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(54) CARTON WITH REINFORCING CLIP PANEL

KARTONVERPACKUNG MIT VERSTÄRKENDER STUETZPLATTE
EMBALLAGE EN CARTON RENFORCE PAR UN PANNEAU DE RETENUE

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(56) References cited:
EP-A- 0 122 397
FR-A- 2 648 440
US-A- 3 650 395

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Description

The invention relates to a carton which accommodates a plurality of articles such as bottles and which comprises a paperboard part and clip panel which secures the articles together in a group.

It is known to package a plurality of articles such as bottles or cans in, for example a wraparound carton made of paperboard or like foldable material. Such cartons generally comprise a blank having a number of foldably interconnected panels which wrap around an array of articles to form a sleeve which retains the articles. US 3 167 347 (Hewlings) discloses a carrying device which is attached to an array of articles to provide a handle part of the packaging in addition to a wraparound blank. Hewlings specifically discloses a carrying device which has a panel comprising a number of apertures through which the top of a necked bottle passes, the rim of the apertures engaging the underside of the bottle top or cap. The carrying device also has an upright handle attached to the aperture panel. The overall device is made of a relatively rigid material which has the necessary structural strength but where distortion of the aperture panel can occur thereby ensuring that the articles are gripped by the aperture rims. This known device requires that the articles are packaged in a wraparound carton which provides full packaging per se and where the known gripping device is utilized as an optional element to engage, say, only four of a greater number of bottle necks which protrude from the top panel of the carton to facilitate carrying the package.

This particular disclosure in the known art thus provides a carton having an upper relatively rigid panel which engages a number of articles and ensures a sturdy handle is provided for the overall package. However, all articles are in any event wrapped and retained by a wraparound blank. The blank itself provides complete packaging material for the articles.

One aspect of the present invention provides a carton accommodating a group of articles, such as bottles, comprises a sleeve-like part having a plurality of foldably interconnected panels and a relatively rigid plate which secures said articles together in a group characterised in that said relatively rigid plate is stiff relative to the interconnected panels and which provides, together with at least one of the sleeve panels, a top of the carton.

According to a feature of this aspect of the invention said one panel of the sleeve may be attached to the articles.

According to another feature of this aspect of the invention said one panel of the sleeve may be attached to the relatively rigid plate. Preferably, said relatively rigid plate comprises article engaging means.

According to yet another feature of this aspect of the invention said carton, in at least one orientation, may provide an endless sleeve-like wrapper about said group of articles. Preferably, opposite ends of the wraparound blank are adapted to secure the blank to said relatively rigid plate. It is also preferable for opposite ends of the blank to be adapted to secure the blank to said articles.

In some constructions where the carton is a wraparound sleeve, one end of the blank may be adapted to secure the blank to the articles and the other end of said blank is adapted to secure the blank to said relatively rigid plate. In other constructions where the carton is a wraparound sleeve the blank may be adapted to be attached to both articles and said relatively rigid plate at said opposite ends of said blank.

Another aspect of the invention provides the combination of a carton for packaging a group of articles, such as bottles which carton comprises foldable sheet material in which said article group is to be accommodated and a plate which is stiff relative to the wrapper material which is secured to the article group and which provides, together with at least one of the sleeve panels, a top of the carton.

Specific embodiments of the invention will now be described by way of example only with reference to the accompanying drawings in which:

FIGURE 1 shows a perspective view of a first embodiment of a wraparound type carton according to the invention;

FIGURE 2 shows a plan elevation of a carton blank utilized in the carton shown in Figure 1;

FIGURE 3 shows a perspective view of the relatively rigid panel part of the carton shown in Figure 1;

FIGURE 4 shows a perspective view of a second embodiment of a wraparound type carton according to the invention;

FIGURE 5 shows a perspective view of the relatively rigid panel part of the carton shown in Figure 4;

FIGURE 6 shows a side elevation of the carton shown in Figure 4;

FIGURE 7 shows a plan elevation of the relatively rigid panel shown in Figure 5;

FIGURE 8 shows a plan elevation of a carton blank according to the second embodiments of the invention;

FIGURE 9 shows a perspective view of a third embodiment of a wraparound type carton according to the invention;

FIGURE 10 shows the relatively rigid panel part of
the carton shown in Figure 9;

FIGURE 11 shows a side elevation of the carton shown in Figure 9;

FIGURE 12 shows a plan elevation of the relatively rigid panel shown in Figure 10;

FIGURE 13 shows a plan elevation of the carbon blank shown in Figure 9;

FIGURE 14 shows a perspective elevation of a fourth embodiment of a wraparound type carton according to the invention;

FIGURE 15 shows the relatively rigid panel part of the carton shown in Figure 14;

FIGURE 16 shows a sectional side elevation of a relatively rigid panel part of a fifth embodiment of a carton according to the invention;

FIGURE 17 shows a plan view of a sixth embodiment of a relatively rigid panel according to the invention;

FIGURE 18 shows a schematic representation of a method of packaging a carton according to the sixth embodiment of the invention through various stages;

FIGURE 19 shows a perspective view of a seventh embodiment of the carton according to the invention;

FIGURE 20 shows a perspective view of the carton shown in Figure 19 during the article loading process; and

FIGURE 21 shows a plan view of an unformed carton blank used to form the carton shown in Figures 19 and 20.

Referring to Figures 1, 2 and 3 there is shown a first embodiment of a carton 10 according to the invention. The carton comprises blank 12 and a discrete structural reinforcing panel 14 in the form of a flat clip. Carton blank 12 is of a foldable wraparound type and comprises a plurality of paperboard panels hingably interconnected in series by means of fold lines. There is shown a bottom panel 20 hingably connected to side panel 22 by means of hinge line 32. Side panel 22 is hinged to inclined side panel 24 by means of fold line 34, whilst panel 24 is hinged to top panel 26 by means of hinge line 36. Top panel 26 is foldably connected to top flap 28 by means of fold line 38. Top panel 26 comprises three top tabs 40a, b and c which are cut from top flap 28 along cut line 41a, b and c respectively. Top panel 28 comprises article engaging rim 42a, b and c which can be effective once top flap 28 is displaced about hinge line 38. Top tab 40a, for example, abuts the top of the bottle B in the completed package whilst rim 42a engages the underside of part of the bottle cap as shown. Thus the end of blank 12 is secure to the packaged articles which in this case are bottles.

Similarly, base panel 20 is foldably connected to side panel 21 by means of hinge line 31, whilst side panel 21 is foldably connected to inclined side panel 23 by means of fold line 33. Inclined side panel 23 is foldably connected to top panel 25 by means of hinge line 35. Top panel 25 is foldably connected to top flap 27 by means of fold line 37. Top panel 25 further comprises top tabs 40d, e and f which are cut from top flap 27 along cut lines 41d, e and f respectively. There are thus created article engaging rims 42d, e and f in top flap 27.

The discrete structural reinforcing panel 14 is formed from a plastics material and is attached to six bottles B. The structural panel 14, sometimes herein referred to as a clip panel, comprises six article engaging means which in this case are apertures 18 and two handle apertures 16. It is envisaged that the clip panel could be secured in some manner to the paperboard so that the clip and paperboard blank are supplied together as a unit to a bottler.

The completed carton 10 is shown in Figure 1 in a perspective view where carton blank 12 is wrapped around an array of six articles in two rows of three. Top flaps 27 and 28 have been folded downwardly out of coplanar alignment with flaps 25 and 26 respectively. The bottle caps BC have been engaged by top flap article rims 42 and thus the opposite ends 27 and 28 of the wraparound blank 12 are engaged with all six bottles. The use of discrete structural panel 14 and blank 12 together provides a completed carton which has sufficient rigidity to allow carrying of the filled articles, for example, by use of handle apertures 16 but yet may utilize a lower calliper of paperboard than otherwise would be required in the absence of the clip panel.

One of the advantages of carton 10 can be seen in Figure 3 where an array of two rows of three empty bottles is shown attached to structural clip panel 16. However, in this drawing the bottles are empty and structural panel 14 can be used simply to return the empty bottles. Apertures 18 in panel 14 are circular and of a suitable diameter to allow easy engagement of the panel with a bottle neck and similarly easy disengagement thereof. In this particular embodiment clip panel 14 is made of a semi-rigid material such as corrugated plastic for example.

The second embodiment of the invention is shown in Figures 4 to 8. Complete package carton 110 is shown in perspective view in figure 4 comprising blank 112 and clip panel 114. In this embodiment the carton is again shown containing an array of articles arranged in two rows of three. In this embodiment like features which are present in the first embodiment shown in fig-
ures 1, 2 and 3 are labelled with the same last two digits prefixed with the number 1.

Figure 8 shows a plan view of the blank 112 which has almost identical structure to blank 12 shown in figure 2. However, blank 112 incorporates additional features 150 to 158 which are panel flaps used to engage clip panel 114.

Clip panel 114 is shown in plan elevation in figure 7 where in addition to article apertures 118 there can be seen an additional feature, blank flap engaging apertures 119. Thus as shown in side elevation in figure 4 when blank 112 is wrapped around the articles and top flaps 127 and 128 folded downwardly, in addition to article engaging rims 142 engaging the bottle caps BC, panel flaps 150 engage apertures 119 thus securing the blank 112 to clip panel 114 as well as to the articles. Structural clip panel 114 is again designed to enable bottles to be readily engaged and disengaged thereby facilitating its use to return empty bottles, as shown in figure 5.

In this particular embodiment additional structural rigidity is provided to the completed carton simply by engaging the blank with the discrete structural or clip panel 114. Thus, as can be seen, opposite ends of wraparound blank 112 are provided with both structural panel engaging means and article engaging means.

A third embodiment of the invention is shown in figure 9 to 13. Features of this embodiment which are similar to those shown in previous embodiments are labelled with the same last two numerals prefixed with the number 2. In this embodiment opposite ends of carton blank 212 comprise structural panel engaging means but the blank itself does not engage articles individually. Figure 9 shows a completed carton 210 comprising carton blank 212 and structural panel 214, again packaging an array of six bottles.

Figure 13 shows a plan elevation of carton blank 212 where panel flaps 250a to f are shown to be of a tab variety. One of which is shown enlarged in figure 13a. Similarly blank flap engaging apertures 219 are a different shape to those shown in the previous embodiment. Figure 12 shows a plan elevation of the discrete structural panel 214 comprising six blank flap engaging apertures 219 where one of these is shown enlarged in figure 12a. Aperture 219 is differently contoured from 119 to allow interlocking of tab flaps 251 which are incorporated in panel flaps 250 to securely attach the carton blanket to carton structural panel 214. Figures 12a and 13a show an enlarged flap 250 and aperture 219 where two dimensions of each are labelled A and B, and C and D respectively. Dimension D of aperture 219 is relatively large to allow insertion of tab flaps 251, which have a maximum dimension B, to pass through them. Dimension A of flap 250 is less than dimension B thereof and dimension C of aperture 212 in order that m-flap can be retained in the aperture in the engaged formation as shown on the right hand side of figure 11. The tab flaps 251 form flanges which securely anchor the carton blank by engaging the underside of panel 214. It is found that an effective way of doing this is to have dimension B less than dimension D so that the safety tabs 250 can pass through the clip panel aperture 219 and to have dimension B greater than dimension C in order that the flanges 251 effectively secure the blank in position.

A fourth embodiment of the invention is shown in figure 14 and 15 where components are represented by the common last two digits prefixed with the number 3. In this embodiment the completed carton 310 shown in figure 14 carries an array of bottles B in three rows of four.

Carton 310 comprises a single blank 312 and two structural panels 314a and 314b. Opposite ends of carton blank 312 engage the bottle tops alone and are not secured to the clip panels 316. However, end panels 327 and 328 could be provided with clip panel engaging means whilst panel 314a and 314b would require a reciprocal engaging means. In previous embodiments the clip panel comprises an aperture (19) which is an extension of article receiving apertures (18) but it is envisaged that blank receiving apertures (19) may be discrete from article apertures (18). It is possible also to have one end of the blank (12) attach to only the articles and the other end to attach only to the clip panel. It is envisaged that a variety of combination of article arrays, such as 2 x 2, 4 x 2 and 3 x 3, for example, can be used with any one clip panel (14). Also it is possible to have a number of such clip panels and article arrays wrapped and joined by one wraparound blank 312, for example, one blank may be used with three clip panels which each hold a 2 x 2 array of articles. Each clip panel 314a and b comprises a handle aperture 316a and b respectively. This embodiment has the advantage that a greater number of filled articles can be packaged by a single blank whereas the empty articles can be returned in groups of six using only one of the structural panels 314a or b.

Figure 16 shows a side elevation of a fifth embodiment of a structural panel 414 which, in common with all embodiments of the clip panel shown here, is specifically designed to be readily engageable and disengageable from articles. Article apertures 418 have a diameter just less than the maximum outer diameter of the bottle flange BF. By making structural panel 414 of a semirigid material so that it can offer structural rigidity to the carton they can also allow slight expansion of apertures 418 whilst they are passed on to and off the bottles B.

A sixth embodiment of a clip panel 514 according to the invention is shown in Figure 17. A schematic representation of a method of forming a completed carton 510 is shown in Figure 18. Clip panel 514 comprises central panel 563 hingely attached to marginal panels 562 and 564 by folds 561 and 560 respectively. In this embodiment adjacent article engaging apertures 518 are joined by article receiving aperture 517 which span central panel 563.
Referring to part A of Figure 18 there is shown an end section of clip panel 514 where dimensions X and Y are indicated as the width of aperture 517 and diameter of aperture 518 respectively. Part B of Figure 18 shows that side panels 562 and 564 have been raised upwardly about folds 561 and 560, and are configured to receive bottles B which are placed top-to-top in a horizontal position. Referring to part C there is shown two important dimensions of the bottle necks; diameter V is the outer diameter of the neck at bottle flange BF, and dimension W is the narrower diameter of the bottle neck below the bottle flange. Referring to part C of the Figure 18 clip panel 514 and bottles B are brought together and the bottle necks engage bottle apertures 518. It can be seen therefore that dimension X of the clip panel 514 must be greater than dimension V of the bottles in order to allow the bottles to pass upwardly into engagement with apertures 518. Dimension Y, however, must be less than dimension V in order that the bottles are retained by the clip panel, whilst dimension W must be less than dimension Y to allow the bottles to abut the rim of aperture 518.

Bottles B are then rotated until panels 562, 563 and 564 are again coplanar as shown in part D. Thus an array of bottles can be attached to panel clip 514 without using force to push the bottle tops through a resilient but narrow aperture (18). A mechanically easier operation is effected by simply rotating the panels 562 and 564 and engaging the bottles without the need for additional force against the clip panel. The array of bottles and clip panel can then be wrapped using blank 512. In this embodiment the ends of blank 512 engage the bottle tops thus securing the whole carton 510 together. However, as in the previously described embodiments it is possible for the blank to attach to the clip panel 514 as well as or instead of the bottles. Part F of Figure 18 shows how the bottles are kept firmly in place by the action of the end panels of blank 512.

Referring now to Figures 19 to 21 of the drawings a carton 610 is shown which comprises a carton blank 612 and a relatively rigid reinforcing panel 614 in the form of a flat clip. Blank 612 is made of paperboard or similar foldable material and forms a sleeve which is loaded by a known loading technique. Blank 612 shown in Figure 21, comprises two side panels 622, 623, and two end panels 624 and 625 where panel 622 and 624 are opposite one another in the formed carton and all four panels form an enclosed casing which contains an array of articles in combination with top and bottom closures.

The side panels are hingedly interconnected along fold lines. Side panel 622 is foldably connected to end panel 623 along fold line 652 whilst it is connected to end panel 625 along fold line 653. Side panel 624 is foldably connected to end panel 625 along hinge line 654. Base panel portion 626 and 627 are foldably connected to side panels 624 and 622 respectively along fold lines 655 and 656 respectively. The blank is formed into a fully enclosed type carton by joining end panel 623 to side panel 624 which in this particular embodiment is effected by gluing tab 641 to side panel 624 thereby creating a rectangular sleeve-like structure representing the carton in the part-formed state shown in Figure 20.

The formation process shown schematically in FIGURE 20 shows the carton sleeve being drop loaded by lowering blank 612 onto a group of six bottles arranged in two parallel rows. In this case six bottles B are arranged in two rows of three bottles each, the whole group having been secured by the relatively rigid panel 614, in which, in effect, is a reinforcing clip panel. It is possible to engage the tops of the bottles with the article engaging means 670 in top panel portions 633 and 635 prior to closing the carton by folding base panels 626 and 627 inwardly and attaching these panels together to form a secure base. For example, panels 626 and 627 can be glued together or they may comprise cooperating locking means such as tabs and apertures for example.

Alternatively, base panels 626 and 627 may be attached together to close one end of the sleeve prior to loading the carton with the bottles and attaching the clip panel.

The group of bottles would therefore be lowered from above the part formed carton as opposed to the drop-loading method shown in Figure 20. The clip panel 614 is made of a semi-rigid material such as corrugated plastics, for example which is relatively rigid as compared to the carton blank material such as cardboard. The clip panel is a discrete structural panel which helps to secure the bottles in an array by means of a plurality of article engaging means 606 which in this case are apertures. The clip panel 614 acts as a structural reinforcing element in the completed carton and it is found that lower calliper cardboard can be used in a carton of this design compared with a similar carton without such a reinforcing clip panel 614. The clip panel comprises a handle means 616 which in this case is formed by two apertures. Clip panel 614 can be used to carry an array of empty bottles without the need for a blank which is useful in returning empty bottles to a point of sale.

Carton blank 612 comprises inclined side panels 628 and 630 and upper end panels 629 and 631. These panels are foldably connected to the side and end panels previously described, as follows; inclined upper panel 628 is foldably connected to side panel 622 along hinge line 657; upper end panel 629 is foldably connected to end panel 623 along fold line 658; end panel 631 is foldably connected to end panel 625 along fold line 650; upper side panel 630 is foldably connected to side panel 624 along fold line 659. The upper end panels 629 and 631 are foldably connected to inclined side panel 628 and 630, respectively, by means of web connectors 636, 637, 638 and 639.

The webs comprise two panel portions 'a' and 'b'
which are hingably connected together by a generally central fold line 666. Web 638 comprises panels 'a' and 'b' and fold line 666; it is foldably connected to upper end panel 629 along fold line 667 and to inclined side panel 628 along fold line 665. Similarly, the other web connectors comprise two fold panels and hinge lines so that in the completed carton as shown in Figure 19 the upper end panels 629 and 631 lie flush with the ends of upper side panel 628 and 630. This is due to the fact that the webs are folded inwardly of the carton and thereby help retain upper end panels 629 and 630 in position in the completed carton. Inclined side panels 628 and 630 further comprise article engaging means 670 a to f which are cut into marginal panel 633 and 635. Marginal panels 633 and 635 are foldably connected to panels 632 and 634 along fold line 662 and 664 respectively. Panels 632 and 634 are foldably connected to inclined side panel 630 and 628 along hinge lines 661 and 663 respectively. Cut lines 670 which engage the bottle tops in the embodiment shown creates bottle top tabs 640 'a' to 'f' as shown in Figure 19.

Claims

1. A carton accommodating a group of articles (B), such as bottles, comprises a sleeve-like part (12) having a plurality of foldably interconnected panels (20, 21, 22, 23, 24, 25, 26) and a relatively rigid plate (14) which secures said articles (B) together in a group characterised in that said relatively rigid plate (14) is stiff relative to the interconnected panels (20, 21, 22, 23, 24, 25, 26) and which provides, together with at least one of the sleeve panels, a top of the carton.

2. A carton as claimed in claim 1 wherein said one panel of the sleeve is attached to the articles.

3. A carton as claimed in claim 1 or claim 2 wherein said one panel (25, 26) of the sleeve is attached to the relatively rigid plate (14).

4. A carton as claimed in any of the previous claims wherein said relatively rigid (14) plate comprises article engaging means (18).

5. A carton according to any of the preceding claims wherein said carton, in at least one orientation provides an endless sleeve-like wrapper (12) about said group of articles (B).

6. A carton as claimed in claim 5 wherein opposite ends (25, 26) of the wraparound blank are adapted to secure the blank (12) to said relatively rigid plate (14).

7. A carton as claimed in claim 5 wherein opposite ends (40, 41) of the blank (12) are adapted to secure the blank to said articles (B).

8. A carton as claimed in claim 5 wherein one end (40, 41) of the blank is adapted to secure the blank (12) to the articles (B) and the other end (27, 28) of said blank is adapted to secure the blank to said relatively rigid plate (14).

9. A carton as claimed in claim 6 or claim 7 comprising a blank (12) adapted to be attached to both articles (B) and said relatively rigid plate (14) at said opposite ends of said blank (27, 28).

10. The combination of a carton for packaging a group of articles, such as bottles (B) which carton comprises foldable sheet material (12) in which said article group (R) is to be accommodated and a plate (14) which is stiff relative to the sheet material which is secured to the article group and which provides, together with at least one of the sleeve panels (25, 26), a top of the carton.

Patentansprüche

1. Schachtel zur Aufnahme einer Gruppe von Gegenständen (B), solchen wie Flaschen, die einen Röhrenform-ähnlichen Abschnitt (12) mit einer Vielzahl von faltbar miteinander verbundenen Wandflächen (20, 21, 22, 23, 24, 25, 26) umfaßt sowie eine verhältnismäßig unbiegsame Platte (14), welche die Gegenstände (B) in einer Gruppe festhält, dadurch gekennzeichnet, daß die verhältnismäßig unbiegsame Platte (14) im Verhältnis zu den miteinander verbundenen Wandflächen (20, 21, 22, 23, 24, 25, 26) steif ist und, zusammen mit wenigstens einer der Wandflächen der Röhre eine Oberseite der Schachtel ausbildet.

2. Schachtel nach Anspruch 1, in welcher eine Wandfläche der Röhre mit den Gegenständen verbunden ist.

3. Schachtel nach Anspruch 1 oder 2, in welcher eine Wandfläche (25, 26) der Röhre mit der verhältnismäßig unbieg samen Platte (14) verbunden ist.


5. Schachtel nach einem der vorhergehenden Ansprüche, in welcher die Schachtel in wenigstens einer Orientierung eine endlos Röhrenform-ähnliche Schachtel des Umwickel-Typs (12) ist, die die Gegenstands gruppe (B) umwickelt.

6. Schachtel nach Anspruch 5, in welcher gegenüber-
liegende Enden (25, 26) des Zuschnitts der Schachtel des Umrückel-Typs angepaßt sind, um den Zuschnitt (12) an der verhältnismäßig unbieg- 
samen Platte (14) zu befestigen.

7. Schachtel nach Anspruch 5, in welcher gegenüber-
liegende Enden (40, 41) des Zuschnitts (12) ange-
paßt sind, um den Zuschnitt an den Gegenständen 
(B) zu befestigen.

8. Schachtel nach Anspruch 5, in welcher das eine 
Ende (40, 41) des Zuschnitts angepaßt ist, um den 
Zuschnitt (12) an den Gegenständen (B) zu befesti-
gen, und das andere Ende (27, 28) des Zuschnitts 
angepaßt ist, um den Zuschnitt an der verhältnis-
mäßig unbiegsaugen Platte (14) zu befestigen.

9. Schachtel nach Anspruch 6 oder 7, die einen 
Zuschnitt (12) umfaßt, der an seinen gegenüberlie-
genden Enden (27, 28) angepaßt ist, um sowohl an 
den Gegenständen (B) als auch an die verhältnis-
mäßig unbiegsaugende Platte (14) gebracht zu wer-
den.

10. Zusammensetzung einer Schachtel zum Verpakk-
ken einer Gruppe von Gegenständen, solchen wie 
Flaschen (B), wobei die Schachtel faltbares Bogen-
material (12) umfaßt, das zur Aufnahme der 
Gegenstandsguppe (R) dient, und eine Platte (14), 
die im Verhältnis zu dem Bogenmaterial, das an der 
Gegenstandsguppe befestigt ist und das zusam-
men mit wenigstens einer der Wandflächen (25, 26) 
der Röhre ein Oberteil der Schachtel ausbildet, 
steif ist.

Revendications

1. Emballage en carton logeant un groupe d’articles 
(B) tels que des bouteilles comprenant une partie 
(12) en forme de manchon ayant une pluralité de 
panneaux (20, 21, 22, 23, 24, 25, 26), reliés entre 
evux de manière pliable, et une plaque (14) relati-
ivement rigide, qui fixe ensemble lesdits articles (B) 
afin de former un groupe, caractérisé en ce que 
ladite plaque (14) relativement rigide est rigide par 
rapport aux panneaux (20, 21, 22, 23, 24, 25, 26) 
reliés entre eux et forme, conjointement avec au 
moins l’un des panneaux de manchon, un dessus 
de l’emballage en carton.

2. Emballage en carton selon la revendication 1, dans 
lequel ledit panneau du manchon est fixé aux arti-
cles.

3. Emballage en carton selon la revendication 1 ou la 
revendication 2, dans lequel ledit panneau (25, 26) 
du manchon est fixé à la plaque (14) relativement 
rigide.

4. Emballage en carton selon l’une quelconque des 
revendications précédentes, dans lequel ladite pla-
que (14) relativement rigide comprend des moyens 
d’engagement d’articles (18).

5. Emballage en carton selon l’une quelconque des 
revendications précédentes, dans lequel ledit 
emballage en carton, dans au moins une orienta-
tion, forme une enveloppe continue (12) en forme 
de manchon autour dudit groupe d’articles (B).

6. Emballage en carton selon la revendication 5, dans 
lequel les extrémités (25, 26) opposées du flan à 
envelopper sont adaptées de façon à fixer le flan (12) 
là ladite plaque (14) relativement rigide.

7. Emballage en carton selon la revendication 5, dans 
lequel les extrémités (40, 41) opposées du flan (12) 
sont adaptées de façon à fixer le flan auxdits arti-
cles (B).

8. Emballage en carton selon la revendication 5, dans 
lequel une extrémité (40, 41) du flan est adaptée de 
façon à fixer le flan (12) aux articles (B) et l’autre 
extrémité (27, 28) dudit flan est adaptée de façon à 
fixer le flan à ladite plaque (14) relativement rigide.

9. Emballage en carton selon la revendication 6 ou la 
revendication 7, comprenant un flan (12) adapté de 
façon à être fixé à la fois aux articles (B) et à ladite 
plaque (14) relativement rigide, par lesdites extré-
mités opposées dudit flan (27, 28).

10. Combinaison d’un emballage en carton afin 
d’emballer un groupe d’articles tels que des boute-
tilles (B), lequel emballage en carton comprend un 
matériau en feuille pliante (12) dans lequel ledit 
groupe d’articles (R) peut être logé et une plaque 
(14), qui est rigide par rapport au matériel en 
feuille qui est fixé au groupe d’articles et qui forme, 
conjointement avec au moins l’un des panneaux de 
manchon (25, 26), un dessus de l’emballage en 
carton.