Aug. 3, 1965 A. BRIAND 3,198,370

COLLAPSIBLE CARGO CONTAINER

Filed July 16, 1962 2 Sheets-Sheet 1

Fig. 1

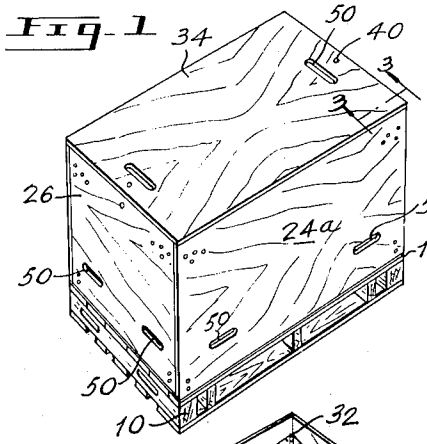
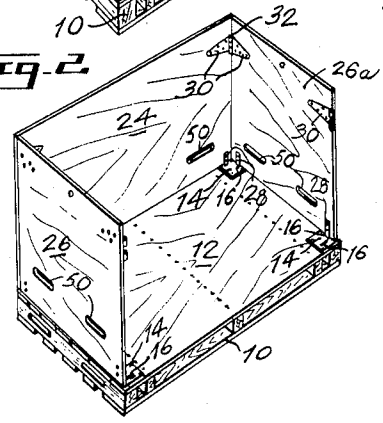


Fig. 2



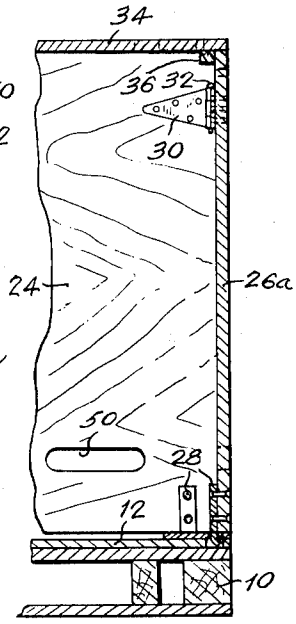


Fig. 3

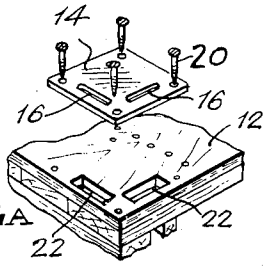


Fig. 3A

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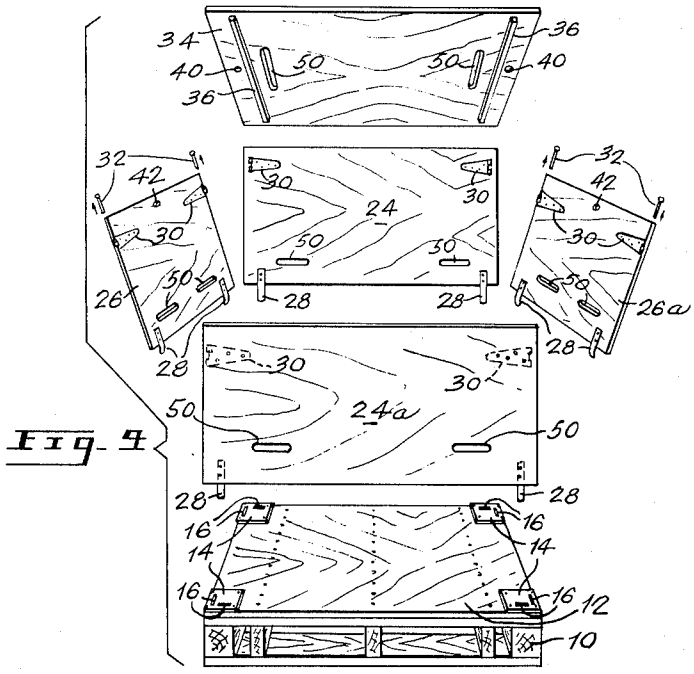


Fig. 4

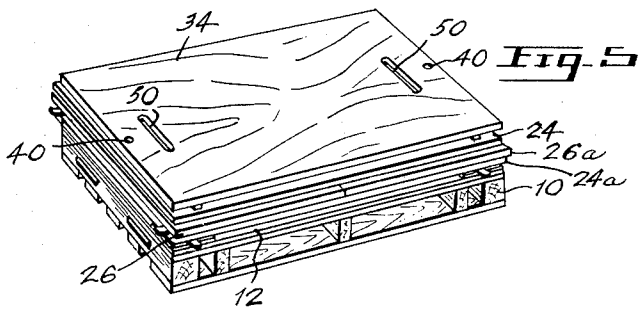


Fig. 5

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COLLAPSIBLE CARGO CONTAINER

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1 Claim. (Cl. 217—12)

The present invention relates to an improved construction for a cargo container and more specifically to an improved construction for a cargo container of the type which can be collapsed or knocked down for shippage or storing when not in use.

In accordance with the present construction the base of the container is preferably made as being attached to a cargo pallet, with four sides and a top being adapted for quick and easy assembly to each other and the base to place the container in cargo holding position. Important features of the present construction reside in the means whereby the sides are attached to the base and to each other making it possible to erect three sides of the container for "walk in" loading and assembling the remaining side and top after the container is loaded.

More specifically these means include slotted steel plates which are mounted at the four corners of the base with each container side portion being provided with protruding curved attachment plates, or straps, which fit into the slotted steel plates locking the sides to the base. The upper corners of the adjacent container sides are provided with interlocking hinge leaves, one half on each corner so that when the sides are brought together, the insertion of a hinge pin locks the respective upper corner in position.

Having thus generally described the nature of the invention, particular reference will be made to the accompanying drawings, and in which:

FIGURE 1 is a view in perspective elevation of a cargo container construction in accordance with the invention as it would appear when fully erected and containing cargo ready for shipment.

FIGURE 2 is a view in perspective elevation of the construction shown in FIGURE 1 with the top and one side removed. The container being shown in condition to receive cargo.

FIGURE 3 is a cross-sectional view of the construction of FIGURE 1 along the line 3—3 to illustrate the construction more clearly.

FIGURE 3*a* is an enlarged detail view of one corner of the container base to illustrate the construction and mouuting of the slotted plates more clearly.

FIGURE 4 is an exploded view showing the various components making up the cargo container of FIGURE 1.

FIGURE 5 is a view in perspective elevation of the container parts stacked on the pallet base in condition for shipping or storage.

With particular reference to FIGURE 4 of the drawings, the cargo container construction of the invention includes a standard pallet **10** to which the base or bottom **12** is attached. The base **12** is provided at each corner with metal plates **14** having slots **16** and these are fastened to the base with suitable screws **20**. The base **12** is recessed or slotted as indicated at **22** to correspond with the plate slots **16**, see FIGURE 3*a*.

The four side portions **24**, **24***a* and **26**, **26***a* are each provided with metal straps **28** adjacent each corner. The portions of the straps **28** extending beyond the lower margins of the sides are formed to curve outwards that is to say towards the outer face of each side and they are spaced to correspond with the slots **16** of the base plates **14**. Each container side is also provided with one-half of a holding device which can be in the form of a leaf hinge as indicated at **30** and these are mounted adjacent the top

corners of the sides so that they will line-up permitting the retaining pins **32** to be inserted.

A top panel **34** is provided with locating stringers **36** so that the top when placed in position on the upper edges of the sides **24**, **24***a*, **26**, **26***a* is located and retained in register. Seal openings **40**, **42** are provided in the top **34** and side panels **26**, **26***a* and suitable lifting openings **50** are provided in each of the container elements.

As will be obvious, with reference to FIGURES 2 and 4 of the drawings, the preferred cargo container construction illustrated can be easily and quickly assembled from the condition shown in FIGURE 5 to the condition shown in FIGURE 2. This operation is accomplished by taking any side, for example **26**, and inserting the straps **28** into the plate slots **16**. Raising the side **26** to the perpendicular relative to the base **12**, due to the outwardly curved formation of the straps **28**, firmly locks the bottom of the side **26** to the base. The side **24** is then similarly applied and both sides held together at the adjacent top corner by the insertion of a pin **32**. The side **26***a* is then assembled on the base **12** and connected at the upper adjacent corner to the side **24** in a similar manner resulting in the rigid open-sided cargo container shown in FIGURE 2 which permits "walk-in" loading. When loaded, the remaining side **24***a* is assembled on the base **12** and connected to the sides **26**, **26***a*, as previously described with expendible pins **32**. All of the preceding operations are performed from the outside of the base leaving it clear and unobstructed so that if desired the cargo can be previously placed on the base and the container assembled about it. The top panel **34** is then placed in position and can be sealed if desired by passing the usual seal straps through the openings **40**, **42**. The container is dismantled for shipping or storage in the reverse procedure presenting the compact unit shown in FIGURE 5 for shipping or storage.

The advantages of the present cargo container are believed obvious to one skilled in the art by reference to the preceding description and accompany drawings, for example:

(a) The container is collapsible to a flat compact package permitting storage or shipping utilizing minimum space.

(b) There are no loose parts, which can be lost or deformed, with the exception of the retaining pins **32** which are expendible.

(c) The use of the slotted steel plates **14** and curved straps **28** permits ease in setting up and dismantling and also holds sides firmly to base. These in combination with the upper holding devices **30** permit attachment or removal of any desired side of the container without loosening the remaining three sides.

(d) The construction of the retaining means, i.e. slotted plates **14**, straps **28**, and holding devices **30** and their location wholly within the box makes pilferage impossible without breaking the seals and opening the top panel **34**.

I claim:

A collapsible cargo container comprising an open-sided pallet, a rectangular base panel secured on said pallet and having right angularly related slots at the corners thereof, side panels having first detachable connections with each other and each having a further detachable connection on said base panel, characterized in that said detachable connection between said side panels and said base panel consists of four attachment plates mounted on the upper surface of said base panel one adjacent each corner, each of said attachment plates being provided with a pair of slots disposed at right angles to each other and respectively parallel to an adjacent margin of said base panel, each of said side panels including a lower edge engaging the upper surface of said base plate with the outer surface of said side panels substantially flush with the peripheral edge of

said base plate, each of said side panels being provided with a pair of spaced apart attachment straps one adjacent each lower corner with each of said attachment straps being curved arcuately outwards from the inner face toward the outer face of the respective side panel and having dimentions adapting it to slidably fit within said base attachment plate for permitting assembly of each of said sides from the exterior of said base leaving said base clear and unobstructed, said side panel straps and base panel plates being located within the interior of said container leaving the exterior surfaces clear of projecting elements, said first detachable connection comprising further holding devices provided in each of said side panels adjacent each upper corner, said holding devices being in matched pairs with a portion of each pair mounted on each adjacent side panel whereby when said side panels are mounted on said base by the engagement of said attachment straps in said base plate slots, the said holding device portions on each adjacent side panel are engaged one with the other and are adapted to be retained in said engaged position by the insertion of a retaining pin therebetween, said holding devices being located wholly within the interior of said container.

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