

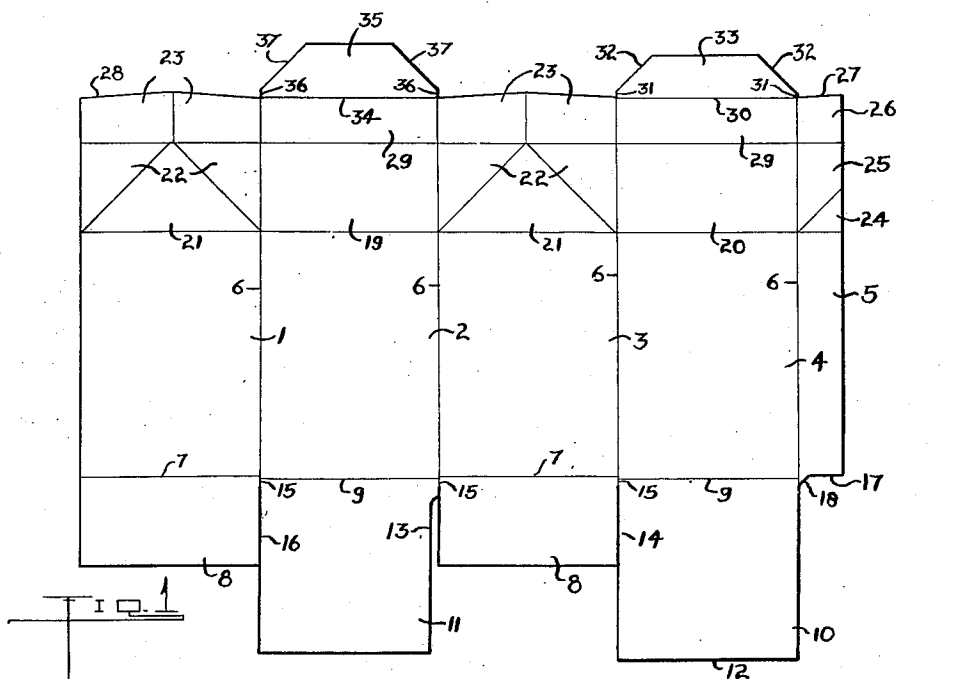
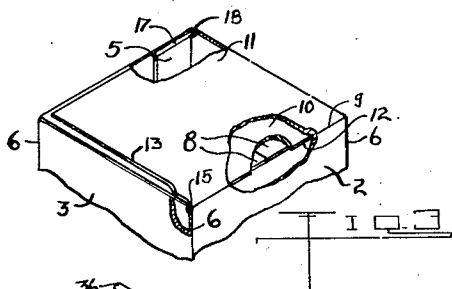
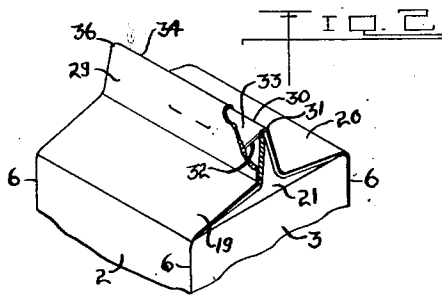
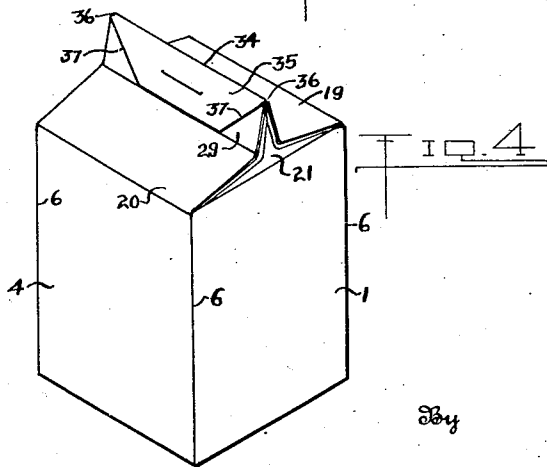
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H. T. SCOTT

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TIGHT CONTAINER

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Henry T. Scott
Inventor

Geo. E. Kirk
Attorney

UNITED STATES PATENT OFFICE

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TIGHT CONTAINER

Henry T. Scott, Toledo, Ohio, assignor to The American Paper Bottle Company, Toledo, Ohio, a corporation of Ohio

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5 Claims. (Cl. 229—37)

This invention relates to tight closing of containers.

This invention has utility when incorporated in sheet stock fiber or paper containers, especially for liquid tight closing thereof.

Referring to the drawing:

Fig. 1 is a view of the blank for the container;

Fig. 2 is a fragmentary view of the container top closure;

Fig. 3 is a fragmentary view of the container bottom closure; and

Fig. 4 is a perspective view of the closed container.

The blank, say of fiber or paper stock in sheet form, is shown as embodying sections 1, 2, 3, 4, and adhesive strip 5 having therebetween scoring 6. These sections may be assembled to form a tube with the strip 5 in abutting relation on the inner portion of the section 1 remote from the section 2. There is thus effected the square tube forming of this body for the container.

This container additionally has terminal extensions from this body portion for closure. As herein shown, scorings 7 from the body portions 1, 3, form a joint for minor bottom flap portions 8. Offsetting blank thickness relatively to the scorings 7 and from the sides 2, 4, are scorings 9 for major inner panel section 10 from the body section 4 and major outer panel section 11 from the body section 2.

This panel section 10 is of greater extent from the score line 9 than the length of the score line 7. This addition is according to the wall thickness of the container so that as the flap 10 is folded over the minor flaps 8, free terminus 12 of the flap 10 may abut against the inner side of the root or base of the flap 11 adjacent the scoring 9. This outer major flap 11 does not overhang from the base of the container or project beyond the flap 10, for the reason that this flap 11 has narrowed portion 13 adjacent one of the minor flaps 8. Furthermore, the extent of this flap 11 from the score line 9 is not greater than the extent of the score line 7 at the base of the minor flaps 8.

Cut 14 between the flaps 10 and 8 is short of extending to the score line 9 to leave uncut portion 15 at least of an extent the thickness of the container blank. Likewise as to the flap 11, there are uncut portions 15 from the cut 13 and from cut 16.

Additionally, the strip 5 does not have its terminus 17 extend directly to the score line 6 but has offset 18 approximately 45° directly connecting to the flap 10 on the side of the score

line 9 away from the body portion 4. These portions 18, 15, are effective in the folding-in of the bottom closure of the container in maintaining a crowding of the stock of the container at the corners and thereby in such regions being effective for tight sealing of the container at this bottom, say prior to leak-proof coating thereof.

This container, in addition to this bottom closure, has a tight sealed closure at the top. This additional closure comprises parallelogram portions 19, 20, from the sides 2, 4; triangular portions 21 from the sides 1, 3 of the body portion. These triangular portions have minor right angle triangular portions 22 which, with the triangular portions 21 complete rectangular portions in series about the tube with the intermediate parallelogram portions 19, 20. The triangular portions 22 have trapezoidal portions 23 therefrom, one at the base of each of the triangles 22 as away from the body portion. The strip 5 in its extent beyond the body portion 4 embodies sections 24, 25, along the extent of the parallelogram portion 20 and additional portion 26 which has its side 27 tapering outward similar to the tapering outward of diagonal side 28 of the respective trapezoids 23. Accordingly, when the strip 5 is in assembly position with the body portion or side 1, this portion 27 may, insofar as its extent, register flush with the inclined free edge 28 of the trapezoid 23 with which it is assembled.

From the parallelogram portions 19, 20, there are minor parallelogram portions 29 which, together with the trapezoid portions 23, are assembled into a four-ply rib. In fact, there are five plies to the extent of the strip portion 26. Into this rib there is a tuck-in tongue from the side 20, 29. This tongue has at its base, score line 30. The tongue adjacent this score line 30 has straight portions 31 giving the tongue a width at least for two plies of the thickness of the container wall.

From this full width portion tapered sides 32 extend to the free end of this tuck-in tongue 33. This full width base portion 31 of the tongue insures tight fitting of the tongue at its base or the upper terminus portion of the rib closure. From the side 2 and parallelogram portions 19, 20 therefrom, there is score line 34 about which tongue 33 is outside tongue 35 having straight portions 36 of full width of the score line 34. This full width portion 36 is of an extent over the four plies of the rib as now including the tuck-in tongue 33. It is accordingly, of greater

extent than the straight or full width portion 31 of the tuck-in tongue 33. From this full width base portion 33, tongue 35 has tapered portions 37. These are of advantage, in that with the tongue 33 tucked in, there may be a snug or firm holding of the rib for this outside fold-over tongue 35. The corners are thus, in each instance, compact, with the stock for a maximum of resistance against liquid leakage.

10 What is claimed and it is desired to secure by Letters Patent is:

1. A container including side walls and an end closure comprising folded extensions of the side walls, said extensions having adjacent edges interconnected and terminating, respectively, in panel sections disposed in parallel adjacent planes, said terminal panel sections together forming a central transverse rib, one of the outer panel sections of the rib having a tongue integral therewith, portion of which closely overlies the rib and portion of which is parallel to and outside of the other outer panel section, the rib overlying portion of such tongue being co-extensive in length with the rib and of a width substantially to cover said rib, and the remainder tapering toward its free end.

2. A container including side walls and an end closure comprising folded extensions of the side walls, said extensions having adjacent edges interconnected and terminating, respectively, in panel sections disposed in parallel adjacent planes, said terminal panel sections together forming a central transverse rib, one of the outer panel sections of the rib having a tongue integral therewith, portion of which closely overlies a portion of the rib and the remainder of which is parallel to and inside of the other outer panel section, the rib overlying portion of such tongue being co-extensive in length with the rib and of a width substantially to cover said rib, and the remainder tapering toward its free end.

3. A container including side walls and an end closure comprising folded extensions of the side walls, said extensions having adjacent edges interconnected and terminating, respectively, in panel sections disposed in parallel adjacent planes, said terminal panel sections together forming a central transverse rib, both of the outer panel sections of the rib having tongues integral therewith, one of said tongues having a portion completely overlying the rib and the second having a portion which overlies the rib save for the panel to which the first tongue is connected, the said overlying portions of the tongues being in close contact, one outside of the other, and each being co-extensive in length with the rib and of a width substantially to cover said rib, and the remaining portion of said second tongue being tapered toward its free end and being disposed inside of and parallel to the panel to which the first tongue is connected.

4. The combination set forth in claim 3 in which the two outer panel sections are equal in length, measured longitudinally of the rib, and co-extensive in length with the rib.

5. A container including side walls and an end closure comprising folded extensions of the side walls, said extensions having adjacent edges interconnected and terminating, respectively, in panel sections disposed in parallel adjacent planes, said terminal panel sections together forming a central transverse rib, one of the outer panel sections of the rib having integral therewith a tongue the base of which is sufficiently wide and sufficiently long to substantially cover the rib and to comprise a closure member sealing the rib from end to end, and the remainder of which tapers toward its free end, the tapered portion lying against the inner face of the other outer panel.

HENRY T. SCOTT. 40