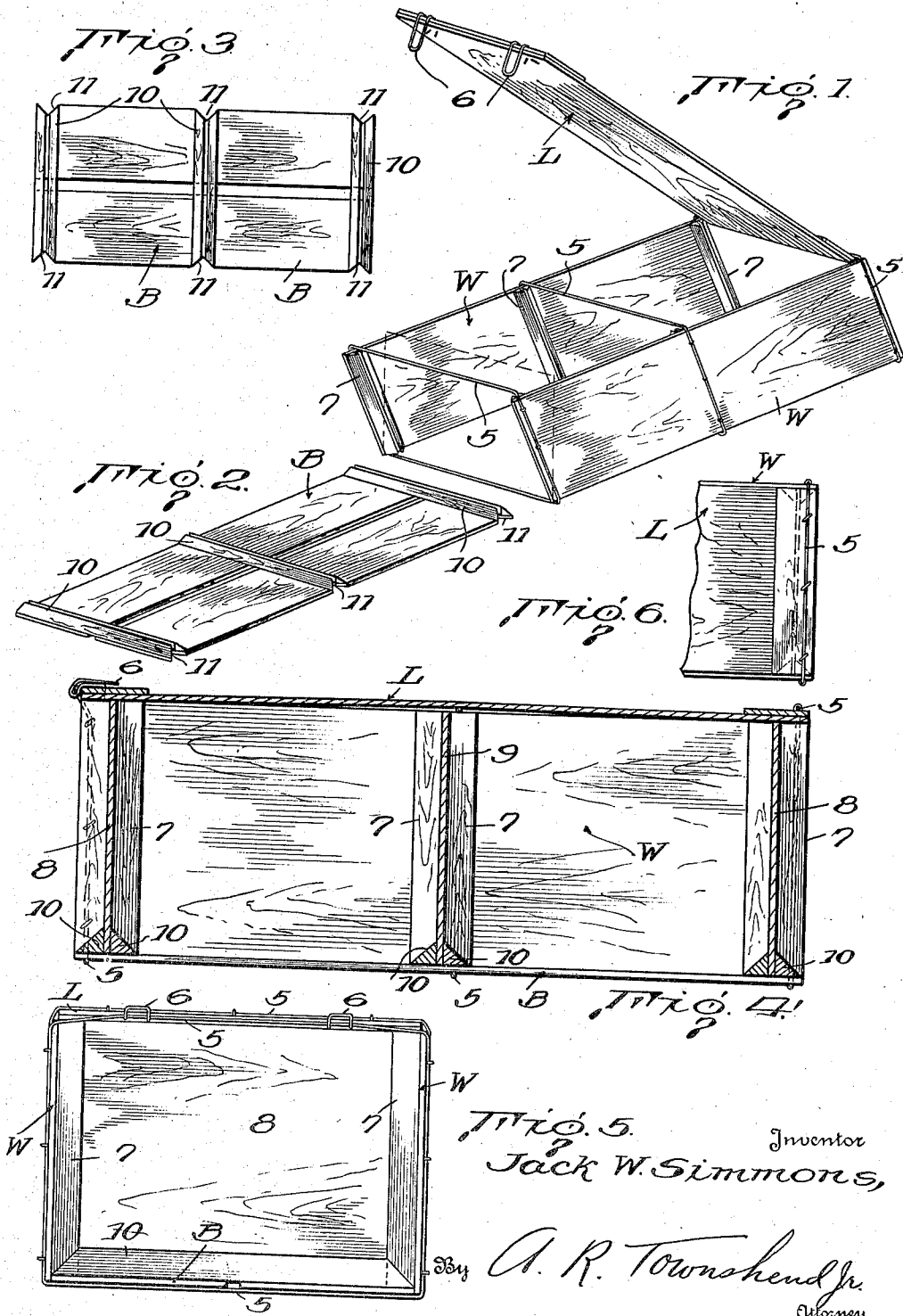


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COLLAPSIBLE PACKAGE
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COLLAPSIBLE PACKAGE

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6 Claims. (Cl. 217-8)

This invention relates to the art of loose coo-
 5 erage and is a continuation, as to all common
 subject matter, of my prior application Serial
 No. 66,274, filed February 28, 1936.

5 The present invention is concerned with col-
 lapsible packages of the knockdown type, prin-
 cipally employed as shipping containers for fruit
 and the like, and has as an object the provision
 10 in such packages of an improved wall and bot-
 tom construction wherein the bottom is detach-
 ably engageable between the walls.

Another object is the provision of a loose coop-
 15 erage knockdown package wherein the side walls
 are permanently connected in mutually foldable
 relation by pre-tied flexible binding elements se-
 cured to the walls and extending transversely
 across and between their top and bottom edges
 and providing supports for a detachable bottom.

A further object is the provision in such a
 20 package of a novel interlocking engagement of
 side wall sections with a detachable bottom and
 detachable transverse panels. Other objects will
 be apparent from the description to those skilled
 in the art.

25 The present disclosure constitutes a practical
 embodiment by which the invention is reduced to
 practice. It is to be understood that the struc-
 tural details thereof may be varied as desired so
 long as they remain consistent with the scope of
 30 the invention as claimed.

Figure 1 of the drawing is a perspective view
 of the partially opened blank comprising the side
 walls and lid as permanently connected by pre-
 fixed flexible binding elements.

35 Figure 2 is a top face perspective view of the
 detachable bottom section.

Figure 3 is a vertical longitudinal section
 through the complete package as service as-
 40 sembled.

Figure 4 is an end elevation of the assembled
 package.

In detail the package comprises a pair of wall
 sections W either of plane or slat construction
 45 permanently connected in mutually foldable re-
 lation by means of flexible binding elements 5,
 here shown as binding wires, appropriately se-
 cured to the outer faces of the walls in pre-tied
 relation with respect to the package as service
 50 assembled, and which binding elements extend
 entirely around the package across and between
 the top and bottom edges of the walls adjacent
 each end and at the middle. The lid L is of
 proper dimensions to cover the top of the pack-
 55 age and is stapled or otherwise permanently at-
 tached at one end to one of the end binding ele-

ments which passes over the top face of the lid
 providing a loose hinge connection. At its other
 end the lid carries fastener members 6, here
 shown as flexible wire balls, adapted to engage
 5 beneath the other end binding element and to be
 bent back thereover to secure the lid in place,
 the intermediate portion of the lid overlying the
 middle binding element, as shown in Fig. 3.

Each wall carries on its inner face cleats 7 se-
 10 cured thereto at each end and at the middle.
 These cleats have their ends flush with the top
 and bottom edges of the walls and are grooved
 longitudinally to provide guides for receiving
 slidable end panels 8 and a center partition
 15 panel 9. In the form as here shown the cleats
 are each formed of pairs of parallel strips of
 triangular cross section, the component elements
 of each pair being spaced apart sufficiently to
 provide the guide grooves for the associated
 20 panels.

The bottom section B of the package is de-
 25 tachable. It comprises a flat section of either
 plane or slat construction provided at each end
 and the middle with grooved cleats 10 identical
 with the wall cleats, and in registry therewith
 when the bottom is assembled. The ends of
 30 cleats 10 and the underlying portions of the bot-
 tom are cut away to provide guide recesses or
 seats 11 shaped to conform to the cross sectional
 shape of the wall cleats whatever such shape 30
 may be.

In assembling the package, the walls are
 opened to upright position and the lid swung up.
 The bottom is then tilted and may be inserted
 35 through an end to engage the seats 11 with the
 wall cleats whereupon the bottom is moved into
 a position between and perpendicular to the side
 walls and resting on the underlying flexible bind-
 ing elements, the under face of the bottom be-
 40 ing flush with the lower edges of the walls. The
 panels 8 and 9 are then inserted from the top in
 the wall cleat grooves and are slid down to seat
 their bottom edges in the grooves of the bottom
 cleats. After filling, the lid is swung down into
 45 place and the fastener balls 6 are engaged with
 the adjacent end binding element 5 to secure the
 lid in closed position.

It is a feature of the invention that the edge
 areas of the respective panels provide tenons en-
 50 gaging in the mortises formed by the cleat grooves
 so that the assembled structure is interlocked
 at the wall and bottom joints. In the form here-
 in illustrated the outer sections of the triangular
 end cleats 7 provide bevelled end posts, as do the
 55 bottom end cleats. The triangular cross-sectional

construction of the cleats throughout provides bevel faces on the cleats so that sharp edges are eliminated and damage to the package contents is thus prevented.

5 I claim:

10 1. A sectional collapsible package comprising side walls, continuous band flexible binding elements secured thereto and extending transversely across and between their top and bottom edges, a detachable bottom insertable between said walls to seat on said binding elements in perpendicular relationship to the walls, and a lid having at one end a loose hinge connection with one of said binding elements.

15 2. A sectional collapsible package comprising opposed side walls, flexible binding elements secured thereto and extending transversely across and between their top and bottom edges, longitudinally grooved cleats carried by said walls, a bottom detachably insertable between said walls to rest on said binding elements, cleats on said bottom and grooved in registry with the wall cleats, and detachable panels insertable in all said cleat grooves and providing tenons joining said walls and bottom.

20 3. A collapsible package comprising opposed side wall sections, tied flexible binding elements secured thereto and extending across and between their top and bottom edges, a bottom detachably insertable between said walls to seat on said binding elements, and end panels detachably engageable with said walls and bottom.

4. A collapsible package comprising opposed side wall sections, tied flexible binding elements secured thereto and extending across and between their top and bottom edges, a bottom detachably insertable between said walls to seat on said binding elements, end panels detachably engageable with said walls and bottom, and a lid hinged on one of said binding elements between the walls. 5

5. In a collapsible package, opposed side walls, cleats thereon and provided with grooves longitudinally thereof, a bottom extending between said walls, said bottom having its edges recessed to engage over said side wall cleats, cleats on said bottom and provided with longitudinal grooves in registry with the wall cleat grooves, and panels insertable in all said grooves to interlock said walls and bottom. 10 15

6. In a collapsible package, opposed side walls, flexible binding elements tying said walls together, a cleat on each said wall and substantially triangular in cross section, a detachable bottom insertable between said walls perpendicular thereto, a cleat on said bottom in registry with the wall cleats, said bottom and bottom cleat being notched in conformity with the shape of the wall cleats to engage thereover, and panel means insertable between said walls to engage all said cleats. 20 25 30

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