A unique cardboard box container for replacing wood pallets is disclosed. In its unfolded, flattened form the cardboard box comprises a central rectangular panel with two contiguous side panels and two end tabs contiguous to the two ends of the central rectangular panel. The side panels have creases extending the length of the side panels for folding the side panels over a boxed strip or panel product placed on the central rectangular panel. The two end tabs are also creased enabling the end tabs to be folded over the ends of a layer of boxed strip or panel product placed over the folded side panels, which overlay the boxed strip or panel product placed on the central rectangular panel. Two cardboard box containers are aligned in parallel to form two stringers and a layer of boxed strip or panel products is placed on the stringers with the end tabs of the two cardboard box containers folded over the ends of the layer. The ends of the overlapping end tabs are fastened together to form a unitized platform base on which additional layers of boxed strip or panel products can be placed for transporting or shipping.
UNIQUE CARDBOARD BOX CONTAINER FOR REPLACING WOOD PALLETS

FIELD OF INVENTION

[0001] This invention relates to a cardboard container package design whereby strip or panel type products can be shipped or transported without requiring the use of wood pallets as carriers for the products. Examples of products for which this invention is useful are boxed cedar closet linings, boxed hardwood or laminated strip flooring, and shelving products including fireplace mantels.

BACKGROUND

[0002] In shipping strip or panel type products, it is standard practice to use pallets made of wood or other materials (e.g. gypsum board strips or plastic foams) as carriers for the strip or panel type products. When these pallets are used for shipping products, the products are usually stacked on the pallets and the pallets carrying the products are moved to and from storage to transporting vehicles using forklift trucks. The receiving facility, retail store or factory, has to deal with disposing the pallets. In some cases, the receiving facility collects and stores the pallets for return to the manufacturer of the strip or panel type products.

[0003] U.S. Pat. No. 5,174,448 discloses a cardboard container for stacking glass sheets which is carried on a reusable wood pallet. This illustrates the standard method for shipping product carried by a reusable wood pallet.

[0004] U.S. Pat. No. 5,141,109 discloses using strips of scrap gypsum board to form pedestals to support a shipping container above the ground or floor whereby a forklift truck can be used to move the container. The patent also shows shipping bands, straps, ribbons, tapes, cords or wires, which surround the container and the pedestals.

[0005] U.S. Pat. No. 3,855,756 discloses sub-unitized containers carried on a wood pallet with a heat-shrunk enveloping material holding the containers as an integral container on the pallet.

[0006] It is an object of this invention to provide a cardboard box container for shipping or transporting strip or panel type products whereby the use of wood pallets can be eliminated.

[0007] It is another object of this invention to provide a container to enclose a box containing the strip or panel product to form stringers which act as a base separating the bottom layer of boxed strip or panel products from the floor or ground whereby a forklift truck can be used to transport stacked, boxed product.

[0008] It is a further object of this invention to provide a method for stacking boxed, strip or panel products in a unitized form whereby the need for a wood pallet base is eliminated.

[0009] The objects and advantages of this invention will be readily understood from a consideration of the drawings and the following detailed description of the preferred embodiment.

BRIEF DESCRIPTION OF THE DRAWINGS

[0010] In the description of the preferred embodiments of the invention presented below, reference is made to the accompanying drawings in which:

[0011] FIG. 1 is a top plan view of the cardboard box container of this invention showing creases in the flat container.

[0012] FIG. 2 is a top plan view of the cardboard box container of this invention showing a boxed strip product in dashed lines placed on the central panel of the container.

[0013] FIG. 3 is a perspective view of two cardboard box containers of this invention each enclosing a boxed strip product and aligned to form two stringers and showing a layer of boxed strip product in dashed lines overlaying a side panel of the two cardboard box containers forming the stringers and at right angles to the stringers.

[0014] FIG. 4 is a perspective view of two cardboard box containers of this invention each enclosing a boxed strip product and aligned to form two stringers and a layer of boxed strip product in dashed lines overlaying the stringers with the end tabs of the two cardboard box containers folded over the ends of the layer of boxed strip product.

[0015] FIG. 5 is a perspective view of the assembly shown in FIG. 4 with a layer of boxed strip product in dashed lines overlaying the FIG. 4 assembly at right angles thereto.

DESCRIPTION OF PREFERRED EMBODIMENTS

[0016] This invention relates to a cardboard container that can be shaped into a secondary box, which can be used to replace wooden pallets for shipping or transporting boxed strip or panel type products. The cardboard container has a unique design whereby it can be folded over boxed strip or panel products to form stringers which separate a base layer of boxed strip or panel type product from the floor or ground enabling a forklift truck to slide its blades under a stack of boxed product layers placed on top of the base layer of boxed strip or panel type products.

[0017] The cardboard container of this invention is useful for shipping or transporting strip or panel type products, especially those products that are shipped as individual pieces in boxes. Of course, more than one piece of product may be contained in a box. The containers of this invention are useful in shipping hardwood or laminated strip flooring materials. They are useful in shipping boxed closet linings such as cedar closet linings. The containers are also useful in shipping shelving products and fireplace mantels.

[0018] The advantages provided by the cardboard containers of this invention are cost savings, with the cost of the cardboard containers being substantially less than the cost of wood pallets and reduced freight costs by eliminating the weight of wood pallets. Furthermore, the receiving retail store or factory would not have to deal with storage and/or disposal of the wood pallets. The cardboard containers of this invention can be disposed of with other cardboard, which is normally sold to a paper recycling company. An additional benefit would be conserving the timber natural resource required to make the wood pallets.

[0019] For a description of a preferred embodiment of the invention, reference is made to the drawings, which illustrate a cardboard container in accordance with the invention.

[0020] FIG. 1 illustrates a cardboard box container (10) in its unfolded form. The container (10) comprises a central rectangular panel (11) sized to receive a boxed strip or panel
product. Contiguous to the central rectangular panel (11) and of substantially equal length thereto are two side panels (12) and (13) both of which are creased, with the creases (14) and (15) extending the length of the side panels and being located at a distance from the side edges of the central rectangular panel (11) substantially equal to the height of the boxed strip or panel product which is to be placed on the central rectangular panel (11) and enclosed by folding the side panels (12) and (13) over the boxed strip or panel product. The width of the side panels (12) and (13) from the creases (14) and (15) to the outer edges (16) and (17) of the side panels (12) and (13) respectively is preferably, substantially the width of the central rectangular panel (11). However, it is only necessary that the width of the side panels (12) and (13) be sufficient that the side panels overlap when they are folded over the boxed strip or panel product placed on the central rectangular panel (11). It is within the scope of the invention that the side panels (12) and (13) do not overlap when folded over the boxed strip or panel product.

[0021] In addition to side panels (12) and (13), the cardboard box container (10) has end tabs (18) and (19) contiguous to the two ends of the central rectangular panel (11). Both end tabs (18) and (19) are creased, with the creases (20) and (21) being located at a distance from the end edges of the central rectangular panel (11) substantially equal to twice the height of the boxed strip or panel product which is to be placed on the central rectangular panel (11) and enclosed by folding the side panels (12) and (13) over the boxed strip or panel product.

[0022] Referring now to FIG. 2, the same cardboard box container (10) as shown in FIG. 1 is illustrated in FIG. 2, using the same numerals as in FIG. 1. Also shown in FIG. 2 is a boxed strip product (22) in dashed lines placed on the central panel (11) of the container (10). In addition, the side panels (12) and (13) are shown as slightly folded about the creases (14) and (15) respectively. As shown in FIG. 2, the boxed strip product (22) overlaps the entire central panel (11) of the container (10).

[0023] FIG. 3 illustrates two cardboard box containers of this invention each enclosing a boxed strip product (22) and aligned to form two stringers (23) and (23'). Each stringer comprises the cardboard box container with the side panels folded over and enclosing the boxed strip product (22). A layer (24) of boxed strip product is shown in dashed lines overlaying side panels (12) and (13) of the two cardboard box containers forming stringers (23) and (23'). Layer (24) of boxed strip product overlaps the stringers (23) and (23') at right angles thereto. As shown in FIGS. 3 and 4, end tabs (18) and (19) are subsequently folded over the ends of layer (24) of boxed strip product to form a platform base upon which further layers of boxed strip product may be placed.

[0024] As clearly shown in FIG. 4, the length of the end tabs (18) and (19) measured from the creases (20) and (21) to the ends (25) of the end tabs is greater than one half the length of the central rectangular panel (11) whereby the end tabs (18) and (19) overlap when folded over the ends of layer (24). The overlapping tabs (18) and (19) are fastened together with adhesive, mechanical fasteners such as heavy staples or interlocking the tabs with slots made in each tab. This unitizes the stringers (23) and (23') and fastens and secures the stringers (23) and (23') to the layer (24) of boxed strip product. The unitized stringers (23) and (23') secured to the layer (24) form a platform base upon which further layers of boxed strip product can be placed.

[0025] FIG. 5 illustrates the placement of an additional layer (26) of boxed strip product on the platform base shown in FIG. 4. As shown in FIG. 5, it is preferred to place each additional layer of boxed strip product at right angles to the layer beneath it for greater stability. However, placement of the layers at right angles for alternate layers is not critical. The entire stack of boxed strip product is unitized by banding the layers together or by applying stretch wrap or heat shrink wrap to the perimeter of the layers for stability of the layers during shipping or transporting.

[0026] This invention has been described in detail, with particular reference to preferred embodiments, but it should be appreciated that variations and modifications can be effected within the scope of the invention.

What is claimed is:
1. A cardboard box container for replacing wood pallets which in its unfolded, flattened form comprises a central rectangular panel; two side panels contiguous to the central rectangular panel, both of said side panels having creases extending the length of the side panels and being located at a distance from the side edges of the central rectangular panel substantially equal to the height of a boxed strip or panel product which is to be placed on the central rectangular panel; and two end tabs contiguous to the two ends of the central rectangular panel, both of said end tabs being creased, with the creases located at a distance from the end edges of the central rectangular panel substantially equal to twice the height of the boxed strip or panel product which is to be placed on the central rectangular panel.
2. The cardboard box of claim 1 in which the length of the two side panels is substantially equal to the length of said central rectangular panel.
3. The cardboard box of claim 1 in which the width of the side panels is sufficient that the side panels overlap when they are folded over the boxed strip or panel product placed on the central rectangular panel.
4. The cardboard box of claim 1 in which the length of the end tabs measured from the creases to the ends of the end tabs is greater than one half the length of the central rectangular panel.
5. The cardboard box of claim 2 in which the width of the side panels is sufficient that the side panels overlap when they are folded over the boxed strip or panel product placed on the central rectangular panel.
6. The cardboard box of claim 2 in which the length of the end tabs measured from the creases to the ends of the end tabs is greater than one half the length of the central rectangular panel.
7. The cardboard box of claim 3 in which the length of the end tabs measured from the creases to the ends of the end tabs is greater than one half the length of the central rectangular panel.
8. The cardboard box of claim 1 in which a boxed strip or panel product is placed on the central rectangular panel and both side panels are folded over said boxed strip or panel product.
9. The cardboard box of claim 8 in which the length of the two side panels is substantially equal to the length of said central rectangular panel.
10. The cardboard box of claim 9 in which the width of the side panels is sufficient that the side panels overlap.

11. A platform base comprising two cardboard boxes aligned in parallel; each of said cardboard boxes having a central rectangular panel with a boxed strip or panel product placed on said central rectangular panel and covering substantially the entire surface of said central rectangular panel; each of said cardboard boxes having two side panels contiguous to the central rectangular panel with the side panels of each of said cardboard boxes folded over and enclosing said boxed strip or panel product; a layer of boxed strip or panel product overlaying the side panels of both of said cardboard boxes and placed at right angles to both of said cardboard boxes; each of said cardboard boxes having two end tabs contiguous to the two ends of the central rectangular panel with both of said end tabs on both of said cardboard boxes folded over and enclosing both ends of said layer of boxed strip or panel product; with both of said end tabs on both of said cardboard boxes being of sufficient length that they overlap when they are folded over the ends of said layer of boxed strip or panel product; and said folded over end tabs on both of said cardboard boxes being fastened to each other to form a unitized structure.

12. The platform base of claim 11 in which the length of the two side panels on each of said cardboard boxes is substantially equal to the length of the central rectangular panel on both cardboard boxes.

13. The platform base of claim 11 in which the width of the side panels on both of said cardboard boxes is sufficient that the side panels overlap the boxed strip or panel product.

14. The platform base of claim 11 in which the end tabs are fastened by means selected from the group consisting of adhesives, mechanical fasteners or slots formed in the ends of the tabs.

15. The platform base of claim 12 in which the end tabs are fastened by means selected from the group consisting of adhesives, mechanical fasteners or slots formed in the ends of the tabs.

16. The platform base of claim 13 in which the end tabs are fastened by means selected from the group consisting of adhesives, mechanical fasteners or slots formed in the ends of the tabs.

17. The platform base of claim 13 on which additional layers of boxed strip or panel products are stacked for transporting or shipping.

18. The platform base of claim 17 in which each additional layer of boxed strip or panel products is placed at a right angle to the layer beneath it.

19. The platform base of claim 17 in which the additional layers of boxed strip or panel products is unitized by means selected from a group consisting of banding or applying stretch wrap or heat shrink wrap to the perimeter of the layers.

20. The platform base of claim 18 in which the additional layers of boxed strip or panel products is unitized by means selected from a group consisting of banding or applying stretch wrap or heat shrink wrap to the perimeter of the layers.

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