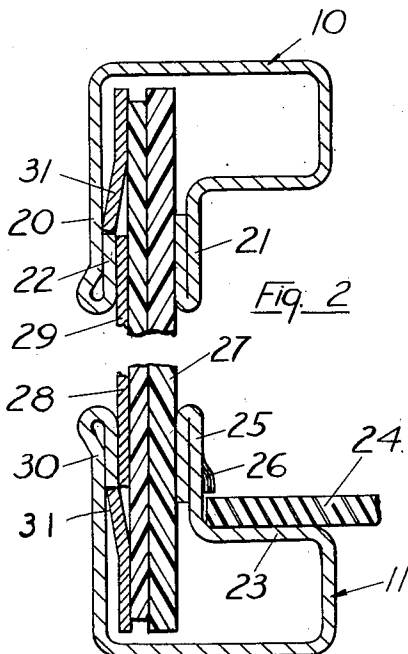
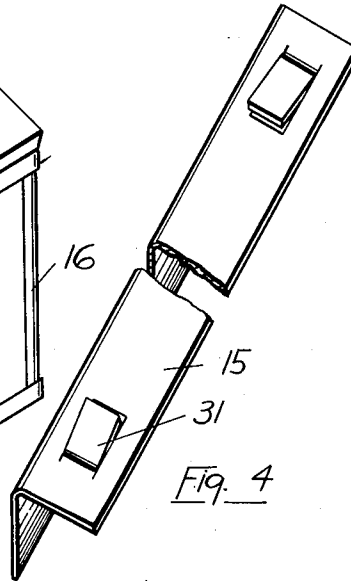
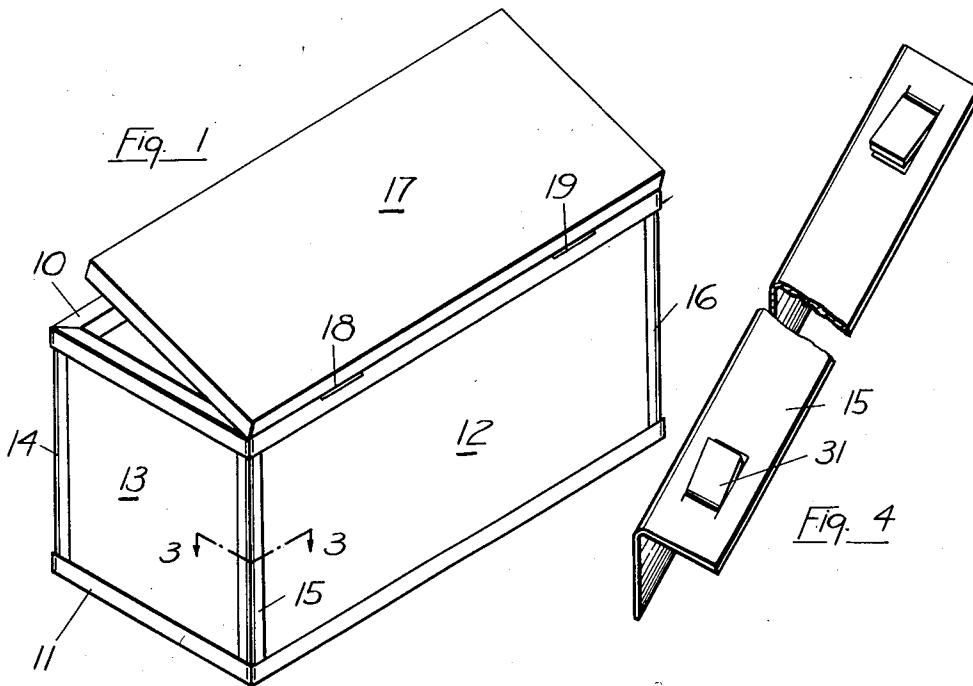
Dec. 31, 1957

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2,818,192

CONTAINER

Filed Aug. 16, 1954



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1

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CONTAINER

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Application August 16, 1954, Serial No. 449,997

6 Claims. (Cl. 220-4)

This invention relates to the construction of containers of the type which may be easily assembled from a series of simple components. A very inexpensive and durable container may be constructed through the use of this invention, which includes opposite upper and lower frame members, a series of flat panels received within a channel-shaped cross section of the frame members, and a series of corner members which are also received within the frame and which lock the components into assembled relationship. The frame is preferably constructed of a resilient material such as sheet metal, and has an inwardly-turned portion on the legs of the channel-shaped configuration which presents an abutment facing the inside of the channel. A discontinuity is provided in the ends of the corner members which is received in the channel, with this continuity being disposed to engage the inwardly-facing abutment on the frame components. The preferred and simplest arrangement for providing the discontinuity of the corner members is to lance out a portion of material which has the added advantage of providing an inclined ramp to urge the resilient frame section open a sufficient amount to snap properly into engagement with the end of the lanced portion. When the engagement has once been effected, the frames are locked in relationship to each other, and the panels defining the enclosed space are correspondingly confined.

An arrangement further utilizing the resilience of the frame material is provided for the securing of a bottom panel in position, where it rests firmly upon a shelf formed in the cross section of the frame structure. An abutment on the inner leg of the channel-shaped cross section of the frame maintains the bottom panel against accidental upward displacement, the panel being snapped into position to the accompaniment of a certain amount of deflection of the channel material.

The several features of this invention will be discussed in detail through an analysis of the particular embodiments illustrated in the accompanying drawing. In the drawing,

Figure 1 presents a perspective view of an assembled container embodying this invention.

Figure 2 is a section on an enlarged scale taken through the side of the container shown in Figure 1, a portion of the unit being broken away to conserve space.

Figure 3 is a section taken on an enlarged scale on the plane 3-3 of Figure 1.

Figure 4 is a perspective view, also on an enlarged scale showing the details of the corner member, with a portion thereof broken away to conserve space.

Referring to Figure 1, the illustrated container is formed by the upper frame 10, the opposite lower frame 11, side and end panels as indicated at 12 and 13, respectively, and corner members as shown at 14, 15, and 16. The cover 17 is hinged at 18 and 19 to the upper frame 10.

The construction of the container is best indicated by a comparison of Figures 2 and 3. Referring to Figure 2, the upper frame member 10 is formed to establish a channel-shaped cross section between the legs 20 and 21. The

2

outer end of the leg 20 is turned inwardly at 22, and the inner end of the turned portion presents an inwardly facing abutment. Similar construction is provided at the bottom frame member 11, with the laterally-offset portion 23 providing a shelf for receiving the bottom panel 24. The inner leg 25 of the channel portion of the lower frame 11 is provided with a laterally-displaced portion 26 around which the panel snaps into the illustrated position as the leg 25 deflects slightly.

The side panel structure of the container may include a series of overlaid laminations as indicated at 27, 28, and 29. These are placed in engagement with the frames between the legs 20 and 21 of the upper frame and the legs 25 and 30 of the lower frame. At this point, the upper and lower frames could be separated so that the panels would be released. The assembly of the corner members, however, serves to lock upper and lower frame members in their assembled relationship, with the lanced-out portions 31 on the corner members snapping into engagement with the abutments provided by the in-turned portions 22. It is preferable that the corner members be angular in cross-section and of sufficient extension on each side to cover the junction of the side and end panels, as shown in Figure 3. When the components have been assembled in the relationship shown in Figure 2, it becomes impossible to separate the frames without displacing the side walls of the frame members a sufficient amount to permit the release of the projections 31. It will be noted that the sloping configuration produced by the lanced-out portions 31 creates a ramp which aids in separating the side walls of the channels during the insertion of a corner member.

The particular embodiments of the present invention which have been illustrated and discussed herein are for illustrative purposes only, and are not to be considered as a limitation upon the scope of the appended claims.

I claim:

1. A container comprising: upper and lower opposite polygonal frame means formed of resilient material having a channel-shaped cross-section, and having an in-turned portion providing an inwardly facing abutment on at least one side of said cross-section, and said bottom frame means also having a laterally-offset shelf portion extending perpendicularly from one side of said channel-shaped cross-section and a projection overhanging said shelf portion, both formed integrally with said bottom frame means; panel means received in said channel-shaped cross-sections and extending between said opposite frame means to define an enclosed space; corner angle members disposed at corners of said frame means, the ends of said corner angle members being received in said channel-shaped cross-section and having a projection engageable with said abutments, the resilience of said frame material tending to maintain the engagement of said ends; and bottom panel means positioned on said shelf portion, the edges of said bottom panel being received between said shelf portion and overhanging projection.

2. A container comprising: upper and lower opposite polygonal frame means formed of resilient material having a channel-shaped cross-section, and having an in-turned portion providing an inwardly facing abutment on at least one side of said cross-section, and said bottom frame means having a laterally offset shelf portion extending perpendicularly from one side of said channel-shaped cross-section and a projection overhanging said shelf portion, both formed integrally with said bottom frame means; panel means received in said channel-shaped cross-sections and extending between said opposite frame means to define an enclosed space; corner angle members disposed at corners of said frame means, the ends of said corner angle members being received in said channel-shaped cross-section and having a projec-

3

tion engageable with said abutments, the resilience of said frame material tending to maintain the engagement of said ends.

3. A container comprising: upper and lower opposite polygonal frame means formed of resilient material having a channel-shaped cross-section, and having an in-turned portion providing an inwardly facing abutment on at least one side of said cross-section; panel means received in said channel-shaped cross-sections and extending between said opposite frame means to define an enclosed space; and corner angle members disposed at corners of said frame means, the ends of said corner angle members being received in said channel-shaped cross-section and having a projection engageable with said abutments, the resilience of said frame material tending to maintain the engagement of said ends.

4. A container comprising: upper and lower polygonal frame means formed of resilient material having a channel-shaped cross-section, and having an in-turned portion providing an inwardly facing abutment on at least one side of said cross-section; panel means received in said channel-shaped cross-sections and extending between said opposite frame means to define an enclosed space; and corner members disposed at corners of said frame means, the ends of said corner members being received in said channel-shaped cross-section and having a discontinuity engageable with said abutments, the resilience of said frame material tending to maintain the engagement of said ends.

5. A container comprising: opposite polygonal frame means formed of resilient material and having a channel-shaped cross-section, and also having an inwardly facing

4

abutment on at least one side of said cross-section; panel means received in said channel-shaped cross-sections and extending between said opposite frame means to define an enclosed space; and corner members disposed at corners of said frame means, the ends of said corner members being received in said channel-shaped cross-section and having a discontinuity engageable with said abutments, the resilience of said frame material tending to maintain the engagement of said ends.

6. A container comprising: opposite polygonal frame means formed of resilient material having a channel-shaped cross-section, and having an inwardly facing abutment on at least one side of said cross-section; panel means received in said channel-shaped cross-sections and extending between said opposite frame means to define an enclosed space; and corner members disposed at corners of said frame means, the ends of said corner members being received in said channel-shaped cross-section and having a discontinuity engageable with said abutments.

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