March 1, 1966 F. H. WILEY 3,237,839

EXPENDABLE DEPOT PALLET BOX

Filed Sept. 3, 1964 3 Sheets-Sheet 1

Fig. 1.

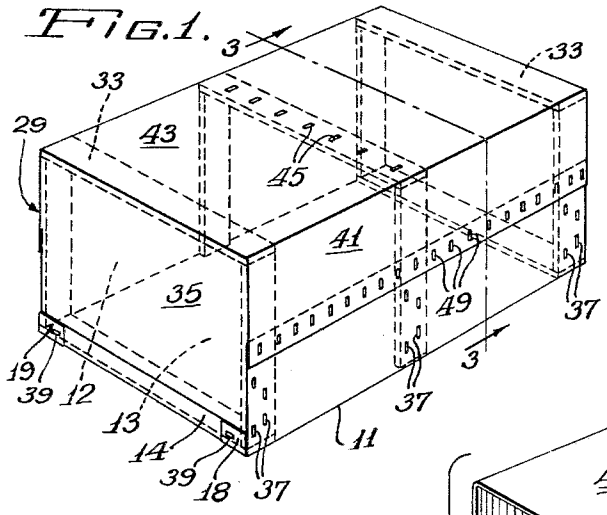


Fig. 2.

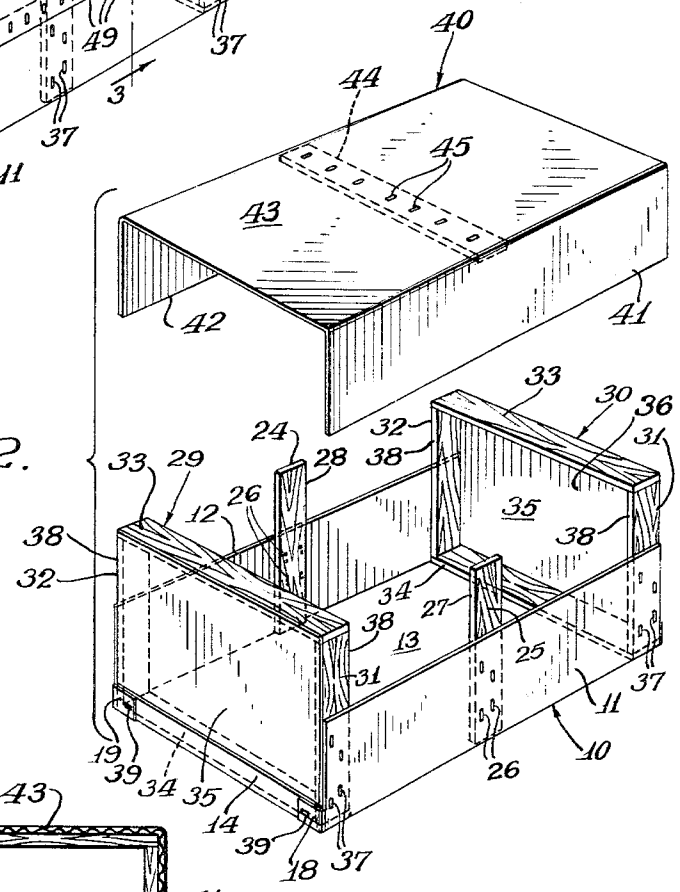
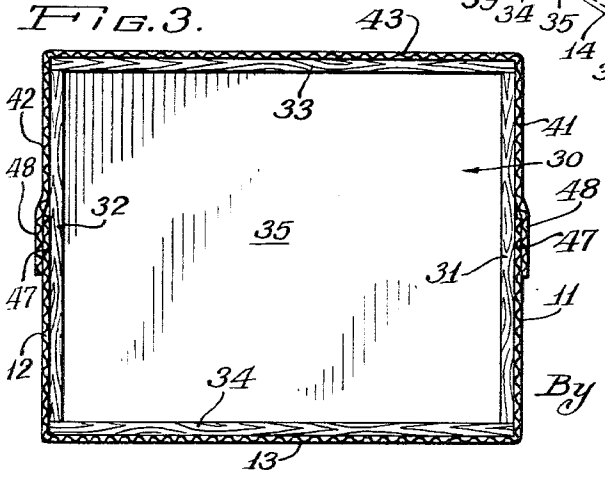


Fig. 3.



Inventor:
Frederick H. Wiley
By Frederick J. Kube
Atty.

March 1, 1966 F. H. WILEY 3,237,839

EXPENDABLE DEPOT PALLET BOX

Filed Sept. 3, 1964 3 Sheets-Sheet 2

FIG. 4.

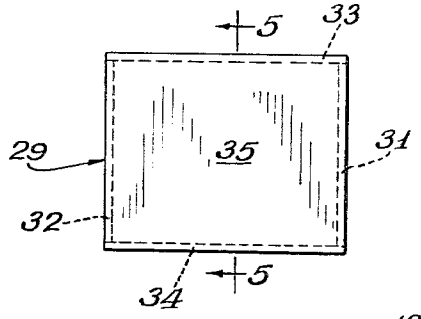


FIG. 5.

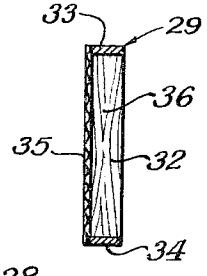


FIG. 6.

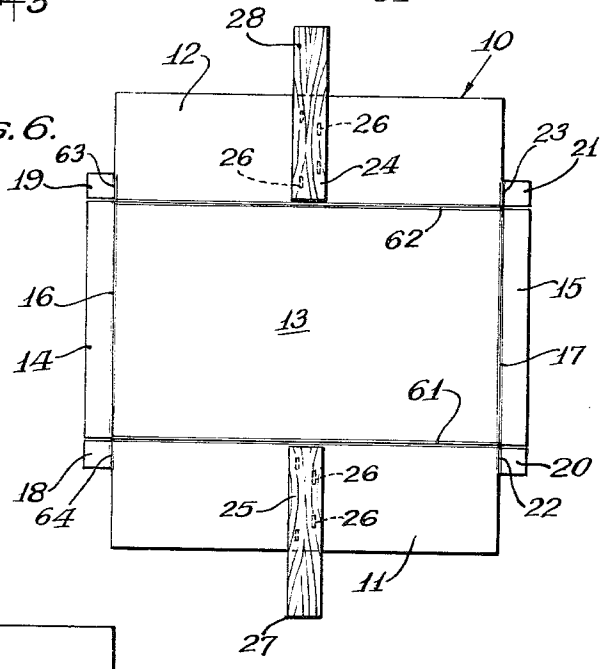
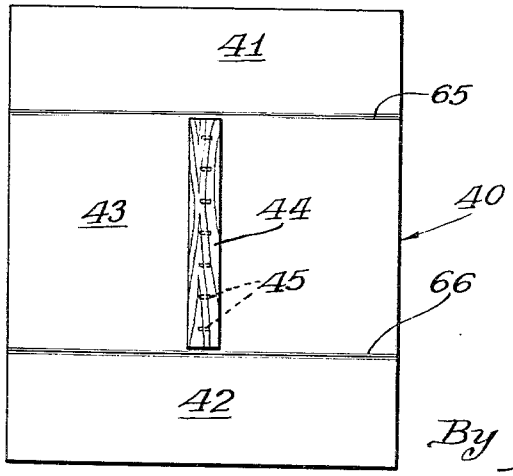


FIG. 7.



Inventor:
Frederick H. Wiley
By Frederick J. Kaube
Atty.

March 1, 1966 F. H. WILEY 3,237,839

EXPENDABLE DEPOT PALLET BOX

Filed Sept. 3, 1964 3 Sheets-Sheet 3

Fig. 8.

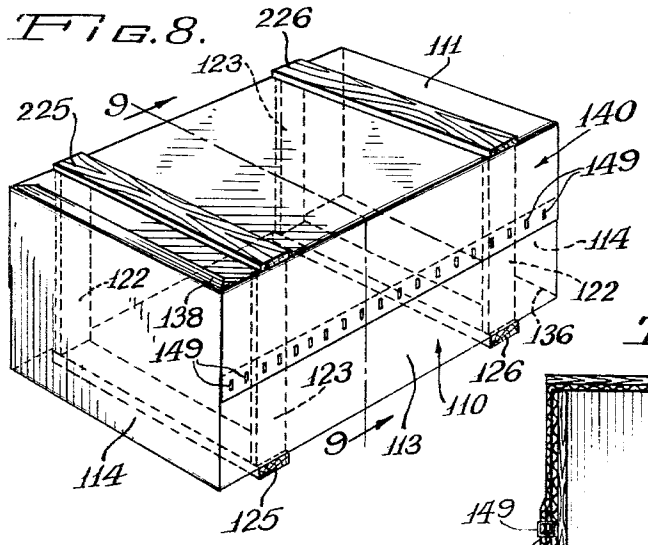


Fig. 9.

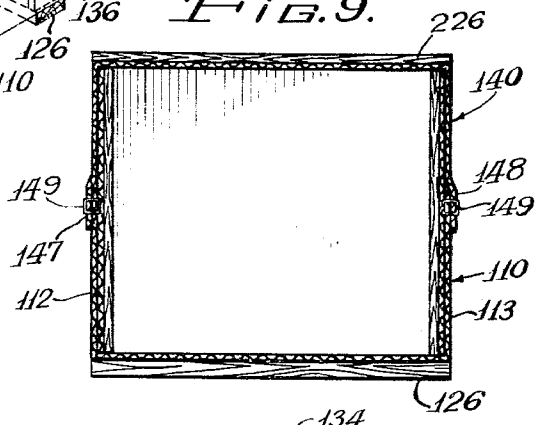


Fig. 10.

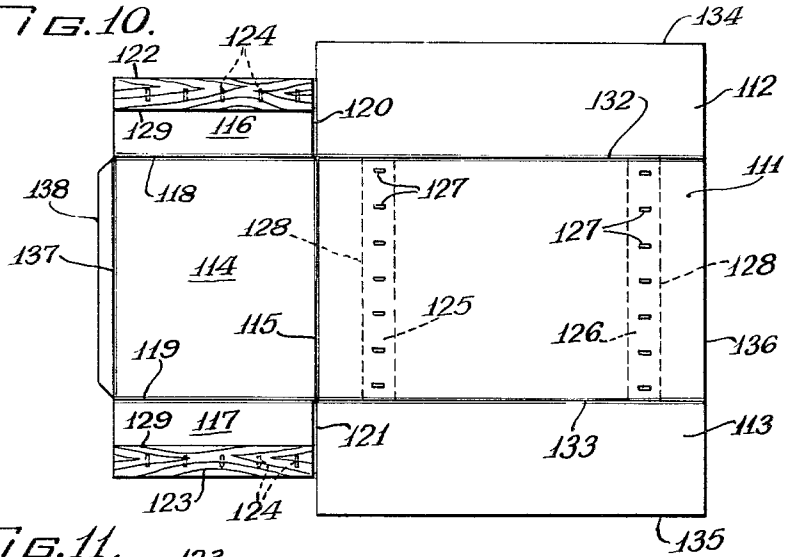
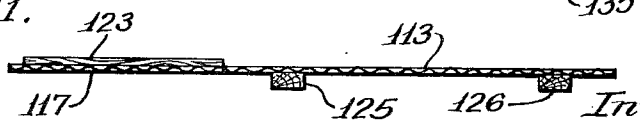


Fig. 11.



Inventor:
Frederick H. Wiley
By Frederick J. Kraus
Atty.

United States Patent Office 3,237,839 Patented Mar. 1, 1966

3,237,839

EXPENDABLE DEPOT PALLET BOX

Frederick H. Wiley, Palos Heights, Ill., assignor to International Harvester Company, Chicago, Ill., a corporation of New Jersey

Filed Sept. 3, 1964, Ser. No. 394,130
5 Claims. (Cl. 229—23)

This invention relates to pallet boxes and the like. Particularly it relates to improvements in shipping and storage containers adapted for vertical stacking.

For shipping of articles, wooden containers are frequently indicated because of the relative ruggedness of construction available when compared with shipping containers fabricated from materials such as corrugated board and the like. However, while the containers fabricated from corrugated board may not always be suitable because of lack of adequate strength for the articles to be carried, or because of adverse conditions under which the shipment will occur, wooden boxes may be inadequate or unsuitable for at least one of the following reasons.

A wooden container generally is sufficiently costly that the shipper of goods will want the container paid for by the receiver or returned. If the container is to be paid for, such cost when added to the cost of the goods may be sufficiently great to make the total cost of the goods too high for the purchase thereof to be attractive. In the event the container is to be returned, additional handling, an accordingly additional expense, is involved in preparing the container for return and shipping it back.

Furthermore, wooden containers generally are much heavier than corrugated board containers of like size. Consequently, freight costs for shipping such wooden containers are higher than those for comparably sized corrugated board containers.

Additionally, a wooden shipping box is generally made up or formed at a box factory, away from its place of use, and consequently it is shipped from place of manufacture to the place of use in such "made up" form or condition. Therefore, a shipper using wooden boxes may have the following expenses: Cost of transporting unused "made up" boxes from box factory to a warehouse or depot; cost of storing "made up" wooden boxes at such warehouse or depot, plus the cost of transporting such "made up" boxes from warehouse or depot to the place of use or packing.

The foregoing costs are much greater than corresponding costs in connection with corrugated boxes available in knock-down or blank form which can be stored in less space and handled with greater facility. A "knock-down" box or box blank of corrugated board generally or conventionally is transported as a blank to place of use or packing where the blank is made up or formed.

An important object of the instant invention is to provide an improved container of the class described.

A further object of the instant invention is to provide a container which has substantially the strength or rigidity of a wooden box but which is available at less cost than a wooden box and at a cost which is more closely akin to that of corrugated board.

An additional object of the invention is the provision of a combination box fabricated from corrugated board and wood and which can be quickly and easily assembled from a blank or blanks at or near the point of use, by unskilled operators with inexpensive tools.

A yet further object of the instant invention is the provision of a box of the class described which by reason of its rugged construction is adapted for re-use.

A still further object of the invention is the provision of a pallet box and the like of rugged construction but light weight, whereby the cost of shipping in such box

is low, the box is inexpensive, and, accordingly, from the standpoint of the shipper, expendable.

The foregoing and other objects, features and advantages of the present invention will become more apparent upon consideration of the following description and appended claims, when considered in conjunction with the accompanying drawings, wherein the same reference characters or numerals refer to like or corresponding parts throughout the several views.

On the drawings:

FIG. 1 is a perspective view of one embodiment of the instant invention, hidden parts being dotted for the purpose of illustration.

FIG. 2 is a partially exploded perspective view of said embodiment taken from the same position as FIG. 1.

FIG. 3 is a sectional view taken substantially on the line 3—3 of FIG. 1 and looking in the direction of the arrows.

FIG. 4 is an end elevation of the bottom container member.

FIG. 5 is a cross sectional view taken substantially on the line 5—5 of FIG. 4 and looking in the direction of the arrows.

FIG. 6 is a plan view of the blank or mat employed in making up the bottom container member.

FIG. 7 is a plan view of the blank or mat employed in making up the top container member.

FIG. 8 is a perspective view of a modified embodiment of the invention.

FIG. 9 is a cross sectional view taken substantially on the line 9—9 of FIG. 8 and looking in the direction of the arrows.

FIG. 10 is a plan view of the blank or mat employed in forming the bottom container member of the modified embodiment.

FIG. 11 is a side elevational view of the bottom container member shown in FIG. 10.

Referring now more particularly to FIGS. 1, 2, 3, 4, 5, 6 and 7 which show one form of the invention, and having specific reference initially to FIGS. 4, 5, 6 and 7, from a description of which it will be understood how the device easily is folded and is secured together, a mat or blank is provided of the bottom box section generally designated by numeral **10**. The bottom blank or mat is of general rectangular configuration. The blank or mat of bottom section **10**, except as hereinafter noted, preferably is fabricated from conventional cardboard, paperboard or the like.

The rectangular portion of the mat or blank of bottom section **10** comprises side members **11** and **12** which are disposed along opposite sides of a base or bottom **13** with which such side members are integral, however from which they are defined or bounded by parallel lines of scoring or creasing **61** and **62**, respectively. Said lines of scoring **61** and **62** provide means along which side members **11** and **12** can be bent upwardly from the position shown in FIG. 6 to the vertical positions parallel to each other, as shown in FIGS. 1, 2 and 3.

A pair of straps, bands or flaps **14** and **15**, the widths of which, respectively, are substantially the same as that of the base **13**, along their inner end portions are coextensive with said base. Said straps or bands **14** and **15** are integral with floor, base or bottom **13**, but therefrom they are defined at the opposite ends of said floor, base or bottom **13** by parallel lines of scoring or creasing **16** and **17**, respectively. Bands or straps **14** and **15** are bendable along respective lines of scoring **16** and **17** into parallel planes perpendicular to the base or bottom **13** and at opposite ends thereof, a direction upwarldy toward the viewer from FIG. 6. The bands or straps **14** and **15** extend trans-

versely of the side members **11** and **12** to which they are substantially perpendicular.

Small rectangular extensions, flaps or ears **18** and **19** extend from the inner left end portions of lower side members **11** and **12**. Said extensions, flaps or ears **18** and **19** are integral with side members **11** and **12**, but therefrom they are defined respectively by lines of scoring **63** and **64** which are coextensive with line **16**.

The height of each of the extensions or ears **18** and **19** is substantially equal to the height of the band or strap **14**. When seen in FIG. 6, said ears or flaps **18** and **19** are disposed at opposite ends of band or strap **14**. They are bendable along lines **63** and **64** into spaced apart vertical positions at right angles to the respective side members **11** and **12** inwardly toward each other from the vertical position of said side members, as seen in FIGS. 1, 2, and 3, to overlap the opposite end portions of the vertically disposed band or strap **14**.

At the opposite end of the blank **10**, a pair of ears, flaps or extensions **20** and **21** extends outwardly from the side members **11** and **12**. Said ears, flaps or extensions **20** and **21** are integral with said side members **11** and **12** but defined therefrom by lines of scoring **22** and **23** which are in alignment with the opposite ends of the line of scoring **17**.

The ears, flaps or extensions **20** and **21** in the mat or blank **10** are disposed at opposite ends of the strap or band **15**, as illustrated in FIG. 6. Said ears, flaps or extensions **20** and **21** may be creased, bent or folded along respective lines of scoring **22** and **23** into spaced vertical positions at right angles to respective side members **11** and **12** inwardly toward each other from the vertical position of side members **11** and **12**, as shown in FIGS. 1, 2 and 3, to overlie the opposite ends of vertically disposed band or strap **15**.

A pair of slats or cleats **24** and **25**, which may be fabricated from an exceedingly inexpensive wood, have their inner end portions rigidly secured to the opposed and facing surfaces of lower side members **11** and **12** by suitable fasteners such as staples or the like **26**, only some of which are numbered in the drawings. The slats or cleats are shown as rectangular in shape and rather thin. In practice, 1" x 4" wooden cleats of suitable lengths may be used.

The slats or cleats **24** and **25** are disposed substantially midway between the opposite ends of the lower side members **11** and **12**; and as illustrated in FIG. 2, the upper end portions **27** and **28** of said cleats or slats **24** and **25** extend vertically in opposed and parallel positions out of the lower portion of the box or container. The cleats or slats **24** and **25** comprise medial vertical supports or frame members for the pallet box.

Attention is now invited to the opposite substantially identical, but facing, end members generally designated by the numerals **29** and **30** and which are shown in FIGS. 1, 2, 3, 4 and 5. As clearly illustrated in FIG. 2, each end member **29** and **30** comprises a substantially rectangular framework composed or made up of a pair of parallel side cleats or slats **31** and **32** and parallel top and bottom cleats or slats **33** and **34**, respectively. The fabrication of said cleats **31**, **32**, **33** and **34** may be of wood. In such event, 1" x 4" cleats of selected lengths are suitable. The opposite end portions of the top and bottom cleats **33** and **34** of each of the end members are respectively connected to the tops and bottoms of the side cleats **31** and **32** by any suitable fasteners well known in the art.

As illustrated in FIG. 5, a flat plate or sheet **35**, fabricated preferably from corrugated board, occludes, covers or is formed over each framework opening **36** by being fastened to the outer end surfaces of such framework, in any suitable or conventional fashion. The end frame members **29** and **30** are disposed in opposite end portions of the lower box section with their outer portions including opposing plates or sheets **35** forming the opposite end surfaces of the box. The disposition of said end members

is such that the openings **36** in the frames are directed inwardly of the box. Suitable fasteners such as staples or the like **37**, only some of which are shown in the drawings, fasten the lower end portions of side cleats **31** and **32** to the side members **11** and **12** respectively, as illustrated in FIGS. 1 and 2.

The upper portions **38** of the side cleats **31** and **32** extend upwardly beyond the upper limits of the lower side members **11** and **12** a distance equivalent to the height of the extensions or outer portions **28** and **29** of the cleats **24** and **25**.

As illustrated in FIG. 2, the lower outer end surface of each of frames **29** and **30** abuts against the inner surface of a respective of the straps or bands **14** and **15**. By means of fasteners **39**, such as staples or the like, which connect flaps or ears **18** and **19** and flaps or ears **20** and **21** to the bands or straps **14** and **15**, respectively, the end frame members **29** and **30** may be fastened or secured to the inner surfaces of the bands or straps **14** and **15**, respectively, as illustrated in FIGS. 1 and 2 of the drawings.

The top box section or cover is identified generally by the numeral **40**. In its formed or made up condition, it is clearly seen in FIG. 2. The blank or mat for top box section **40** is illustrated in FIG. 7.

The blank of the top section **40** is substantially rectangular, as illustrated in FIG. 7. The length of the blank, that is, the length of the top, is substantially equal to the length of the bottom section **10**. Within the framework of this description, "length" in FIG. 7 is the lineal distance between the left and right sides of FIG. 7.

The top section **40** comprises a pair of side members **41** and **42** which are disposed on and extend from opposite sides of the medial portion **43**. Said medial portion **43** forms the upper limits of the box or top closure thereof. Side members **41** and **42** are the same length as the medial portion or top closure **43** from which they are defined or delineated by parallel longitudinal lines of scoring **65** and **66**. Along said lines of scoring **65** and **66**, said upper side members **41** and **42** are bent into substantially parallel planes which are perpendicular to the top closure **43**, so that in essence the top box section **40** is nothing more or less than an open ended channel, U-shaped in cross section, as clearly illustrated in FIG. 2.

Substantially midway between the sides of the inner face of top closure **43** and extending transversely of the longitudinal axis thereof, a slat or cleat **44** is rigidly secured by means of suitable fasteners such as staples or the like **45**, only some of which are numbered in the drawings. The length of the cleat **44** is sufficient to engage the opposite end portions thereof against the tops of cleats **24** and **25** when the container is closed. Said cleat **44** preferably is fabricated in the same way as the other cleats heretofore identified.

As illustrated in FIG. 1, the extreme opposite end portions of the top cover **43** are adapted to seat upon top rails **33** of the frame members **29** and **30** when the container is closed.

Attention is now invited to the cleats which are substantially equivalent in two dimensions. The lengths thereof, however, in a given box construction, may vary slightly. Assuming 1" x 4" cleats, disposed in the positions illustrated in the drawings in FIGS. 1–7, their lengths would be dependent upon the height of the box. However, the side cleats **31** and **32** would be one inch, or the thickness of the cleats **34**, shorter than the medially disposed cleats **24** and **25** because the side cleats **31** and **32** are disposed upon and extend upwardly from cleats **34** which space said side cleats **31** and **32** one inch (if the cleat **34** has a thickness of one inch) from the base or floor **13**. Whereas, on the other hand, the bottoms of the cleats **24** and **25** are shown resting directly on the floor **13** by reason of which said cleats **24** and **25** have to be one inch, or the thickness of the cleat **34**, longer than the side frame cleats **31** and **32** to raise the former to the same height as the latter.

As clearly illustrated in FIGS. 1 and 3, the height of the lower side members **11** and **12** and the upper side members **41** and **42** is such that the upper box section **40** overlaps the lower box section **10** along overlapping edges **47** and **48** which extend longitudinally of the device. In the drawings, the upper edge portions of the lower side members **11** and **12** have been identified by the numeral **47**, and the lower edge portions of the upper side members **41** and **42** overlapping said upper edge portions **47** have been labeled by the numeral **48**.

Along the side of the container comprised of members **11** and **41**, as illustrated in FIG. 1, the overlapped edges **47** and **48** are secured by suitable fasteners such as staples or the like **49**, only some of which are identified by numerals in FIG. 1. The overlapping edges **47** and **48** on the other side of the container comprised of members **12** and **42** will be suitably secured upon completion of packing of the contents (not shown) which the container is to hold. Such securance may be by means of gummed tape or other facility well known to those skilled in the art.

In any event, after shipment of goods and after the fasteners or fastening means have been removed at least from the overlapping edges **47** and **48** of the sides **12** and **42**, a rigid storage bin then remains, access to which is obtained by reverse and upwardly bending side member **42** from its normal closed container position.

Now attention is invited to the sheet of drawings bearing FIGS. 8, 9, 10 and 11 which illustrate a modified embodiment of the invention. The modified embodiment compirses an upper container section generally designated by numeral **140**, and a lower container section generally designated by the numeral **110**. Best understanding of the box construction is had by referring to the blank or mat from which the same is constructed, and in this connection attention is invited to FIGS. 10 and 11. In FIGS. 10 and 11, the bottom mat or blank is illustrated. However, it is observed that the bottom and the top mat are of substantially the same construction and of the same dimensions with the exception of those differences which will hereinafter be noted.

At the right side of FIG. 10 it is noted that a medial container section is designated as **111**. Container section **111** is substantially rectangular, and from left to right of said section designates length. A pair of integral side flaps or members **112** and **113**, being the same length as the section **111**, extends from opposite sides of said rectangular section **111**. Said members **112** and **113** are delineated from section **111** by longitudinally extending parallel lines of scoring **132** and **133**.

By bending the side members **112** and **113** upwardly with respect to FIG. 10 along lines **132** and **133** into a position perpendicular to the plane of the medial container section **111**, a pair of vertical side walls **112** and **113** is formed to which medial section **111** may be the floor or top closure, as will hereinafter be explained.

At its left end, the section **111** is integrally connected to a rectangular box section **114** which forms a container end face. The container end face is separated from the rectangular box section **111** by a line of scoring **115** along which the container end face **114** is bent perpendicular to the section **111**.

Disposed on opposite sides of the end face **114** is a pair of parallel opposed end flaps **116** and **117**, the lineal dimension from left to right of which in FIG. 10 is the same as the similar dimension of the end face **114**. The end flaps **116** and **117** are integral with the end face member **114** from which they respectively are delineated by parallel lines of scoring **118** and **119**.

At their inner ends, the flaps **116** and **117** are shown as abutting the inner ends of the side members **112** and **113** in FIG. 10 along lines designated as **120** and **121**. However, by a suitable cutting tool such as a die or the like, the flaps **116** and **117** can be cut along said lines **120** and **121**, respectively, to separate them from the side members **112** and **113**. Thereafter, when the flaps **116** and **117** are

bent or folded along the lines of scoring **118** and **119**, respectively, and rotated to normal "made up" position, said flaps **116** and **117** will be disposed at right angles to the end face section **114** and be disposed in planes parallel to each other.

Along their entire outer edges, as seen in FIG. 10, the flaps **116** and **117** carry a pair of elongated cleats or slats **122** and **123** which are rigidly secured to said flaps **116** and **117**, respectively, by means of fasteners such as staples or the like **124**, only some of which have been numbered in the drawings.

A pair of cleats **125** and **126** is disposed parallel to each other on the outer surface of medial box section **111** to which said cleats **125** and **126** are connected by staples or the like **127**, only some of which are numbered in the drawings. The cleats **125** and **126** are disposed transversely of the longitudinal axis of the medial box section **111**, and the outer edge **128** of each is spaced from its respective end of said section **111** by a distance substantially the same as the distance between the inner ends **129** of the cleats **122** and **123** and the lines of scoring **118** and **119**, respectively.

Accordingly, when the box is formed with the end face **114** in vertical position or vertical plane and the side flaps **116** and **117** at right angles thereto also in vertical position, the side flaps **116** and **117** will be disposed inwardly of the side sections **112** and **113**, respectively. Cleats or slats **122** and **123** will then lie in a substantial plane common with cleat or slat **125** from the end portions of which the cleats **122** and **123** will extend vertically in a three-sided frame.

Top box section or container section **140** is of substantially the same configuration as the bottom container section **110**. In the drawings, however, they differ to the extent that upper outer cleats **225** and **226** are not the same thickness as the lower outer cleats **125** and **126**. However, this detail is not critical to the invention, and said upper and lower outer cleats may be of the same or of differing widths as desired. However, uniform blanks or mats are provided which are suitable for both the top sections **140** and the bottom sections **110** when the thickness of each of cleats **125**, **126**, **225** and **226** is the same as that of the others.

Now, after the top and bottom sections **140** and **110** are formed, they are assembled by positioning panel **111** of the top section **140** on top of the vertical side walls **112** and **113** of the bottom container section **110** in such a way that lines of scoring **132** and **133** in the top section **140** are disposed respectively along the edges **134** and **135** of the side walls **112** and **113** of the lower container section **110**. Furthermore, the edge **136** (which in the bottom section **110** is the rear edge and in the top section **140** is the front edge) of the top member **140** is abutted against the inner surface of the line of scoring **137** along which the flap **138** of the lower section **110** is bent to overlap edge **136** of the upper section **140**, as illustrated to the left of FIG. 8. The same arrangement occurs in the diagonally opposite corner. That is, the edge **136** of the lower section **110**, which is only shown in dotted lines to the lower right of FIG. 8, will engage the line of scoring **137** of the upper container member **140**.

The foregoing arrangement provides substantially two spaced apart rectangular frame-like members which rigidify the container in spaced apart parallel positions with one of said frame-like members comprised of cleats **122**, **123** and **125** of the bottom container section **110**, together with cleat **225** of the top container section **140**; and with the other of said framelike members comprised of cleats **122**, **123** and **226** of the top container section **140** together with cleat **126** of the bottom section **110**.

Now, the side members **112** and **113** extend vertically a length which is greater than one-half the vertical length of the cleats **122** and **123** when in the position of FIG. 8. Thereby, adjoining edge portions **147** and **148** of the bottom section **110** and the top section **140**, respectively, may be overlapped in the manner illustrated in FIG. 9 with the

lower edge portions **148** of the section **140** overlapping the upper edge portions **147** of the lower container section **110**. Said overlapping edge portions **147** and **148** on one side of the device may be secured by suitable fasteners such as staples or the like **149**, only some of which have been identified in FIG. 8. On the other side of the device, which is obscured in FIG. 8, the securance may be any suitable means including gummed tape and the like if desired which may be easily intentionally removed to unload a loaded container.

With respect to the flaps **138** which will be on both ends of the container in diagonally opposed positions, such flaps **138** may be suitably sealed over the adjoining edges **136** if desired.

As previously indicated, FIGS. 8, 9 and 11 disclose that cleats **125** and **126** are thicker than the cleats **225** and **226**. By reason of the foregoing, made up boxes may be stacked one upon the other and permit therebetween the entry of a forked carriage of a conventional design when the cleats **225** and **226** are, for example, 1" x 4"'s and the lower cleats are, for example, 2" x 4"'s.

While the cleats herein referred to are illustrated as being fabricated from wood, and cretainly wood provides an exceedingly inexpensive material of good rigidity which will provide strength and desired other characteristics to the framework of a container, other suitable materials, such as thin metal bands, or cleats of varying physical characteristics, dependent upon the qualities desired to be imparted to the container, can be employed in the instant invention and should be considered the equivalent of the cleats herein shown.

It is further noted that corrugated board has been illustrated and designated as comprising the major fabric of the containers. Various changes and substitutions in that material can be made without departing from the invention, as the particular materials shown and described are not intended to limit the scope of the invention.

As many substitutions or changes could be made in the above described construction, and as many apparently widely different embodiments of the invention within the scope of the claims could be constructed without departing from the spirit and scope thereof, it is intended that all matter contained in the accompanying specification shall be interpreted as being illustrative and not in a limiting sense.

I claim:

1. An expendable depot pallet box having spaced and parallel top and bottom wall means, spaced and parallel end wall means, and spaced and parallel side wall means comprising, a first container section including a generally flat bottom panel serving as the bottom wall means, an end panel disposed at right angles to said bottom panel and extending vertically therefrom, and a first pair of parallel side wall partial panels disposed at right angles to said bottom and end panels and extending vertically from said bottom panel, said side wall partial panels having a vertical length substantially less than the vertical height of said end panel; a second container section positionable on said first container section including a generally flat top panel serving as the top wall means, and a second pair of side wall partial panels hingedly connected to respective opposite sides of said top panel and extending therefrom, each of said side wall partial panels of said second pair of side wall partial panels hingedly connected to said top panel extending from said top panel a distance less than the height of said end panel, each of said side wall partial panels of said second pair being movable so as to have an edge portion thereof overlapping an edge portion of a respective one of said side wall partial panels of said first pair of side wall partial panels when said second container section is positioned on said first container section; and reinforcing means including a pair of spaced and parallel cleats fixedly secured with respect to said first container section, each of said cleats being disposed inwardly of a respective one of said first pair of side wall partial panels and having one end abutting said bottom panel and extending vertically from said bottom panel to a point adjacent said top panel when said second container section is positioned on said first container section, said reinforcing means further including a generally horizontally extending cleat rigidly secured to said top panel having each of its end portions in vertical alignment with a respective one of said vertically disposed cleats when said second container section is positioned on said first container section.

2. An expendable depot pallet box having spaced and parallel top and bottom wall means, spaced and parallel end wall means, and spaced and parallel side wall means comprising, a first container section including a first substantially U-shaped member, the bight portion of said member being substantially flat and serving as the bottom wall means, and the legs of said first member serving as parts of the side wall means, said first container section further including a pair of end panels and a pair of generally rectangularly shaped rigid frames, each of said end panels being rigidly fastened to a respective frame, each of said frames including a pair of vertically spaced and parallel, horizontally extending cleats, one of said cleats being rigidly fastened to the normally uppermost and inner surface of said bottom panel, each of said frames further including a pair of horizontally spaced and parallel, vertically extending cleats, each of said cleats being rigidly fastened to the normally inner surface of a respective one of said legs of said first U-shaped member, said vertically extending cleats having a vertical length substantially greater than the height of said legs whereby the free edges of said legs are disposed intermediate the ends of said vertically extending cleats; a second container section positionable on said first container section including an inverted second substantially U-shaped member, the bight portion of said second member serving as the top wall means, and the legs of said second member being hingedly connected to respective opposite sides of said top panel and extending therefrom, said legs of said second member extending from said top panel a distance substantially less than the height of said end panels and each of said legs of said second member being movable to a position wherein it extends vertically with respect to said top panel and has an edge portion capable of overlapping an edge portion of a respective one of said legs of said first member when said second container section is positioned on said first container section; and reinforcing means including a pair of spaced and parallel cleats fixedly secured to the normally innermost surfaces of the legs of said first member, said cleats being spaced intermediate said end panels and having an end abutting said bottom panel and extending vertically from said bottom panel, said vertically extending cleats having a length substantially equal to the length of said vertically extending cleats of said frames, said reinforcing means further including a generally horizontally extending cleat rigidly fastened to the normally lowermost and inner surface of said top panel, said horizontally extending cleats having each of its end portions in abutting engagement with an end of a respective one of said vertically disposed cleats spaced intermediate said frames when said second container section is positioned on said first container section.

3. An expendable depot pallet box as set forth in claim **2**, wherein said first and second U-shaped members are made of corrugated cardboard.

4. An expendable depot pallet box having spaced and parallel top and bottom wall means, spaced and parallel end wall means, and spaced and parallel side wall means comprising, a first container section and a second container section positionable on said first container section, said first and second container sections being substantially mirror images of each other, said first container section including a generally flat bottom panel serving as the bottom wall means, an end panel integrally formed with said bottom panel and extending vertically therefrom,

said first container section further including a pair of parallel side wall partial panels integrally formed with said bottom panel and extending vertically therefrom, said side wall partial panels having a height substantially less than the height of said end panel, said second container section including a generally flat top panel serving as the top wall means, and an end panel integrally formed with said top panel and being spaced and parallel to said end panel of said first container section when said second container section is positioned on said first container section, said second container section further including a pair of parallel side wall partial panels disposed substantially at right angles to said top panel and depending vertically therefrom, said side wall partial panels of said second container section having a vertical length less than the height of said end panel of said second container section, each of said side wall partial panels of said second container section having an edge portion capable of overlapping an edge portion of a respective one of said side wall partial panels of said first container section when said second container section is positioned on said first container section, and a pair of spaced and parallel reinforcing means, each of said reinforcing means includes a generally horizontally extending cleat rigidly secured to the normally lowermost, outer surface of said bottom panel and a generally horizontally extending cleat rigidly fastened to the normally uppermost, outer surface of said top panel, said horizontally extending cleats being in vertical alignment, one of said reinforcing means further including a pair of vertically extending substantially parallel cleats, each of said vertically extending cleats being rigidly secured to the normally inner surface of a respective one of said side wall partial panels of said first container section, each of said vertically extending cleats having its respective ends abutting said top and bottom panels when said second container section is positioned on said first container section, each of said vertically extending cleats further being in vertical alignment with a respective end portion of each of said horizontally extending cleats, the other of said reinforcing means further including a pair of vertically extending spaced and parallel cleats, each of said vertically extending cleats of said other of said reinforcing means being rigidly fastened to the normally inner surface of a respective one of said side wall partial panels of said second container section, each of said vertically extending cleats of said other of said reinforcing means having its respective ends abutting said top and bottom panels when said second container section is positioned on said first container section, each of said vertically extending cleats of said other of said reinforcing means further being in vertical alignment with a respective end portion of each of said horizontally extending cleats of said other of said reinforcing means when said second container section is positioned on said first container section.

5. An expendable depot pallet box as set forth in claim 4, wherein said top, bottom, end, and side wall partial panels of said first and second container sections are made of corrugated cardboard.

References Cited by the Examiner

UNITED STATES PATENTS

1,646,670	10/1927	Walter	229—23
2,039,859	5/1936	Watkins	229—23 X
2,071,962	2/1937	Babcock	217—12
2,262,267	11/1941	Boeye	229—23
2,345,350	3/1944	Markwardt et al	229—23
2,361,937	11/1944	Gonderd	229—23 X
2,389,890	11/1945	Borah	229—23

FOREIGN PATENTS

460,802	2/1937	Great Britain.

GEORGE O. RALSTON, *Primary Examiner.*

FRANKLIN T. GARRETT, *Examiner.*