

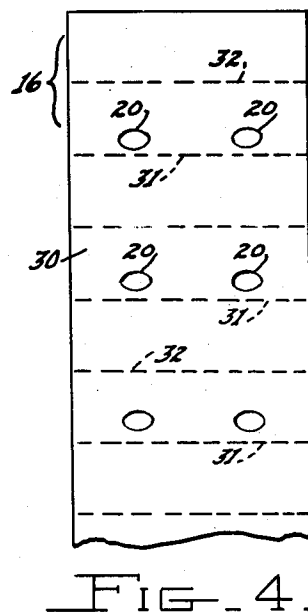
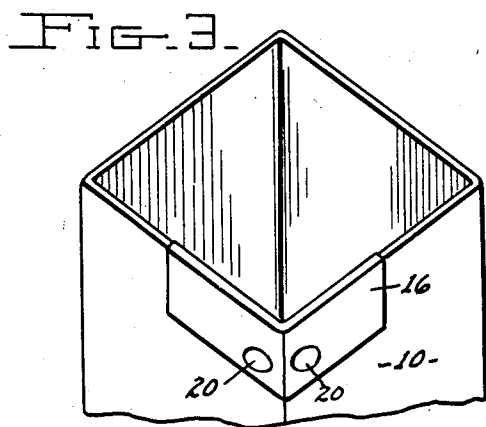
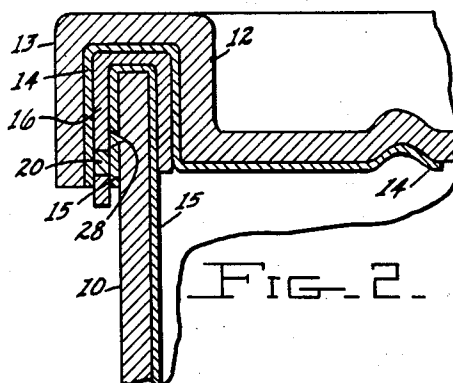
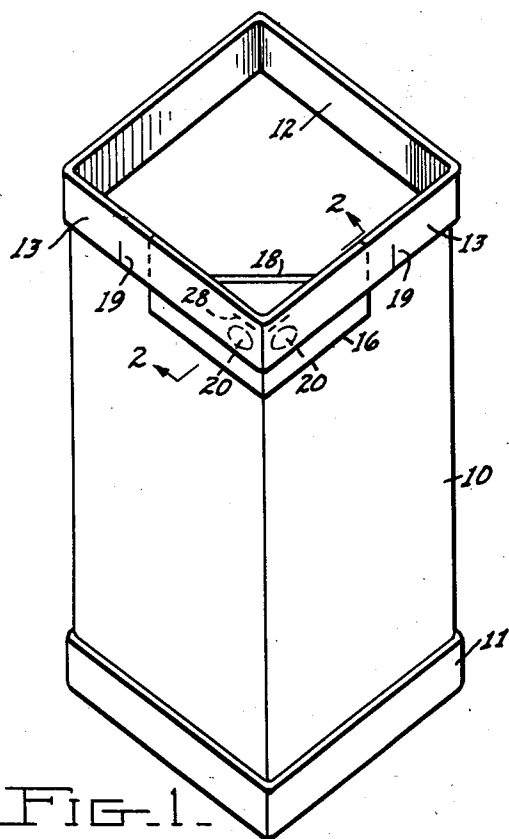
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CONTAINER

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2 Sheets-Sheet 1



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2 Sheets-Sheet 2



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2,471,017

CONTAINER

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This invention relates to containers, and particularly to containers formed of sheet fibrous material, such as paperboard.

The invention has as an object, a container of the type referred to embodying a structure wherein the major portion of the end closure of the container is permanently and fixedly sealed to the body of the container, and the remaining portion of the closure can be quickly and conveniently moved from the body of the container to provide a pouring opening for the removal of the contents of the container, the structure embodying means whereby the movable portion of the closure is secured to the container in liquid tight relation, but in such manner as to not interfere with the convenient opening, or manipulation, of the movable section of the closure.

The invention consists in the novel features and in the combinations and constructions hereinafter set forth and claimed.

In describing this invention, reference is had to the accompanying drawings in which like characters designate corresponding parts in all the views.

Figure 1 is a perspective view of a container embodying my invention.

Figure 2 is a fragmentary sectional view taken on line 2—2, Figure 1.

Figure 3 is a perspective view of a top portion of the container with the non-sealing strip positioned thereon preparatory to receiving the end closure.

Figure 4 is a plan view of a portion of a web from which the strips of non-sealing material are blanked.

Figure 5 is a view, similar to Figure 1, illustrating a modified structure.

Figure 6 is a fragmentary sectional view taken on line 6—6, Figure 5.

Figure 7 is a view, similar to Figure 4, illustrating the blanking of the strips of non-sealable material used in the structure shown in Figures 5 and 6.

The container consists of a tubular body 10 formed of sheet fibrous material, such as paperboard, provided with a suitable end closure 11 which serves as a bottom for the container. The top closure is formed from similar material, and consists of a blank, rectangular in shape, comparable to the rectangular cross section of the container body 10, and provided with a peripheral inverted channel having inner and outer walls 12, 13. The peripheral channel formed by the walls 12, 13, is adapted to receive the top edge portion of the body 10.

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The inner surface of the top closure, or body, or both, are coated with an adhesive substance effective to seal the channel formation to the top edge of the body. This coating is preferably of a thermoplastic nature and preferably applied to both the inner surface of the top closure and the body, the coating on the top closure being indicated at 14, and on the body at 15. The coating 15 on the body also is preferably carried over the top edge of the body and downwardly a short distance on the outer surface thereof.

A strip 16 of non-sealable material, such as metal foil, is positioned intermediate a portion of the channel and the contiguous top edge portion of the body, and is effective to prevent that portion of the channel from sealing to the body.

The closure is applied by a suitable closing head operable to effect pressure against the flanges 12, 13, to compress, or squeeze, the same against the top edge of the body, and if a thermoplastic adhesive is used, heat is present during the application of the pressure, as will be understood by those familiar with this art. This operation permanently and fixedly seals the major portion of the channel formation to the top portion of the body 10. Preferably, the strip of non-sealing material 16 is positioned around a corner portion of the body, as illustrated in Figures 1 and 3, and this portion of the channel, as previously stated, is prevented from sealing to the body on account of the strip 16. Accordingly, this corner portion of the closure can be moved upwardly from the body to provide a corner pour opening. To aid in the manipulation of this portion, the closure is provided with a score 18 extending diagonally across the unsealed corner portion, and the outer flanges 13 are formed with incisions 19 spaced remote from the ends of the non-sealing strip 16.

In order to make certain that the unsealed portion of the channel formation remains in liquid tight engagement with the top of the body during handling of the filled container, I form one or more holes, or cut-outs, 20 in the strip 16, these cut-outs being positioned in proximity to the corner of the container and the lower edge of the outer flanges 13, see Figure 1. These cut-outs, or apertures, permit the adhesive material 14, 15, to flow through the cut-outs, whereby the areas of the flange 13 and the side wall of the body in register with the cut-outs become sealed together. The size of the holes, or cut-outs, 20 is such as to only firmly tack the flanges 13 of the unsealed portion of the channel

to the side wall of the container but not to interfere with the convenient opening of the container.

In Figures 5, 6 and 7, a slight modification of this structure is disclosed, and consists of forming the cut-out in the strip 16 in the nature of a V-shaped notch in the central portion of the strip where it passes around the corner of the body 10, this notch, or cut-out, continuing upwardly a short distance under the flanges 13, as indicated at 25, whereby this small area of the flanges is permitted to seal to the body, see Figures 5 and 6. In order to prevent the outer surface of the body 10 from peeling upwardly from the areas 20, 25, and leaving a fuzzy surface on the pouring lip of the container, which might happen if the adhesive 15 was strongly bonded to the paper, a slight incision 28 may be formed in proximity and just above the areas 20, 25.

The non-sealing strip 16 may be severed from a web 30 on the dotted lines 31 and folded on dotted lines 32. Simultaneously, the cut-outs 20, 25, may be formed in the web, or the severed strip.

It will be apparent that the structure described, and hereinafter claimed, results in a container provided with an end closure which is entirely liquid tight, but which can be quickly and conveniently opened when it is desired to remove the contents.

What I claim is:

1. A container comprising a body member formed of sheet fibrous material, an end closure having an inverted peripheral channel engaging the inner and outer surfaces of the top edge portion of the body, one of said members being provided with an adhesive material effective to permanently and fixedly seal the channel portion of said end closure member to the contiguous portion of the body member, a strip of material interposed between a portion of said channel member and the contiguous portion of the body member and being non-sealable to said members, said unsealed portion of the top closure member being movable from the body to provide a pour opening, that portion of the strip lying between the confronting surfaces of the outer wall of the channel and the body being formed with a cut-out to permit a small area of the outer wall of the unsealed portion of the channel member to seal to the body, said seal being effective to hold said unsealed portion of the channel in liquid tight engagement with the top edge of the body.

2. A container formed of sheet fibrous material comprising a body member polygonal in cross section and having its upper end open, a top closure member closing the open end of the body and being of shape comparable thereto and being formed at its periphery with an inverted continuous flange to receive the top edge portion of the body, the confronting contacting surfaces of at least one of said members within the channel being provided with an adhesive material effective to fixedly seal said members together, a seal barrier positioned between the channel and body at a corner thereof, said seal barrier com-

prising a strip of non-wicking sheet material overlying the top edge of the body and contacting the inner and outer surfaces thereof and being unsealable with said adhesive material, that portion of the strip lying between the confronting surfaces of the outer wall of the channel and the body being formed with a cut-out permitting the area of said surfaces in register with said cut-out to seal together.

3. A container formed of sheet fibrous material comprising a body member polygonal in cross section and having its upper end open, a top closure member closing the open end of the body and being of shape comparable thereto and being formed at its periphery with an inverted continuous flange to receive the top edge portion of the body, the confronting contacting surfaces of at least one of said members within the channel being provided with an adhesive material effective to fixedly seal said members together, a seal barrier positioned between the channel and body at a corner thereof, said seal barrier comprising a strip of non-wicking sheet material overlying the top edge of the body and contacting the inner and outer surfaces thereof and being unsealable with said adhesive material, that portion of the strip extending around said corner and lying between the confronting surfaces of the outer wall of the channel and the body being formed with a notch extending upwardly from the lower edge of the strip at said corner and permitting the area of said surfaces in register with said notch sealing together.

4. A container formed of sheet fibrous material comprising a body member polygonal in cross section and having its upper end open, a top closure member closing the open end of the body and being of shape comparable thereto and being formed at its periphery with an inverted continuous flange to receive the top edge portion of the body, the confronting contacting surfaces of at least one of said members within the channel being provided with an adhesive material effective to fixedly seal said members together, a seal barrier positioned between the channel and body at a corner thereof, said seal barrier comprising a strip of non-wicking sheet material overlying the top edge of the body and contacting the inner and outer surfaces thereof and being unsealable with said adhesive material, that portion of the strip lying between the confronting surfaces of the outer wall of the channel and the body being formed with a cut-out permitting the area of said surfaces in register with said cut-out to seal together, the outer confronting surface of the body being formed with an incision immediately above said sealed area.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,800,143	Hughes	Apr. 7, 1931
2,302,083	Wilcox	Nov. 18, 1942
2,330,045	Georgiou	Sept. 21, 1943