STRUCTURE FOR NESTABLY PACKING CHAIRS FOR SHIPMENT

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References Cited

UNITED STATES PATENTS

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2,313,362 3/1943 Rous .................................. 206/46 FN


3,397,832 8/1968 Thiele .................................. 229/37


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ABSTRACT

A pair of chairs are nestably packed for shipment with the seats thereof in confronting relationship and spaced by hollow spacing and positioning member having upper and lower panels with flaps extending therefrom in opposite directions and adapted to be folded about the sides of the seat frames and secured thereto. In a form of the invention, one of the chairs to be packed is provided with arms and in such form the positioning member has elements thereof lying between the chair arms and a seat of an armless chair superimposed thereon.

2 Claims, 8 Drawing Figures
STRUCTURE FOR NESTABLY PACKING CHAIRS FOR SHIPMENT

BACKGROUND OF THE INVENTOR

1. Field of the Invention
The invention relates to the art of nestably packing backed chairs for shipment, and comprehends structure formed from a cut and scored sheet folded to provide a structure lying between the chair seats or seat frames in confronting and spaced relationship, the structure having flaps extending therefrom adapted to be folded about the chair seat frames and to be secured thereto.

2. Prior Art
Referring to the prior art, patents to Nedeweld, U.S. Pat. No. 3,346,107; Clay, U.S. Pat. No. 3,338,501; and Wokos in U.S. Pat. No. 2,212,310 illustrate structure for nestably packing backed chairs for shipment. However, these patents do not teach a unitary structure for such purpose.

SUMMARY OF THE INVENTION
The present invention comprehends the provision of a hollow spacing member disposed between confronting and spaced seat or seat frames of a pair of chairs, the members being in contact with the chair seats or chair seat frames and having upper and lower flaps extending therefrom adapted to be folded about the seat frame and to be secured thereto.

The structure according to the present invention presents a number of advantages over the prior art, particularly Clay, U.S. Pat. No. 3,338,501, in that the aforesaid Clay structure requires closing of the outer carton to hold the packing assembly therewithin in position. Such closing of the outer carton prevents the later opening of the same for the insertion thereinto of chair seats when they are detached from the chair frames. On the other hand, according to this invention the pack can be spot-taped and opened prior to shipment to insert chair seats therein according to the customer’s specification.

The structure according to the present invention makes it possible to secure the structure separating the chair seat frames to the inside of the outer carton by stapling the same through the carton wall from the outside.

Another important advantage of the structure according to the invention herein resides in the fact that the pack offers more protection to the chair in that the chair seat frames are anchored to the structure, which in turn is secured to the outer carton.

According to the invention herein the chairs may be positioned in a seat-to-seat relationship separating the outer carton and the spacer support being attached to each chair by means of flaps which may be stitched to the inside of the chair seat rail. Once the chairs are positioned within the outer carton the spacer support may be both glued and stitched to the outer shipping container to provide clearance around the perimeter of the box and a pressure pack from the top to the bottom thereof through the chair legs therewithin.

DRAWINGS
FIG. 1 is a perspective view showing a chair adapted to be packed by the structure according to the present invention with said structure in position on the seat frame of the chair;
FIG. 2 is a perspective view showing the structure according to one form of the present invention;
FIG. 3 is a vertical sectional view taken through a shipping container having the invention structure positioned therein for the nestable packing of a pair of chairs;
FIG. 4 is a plan view of a cut and scored blank for constructing a structure seen in FIG. 3;
FIG. 5 is a perspective view showing a second embodiment of a nestable structure;
FIG. 6 is a perspective view showing the nestling structure in position on an arm chair;
FIG. 7 is a vertical sectional view through a shipping container showing the structure of FIG. 8 in situ for packing an arm and a side chair, and having a pair of nested chairs packed for shipment;
FIG. 8 is a plan view of a cut and scored blank for forming a nestable packing structure as seen in FIG. 5,

Referring now to FIGS. 1 to 4 of the drawings, there is shown a packing structure according to a first embodiment of the present invention denoted by the reference number 10. It is formed from a cut and scored blank 10A which is folded to the position seen in FIGS. 1 and 3 to rest upon a chair seat SC having front legs FL and back legs BL. A chair back CB extends upward from the back legs BL.

Structure 10 is formed from the cut and scored blank 10A which comprises a back panel 11 connected by a fold line to an end panel 13. A fold line 14 connects end panel 13 to a front panel 16, which in turn is connected by a fold line 17 to a second end panel 18. Back panel 11 and second end panel 18 may be joined together by a tape joint T.

Outer top and bottom panels 19 extend from the back panel 11 along score lines 21, and inner top and bottom panels 22 extend from the front panel 16 along fold lines 23.

Upper and lower end tabs 24 extend from end panel 13, and are foldable with respect thereto along score lines 26. In similar fashion end tabs 27 extend from the second end panel 18 and are foldable with respect thereto along score lines 28.

Each of the panels 24 and 27 has a flap 31 formed therewith from the side tab 24 and the respective score lines 26 and 28 as the case may be. Each of said flaps 31 is intersected diagonally by intersecting score lines 33 to weaken the structure of the flap 31 for purposes as will appear.

In the construction of the packing structure 10 seen in FIGS. 1 to 4 the blank 10A seen in FIG. 3 is joined by means of the tape joint T to form a sleeve. The inner top and bottom panels 22 are then folded in position about their score lines 23, and the end tabs 24 and 27 folded in position thereupon about their respective score lines 26 and 28. In so doing, flaps 31 are separated from their respective panels 24 and 27 and are swung to the position seen in FIG. 2, outer top and bottom panels 19 being then secured in position over the intermediate end tabs 24 and 27.

After being constructed in the manner shown, the packing structure 10 is placed in position as seen in FIG. 1 atop the chair seat frame CS as seen. A second chair C is placed in inverted position atop the structure 10 as seen in FIG. 3. The flaps 31 are then folded about their adjacent chair frames CS and stapled or otherwise secured to the inner faces thereof.

After being assembled in the manner just described the entire assembly is inserted into a regular-slated carton RSC consisting of sides S and top and bottom closures CL. The dimensions of the carton are such as that the structure 10 fits tightly therewithin, and that the chair legs BL and FL extend vertically into good bearing contact with the inner faces of the closures CL.

After the carton RSC is closed in a conventional fashion ends 13 and 18 of the structure are secured to the inner faces of sides S by glue and by blind stitching.

Referring now to FIGS. 5 to 8, the second embodiment referred to generally by the reference numeral 30 and is formed from a cut and scored blank 30A. This form of the invention is particularly adapted to provide a packing structure for an arm chair AC having side arms A. The latter may be held in position by vertical struts 35 extending from the chair seat frame CS.

As seen in FIGS. 7 and 8 packing structure 30 comprises a front panel 36 connected by a fold line 37 to a top panel 38. The latter is connected by a fold line 39 to a front panel 41, and a base panel 42 is foldably connected to front panel 41 by a score line 43.

The ends of the top panel 38 are connected to end flaps 44 by score lines 46. End flap 44 has spaced score lines 47 to provide an exposed flap portion 48 and a concealed flap portion 49.

Now concealed flap portion 49 is connected by a score line 52 to a terminal flap 51.
The upper portions of the back panel 36 and the front panel 41 are provided with concealed tuck flaps 53 connected by score lines 54 to the respective panels 36 and 41. An inner panel 56 is foldable with respect to the front panel 41 along a score line 57 and an intermediate panel 58 is foldable with respect to the base panel 42 along a score line 59. Outer panels 61 extend from the lower sides of the back panel 36 and are foldable with respect thereeto along hinge lines 62.

Upper panel 38 and the flaps 44 extending therefrom are provided with flaps 63 defined by cut lines 64 and fold lines 66, each extending from the upper panel when the structure 30 is folded as seen in FIG. 7. Flaps 63 are weakened by diagonal and intersecting score lines 67.

In like fashion the bottom panel 42 has flaps 68 extending therefrom and defined by U-shaped cut lines 69 and the score lines 59. Each of the flaps 68 has a plurality of diagonally extending scores 71 therein for weakening the same so that the flaps may be folded about a chair frame CS.

In forming the structure seen in FIG. 7 the blank 10A is folded about its score lines 37 and 39 and the inner panels 56 folded about their score lines into position beneath the top panel 38. The base panel 42 is then folded about its score line 53 so that the intermediate panels 58 are in position against the inner panels 56. In similar fashion the outer panels 61 are folded about their score lines 62 with respect to the back panel 36 in position over the inner panels 56. Prior to such folding of the intermediate panels 58 the tabs 68 are separated from the intermediate panels 58 to extend outward as seen in FIG. 7.

After so placing the intermediate panel 58 the outer panel 61 are folded about their score lines 62 into position over the intermediate panel 58. As is conventional in such structures proper taping may be employed to hold the structure together. It may be noted that the length D of the intermediate panel 58 may desirably be equal to the height D1 of the front and rear panels 36 and 41 so that at the end of the erecting process described the distal edge of the intermediate panel 58 may bear against the underside of the top panel 38 to give support to same.

At the conclusion of the erecting process thusfar described the concealed tuck flaps 53 are folded about their score lines 54, into overlapping relationship and are retained in position by exposed flap portion 48 and concealed flap portion 49. Terminal flap 51 is glued to the underside of top panel 38. Tuck flaps 53 have apertures AP which fall into register to give a pair of fingerholes for placement of structure 30.

As seen in FIG. 6 structure 30 is particularly adapted for nestably packing an arm chair and a side chair. The flaps 63 and 68 are adapted to be folded about the chair seat frames CS and stapled or glued. The end panels 48 are adapted to be glued and blind stitched to the outer carton RSC in the same fashion as with the embodiment seen in FIG. 3.

We claim:

1. Structure nestably packing a pair of chairs having seat frames with legs extending therefrom, at least one of said chairs having arms spaced from the seat, said structure comprising:
   a. a hollow spacing and positioning member lying between said pair of chair seat frames arranged in confronting and spaced relationship; b. said member having upper and lower plane surfaces in correlative contact with upper and lower chair seat frames;
   c. said member having elements thereof extending over the arms and between a chair seat superimposed thereon;
   d. said elements having finger holes therein for placement of said member;
   e. pairs of flaps extending in opposite directions from said member in the upper and lower plane surfaces thereof;
   f. each of said flaps being folded about a side of said chair seat frames and being secured to said frames.

2. Structure nestably packing a pair of chairs having seat frames with legs extending therefrom, said structure comprising:
   a. a hollow spacing and positioning member formed from a unitary blank of paperboard and positioned between said pair of chair seat frames packaged in confronting and spaced relationship;
   b. said member being closed at the ends and having upper and lower plane surfaces lying in correlative contact with the packaged seat frames;
   c. flaps integrally formed with said member and extending outwardly from each end of the upper and lower plane surfaces thereof;
   d. each of said flaps being scored at intervals throughout the area thereof facilitating ready folding of said flap about a side of said chair seat frames and securing of said flap thereto.

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