

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
10 April 2008 (10.04.2008)

PCT

(10) International Publication Number
WO 2008/043108 A1

(51) International Patent Classification:
E04F 19/00 (2006.01)

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(21) International Application Number:
PCT/US2007/080862

(22) International Filing Date: 9 October 2007 (09.10.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/828,575 6 October 2006 (06.10.2006) US
11/676,886 14 May 2007 (14.05.2007) US

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

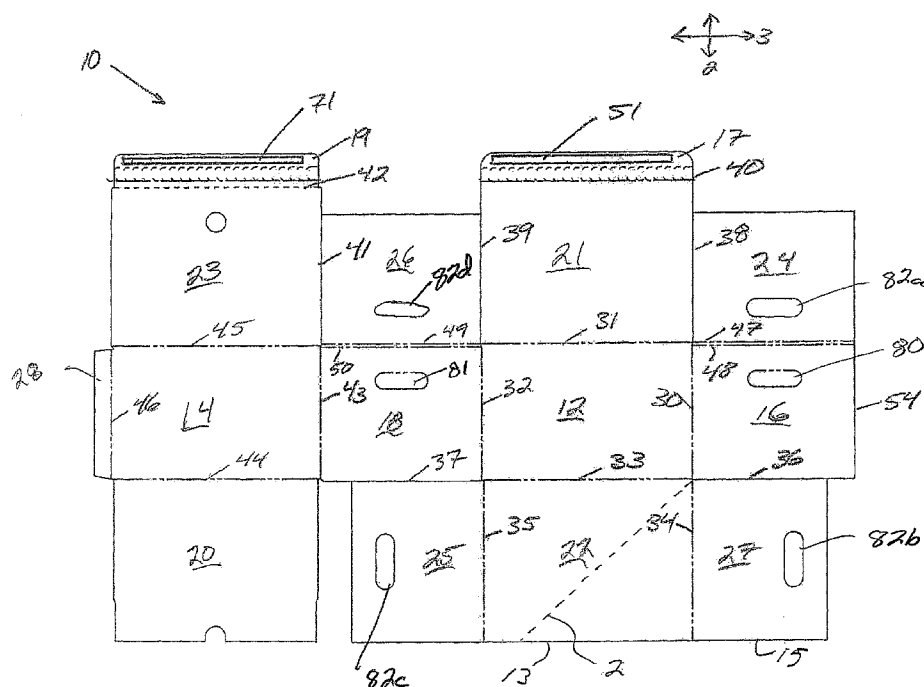
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(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL,

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(54) Title: RECORD STORAGE BOX AND MAILER



(57) Abstract: The invention disclosed herein is a record storage box configured to serve as a mailer and return mailer, having an outer lid and an inner lid. The outer lid is removable upon receipt. The lids may be secured by adhesive, and removed by tearing along lines of weakness. The record storage box so configured can also serve as a tamper evident container.

WO 2008/043108 A1



PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM,
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— *with international search report*

RECORD STORAGE BOX AND MAILER**RELATED APPLICATIONS**

- [0001]** This application claims priority to United States Provisional application no. 60/828,575 filed on October 6, 2006.

FIELD OF THE INVENTION

- [0002]** This invention relates to the fields of record storage boxes and mailers. More particularly this application relates to round trip mailers.

BACKGROUND OF THE INVENTION

- [0003]** Record storage boxes are well-known in the art, such examples are U.S. Patents 5,779,129, 5,850,964, 5,657,925, owned by Fellowes, Inc., and U.S. Patent 5,887,782 exclusively licensed to Fellowes, Inc. Such boxes are commonly used to store files, documents, and other items in an office setting. The storage boxes are also used to ship files and documents by common carriers, such as FEDEX, the United States Postal Service, and the United Parcel Service among others. When the storage boxes are used for shipping, the lids are generally sealed with tape, as the box has no provision for securing the lid for shipment. While the use of tape is well-suited for sealing the box for shipment, it is still suited for the use of the box once the box is received by the addressee. If the tape is cut to open the box, unsightly tape remains on the outside of the box. Additionally, edges of the tape may expose adhesive, which may snag or otherwise interfere with papers being placed into or removed from the box. Thus, boxes used for shipping are generally no re-used for record storage at the receiving end.
- [0004]** Occasionally, it is desirable to have the party receiving box to return the items shipped back to the shipper. In such a case, it is convenient to have the box constructed so that it may be easily sent back to the shipper. Additionally, it is convenient to have the box pre-labeled with information or indicia which will allow the box to be shipped back to the original sender of the box. Such return shipment information needs to be hidden during the original shipment to the recipient;

otherwise, the common carrier may be confused as to where the box should be delivered. Likewise, the original recipient's information should be hidden from view when the box is being returned to the original sender. Present record storage boxes have not provision for such use as a return mailer.

[0005] It is also desirable to provide a seal on storage or shipping containers to determine if they have been opened or tampered with.

SUMMARY OF THE INVENTION

[0006] The record storage box disclosed herein is configured to function as a shipping box. In alternate embodiments, the box can function as a round trip box or return mailer. The box can also serve as a tamper evident storage or shipping container. Further, the box of the invention can be formed from a box blank or foldable box blank, thereby allowing the boxes to stored flat for shipment to a user and stored flat prior to use.

BRIEF DESCRIPTION OF THE DRAWINGS

[0007] Figure 1 is a box blank for a first embodiment of the invention

[0008] Figure 2 is a perspective view showing the exterior assembly of the bottom of a box of the first embodiment.

[0009] Figure 3 is a perspective view showing the exterior assembly of the bottom a box of the first embodiment.

[00010] Figure 4 is a perspective view showing the interior assembly of the bottom of a box of the first embodiment.

[00011] Figure 5 is a perspective view showing the interior assembly of the bottom of a box of the first embodiment.

[00012] Figure 6 is a perspective view showing the interior assembly of the sides of a box of the first embodiment.

[00013] Figure 7 is a perspective view of a box of the first embodiment, showing the closing of the inner top flap.

- [00014]** Figure 8 is a perspective view showing a box of the first embodiment having a closed inner top flap and a user removing the release liner from the underlying adhesive.
- [00015]** Figure 9 is a perspective view of a box of the first embodiments showing the closing of the box for shipment by sealing of the outer top flap.
- [00016]** Figure 10 is a perspective view of the box of the first embodiment, showing a user unsealing the box by pulling the tear strip away from the box.
- [00017]** Figure 11 is a perspective view of the box of the first embodiment showing a user removing the outer top flap.
- [00018]** Figure 12 is a perspective view of the box of the first embodiment showing a user removing the adhesive strip from the underlying adhesive on the inner top flap, thus preparing the box for return shipment.
- [00019]** Figure 13 is a perspective drawing showing a box of the first embodiment being closed for return shipment.
- [00020]** Figure 14 is a box blank for use in a second embodiment of the invention.
- [00021]** Figure 15 is a perspective view showing the exterior assembly of the bottom of a box of the second embodiment.
- [00022]** Figure 16 is a perspective view showing the exterior assembly of the bottom of a box of the second embodiment.
- [00023]** Figure 17 is a perspective view showing the interior assembly of the bottom of a box of the second embodiment.
- [00024]** Figure 18 is a perspective view showing the interior assembly of the bottom of a box of the second embodiment.
- [00025]** Figure 19 is a perspective view showing the interior assembly of the sides of a box of the second embodiment.
- [00026]** Figure 20 is a perspective view of a box of the second embodiment, showing the closing of the inner top flap.
- [00027]** Figure 21 is a perspective view showing a box of the second embodiment having a closed inner top flap and a user removing the release liner from the underlying adhesive on the tongue of the outer top flap.

[00028] Figure 22 is a perspective view of a box of the first embodiment showing the closing of the box for shipment by sealing of the outer top flap.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

[00029] With reference to the figures, the box may be formed from blank 10. For reference purposes the blank 10 as shown has two primary directions, a longitudinal 2 and a lateral 3 direction.

[00030] The blank 10 may be constructed of any material that will form a stiff panel surface. Preferably, the blank 10 is made of a corrugated material. Such a material can be constructed from a variety of substances and can have a variety of structures, as are commonly known in the container art. The corrugated material is typically constructed of two or more layers of linerboard sandwiching one or more layers of a fluted material. The linerboard and fluted material are commonly fiber materials. However, non-fiber corrugated materials, such as plastics and polyethylene can also be used. Most preferably, the corrugations run parallel to the longitudinal 2 direction.

[00031] The blank 10, includes a front wall or panel 12 a back wall or panel 14, a first outer side wall or panel 16, a second outer side wall or panel 18, an inner bottom panel 20, an outer bottom panel 22, a first inner side wall or panel 24, a second inner side wall or panel 26, a flange 28, a first intermediate side wall or panel 27, a second intermediate side wall or panel 25, an inner top flap 23, an outer top flap 21, an inner top flap tongue 19, and an outer top flap tongue 17.

[00032] The panels or walls described above are defined by their outer edges, fold lines, and slits. The fold lines are lines weakness in the blank 10 material. Such lines may be perforations, score lines, or any other structure to facilitate the folding of the blank 10 along a line. Preferably, the fold lines are score lines. Slits are cuts that extend through the material of the blank 10 and are meant to provide for clean separation of the panels or walls. When the blank 10 is assembled into a box, the panels are separated along the slits.

[00033] The front wall or panel 12 is connected to the second outer side wall or panel 18 by fold line 32. The front wall 12 is connected to the first outer side wall or panel 16 by fold line 30. The front wall 12 is connected to the outer top flap 21 by fold line

31. Fold line 31 is preferably a perforation so that the outer top flap 21 can be separated from front wall 12 after the box has been used for shipping. The front wall 12 is connected to the outer bottom panel 22 by fold line 33. The outer bottom panel 22 is connected to the first intermediate side panel 27 by fold line 34 and to the second intermediate side panel 25 by fold line 35.

[00034] The outer bottom panel 22 can further include diagonal or “V” shaped lines of weakness, such as shown in US Patent 5,850,964, to Rosenbaum et al. or US Patent 5,887,782 to Mueller, which are both incorporated herein by reference. As shown in Figure 1, the optional diagonal line of weakness 2 extends from the apex of fold line 33 and fold line 34 to the edge 13 of outer bottom panel 22. The diagonal line of weakness 2 is preferably a score line scored on the outside of the assembled box. The placement and angle of the diagonal line of weakness 2 can vary depending upon the dimensions of the box blank, particularly the side edge 15 of inner side panel 27. Such a diagonal line of weakness 2 can be applied to any of the embodiments taught herein.

[00035] As shown in Figure 14, two optional diagonal lines of weakness 102 and 115, as taught in US Patent 5,887,782 can also be used in any of the embodiments described herein. As described in the reference patent, the diagonal lines of weakness are preferably reverse score lines. The angle of the diagonal lines of weakness 102 and 115 with reference to the outer edge 103 of the outer side wall 122 are generally at an angle of 45 degrees. As shown, the diagonal lines of weakness do not intersect. Such is the case when the width of the intermediate side panels 125 and 127, as measured along the longitudinal direction 102, is less than twice the width of the outer bottom panel 122 in the lateral direction 103. The lines of weakness 102 and 115 may intersect for other dimensions, as taught in US Patent 5,887,782.

[00036] The first outer side wall 16 is defined from the first intermediate side panel 27 by slit 36. The second outer side panel 18 is defined from the second intermediate side panel 25 by slit 37.

[00037] The outer top flap 21 is defined from the first inner side panel 24 by slit 38 and from the second intermediate side panel 26 by slit 39. The outer top flap 21 is defined from the outer top flap tongue 17 by fold line 40.

[00038] The inner top flap 23 is defined from the second inner side panel 26 by slit 41 and from the inner top flap tongue 19, by fold line 42.

[00039] The back panel 14 is defined from the second outer side panel 18 by fold line 43, from the inner bottom panel 20 by fold line 44, from the inner top flap 23 by fold line 45, and from the flange 28 by fold line 46. The first inner side panel 24 is connected to the first outer side panel 16 by a pair of fold lines 47 and 48. The pair of fold lines 47 and 48 are separated by approximately 5 millimeters. The fold lines 47 and 48 are separated, to allow space between the first outer side panel and the first inner side panel, the space being of sufficient width to accommodate the first intermediate side panel 27 there between when the box is assembled, as described herein. One skilled in the art will recognize that the pair of fold lines 47 and 48 may be a single fold line and accommodate the intermediate panel. Similarly, the second inner side panel 26 is connected to the second outer side panel 18 by a pair of fold lines 49 and 50.

[00040] The outer side panels 18 and 16, include handhold flaps 80 and 81. The handhold flaps are cut about a portion of their perimeter. The inner and intermediate side panels include handhold apertures 82 a-d. When the box is assembled, the handhold apertures in the respective inner and outer side panels align with the handhold flaps 80 and 81, allowing the user to push the handhold flaps 80 and 81 through the hand hold apertures. Similarly, the handhold flaps 180, 181, 280, 281 and apertures 182a-d and 282a-d interact in the other embodiments.

[00041] To form a box 60 from a blank 10 the flange 28 is attached to the first outer side panel 16 by any known means, such as adhesive, staples, rivets or any other material or structure used to join two surfaces. Preferably, the flange 28 is attached to the first outer side panel 16 near edge 54, prior to delivery to a user of the box. In such a configuration the blank 10 may be delivered to the user in a generally flat and compact condition allowing ease of shipment and storage prior to use. Such joining pre-shipment is not necessary, and joining of flange 28 to the first outer side panel 16 can be left to the user.

[00042] The assembly of the blank 10 and functionality of the resulting box 60 of the first embodiment is shown in figures 2-13. To assemble the box 60 from the blank 10

folded state, the front wall 12 is placed on a surface and the back wall 14 is displaced from the front wall 12 so that a space is present there between. Inner bottom panel 20 is rotated into the space about fold line 44, as directed by arrow 1. First and second intermediate side walls 25 and 27 are rotated about fold lines 35 and 34 respectively, as shown by arrows 2, to lie nearly flat against outer bottom panel 22. As shown in figure 3, outer bottom panel 22 is then rotated about fold line 33 and inserted into the space between front wall 12 and back wall 14. In doing so, inner bottom panel 20 is displaced and pushed up against the back wall 14.

[00043] As shown in Figure 4, the box 60 is now placed on the outer bottom panel 22, and the first and second intermediate side walls 25 and 27 are rotated about fold lines 35 and 34 respectively, so that the first and second inner side walls 25 and 27 are against first and second outer side walls 18 and 16 respectively. Inner bottom panel 20 is then rotated about fold line 44 to rest against the outer bottom panel 22, as shown in Figure 5.

[00044] With the first and second intermediate side walls 25 and 27 adjacent to first and second outer side walls 16 and 18 respectively, first and second inner side walls 24 and 26 are rotated about fold lines 49 and 50 and 47 and 48 so that the inner side walls 24 and 26 are adjacent the first and second intermediate side walls 27 and 25 respectively. In such a configuration, the box 60 is ready to receive contents.

[00045] Once the desired contents are placed in the box 60, the inner top flap 23 is folded about fold line 45 so that it generally forms a closed container. The inner top flap tongue 19 is placed against the inner side of the front wall 12.

[00046] As shown in figures 7 and 8, the user then removes the release liner 51 from the underlying adhesive strip 52 present on the outer top flap tongue 17. The outer top flap 21 is then folded about fold line 31 so that the outer top flap 21 is positioned over the inner top flap 23, allowing the outer top flap tongue 17 to be adhered to the outer surface of the front wall 12. So sealed, the box 60 is ready for shipment. As an added benefit, the seal created by the adhesive allows for ready evidence of any opening of the sealed container, thereby providing a tamper evident seal. If the box 60 is being sent by common carrier, the user may place recipient or addressee indicia 90 on outer

top flap 21 so that the common carrier can determine where the package is to be delivered.

[00047] Upon receipt, as shown in Figures 10 and 11, the recipient utilizes a tear strip 61 to free the outer top flap 21 from the outer top flap tongue 17 which is attached to the front wall 12 by adhesive 62. The recipient can then remove outer top flap 21 from the box 60 by tearing along fold line 31. Fold line 31 may be formed by perforations to aid in separation. A portion of the outer top flap tongue 17 may remain attached to the front wall 12 due to the action of adhesive strip 72.

[00048] By removing the outer top flap 21, the recipient is also removing any indicia 90 regarding the addressee of the box 60. Thus, the box 60 can easily be used as a return shipping box, without the need to cover-up or otherwise obliterate or redact the addressee indicia.

[00049] As shown in figures 12 and 13, for return shipment, or for a second use as a shipping container, storage container, or tamper evident container, the user removes the release liner 71 from the adhesive 72 on the inner top flap tongue 19, and folds or rotates the inner top flap 23 about fold line 45 so as to form a generally closed container. In doing so, the inner top flap tongue 19 is placed adjacent to the back wall 14 so that the position is held by the adhesive 72. Return addressee indicia is then placed on the inner top flap 23. It is also possible for the original shipper or user to include the return addressee indicia 90 on inner top flap 23 prior to the original shipment.

[00050] One can also see that the seal provided by adhesive 72 can provide a tamper evident seal. Thus the box 60 described herein can provide two uses as a tamper evident container.

SECOND EMBODIMENT

[00051] The box described in the first embodiment can be simplified so that the return mailer function is removed. This is accomplished by removing the adhesive strip and tear strip from one of the box top tongues. A box so formed can serve as a mailer, however upon receipt the box is configured to use as a storage box, rather than as a return mailer. One skilled in the art will recognize that such a box can be used as a

mailer, however the box will need to be taped shut or otherwise secured. A blank for such an embodiment is shown in figure 14.

[00052] As with the first embodiment, the blank 110 may be constructed of any material that will form a stiff panel surface. Preferably, the blank 110 is made of a corrugated cardboard material. Most preferably, the corrugations run parallel to the longitudinal 102 direction.

[00053] The blank 110, includes a front wall 112 a back wall 114, a first outer side wall 116, a second outer side wall 118, an inner bottom panel 120, an outer bottom panel 122, a first inner side wall 124, a second inner side wall 126, a flange 128, a first intermediate side wall 127, a second intermediate side wall 125, an inner top flap 123, an outer top flap 121, an inner top flap tongue 119, and an outer top flap tongue 117.

[00054] The panels or walls described above are defined by their outer edges, fold lines, and slits. The fold lines are lines weakness in the blank 110 material. Such lines may be perforations, score lines, or any other structure to facilitate the folding of the blank 110 along the line. Preferably, the fold lines are score lines.

[00055] The front wall 112 is connected to the second outer side wall 118 by fold line 132. The front wall 112 is connected to the first outer side wall 116 by fold line 130. The front wall 112 is connected to the outer top flap 121 by fold line 131. The front wall 112 is connected to the outer bottom panel 122 by fold line 133. The outer bottom panel 122 is connected to the first intermediate side panel 127 by fold line 134 and to the second intermediate side panel 125 by fold line 135.

[00056] The first outer side wall 116 is defined from the first intermediate side panel 127 by slit 136. The second outer side panel 118 is defined from the second intermediate side panel 125 by slit 137.

[00057] The outer top flap 121 is defined from the first inner side panel 124 by slit 138 and from the second intermediate side panel 126 by slit 139. The outer top flap 121 is defined from the outer top flap tongue 117 by fold line 140.

[00058] The inner top flap 123 is defined from the second inner side panel 126 by slit 141 and from the inner top flap tongue 119, by fold line 142.

[00059] The back panel 114 is defined from the second outer side panel 118 by fold line 143, from the inner bottom panel 120 by fold line 144, from the inner top flap 123

by fold line 145, and from the flange 128 by fold line 146. The first inner side panel 124 is connected to the first outer side panel 116 by a pair of fold lines 147 and 148. The pair of fold lines 147 and 148 are separated by approximately 5 millimeters. The fold lines 147 and 148 are separated, to allow space between the first outer side panel and the first inner side panel, the space being of sufficient width to accommodate the first intermediate side panel 127 there between when the box is assembled, as described herein. One skilled in the art will recognize that the pair of fold lines 147 and 148 may be a single fold line and accommodate the intermediate panel. Similarly, the second inner side panel 126 is connected to the second outer side panel 118 by a pair of fold lines 149 and 150.

[00060] To form a box 160 from a blank 110 the flange 128 is attached to the first outer side panel 116 by any known means, such as adhesive, staples, rivets or any other material or structure used to join two surfaces. Preferably, the flange 128 is attached to the first outer side panel 116 near edge 154, prior to delivery to a user of the box 160. In such a configuration the blank 110 may be delivered to the user in a generally flat and compact condition allowing ease of shipment and storage prior to use. Such joining pre-shipment is not necessary, and joining of flange 128 to the first outer side panel 116 can be left to the user.

[00061] The assembly of the blank 110 and functionality of the resulting box 160 of the second embodiment is shown in figures 14-24. To assemble the box 160 from the blank 110 folded state, the front wall 112 is placed on a surface and the back wall 114 is displaced from the front wall 112 so that a space is present there between. Inner bottom panel 20 is rotated into the space about fold line 144, as directed by arrow 101. First and second intermediate side walls 125 and 127 are rotated about fold lines 135 and 134 respectively, as shown by arrows 102 and 103, to lie nearly flat against outer bottom panel 122. As shown in figure 16, outer bottom panel 122 is then rotated about fold line 133 and inserted into the space between front wall 112 and back wall 114. In doing so, inner bottom panel 120 is displaced and pushed up against the back wall 114.

[00062] As shown in Figure 17, the box 160 is now placed on the outer bottom panel 122, and the first and second intermediate side walls 125 and 127 are rotated about

fold lines 135 and 134 respectively, so that the first and second inner side walls 125 and 127 are against first and second outer side walls 118 and 116 respectively. Inner bottom panel 120 is then rotated about fold line 144 to rest against the outer bottom panel 122, as shown in Figure 18.

[00063] With the first and second intermediate side walls 125 and 127 adjacent to first and second outer side walls 116 and 118 respectively, first and second inner side walls 124 and 126 are rotated about fold lines 149 and 150 and 147 and 148 so that the inner side walls 124 and 126 are adjacent the first and second intermediate side walls 127 and 125 respectively. In such a configuration, the box 160 is ready to receive contents.

[00064] As shown in figure 20, once the desired contents are placed in the box 160, the inner top flap 123 is folded about fold line 145 so that it generally forms a closed container. The inner top flap tongue 119 is placed against the inner side of the front wall 112.

[00065] As shown in figures 21 and 22, the user then removes the release liner 151 from the underlying adhesive strip 152 present on the outer top flap tongue 117. The outer top flap 121 is then folded about fold line 131 so that the outer top flap 121 is positioned over the inner top flap 123, allowing the outer top flap tongue 117 to be adhered to the outer surface of the front wall 112, so sealed, the box 160 is ready for shipment. As in the first embodiment, the seal created by the adhesive allows for ready evidence of any opening of the sealed container.

[00066] Upon receipt, the box 160 can be opened as described for the first embodiment as in Figures 10 and 11. The recipient utilizes a tear strip 61, corresponding to 161 in the second embodiment to free the outer top flap 21, corresponding to 121 in the second embodiment, from the outer top flap tongue 17, corresponding to 117 in the second embodiment. The recipient can then remove outer top flap 121 from the box 160 by tearing along fold line 131. Fold line 131 may be formed by perforations to aid in separation.

THIRD EMBODIMENT

[00067] Consistent with the construction described for the first to embodiments, it may be beneficial to provide a more secure or attachment for the upper top flap of the box, particularly when shipping heavy items, or loose items. To provide for more security, the box blank of the third embodiment is provided with three outer top flap tongues, to provide a sealed condition about the perimeter of the outer top flap.

[00068] As shown in figure 23, the box blank 210 of the third embodiment is similar to the box blank used in the first to embodiments. The blank 210 may be constructed of any material that will form a stiff panel surface. Preferably, the blank 210 is made of a corrugated cardboard material. Most preferably, the corrugations run parallel to the longitudinal 202 direction.

[00069] The blank 210, includes a front wall 212 a back wall 214, a first outer side wall 216, a second outer side wall 218, an inner bottom panel 220, an outer bottom panel 222, a first inner side wall 224, a second inner side wall 226, a flange 228, a first intermediate side wall 227, a second intermediate side wall 225, an inner top flap 223, an outer top flap 221, an inner top flap tongue 219, and an outer top flap tongue 217.

[00070] As with the previous embodiments the panels or walls described above are defined by their outer edges, fold lines, and slits. The fold lines are lines weakness in the blank 210 material. Such lines may be perforations, score lines, or any other structure to facilitate the folding of the blank 210 along the line. Preferably, the fold lines are score lines. Slits are cuts that extend through the material of the blank 210 and are meant to provide for clean separation of the panels.

[00071] The front wall 212 is connected to the second outer side wall 218 by fold line 232. The front wall 212 is connected to the first outer side wall 216 by fold line 230. The front wall 212 is connected to the outer top flap 221 by fold line 231. Fold line 31 is preferably a perforation so that the outer top flap 221 can be separated from front wall 212 after the box has been used for shipping. The front wall 212 is connected to the outer bottom panel 222 by fold line 233. The outer bottom panel 222 is connected to the first intermediate side panel 227 by fold line 234 and to the second intermediate side panel 225 by fold line 235.

[00072] The first outer side wall 216 is defined from the first intermediate side panel 227 by slit 236. The second outer side panel 218 is defined from the second intermediate side panel 225 by slit 237.

[00073] The outer top flap 221 of the third embodiment includes three tongue portions placed on the perimeter. Tongue portion in 217 is similar in structure to tongues 117 and 17 found in the previous to embodiments. The third embodiment differs, in that it includes two side tongues to 80 and 281, placed on the side of the outer top flap 221. Such placement on the blank 210 dictates that slits 239 and 238 include portions generally perpendicular to fold lines 249 and 247 and a portion which angles back towards fold line 231. Although slits 239 and 238 could extend and intersect fold lines 249 and 247 in a generally perpendicular manner, having slits 239 and 238 angle back towards corners of top panel 220 provides for a stronger side panel and stronger box structure 210. And as a result of the tongue portions 281 and 280 being placed on either side of outer top panel 221, inner side wall 226 and 224 are not generally rectangular as in the previous to embodiments.

[00074] The three tongue portions 217, 280, and 281 are separated or defined from the outer top flap 221 by a series of perforation 285, 284, and 286, which form part of the zips strips 261. Perforations 284, 285, and 286 form fold lines along which tongue portions 217, 280, and 281 are folded to allow attachment to the side surfaces of the box to 10 won the box to 10 is assembled and sealed for shipment. One skilled in the art will recognize that the perforations 285, 284, and 286 can take on a number of different forms, and need not be shaped as shown in figure 23. Additionally, one skilled in the art will recognize that other structures can be substituted for the perforated zips strips shown in the figures. For instance, a thread or other linear structure can be embedded in the corrugation of the blank 210. Upon receipt, a user pulls on the thread which then acts to rupture or otherwise separate the corrugations, resulting the and detachment of the structure of the material on either side of the thread.

[00075] Tongue portions 217, 280, and 281, include patches of adhesive covered by a release liner 251.

- [00076]** The outer top flap 221 is defined from the first inner side panel 224 by slit 238 and from the second intermediate side panel 226 by slit 239. The outer top flap 221 is defined from the outer top flap tongue 217 by fold line 240.
- [00077]** The inner top flap 223 is defined from the second inner side panel 226 by slit 241 and from the inner top flap tongue 219, by fold line 242.
- [00078]** The back wall 214 is defined from the second outer side wall 218 by fold line 243, from the inner bottom panel 220 by fold line 244, from the inner top flap 223 by fold line 245, and from the flange 228 by fold line 246. The first inner side wall 224 is connected to the first outer side panel 216 by a pair of fold lines 247 and 248. The pair of fold lines 247 and 248 are separated by approximately 5 millimeters. The fold lines 247 and 248 are separated, to allow space between the first outer side panel and the first inner side panel, the space being of sufficient width to accommodate the first intermediate side panel 227 there between when the box is assembled, as described herein. One skilled in the art will recognize that the pair of fold lines 247 and 248 may be a single fold line and accommodate the intermediate panel. Similarly, the second inner side panel 226 is connected to the second outer side panel 218 by a pair of fold lines 249 and 250.
- [00079]** To form a box 260 from a blank 210 the flange 228 is attached to the first outer side panel 216 by any known means, such as adhesive, staples, rivets or any other material or structure used to join two surfaces. Preferably, the flange 228 is attached to the first outer side panel 216 near edge 254, prior to delivery to a user of the box. In such a configuration the blank 210 may be delivered to the user in a generally flat and compact condition allowing ease of shipment and storage prior to use. Such joining pre-shipment is not necessary, and joining of flange 228 to the first outer side panel 216 can be left to the user.
- [00080]** The assembly of the blank 210 and functionality of the resulting box 260 of the third embodiment generally follows the assembly of the box of the first embodiment, shown in Figures 2-13. The major difference in assembly of the box to 10 of the third embodiment, is that the user will use three tongue portions 280, 217, and 281, to seal the box 210. For instance, tongue portion 217 will attach to back wall 214, tongue

portion 280 will attach to outer side wall 218, and tongue portion 281 will attach to outer side wall 216.

[00081] As with the previous to embodiments, upon receipt of the sealed box, the user will unseal the box by removing the zip strips 261 of all three tongue portions 281, 217, and 280. Outer top flap 221 may then be removed by tearing off along perforation 231. Removal of the outer or top panel 221 thus removes any indicia of the address of the recipient. Inner top panel 223 is then used to close the box for storage purposes.

[00082] In an additional embodiments, tongue 219 may include an adhesive and release liner as found on tongue 19 in the first embodiment. Tongue 119 may also include a zip strip or other structure to permit separation of tongue 119 and inner top panel 123. Inclusion of these structures would allow the box to be used for return shipment.

[00083] One skilled in the art will recognize that the three embodiments described herein share functions, features, descriptions, structures, definitions, and components may be shared by the embodiments, and are not necessarily restricted to the section or embodiment particularly described. The examples described herein are merely examples, and are not meant to limit the scope of the invention and claims.

CLAIMS:

- [C1]** A box for shipping and storing items, the box made from a unitary blank of material the box including:
A front wall, a back wall, a first sidewall, a second sidewall, and a bottom panel, the panels assembled to form a storage area there between;
an inner top panel hingedly attached to the back wall;
an outer top panel hingedly attached to the front wall;
a first tongue connected to the outer top panel, the tongue including an adhesive strip positioned between the first tongue and the back panel wall when the outer top panel is placed across the storage area to close the box.
- [C2]** The box of claim 1, where a perforation permits separation of the first tongue from the outer top panel.
- [C3]** The box of claim 1, wherein the first tongue includes a zip strip.
- [C4]** The box of claim 1, wherein the outer top panel and the front wall are separable along a line of weakness.
- [C5]** The box of claim 4, wherein the line of weakness is formed by perforations.
- [C6]** The box of claim 4, further including a second tongue on the inner top panel, the second tongue being separable from the inner top panel by a line of weakness.
- [C7]** A method of using the box of claim 1, the method including the steps of
placing indicia related to a return address on the inner top panel,
placing indicia relating to a recipients address on the outer top panel,
placing contents to be shipped to the recipient into the storage area of the box,
sealing the box for shipment and shipping the box to the recipient,
the recipient opening the box and separating the outer top panel from the back wall,
placing an item to be shipped to the return address into the storage area of the box,
sealing the box and shipping the box to the return address.
- [C8]** A box for shipping and storing items, the box made from a unitary blank of material the box including:
A front wall, a back wall, a first inner sidewall, a second inner sidewall, and an inner bottom panel, the panels assembled to form a storage area there between;
an inner top panel hingedly attached to the back wall;

an outer top panel hingedly attached to the front wall;
a first tongue portion connected to the outer top panel, the tongue portion including an adhesive strip positioned between the first tongue portion and the back panel when the outer top panel is placed across the storage area to close the box, and a second tongue portion connected to the inner top panel.

[C9] The box of claim 8 wherein the second tongue portion includes an adhesive strip positioned between the second tongue portion and the front panel when the inner top panel is placed across the storage area.

[C10] The box of claim 8, wherein the first tongue portion includes a line of weakness to allow separation from the outer top panel.

[C11] The box of claim 8, wherein the first tongue portion includes a zip strip.

[C12] The box of claim 8, wherein the outer top panel and the front wall are separable along a line of weakness.

[C13] The box of claim 8, wherein the line of weakness is formed by perforations.

[C14] The box of claim 8, wherein the second tongue portion includes an adhesive strip, and a line of weakness to allow separation of the second tongue from the outer top panel, the line of weakness being positioned between the adhesive strip and the outer top panel.

[C15] The box of claim 14, wherein the outer top panel and front wall are separable along a second line of weakness.

[C16] The box of claim 1, further including a third tongue connected to the outer top panel by a third line of weakness and a fourth tongue connected to the outer top panel by a fourth line of weakness, the third and forth tongues each having adhesive.

[C17] The box of claim 16, wherein the third and fourth lines of weakness are perforations.

[C18] The box of claim 1, wherein the first and second side walls are each constructed of an inner side wall, intermediate side wall, and an outer side wall, the intermediate side wall being positioned between the inner and outer side walls.

[C19] The box of claim 1, wherein the first side wall is formed by a first inner side wall, a first intermediate side wall, and a first outer side wall, the first inner side wall connected to the first outer sidewall, and the first intermediate side wall connected to

the outer bottom wall, and positioned between the first inner side wall and first outer side wall, and the second side wall is formed by a second inner side wall, a second intermediate side wall, and a second outer side wall, the second inner side wall connected to the second outer sidewall, and the second intermediate side wall connected to the outer bottom wall, and positioned between the second inner side wall and second outer side wall.

[C20] The box of claim 19, further including a third tongue connected to the outer top panel by a third line of weakness and a fourth tongue connected to the outer top panel by a fourth line of weakness, the third and forth tongues each having adhesive.

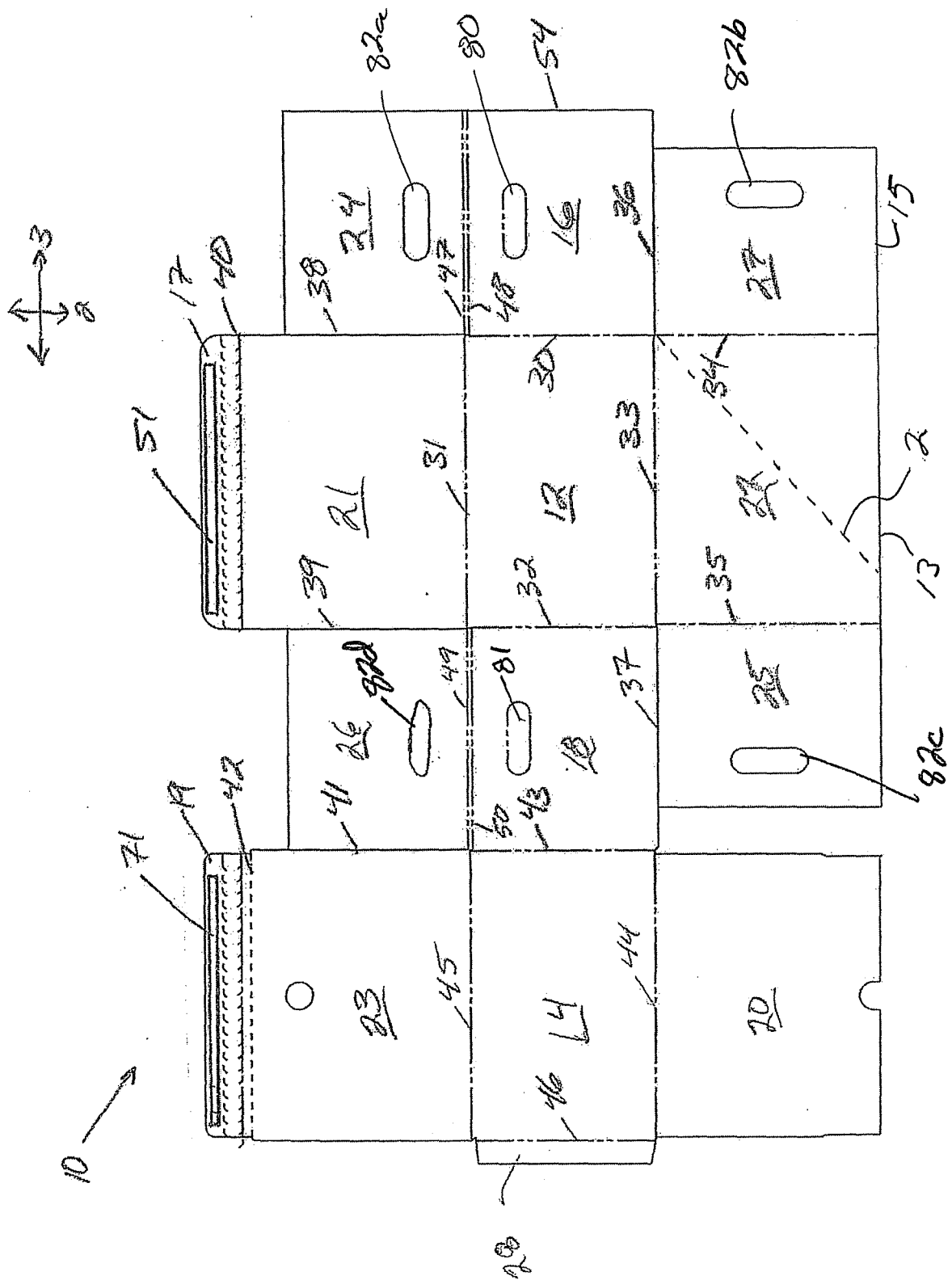
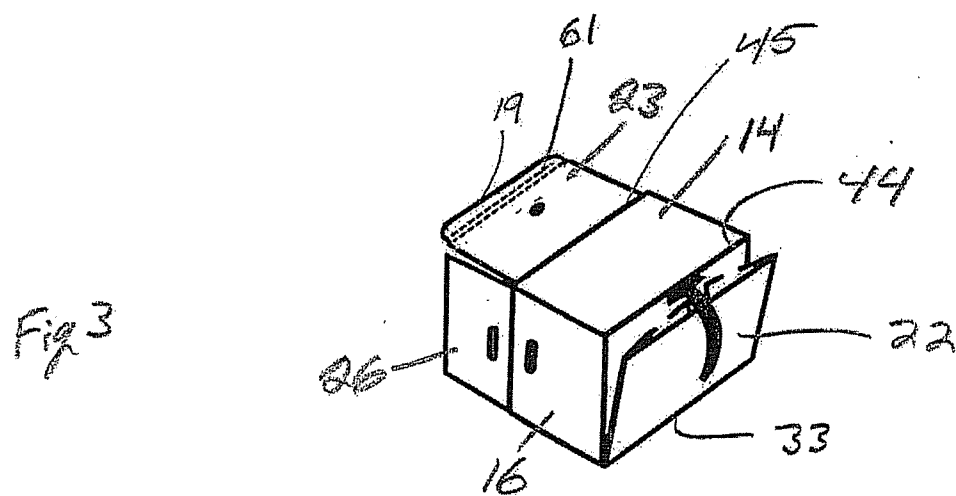
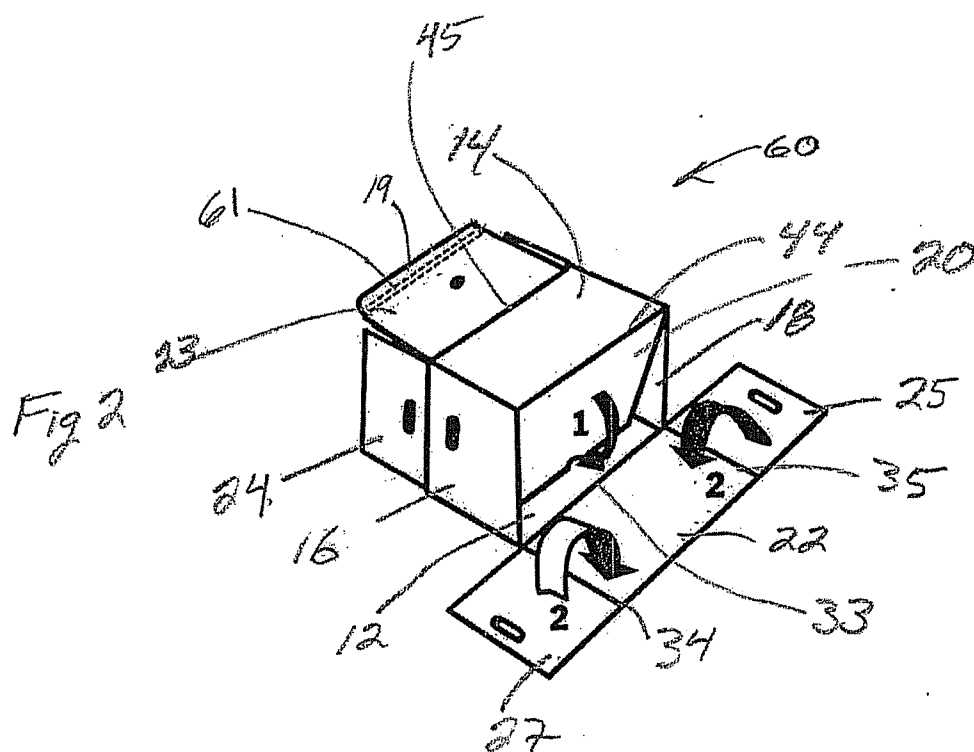


Fig. 1



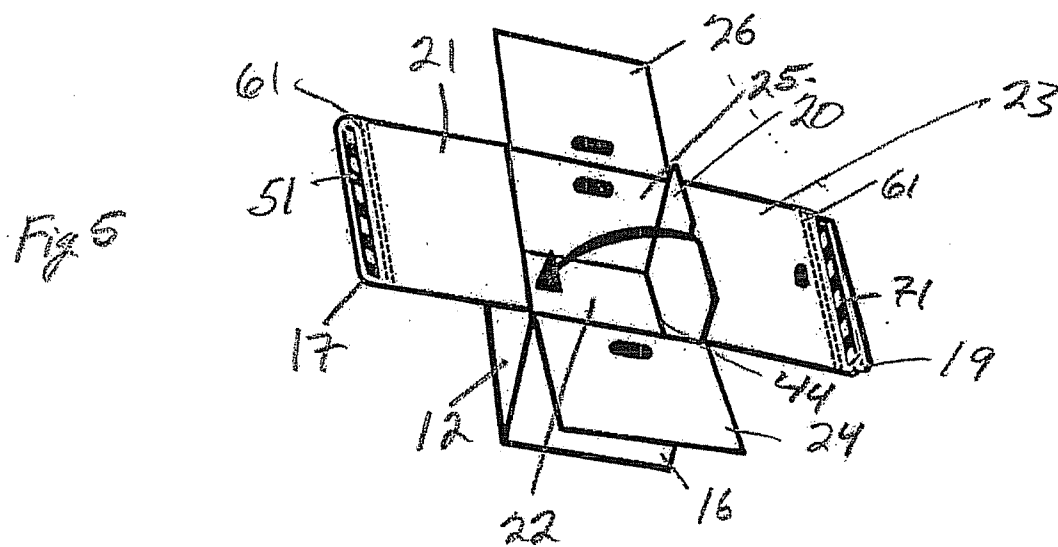
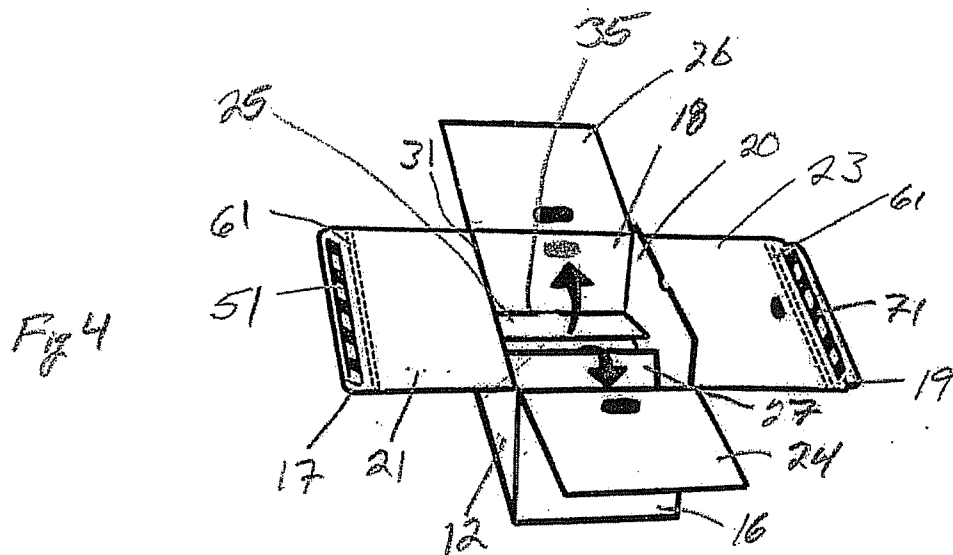


Fig 8

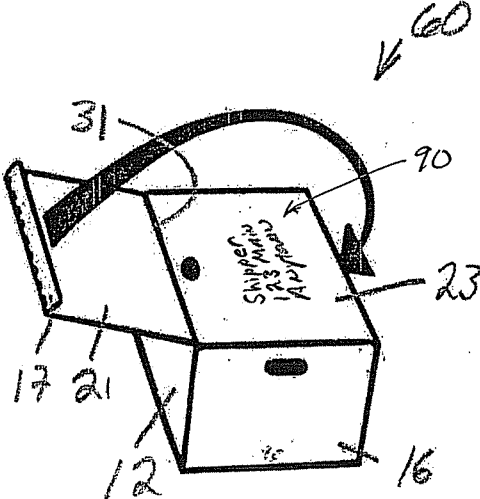
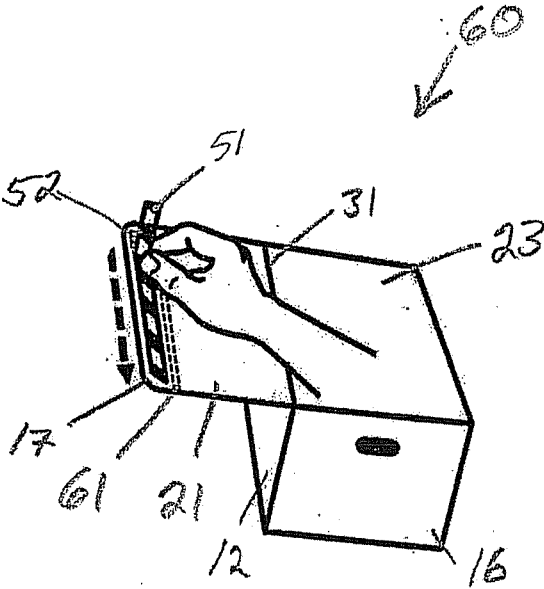


Fig 9

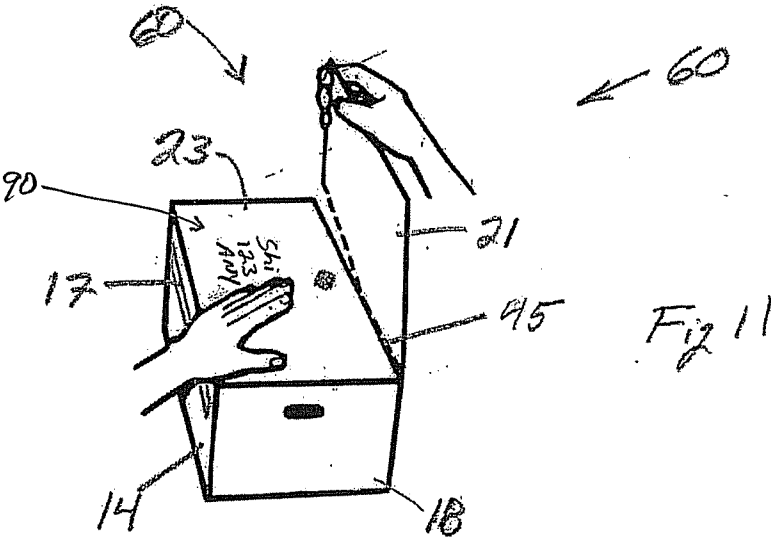
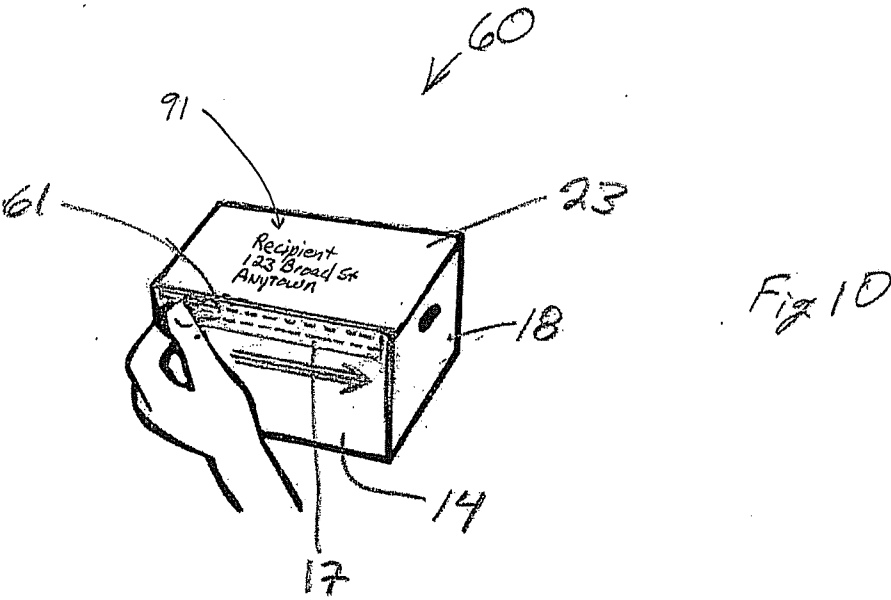


Fig 12

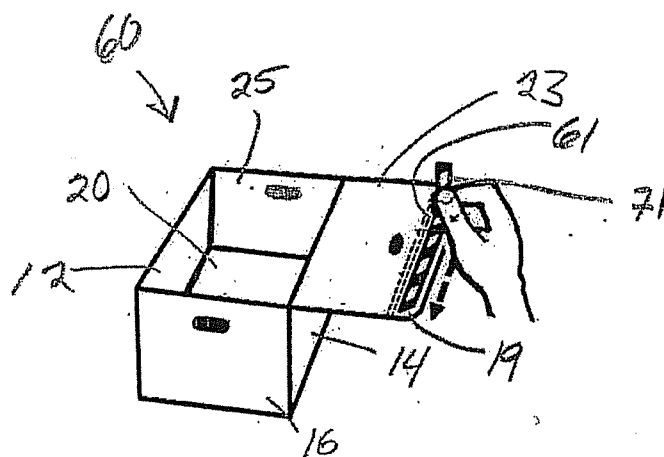
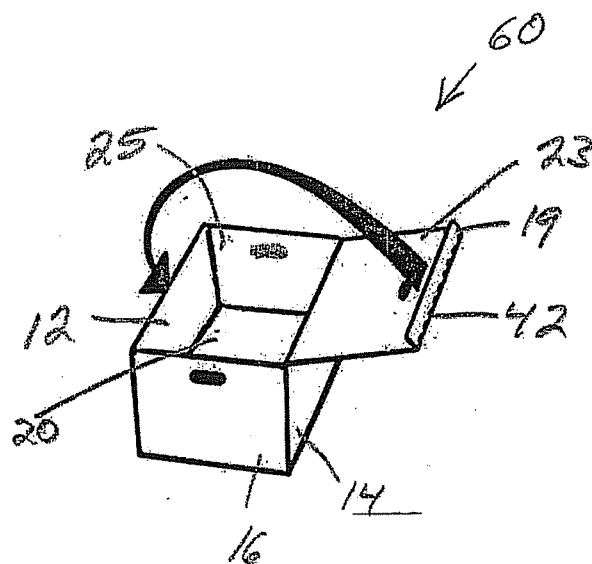


Fig 13



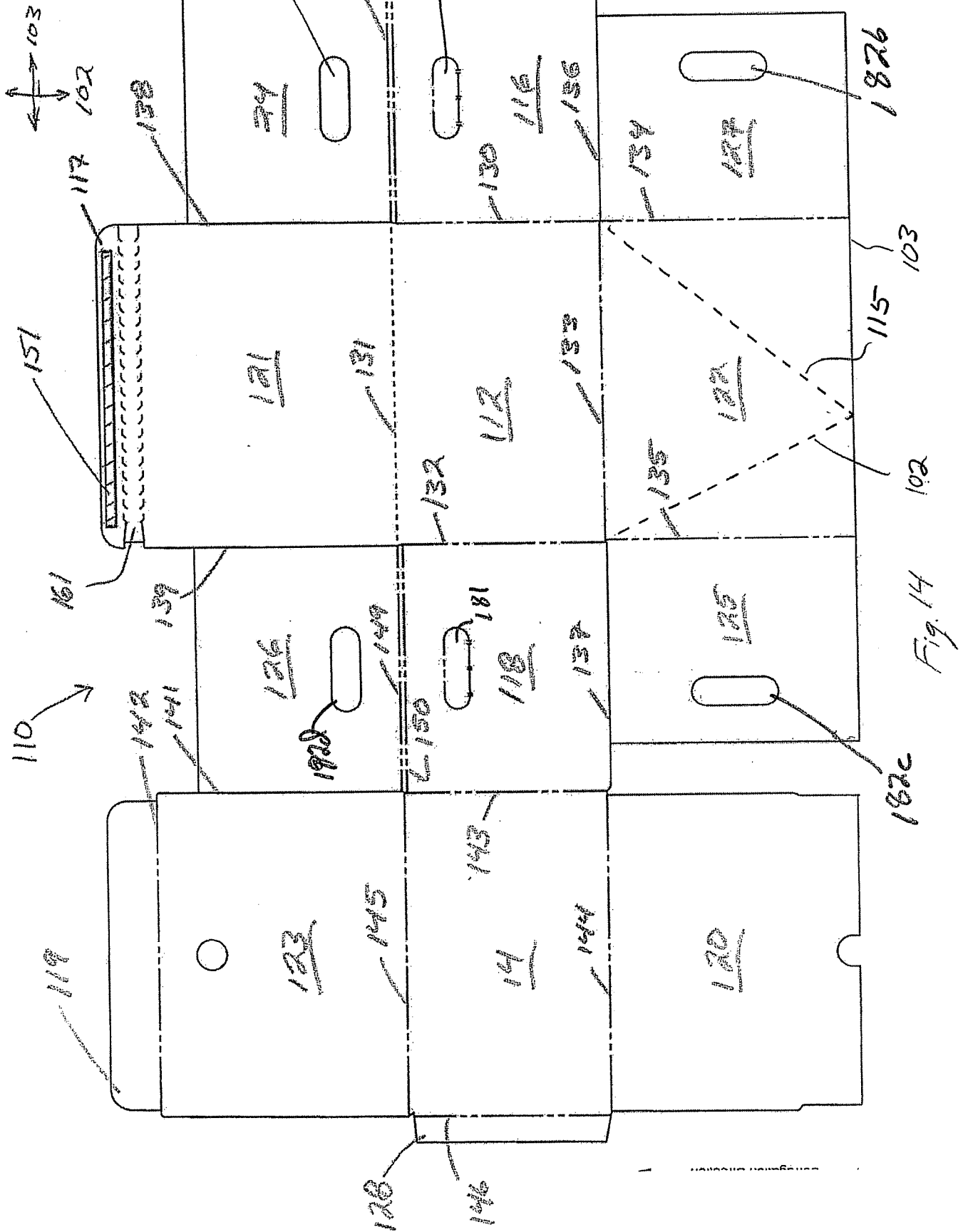


Fig 15

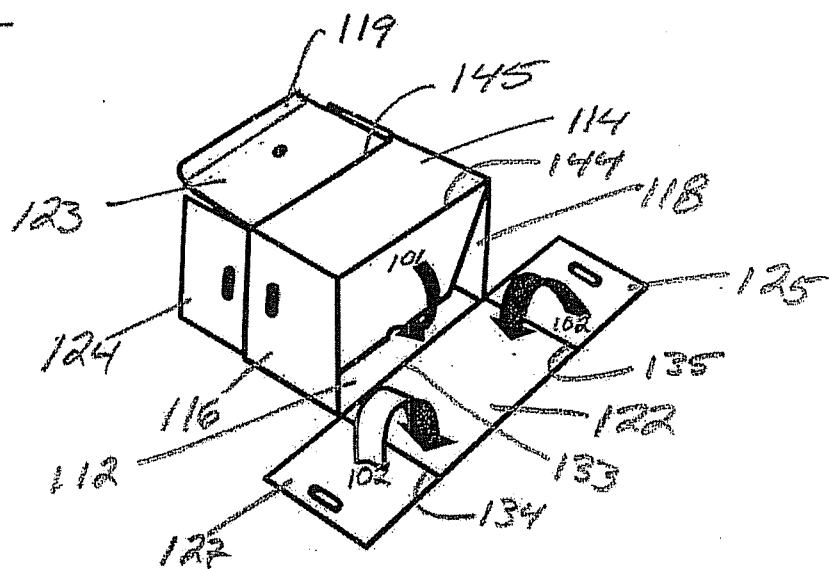
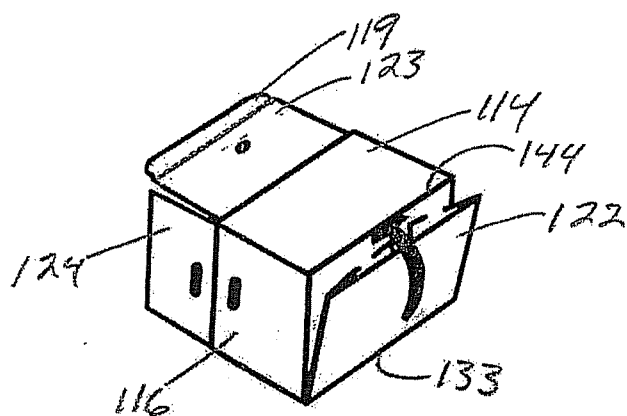
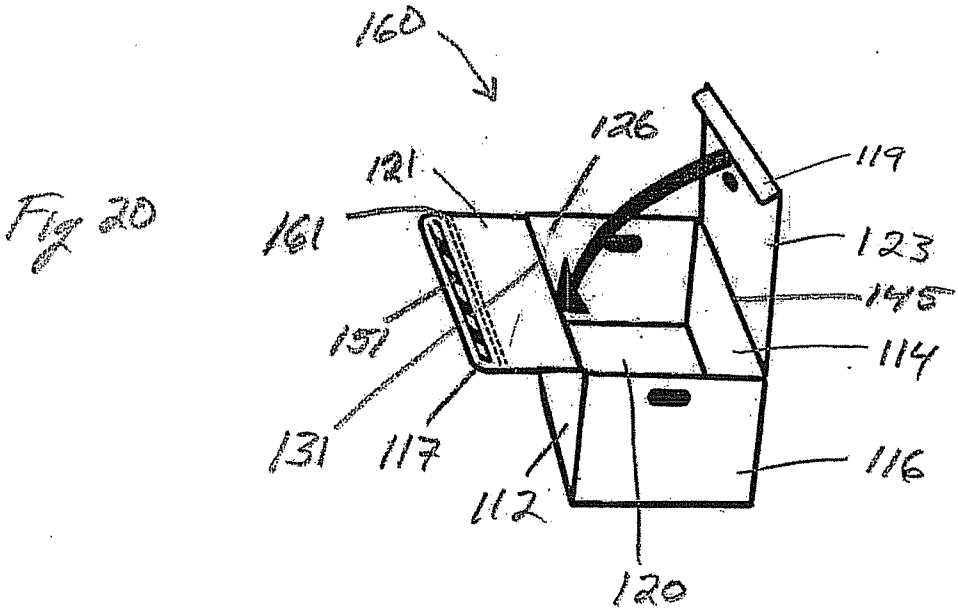
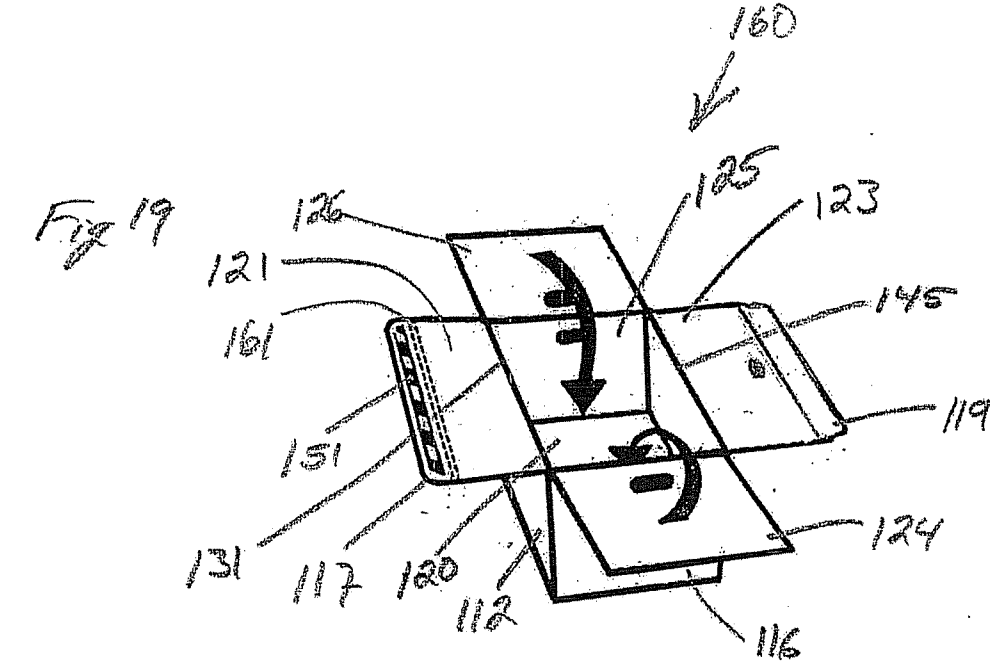
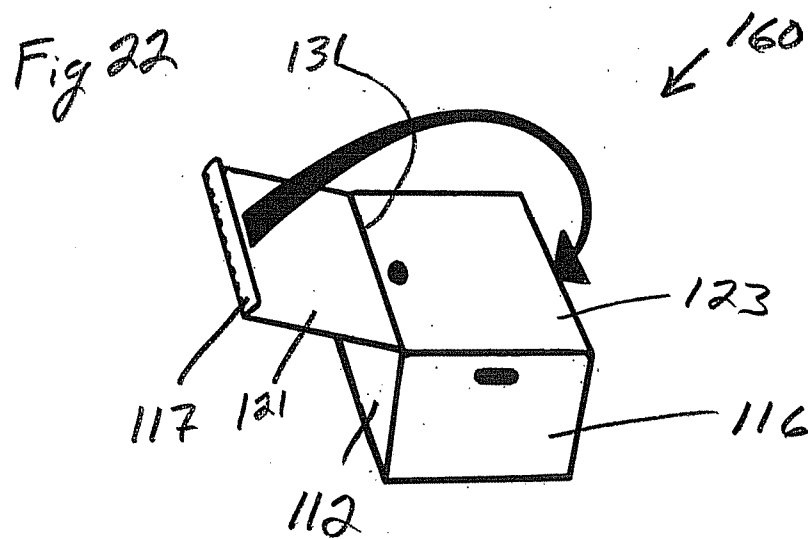
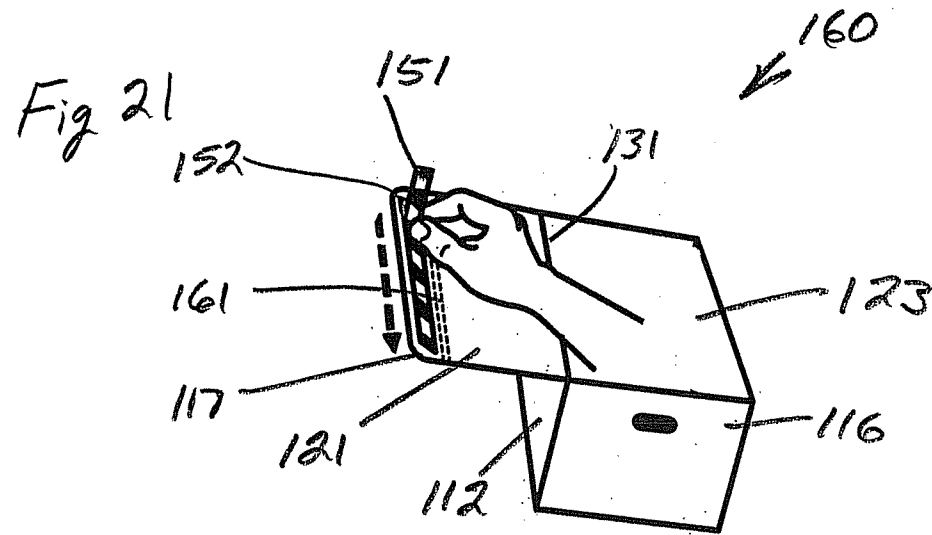


Fig 16







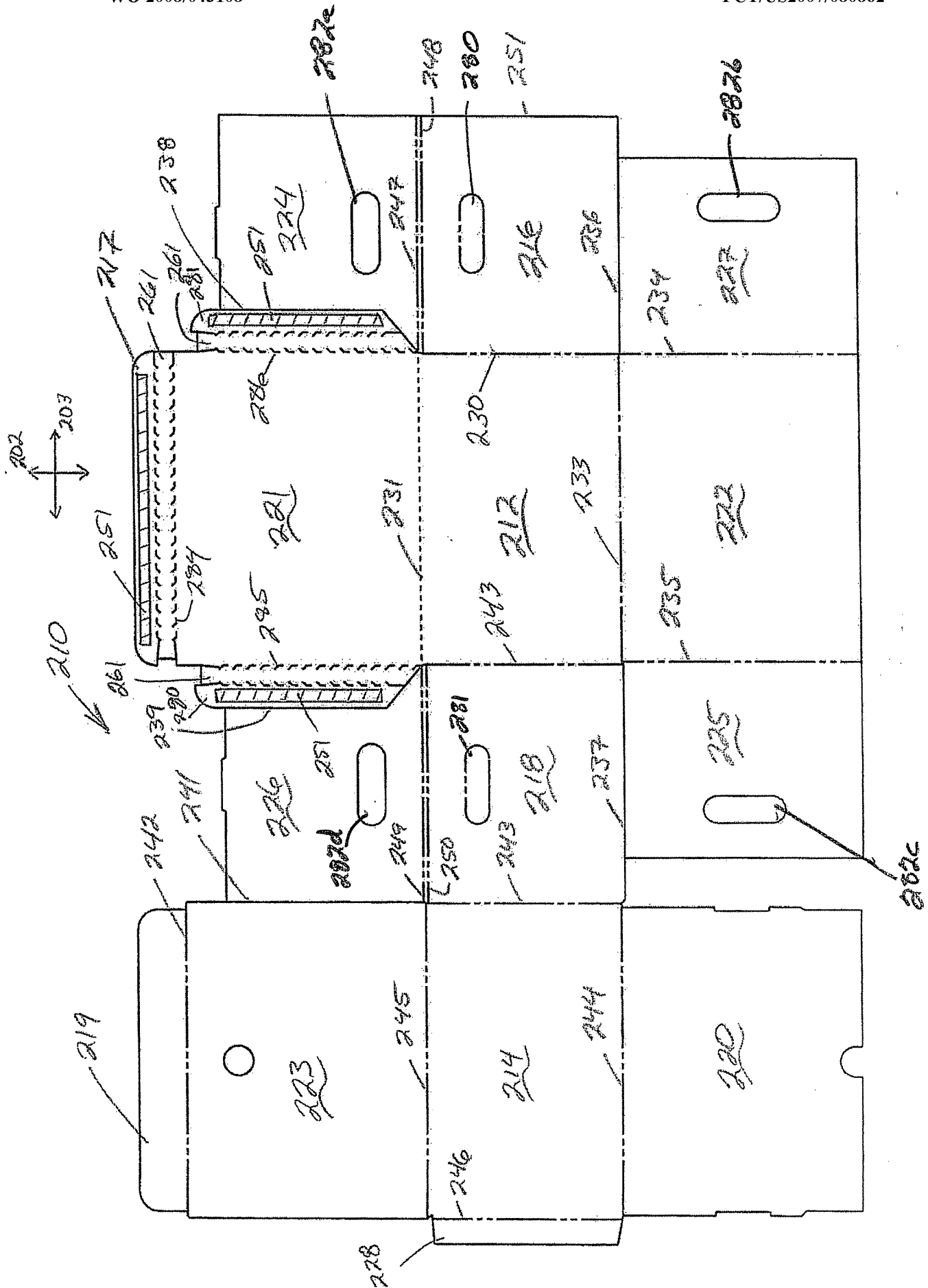


Figure 23

INTERNATIONAL SEARCH REPORT

International application No.
US07/80862

A. CLASSIFICATION OF SUBJECT MATTER

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier application or patent but published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search	Date of mailing of the international search report
Name and mailing address of the ISA/	Authorized officer
Facsimile No.	Telephone No.