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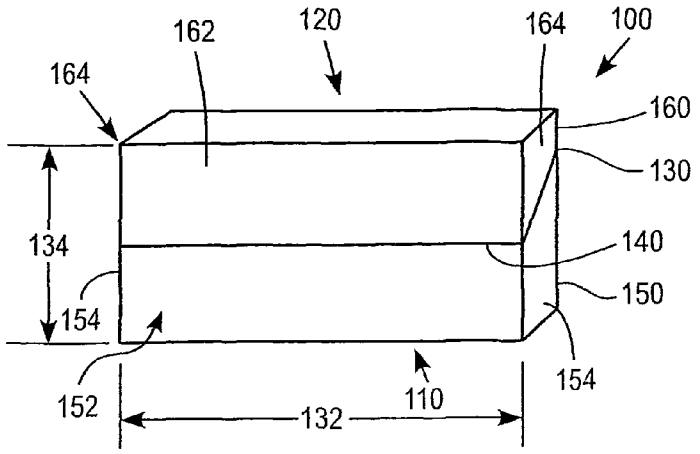
(54) Title: SNUS FOIL PACK IN SIDE OPENING HARD PACK

FIG. 1



(57) Abstract: A side opening box having an outer box and an inner frame. The outer box includes a box portion (110) and a hinged lid portion (120) having a hinge (130) extending across a back panel (150), so that the lid is rotatable from a closed position to an opened position at an angle relative to a front panel (152), and wherein the hinge extends across the back panel of the outer box in a latitudinal direction, and wherein the latitudinal direction is greater in length than in a longitudinal direction. The inner frame (310) attaches to an inner portion of a front panel (152) of the box portion, and includes a front panel (312), and a pair of side panels (314).

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SNUS FOIL PACK IN SIDE OPENING HARD PACK

WORKING ENVIRONMENT

Smoking articles such as cigarettes and a variety of other consumer goods are commonly sold in hinge-lid containers. These hinge-lid containers comprise a lower box portion and an upper lid portion, which is hinged to the back panel of the lower box portion. Such containers are formed from laminar cardboard blanks that include various panels and flaps, which when folded about appropriate score lines around a pre-wrapped bundle of cigarettes and/or other type of package or container forms the box portion and the lid portion of the hinge-lid container.

SUMMARY

In accordance with one embodiment, a side opening box comprises; an outer box comprising: a box portion; a hinged lid portion having a hinge extending across a back panel, so that the lid is rotatable from a closed position to an opened position at an angle relative to said front panel, and wherein the hinge extends across the back panel of the outer box in a latitudinal direction, and wherein the latitudinal direction is greater in length than in a longitudinal direction; and an inner frame attached to an inner portion of a front panel of the box portion, the inner frame including a front panel, and a pair of side panels.

In accordance with another embodiment, a method of forming a side opening box comprises: providing an outer box blank to a cigarette packing machine; providing a strip of an inner frame blanks to the cigarette packing machine; separating at least one inner frame blank from the strip of inner frame blanks, the at least one inner frame including a front panel, and a pair of side panels; folding the outer box blank into a box portion and a hinged lid portion having a hinge extending across a back panel, and wherein the hinge extends across the back panel of the outer box in a latitudinal direction, and wherein the latitudinal direction is greater in length than in a longitudinal direction; and attaching one of the inner frame blanks to an inner portion of a front panel of the box portion of the box.

BRIEF DESCRIPTION OF THE DRAWING FIGURES

FIG. 1 is a perspective view of a side opening hard pack in accordance with an embodiment.

FIG. 2 is a plan view of an outer box blank in a spread out state in accordance with an embodiment.

FIG. 3 is a plan view of a strip of inner frames in accordance with an embodiment.

FIG. 4 is a plan view of an outer box blank in a spread out state in accordance with another embodiment.

FIG. 5 is a plan view of a strip of inner frames in accordance with another embodiment.

DETAILED DESCRIPTION

In accordance with an embodiment, hinge-lid cigarette containers include an upper lid portion of the container, which is hinged to the top of the back panel of the lower box portion thereof along a transverse hinge line. Cigarettes stand in the lower box portion of the upright container with their longitudinal axes parallel to the longitudinal axis of the container. When the consumer opens the container, by pivoting the front of the lid portion up and to the rear, the upper ends of the cigarettes standing in the lower box portion are exposed. In the closed position, the front panel, back panel and side panels of the upper lid portion of the hinge-lid container form vertical extensions of the corresponding panels of the lower box portion thereof.

It can be appreciated that in accordance with another embodiment, it would be desirable to have a side opening hard pack (or box), which can be used as a decorative method of packaging multiple foil packs in a single sellable unit. It can be appreciated that in accordance with an embodiment, the design of the hard pack (or box) can provide a premium feel and familiarity to the cigarette style hard packs. In addition, the pack (or box) can be configured to hold multiple foil packs, which are designed to contain a snus product, and which contains them in a single package. The foil packs can either be of the same or assorted flavors. Although, the overall pack size and hinge design is similar to the king size hard pack, the pack can be changed in thickness to contain one or more foil packs. In addition, the hinged opening is on the side of the box (or pack), i.e., a side opening box. It can be appreciated that in accordance with an exemplary embodiment, the design of the pack or box is such that modified cigarette packers can be used for the production.

FIG. 1 shows a side opening hard pack 100 (or outer box), which includes a box portion 110, and a hinged lid portion 120 having a hinge 130 extending across a back panel 150, so that the lid portion 120 is rotatable from a closed position to an opened position at an angle relative to said front panel 152, 162. In accordance with an exemplary embodiment, the hinge 130 extends across the back panel 150, 160 in a latitudinal direction (i.e., width 132) having a greater length than in a longitudinal direction (i.e., height 134), such that the box 100 is a side opening box when opened in an upright position instead of the more traditional front opening box.

The hard pack (or outer box 110) is preferably comprised of a box portion 110 and a hinged lid 120, wherein the hinged lid 120 pivots relative to the box portion 110, permitting the pack to be opened and reclosed. As shown in FIG. 1, the hinged lid 120 connects to the box

portion 110 along an axis of articulation, which is along an edge or fold line (i.e., hinge line 130) of a back panels 150, 160 of the box 100. In accordance with an exemplary embodiment, the box 100 has a width of approximately 80 mm to 90 mm and a height of approximately 50 mm to 60 mm. The box portion 110 also can include an inner frame 300, 500 (FIGS. 3 and 5), which is uncovered upon articulation of the hinged lid 120 about the fold or hinge line 130.

In accordance with an exemplary embodiment, the box 100 has a width 132 and a height 134, and wherein the width 132 is greater than the height 134 of the box 100. As shown in FIG. 1, a separation line 140 separates the box portion 110 from the hinged lid (or hinged lid portion) 120. In a preferred embodiment, the length of the separation line 140, which is equal to the width 132 of the box 100 is greater than the height 134 of the box 100, such that the hinged lid (or hinged lid portion) 120 is a side opening box as compared to a standard hinged lid box (i.e., king size hard pack) having a height of approximately 85 mm and a width of approximately 55 mm.

In accordance with an embodiment, the box 100 is configured to receive at least one rectangular package and/or container, or snus foil package, such as those disclosed in commonly owned U.S. Patent Application Publication No. 20090000968. When the consumer opens the container, by pivoting the lid portion 120, the foil pack in the box portion 110 is exposed. In the closed position, the front panel 162, back panel 160 and side panels 164, 166 of the lid portion 120 of the hinge-lid container form vertical extensions of the corresponding panels, 160, 162, 164, 166 of the box portion 110 thereof.

FIG. 2 shows a pre-cut blank of one embodiment in the form of an outer box blank 200 prior to assembly for a side opening hard pack in accordance with an embodiment. As shown, the outer box blank 200 includes a front panel 210 having a pair of front side panels 212, 214, a left side (or base) panel 220 having a pair of side flap panels 222, 224, a back panel 230 having a pair of back side glue panels 232, 234, a lid back panel 240 having a pair of lid back glue panels 242, 244, a right side (or top) panel 250 having a pair of right side panels 252, 254, a lid front panel 260 having a pair of lid front panels 262, 264 and an inner lid flap 270, which fold up underneath the lid front panel 260 to provide strength to the hinged lid portion 120. The outer box blank 200 also includes a pair of glue flaps 202, 204, which are attached to a lower edge of the front side panels 212, 214.

In accordance with an exemplary embodiment, the outer box blank 200 has an overall width 202 of approximately 125 mm, a folded width 204 of approximately 85 mm, and a height 206 of approximately 55 mm. In accordance with an exemplary embodiment, each of the panels is separated from one another by a fold line. The blank 200 is preferably pre-scored to assist with the assembly of the box 100. During assembly of the box 100, the back side glue panels 232, 234 are attached to the underside of the pair of front side panels 212, 214 to form

the box portion 110 of the box 100. The lid back glue panels 242, 244 are then attached to the underside of the lid front panels 262, 264 to form the lid portion 120 of the box 100.

FIG. 3 is a plan view of a strip 300 of inner frames 310 in accordance with an embodiment. Each of the inner frames 310 includes a front panel 312, and a pair of side panels 314. The inner frame 310 has a lower edge 320, an upper edge 330, and a pair of outer edges 330, 340. The lower edge 320 has a relatively flat mid-portion 322 with a rounded corner 323, which extends to a pair generally vertical or approximately vertical edges 324 to a second rounded corner 325, and extending outward to a pair of approximately horizontal outer edges 326. The upper edge 330 essentially mirrors the lower edge 320 having has a relatively flat mid-portion 332 with a rounded corner 333 to a pair generally vertical or approximately vertical edges 334 to a second rounded corner 335 to a pair of approximately horizontal outer edges 336. The inner frame 310 also includes a pair of approximately vertical outer edges 338.

In accordance with an embodiment, the pair of side panels 314 includes a plurality of perforations 340 for ease of installation of the inner frame within the outer box 100. Each of the side panels 314 includes an extended slit 342 at or near the relatively flat mid-portion 332 of the side panels 314. During assembly of the outer box 100, the inner frame 310 is glued to the underside of the front panel 210.

In accordance with an exemplary embodiment, each of the inner frames 310 has a side panel height 350 of approximately 30 mm to 35 mm, an overall height 352 of approximately 40 mm to 45 mm, a perforation width 354 from perforations 340 to perforations 340 of approximately 80 mm to 85 mm, an overall width 356 of approximately 120 mm to 130 mm, and a perforation width 358 from the perforations 340 to the outer edge 338 of approximately 18 mm to 20 mm.

FIG. 4 is a plan view of an outer box blank 400 in a spread out state in accordance with another embodiment. As shown in FIG. 4, the outer box blank 400 includes a front panel 410 having a pair of front side panels 412, 414, a left side (or base) panel 420 having a pair of side flap panels 422, 424, a back panel 430 having a pair of back side glue panels 432, 434, a lid back panel 440 having a pair of lid back glue panels 442, 444, a right side (or top) panel 450 having a pair of right side panels 452, 454, a lid front panel 460 having a pair of lid front panels 462, 464 and an inner lid flap 470, which folds up underneath the lid front panel 460 to provide strength to the hinged lid portion 120.

FIG. 5 is a plan view of a strip 500 of inner frames 510 in accordance with another embodiment. Each of the inner frames 510 includes a front panel 512, and a pair of side panels 514. As shown in FIG. 5, each of the inner frames 510 has a lower edge 520, an upper edge 530, and a pair of outer edges 526, 536. The lower edge 520 has a relatively flat mid-portion 522 with a rounded corner 523, which extends to a pair generally vertical or approximately

vertical edges 524 to a second rounded corner 525, and outward to a pair of approximately horizontal outer edges 526. The upper edge 530 essentially mirrors the lower edge 520 having has a relatively flat mid-portion 532 with a round corner 533 to a pair generally vertical or approximately vertical edges 534 to a second rounded corner 535 to a pair of approximately horizontal outer edges 536. The inner frame 510 also includes a pair of approximately vertical outer edges 538.

In accordance with an embodiment, the side panels 514 include a plurality of perforations 540 for ease of installation of the inner frame 510 within the outer box 100. The side panels 514 also include an extended slit 542 at or near the relatively flat mid-portion 532 of the upper edge 530. During assembly of the outer box 100, the inner frame 510 is glued to the underside of the front panel 410.

In accordance with an exemplary embodiment, each of the inner frames 510 has a side panel height 550 of approximately 35 mm to 45 mm, an overall height 552 of approximately 50 mm to 55 mm, a perforation width 554 of approximately 80 mm to 85 mm, an overall width 556 of approximately 105 mm to 120 mm, a perforation width 358 from the outer edge 538 to the perforations 540 of approximately 18 mm to 20 mm. Each of the inner frames 510 also includes a lower edge height 560, which extends from the lower edge 520 to the horizontal outer edges 526 of approximately 10 mm to 14 mm.

The boxes can be produced from the customary materials for cigarette boxes such as e.g. paper, cardboard, plastic, plastic film or plastic laminate or one of the named materials with an additional metal or metal-oxide coating. Paper or cardboard are preferably used, short-grain paper or short-grain cardboard are particularly preferred as foldable material for the lid portion and the box portion, and also the inner frame. In the case of paper or cardboard production, the product-forming material is placed on a fast-moving belt.

Although the methods, apparatuses and packaging has been described in terms of the preferred embodiments thereof, it will be appreciated by those skilled in the art that additions, deletions, modifications, and substitutions not specifically described can be made without departing from the spirit and scope of the embodiments as defined in the appended claims.

CLAIMS:

1. A side opening box comprising:

an outer box comprising:

a box portion;

a hinged lid portion having a hinge extending across a back panel of outer box, so that the lid is rotatable from a closed position to an opened position at an angle relative to a front panel of the box portion, and wherein the hinge extends across the back panel of the outer box in a latitudinal direction, and wherein the latitudinal direction is greater in length than in a longitudinal direction; and

an inner frame attached to an inner portion of the front panel of the box portion, the inner frame including a front panel, and a pair of side panels.

2. The box of Claim 1, wherein the box portion includes the front panel, a back panel, a bottom panel, and pair of side panels.

3. The box of Claim 2, wherein the hinged lid portion includes a front panel, a back panel, a top panel, and a pair of side panels.

4. The box of Claim 3, wherein the hinge connects the back panel of the box portion to the back panel of the lid portion.

5. The box of Claim 4, further comprising a separation line separating the front panel of the box portion from the front panel of the lid portion, and wherein the separation line extends across the front panels in the latitudinal direction.

6. The box of Claim 1, wherein the inner frame projects at least partly out of the box portion.

7. The box of Claim 1, wherein the box has a rectangular cross-section.

8. The box of Claim 1, wherein the box is constructed of a foldable material.

9. The box of Claim 1, wherein the box is configured to receive one or more foil packs.

10. A method of forming a side opening box comprising:

providing an outer box blank to a cigarette packing machine;

providing a strip of an inner frame blanks to the cigarette packing machine;

separating at least one inner frame blank from the strip of inner frame blanks, the at least one inner frame including a front panel, and a pair of side panels;

folding the outer box blank into a box portion and a hinged lid portion having a hinge extending across a back panel, and wherein the hinge extends across the back panel of the outer box in a latitudinal direction, and wherein the latitudinal direction is greater in length than in a longitudinal direction; and

attaching one of the inner frame blanks to an inner portion of a front panel of the box portion of the box.

11. The method of Claim 10, wherein the box portion includes the front panel, a back panel, a bottom panel, and pair of side panels.

12. The method of Claim 11, wherein the hinged lid portion includes a front panel, a back panel, a top panel, and a pair of side panels.

13. The method of Claim 12, wherein the hinge connects the back panel of the box portion to the back panel of the lid portion.

14. The method of Claim 13, further comprising a separation line separating the front panel of the box portion from the front panel of the lid portion, and wherein the separation line extends across the front panels in the latitudinal direction.

15. The method of Claim 10, further comprising projecting the inner frame at least partly out of the box portion.

16. The method of Claim 10, wherein the box has a rectangular cross-section.

17. The method of Claim 10, further comprising constructing the box of a foldable material.

18. The method of Claim 10, further comprising placing one or more foil packs within the outer box.

FIG. 1

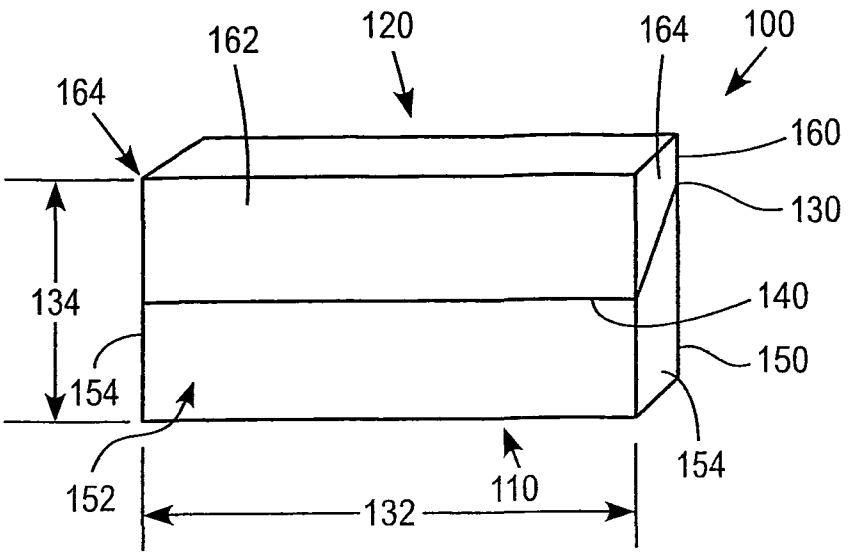
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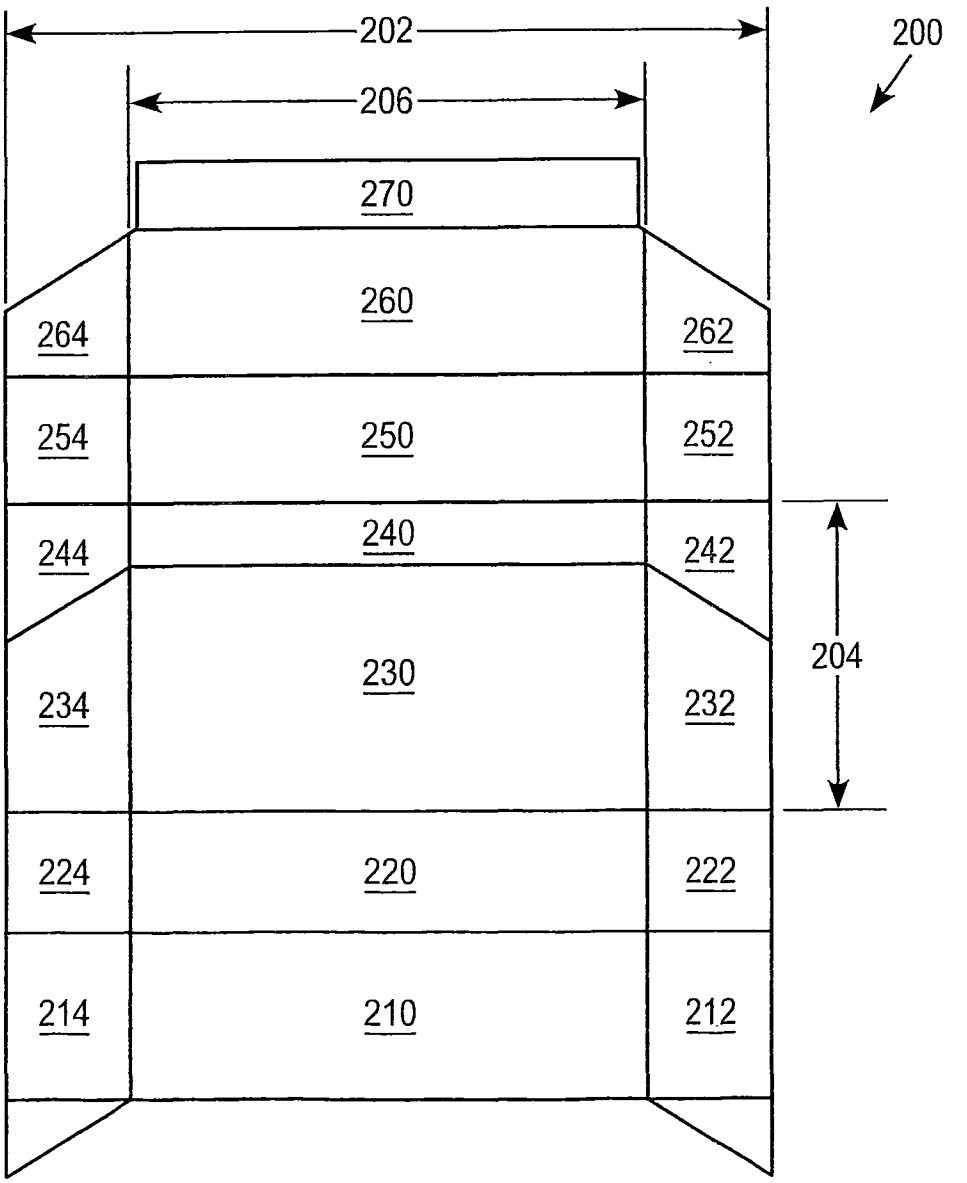
FIG. 2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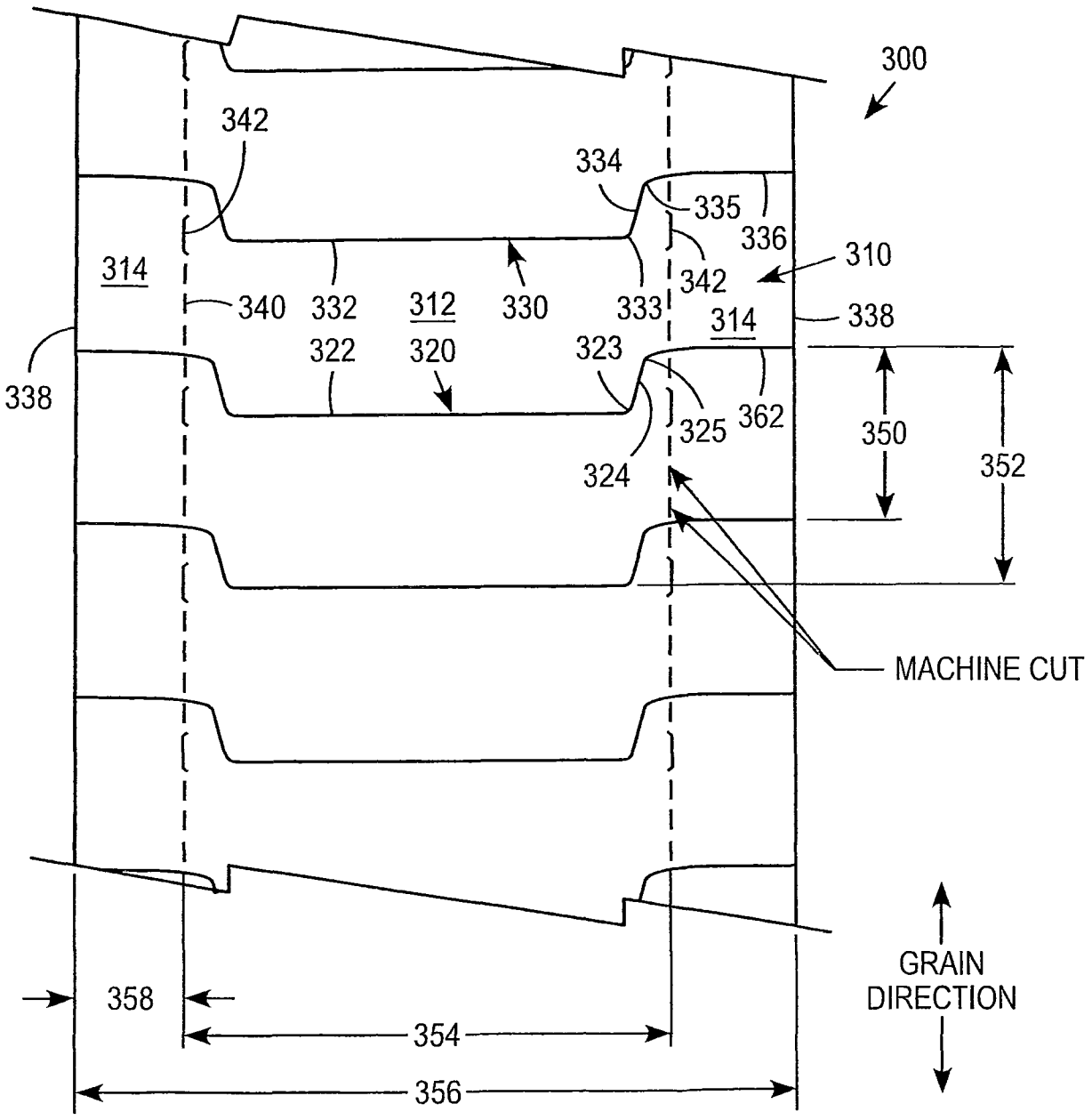
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MACHINE CUT
GRAIN DIRECTION
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FIG. 3

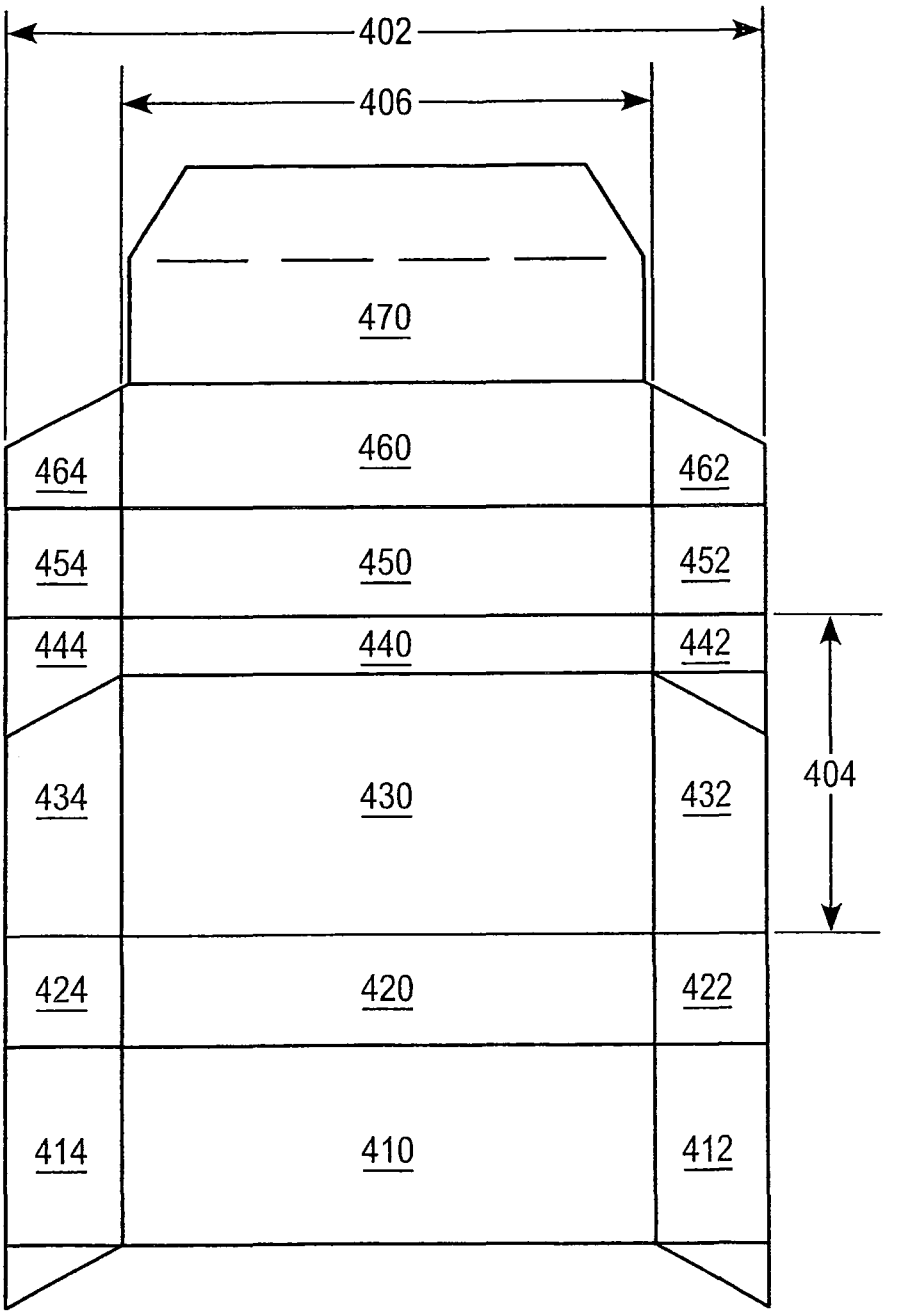
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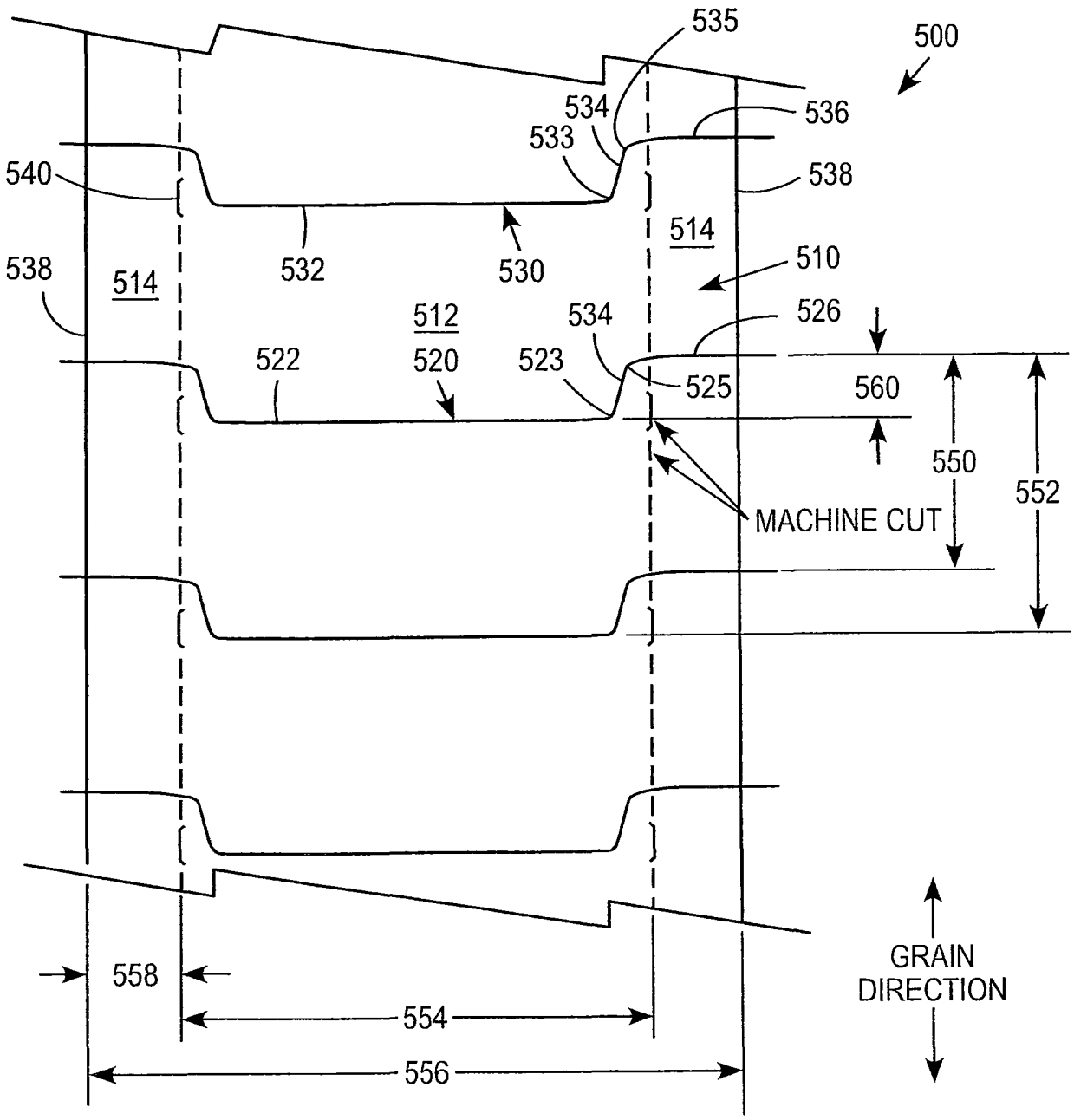
FIG. 4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MACHINE CUT
GRAIN
DIRECTION
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FIG. 5

INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2010/006102

A. CLASSIFICATION OF SUBJECT MATTER
INV. B65D5/66
ADD.

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)
B65D

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 practical, search terms used)
EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 2 072 410 A1 (DELICARTA S P A [IT]) 24 June 2009 (2009-06-24) paragraph [0007] - paragraph [0012]; figures 1, 8-10	1-9
X	US 2 247 870 A (WALKER CHALMERS JOHN) 1 July 1941 (1941-07-01) page 2, column 1, line 14 - page 3, column 2, line 32; figures 1-7	1-18

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents :

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"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
11 January 2011	24/01/2011

Name and mailing address of the ISA/	Authorized officer
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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/EP2010/006102

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 2072410 A1	24-06-2009	NONE	
US 2247870 A	01-07-1941	FR 858814 A	04-12-1940
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