(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) **EP 3 038 947 B1**

(12) **EUROPEAN PATENT SPECIFICATION**

(45) Date of publication and mention of the grant of the patent:
28.02.2018 Bulletin 2018/09

(21) Application number: **14790308.2**

(22) Date of filing: **01.09.2014**

(51) Int Cl.:
B65D 85/10 *(2006.01)* ***B65D 75/58*** *(2006.01)*
B65B 19/22 *(2006.01)* ***B65B 61/18*** *(2006.01)*

(86) International application number:
PCT/IB2014/064183

(87) International publication number:
WO 2015/028997 (05.03.2015 Gazette 2015/09)

(54) RIGID PACKAGE WITH HINGED LID AND CORRESPONDING PACKING METHOD

STARRE VERPACKUNG MIT KLAPPDECKEL SOWIE ENTSPRECHENDES VERPACKUNGSVERFAHREN

EMBALLAGE RIGIDE AYANT UN COUVERCLE ARTICULÉ, ET PROCÉDÉ D'EMBALLAGE CORRESPONDANT

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

(30) Priority: **30.08.2013 IT BO20130467**

(43) Date of publication of application:
06.07.2016 Bulletin 2016/27

(73) Proprietor: **G.D Societa' per Azioni**
Bologna (IT)

(72) Inventors:
- **PETRUCCI, Luca**
  I-41013 Castelfranco Emilia (IT)
- **PASQUINO, Fabio**
  I-40033 Casalecchio Di Reno (IT)
- **NEGRINI, Stefano**
  I-40012 Calderara Di Reno (IT)

(74) Representative: **Maccagnan, Matteo et al**
Studio Torta S.p.A.
Via Viotti, 9
10121 Torino (IT)

(56) References cited:
EP-A1- 1 591 027
EP-A1- 2 361 839
EP-A2- 2 345 600
WO-A1-02/068293
WO-A1-2013/076863
DE-A1-102010 015 653
US-A- 5 178 272

Note: Within nine months of the publication of the mention of the grant of the European patent in the European Patent Bulletin, any person may give notice to the European Patent Office of opposition to that patent, in accordance with the Implementing Regulations. Notice of opposition shall not be deemed to have been filed until the opposition fee has been paid. (Art. 99(1) European Patent Convention).

EP 3 038 947 B1

Description

TECHICAL FIELD

[0001] The present invention relates to a package of smoking articles of rigid type with hinged lid and to a packing method for making a package of smoking articles. In the following description reference will be made, for brevity, to a rigid package of cigarettes with hinged lid without loss of generality relative to the present invention.

PRIOR ART

[0002] Generally, a rigid package of cigarettes with a hinged lid comprises a soft inner envelope enclosed within a rigid outer container. The access to the inner envelope is obtained by means of a lid, also of rigid type, provided for the outer container and hinged to the same.

[0003] The soft inner envelope is made by wrapping a group of cigarettes around a suitably shaped wrapping sheet. In particular, the wrapping sheet is made of metallic material or of multilayer paper or metalized paper, typically with aluminum. The soft inner envelope is made by wrapping the wrapping sheet on the group of smoking articles without sealing the same. In this way, the group of cigarettes is protected by contact with external agents even without the need for gluing and sealing which are costly in terms of time and cost.

[0004] To allow the extraction of the cigarettes from the inner envelope, the wrapping sheet is made of a separable portion, which is detachable by the user at the first opening. This is normally achieved by means of a separable portion of metalized paper. Said separable portion is pre-cut along a separation line for allowing the user to simply tear the separable portion without excessive effort and in a well defined area. Therefore, to access the group of smoking articles, a user can easily grab a folded flap of the wrapping sheet by lifting and pulling part of the separable portion that can be easily torn by continuing the lifting and pulling action.

[0005] When removed, the detached portion becomes an independent element with respect to the package of cigarettes and, therefore, bothersome to the user.

[0006] In addition, the user is forced to immediately place the detached portion in the trash after opening. In this case, given the small size of the detachable portion, the latter is often dispersed by the user thus becoming a polluting element.

[0007] To overcome said problem, the patent EP 1591027 B1 describes a package of cigarettes wherein the separable portion at the extraction opening is glued to the lid of the outer container. In said case, at the first opening, the separable portion is detached automatically when the user lifts the lid for the first time. Said separable portion becomes, therefore, an integral part of the outer container while remaining glued to the inner surface of the face and upper wall of the lid. This solution, although solving the detached portion dispersion problem, is extremely unpleasant for the user who has a visual impact every time the package is reopened.

[0008] The first opening, moreover, requires the application of a sufficient force, such as to allow the closure element to break the peripheral pre-cuts, made on the portion of the underlying inner container, adapt to define the cigarette extraction opening.

[0009] It would therefore be desirable to have a package of smoking articles, in particular of cigarettes, able to minimize the above drawbacks. In particular, it would be desirable to have a package of smoking articles having an improved usability for the user, simplifying the opening and closing operations of the same.

[0010] It would be desirable to have a package of smoking articles able to provide the group of smoking articles with a better protection from external agents and/or mechanical stress even after the first opening.

[0011] It would also be desirable to have a package of smoking articles easy and inexpensive to manufacture.

[0012] Finally, it would be desirable to have a package of smoking articles that presents a pleasant appearance even when the package is open.

[0013] Patent application EP1591027A1 discloses a package for filter cigarettes comprising a box having an inner frame, a lid opening and closing the opening end of the box, and contents stored in the box. The contents further comprises a packaging material packaging the bundle of filter cigarettes, the packaging material further comprises a releasable area divided by cut-off lines, and the releasable area is stuck to the inner surface of the lid through a glue coated area. When the lid is first opened, the releasable area is cut off the packaging material according to the rotation of the lid to form a separated piece, and the separated piece is held in the state of being stuck onto the inside of the lid.

[0014] Patent application WO2013076863A1 discloses a package of cigarettes according the precharacterizing portion of independent claim 1. In particular, the package of cigarette includes a box body and a lid connected to the box body by a hinge, and contains an inner pack with an inner frame located therebetween; the inner pack includes an inner wrapper and a cigarette bundle wrapped in the inner wrapper.

DESCRIPTION OF THE INVENTION

[0015] Object of the present invention is to provide a package of smoking articles, in particular of cigarettes, of rigid type with a hinged lid having an improved usability and, at the same time, easy and inexpensive to manufacture.

[0016] Object of the present invention is to provide a package of smoking articles inexpensive to manufacture but able to maximize the protection of the group of smoking articles from external agents and/or mechanical stress.

[0017] Further object of the present invention is to pro-

vide a package of smoking articles inexpensive to manufacture able to prevent the dispersion of tobacco powder (tobacco crumbs) from the package itself.

[0018] Another object of the present invention is to provide a package of smoking articles wherein the lifting of the movable portion of the inner envelope, corresponding to the extraction opening of smoking articles, is contemporary to the first opening of the lid. In particular, object of the present invention is to provide a package of smoking articles wherein the movable portion of the inner envelope is not dispersible separately from the package of which it is part.

[0019] A further object of the present invention is to provide a packing method for making a package of smoking articles, in particular of cigarettes, of rigid type with hinged lid. In particular, an object of this invention is to provide a packing method for making a package of smoking articles provided with an inner envelope comprising a movable portion non detachable from the package and able to lift and remain integral with the lid of the outer container at the first opening.

[0020] The objects mentioned above are achieved by a package of smoking articles, in particular of cigarettes, according to the accompanying claims.

[0021] The package comprises:

- an unsealed soft inner envelope constituted by a sheet of wrapping material enclosing a group of smoking articles, the envelope comprises at least an upper portion, a front portion, a rear portion and a first and a second opposing lateral portions, the wrapping sheet is provided with a front flap and a rear flap superimposed and not sealed at least along the free upper and lateral edges of the edges, respectively at the upper portion and at the first lateral portion of the envelope;
- a rigid outer container of substantially polyhedral shape and enclosing the envelope, the container comprising at least a front wall, a rear wall and a bottom wall and is provided with an extraction opening for the smoking articles, opposite to the bottom wall;
- a rigid lid hinged to the rear wall along a connection hinge and able to rotate between an opening position and a closing position of the extraction opening, the lid comprising at least a face wall, a back wall and an upper wall, said face wall and back wall being coplanar respectively to said front and rear walls in the lid closing position; the envelope is provided with a movable portion arranged at the extraction opening and solidly joined to the lid, the movable portion remains joined to one or more lid internal surfaces after the first lid placement in the opening position; the movable portion extends from the rear portion of the envelope, corresponding to the connection hinge, to the upper free edge of the rear flap, superimposed in the upper portion of the envelope, after the first lid disposition in the opening position the envelope wholly covers the group of smoking articles in the front portion and partially in the upper portion and the movable portion wholly uncovers the group of smoking articles in the rear portion and partially in the upper portion.

[0022] In this way, the usability of the package by the user is greatly improved thanks to the possibility of obtaining the opening of the lid and of the movable portion by means of a single operation with the rotation of the lid itself, allowing the user easy access to the smoking articles enclosed therein. The extension of the movable portion starting from the connection hinge and up to the upper portion of inner envelope defines the extraction opening starting from the rear wall of the lid. This allows to obtain the movable portion without totally detaching it from the inner container thus improving the protection of the group of smoking articles in the non-uncovered portions. Moreover, it is avoided, at the same time, that the movable portion becomes visible on the inner surface of the face wall of the lid every time the user opens the package.

[0023] Preferably, the movable portion is glued to the back and/or upper walls of the lid.

[0024] In this way, the movable portion adheres to the inner surfaces of the lid thus avoiding to hinder access to the group of smoking articles and resulting barely visible to the user once the package is open. The movable portion is free at three contiguous edges, and a fourth edge is integral with the rear portion of the inner envelope along the connection hinge, two of the three contiguous edges constitute the upper and lateral free edges of the rear flap and the remaining contiguous edge is defined by a cut which extends from the connection hinge to the free upper edge of the rear flap, along the second lateral portion.

[0025] In this way, the movable portion makes the group of smoking articles accessible starting from the hinge and thus in a position opposite to the wall visible by the user during the opening of the lid.

[0026] Preferably, the package comprises a collar joined to the envelope and protruding from the extraction opening towards the lid, wherein the collar wholly covers the front portion of the envelope at the face wall. Even more preferably, the collar wholly covers the front portion and partly covers the upper portion of the inner envelope.

[0027] In this way, the collar improves the mechanical protection of the group of smoking articles and prevents, together with the un-removed inner envelope, the powder or particles of tobacco from falling out.

[0028] Preferably, the collar is part of the face wall and is defined by an embossed portion on the front wall.

[0029] Even more preferably, the collar is provided with inscriptions and/or logos and/or images on the external surface visible to a user.

[0030] The objects mentioned above are further achieved by a packing method for making a package of smoking articles, in particular of cigarettes, according to

the accompanying claims.

[0031] The packing method comprises the steps of:

- carrying out a plurality of portions with piecewise pass-through cuts defining a plurality of movable portions on a wrapping tape;
- getting a sheet of wrapping material provided with a movable portion by cutting the tape;
- folding the sheet, enclosing a group of smoking articles, by placing the movable portion at an extraction opening, carrying out a soft unsealed inner envelope provided with a movable portion to extract the group of smoking articles, the envelope comprises at least an upper portion, a front portion, a rear portion and a first and a second opposing lateral portions, the envelope is provided with a front flap and a rear flap superimposed and not sealed at least along the free upper and lateral edges of the flaps, respectively at the upper portion and at the first lateral portion of the envelope;
- folding a first portion of a blank, enclosing the envelope, carrying out a rigid outer container of substantially polyhedral shape, the container comprising at least a front full wall, a rear wall, a bottom wall and an extraction opening for the smoking articles, opposite to the bottom wall;
- folding a second portion of the blank carrying out a rigid lid hinged to the rear wall along a connection hinge and able to rotate between an opening position and a closing position of the extraction opening, the lid comprising at least a face wall, a back wall and an upper wall, said face wall and back wall being respectively coplanar to the front and rear walls in the lid closing position;
- solidly joining the movable portion to the lid, the movable portion remains joined to one or more internal surfaces of the lid after the first placement of the lid in the opening position; the method is characterized in that the movable portion extends from the rear portion of the inner envelope, at the connection hinge, to the upper free edge of the rear flap, superimposed in the upper portion of the envelope; and in that the sheet is folded around the group of smoking articles, by placing the movable portion from the connection hinge to the upper portion of the envelope at the upper wall; and in that the movable portion is joined to the internal surfaces of the back and/or upper walls of the lid.

[0032] In this way, it is possible to obtain a package with greatly improved usability thanks to the possibility to obtain the rotation of the lid and the lifting of the movable portion by means of a single operation with the rotation of the lid itself, allowing the user easy access to the smoking articles enclosed. It is also possible to obtain a package wherein the movable portion to access the group of smoking articles is liftable to access the group of cigarettes without being wholly detached from the inner container. The positioning of the sheet also allows to avoid the movable portion from being visible on the inner surface of the face wall of the lid every time the user opens the package.

[0033] Preferably, the method further comprises the step of forming on the blank, before folding around the inner envelope, an embossed portion at the extraction opening, the embossed portion carrying out a collar integrated with the outer container.

[0034] In this way, the eventual collar necessary to ensure the joining of the rigid lid with the remaining part of the rigid outer container is carried out on the blank during the making of the package.

[0035] Alternatively, the method further comprises the step of applying a collar to the inner envelope at the extraction opening.

[0036] In this way, it is possible to carry out a package provided with a collar separate from the blank and superimposed both to the inner envelope and to the front wall of the outer container. Preferably, the method further comprises the step of getting the collar by separating a cut piece from a continuous tape prior to application on the inner envelope, the collar is shaped to wholly cover the front portion of the inner envelope at the face wall.

[0037] In this way, the collar wholly covers the front portion of the smoking articles, made accessible by lifting the lid, improving the aesthetic appearance of the package also at open lid.

[0038] Alternatively, the method further comprises the step of getting the collar by separating a cut piece from a continuous tape prior to application on the inner envelope, the collar is shaped to wholly cover the front portion of the inner envelope at the face wall and to partly cover the upper portion of inner envelope at the upper wall.

[0039] In this way, the extension of the collar allows both to improve the aesthetic appearance of the package when opened and to better preserve the content.

BRIEF DESCRIPTION OF THE DRAWINGS

[0040] Further characteristics and advantages of the present invention will be apparent from the description of preferred embodiments, illustrated by way of a non limiting example in the accompanying figures, wherein:

- Figure 1 is a top perspective view of a first embodiment of the package of cigarettes, according to the present invention, when the lid is in the first opening position;
- Figure 2 is a top perspective view of a second embodiment of the package of cigarettes, according to the present invention, when the lid is in the first opening position and the collar wholly covers the front portion of the inner envelope;
- Figure 3 is a front perspective view of a third embodiment of the package of cigarettes, according to the present invention, when the lid is in the first opening position and the collar wholly covers the front portion

and partly covers the upper portion of the inner envelope.

PREFERRED EMBODIMENTS OF THE INVENTION

[0041] With reference to Figure 1, a package 1 of smoking articles is shown, in particular of cigarettes, according to the present invention.

[0042] The package 1 of cigarettes comprises a rigid outer container 31 of polyhedral shape, in particular parallelepiped shape, made of rigid paper material, such as cardboard or paperboard, and a soft inner envelope 11 housed inside the outer container 31.

[0043] The inner envelope 11, also of parallelepiped shape, encloses a group 21 of cigarettes and is of soft type. In particular, the inner envelope 11 is obtained by wrapping the group 21 of cigarettes with a sheet of wrapping material without carrying out sealing. The inner envelope 11 comprises a front portion, a rear portion and a first and a second opposing lateral portions. Furthermore, the inner envelope 11 is provided with a bottom portion (not shown) and an upper portion, as described in detail hereinafter.

[0044] In the embodiment herein described the soft inner envelope 11 is made from a sheet metal material, for example aluminum, or from a sheet of paper material coated of metallic material on at least one of the surfaces, commonly referred to as "foil".

[0045] The wrapping sheet is provided with a front flap and a rear flap superimposed and not sealed at least along the free upper and lateral sides of abovementioned flaps, respectively at the upper portion 211 and at the first lateral portion of the inner envelope 11.

[0046] The outer container 31 has a parallelepiped shape with a rectangular base and comprises a front wall 131 parallel and opposite to a rear wall (not shown), a bottom wall (not shown), perpendicular to the preceding ones, and a pair of lateral walls 231, also being parallel and opposite which connect said front 131, back and bottom walls. In a position opposite to the bottom wall, the outer container 31 is also provided with an open end which carries out an extraction opening for the smoking articles enclosed within the inner envelope 11.

[0047] The closure of the package 1 is ensured by a rigid lid 41, with which the container 31 is provided. Said lid 41 is hinged to the rear wall of the outer container 31 along a connection hinge 441. In particular, the lid 41 is able to rotate between an opening position of the outer container 31 (as shown in Figure 1), which allows access to the open end, and therefore to the extraction opening, and a closing position (not shown), which allows the closure of the open end of the same outer container 31.

[0048] The lid 41 has a parallelepiped shape which fits with the outer container 31 when the lid 41 is arranged in the closing position. The lid 41 comprises, in fact, a face wall 141 parallel and opposite to a back wall 241, an upper wall 341, perpendicular to the preceding, as well as a pair of lateral walls 541, coplanar with the lateral walls 231. In particular, when the lid 41 is in the closing position the joining between the latter and the outer container 31 gives the package 1 a rectangular parallelepiped shape provided with the walls previously described. Embodiments different from those shown in Figure 1, according to the present invention, may provide alternative conformations for the outer container 31 and, consequently, for the inner envelope 11. Similarly, the edges of the outer container 31, all illustrated with a straight conformation in the embodiment of Figure 1, may have, according to alternative embodiments of the present invention, chamfered or rounded conformation.

[0049] The extraction of the cigarettes 21 from the inner envelope 11 is obtained by means of a movable portion 111 with which the same inner envelope 11 is provided. Said movable portion 111 is obtained at the open end of the outer container 31 which carries out the extraction opening of the cigarettes 21. In particular, the movable portion 111 extends from the rear portion of the inner envelope 11, at the connection hinge 441, to the upper free edge of the rear flap superimposed in the upper portion 211 of the inner envelope 11.

[0050] Said movable portion 111 is obtained by cutting part of the sheet wrapping the group 21 of cigarettes for carrying out the soft inner envelope 11, as hereinafter described in detail, and is solidly joined to the lid 41. This allows to detach the cut movable portion 111 for allowing access to the group 21 of cigarettes when the lid 41 is arranged in the opening position for the first time. In particular, according to the present invention, the joining of the movable portion 111 with the inner surfaces of the lid 41 is such to allow the same movable portion 111 to remain joined to the lid 41 without wholly detaching from the remaining part of the package.

[0051] After the first disposition of the lid 41 in the opening position the inner envelope 11 wholly covers the group 21 of smoking articles in the front portion and partially in the upper portion and the movable portion 111 wholly uncovers the group 21 of smoking articles in the rear portion and partially in the upper portion.

[0052] The package 1 is further provided with a collar 51 that is joined to the inner envelope 11 so as to protrude from the outer container 31 at the extraction opening towards the lid 41. Said collar 51 has the function of stiffening the structure of the outer container 31 and to allow a better joining with the lid 41 when the latter is arranged in the closing position. As illustrated in Figure 1, the collar 51 has a typical "U" conformation with one recess at the front portion 311 of the inner envelope 11.

[0053] Said configuration allows to partially cover the front portion 311 and the lateral portions 511 of the inner envelope 11, leaving wholly open the upper portion 211 of the same inner envelope 11.

[0054] Object of the present invention is therefore to carry out a package of smoking articles, provided with a movable portion 111 of the inner envelope 11 able to allow access to the group 21 of smoking articles without dispersing parts of the same inner envelope 11. In the

embodiment shown in Figure 1, for obtaining the above, the movable portion 111 is carried out by cutting, at least partially, the inner envelope 11 in an area that extends from the connection hinge 441, which allows the rotation of the lid 41, to the upper portion 211 of the inner envelope 11 at the upper wall 341 of the same lid 41. In particular, the movable portion 111 is separated from the package by three contiguous sides, and a fourth side is integral with the rear portion of the same inner envelope 11 along the connection hinge 441. Two of the three contiguous sides constitute the free upper and lateral edges of the rear flap of the wrapping sheet and the remaining contiguous side is defined by a cut which extends from the connection hinge 441 to the free upper side of the rear flap, along the second lateral portion. The side integral with the inner envelope 11 corresponds, therefore, to the side superimposed to the connection hinge 441, carrying out a *continuum* with the remaining portion of the inner envelope 11 itself.

[0055] The movement of the movable portion 111 along with the rotation of the lid 41 is obtained by solidly joining, preferably by glue, said movable portion 111 to the inner walls of the lid 41. In particular, the movable portion 111 is glued to the back 241 and/or upper 341 walls of said lid 41, allowing access to the group 21 of cigarettes at the portions glued on, and lifted by, the lid 41 itself.

[0056] In use, the package 1 has, as described previously, a parallelepiped shape when the lid 41 is arranged in the closing position. The first opening of the package 1 is obtained by the user by way of rotation of the lid 41 for arranging the same in the opening position which allows access to the extraction opening of the cigarettes 21. The rotation of the lid 41 lifts the movable portion 111 solidly joined thereto and allows access to the group 21 of cigarettes. The user who wants to make the first opening 1 to extract a cigarette from the inner envelope 11 acts by rotating the lid and separating at the same time part of the inner envelope 11 destined to the wrapping of the group 21 of cigarettes. In other words, by rotating the lid 41 in the opening position it is possible, with a single gesture, to simultaneously open the lid 41 itself and the movable portion 111, thus accessing the extraction opening.

[0057] The lifting of the movable portion 111, while preserving the front portion of the inner envelope 11 allows to minimize the visual impact of the portion of material joined to the lid. In particular, being the movable portion 111 arranged between the connection hinge 441 and the median portion of the upper portion 211, the portion of the inner envelope 11 lifted and glued to the lid will not affect the face appearance of the package 1 while preserving the aesthetic characteristics. Each time the user proceeds with the extraction of a single cigarette, furthermore, he/she will perceive the experience of a new opening.

[0058] The front 311 and upper 211 portions not removed from the inner envelope 11 allow, therefore, to better preserve the cigarettes not extracted when the package 1 is open maintaining for a longer time the aroma of cigarettes 21 themselves. In addition, the same front 311 and upper 211 portions act as a barrier against tobacco crumbs, i.e. tobacco particulates that can be detached from cigarettes, by trapping it even if the package 1 is shaken or turned upside down. In this way, the open package 1 also preserves the functional characteristics of the same package 1 when closed.

[0059] The embodiment of the package 1 shown in Figure 1 is obtainable by means of a packing machine (not shown) for carrying out smoking articles, in particular cigarettes, produced by the G.D. S.p.A.

[0060] Said packing machine allows to carry out a package 1 of smoking articles, in accordance with the present invention according to the first embodiment previously described and illustrated in Figure 1.

[0061] A packing machine suitable for carrying out the package 1 is provided with a first unwinding line of a reel of wrapping tape, of "metalized paper" type or similar packing material used for carrying out the inner envelope 11. This first unwinding line is provided with a cutting device (of known type), preferably of laser technology, for carrying out on the wrapping tape a plurality of piecewise pass-through cuts. Said cuts allow to obtain on the unwound tape a plurality of movable portions 111 that will define the respective extraction openings for the smoking articles 21 for the inner envelope 11.

[0062] The movable portions 111 so defined are "rectangle" shaped and have three sides with piecewise pass-through cuts, and a fourth side rigidly joined to the remaining part of the tape.

[0063] The first unwinding line also comprises a cutting unit (also of known type and not shown) to obtain a wrapping sheet, provided with a single movable portion 111 at the abovementioned extraction opening. The sheets are then obtained by suitably cutting at predetermined pitch the wrapping tape so that on each tape there is a single movable portion 111.

[0064] Downstream of the first unwinding line, the packing machine is provided with a second formation line of the groups 21 of cigarettes and the respective inner envelope 11 that encloses them. The second formation line comprises a first transfer wheel which is rotatable around a respective horizontal rotation axis. The latter receives in succession the groups 21 of cigarettes and transfers them to a second wrapping wheel provided with a plurality of peripheral pockets at a first wrapping unit. At the second wrapping wheel, rotatable about a respective vertical rotation axis, each pocket receives the group of cigarettes and the relative wrapping sheet. The rotation of the second wrapping wheel allows, therefore, to fold the wrapping sheet enclosing the abovementioned group 21 of smoking articles previously formed, to carry out the soft inner envelope 11 provided with the extraction opening. In particular, the winding of the wrapping sheet is such to position the piecewise cut portion at the extraction opening, carrying out the soft inner envelope 11 provided

with the movable portion 111 to extract said cigarettes, object of the present invention.

[0065] The movable portion 111 is, therefore, defined by the rear portion of the inner envelope 11, at the connection hinge 441, to the upper free edge of the rear flap, superimposed in the upper portion 211 of the inner envelope 11, as previously described.

[0066] To obtain the correct positioning of the movable portion 111, the winding of the wrapping sheet is preferably carried out starting from the head of the group 21 of cigarettes, so that the movable portion 111, adapted to carry out the extraction opening, is positioned at the tail of the cigarettes, which coincides with the filter portion. Upon rotation in the second wrapping wheel follows, therefore, the joining completion of the pairs of inner envelope with the formation of the rear and lateral superimposed flaps of the same inner envelope 11.

[0067] Completed the carrying out of the inner container 11 and before the carrying out of the outer container 31 on a second wrapping unit, the inner envelopes 11 are transferred to a third wheel to implement the application step of the collar 51. Said collar 51 is previously obtained in line starting from a further reel of wrapping material, in particular of cardboard type material.

[0068] A second cutting unit separates cut pieces of cardboard from the continuous tape from respective reel of wrapping material prior to the application on the inner envelope 11. The knife, or blade, provided on the second cutting unit shapes the cut piece forming the collar 51 in "U" shape, i.e. with a recess at the front portion 311 of the inner envelope 11. A third wrapping unit, interposed between the first and the second wrapping unit allows therefore to join the collar 51 thus formed to the inner envelope 11 prior to the folding the blank, as described below. In particular, the conformation allows to partially cover the front portion 311 and the lateral portions 511 of the inner envelope 11, leaving wholly uncovered the upper portion 211 of the same inner envelope 11.

[0069] The packing machine is finally provided with a second wrapping unit to fold a blank, enclosing the soft inner envelope 11. This second wrapping unit comprises a fourth wrapping wheel rotating about a respective vertical rotation axis and which is also provided with a plurality of peripheral pockets. The second wrapping unit is finally provided with a fifth wrapping wheel rotating about a respective horizontal rotation axis, perpendicular to the rotation axis of said fourth wrapping wheel, and provided with a plurality of peripheral pockets as well.

[0070] The fourth wrapping wheel is partially superimposed on the transfer wheel and has a peripheral pocket adapted to transfer the inner envelope 11, joining the blank fed by a specific feeding line, to the corresponding peripheral pocket of the fifth wrapping wheel.

[0071] At the fifth wrapping wheel, the packing machine is also provided with a gumming device operatively connected with the second wrapping unit and, in particular, with the same fifth wrapping wheel.

[0072] The fifth wrapping wheel receives, therefore, each inner envelope 11 and the respective blank by making the folds necessary to carry out the package 1 of smoking articles according to the present invention. In particular, by folding the blank is carried out a rigid outer container 31 of substantially parallelepiped shape and enclosing the inner envelope 11. Said outer container 31 comprises a front wall 131, a rear wall, a bottom wall and an extraction opening for the group 21 of cigarettes, opposed to the bottom wall.

[0073] In a pocket of the fifth wrapping wheel the blank is in the condition partially folded around the inner envelope 11. The next step requires, therefore, the folding of the face wall 131 of the outer container 31 and the folding of the respective lid 41.

[0074] When the folding of the front wall 131 is completed, the second wrapping unit proceeds in folding the head portions composing the rigid lid 41. In particular, a second portion of the blank hinged to the rear wall of the outer container 31 already formed along a connection hinge 441 is folded.

[0075] Upon completing the folding of the portion of the blank constituting the rigid lid 41, the above gumming device applies the glue to the back 241 and/or upper 341 inner surfaces of the lid 41 at the area that will be superimposed with the movable portion 111 before the second wrapping unit rotates the same lid 41 by placing it in the second closing position.

[0076] The second wrapping unit completes the package 1 of cigarettes by way of joining said back 241 and/or upper 341 inner surfaces of the lid 41 and the corresponding surfaces of the movable portion 111 superimposed thereto, by placing the lid 41 in the second closing position. The joining of the abovementioned surfaces allows to keep the movable portion 111 adhered to the internal surfaces of the lid 41 when this is opened for the first time, avoiding having to act subsequently to remove part of the inner envelope 11 to define the extraction opening.

[0077] A second embodiment of the package of smoking articles, in particular of cigarettes, according to the present invention is shown in Figure 2.

[0078] Said second embodiment of the package 2 differs from the embodiment previously described and shown in Figure 1 for the presence of a collar 52 shaped to wholly cover the front portion of the inner envelope 12 at the face wall. In particular, the collar 52 comprises only one wall not removable, adapted to wholly cover the front portion of the inner envelope 12.

[0079] In use for the package 2 it applies what has already been said for the package 1 with respect to the first embodiment to which reference is made. The conformation of the collar 52 entirely provided on the front portion of the inner envelope 12 allows to preserve the aesthetic and functional characteristics described with respect to the package 1 of the first embodiment by improving, furthermore, the characteristics of structural rigidity of the package 2 itself.

[0080] Also for carrying out the package 2 the packing machine described above is usable and, therefore, for it

reference should be made, also, to what has been already described. The only difference is related to the conformation of the collar 52 and, therefore, to its implementation.

[0081] The collar 52 is obtained in line starting from the respective reel of wrapping material, in particular of cardboard type material. To define the collar 52 to wholly cover the front portion of the inner envelope 12 the second cutting unit separates cut pieces of cardboard from the continuous tape of respective reel of wrapping material prior to the application on the inner envelope 12. The knife, or blade, provided on the second cutting unit shapes the cut piece forming the collar 52 with a rectangular shape, i.e. by a straight blade cut without creating any recess. In this way, carrying out individual collars 52 starting from the reel of cardboard is practical and without shaping waste. A third wrapping unit, interposed between the first and the second wrapping unit allows therefore to couple the collar 52 thus formed to the inner envelope 12 prior to the folding of the blank, as previously described, by conforming the collar 52 to wholly cover the front portion of the inner envelope 12 at the face wall.

[0082] Additionally, the cutting device carries out in the unwound metalized paper wrapping tape a plurality of piecewise pass-through cuts. Said cuts allow to obtain on the unwound tape a plurality of movable portions 112 that will define the respective extraction openings of the smoking articles 22 for the inner envelope 12.

[0083] A third embodiment of the package of smoking articles, in particular of cigarettes, according to the present invention is shown in Figure 3.

[0084] Said third embodiment of the package 3 differs from the embodiment previously described and shown in Figure 2 for the presence of a collar 53 shaped to wholly cover the front portion and to partly cover the upper portion of the inner envelope. In particular, the collar 53 comprises a first wall, not removable and adapted to wholly cover the front portion of the inner envelope, and a second wall, which is also not removable and adapted to partially cover the upper portion of the inner envelope. The abovementioned walls are separated by a hinge line which extends along the connection edge between the front portion and the upper portion of the inner envelope.

[0085] The particular conformation of the collar 53 allows to define the movable portion 113 so that this extends between the connection hinge 443 and an upper portion of the inner envelope at the upper wall 343 or with the peripheral edge 153 of the collar 53 superimposed with the upper portion. As shown in Figure 3, the movable portion 113 is arranged below the collar portion 53 formed on the upper portion of the inner envelope 13 until the user performs the first opening.

[0086] In use for the package 3 it applies what has already been said for the package 1 with respect to the first embodiment to which reference is made. The conformation of the collar 53 provided wholly on the front portion and partially on the upper portion of the inner envelope allows to preserve the aesthetic and functional characteristics described with respect to the package 1 of the first embodiment improving, furthermore, the structural rigidity characteristics of the package 3 itself.

[0087] To carry out the package 3 the packing machine described above can also be used and, therefore, reference to what has already been described is made also for the latter. The only difference is related to the conformation of the collar 53 and, therefore, to its implementation.

[0088] The collar 53 is obtained in line starting from the respective reel of wrapping material, in particular of cardboard type material. To define the collar 53 to wholly cover the front portion and to partly cover the upper portion of the inner envelope, the second cutting unit separates cut pieces of cardboard from the continuous tape from the respective reel of wrapping material prior to the application on the inner envelope itself. The knife, or blade, provided on the second cutting unit shapes the cut piece forming the collar 53 in inverted "U" shape, i.e. with a recess at the area in contact with the face wall 133 of the outer container 33. By placing the recess at the bottom wall of the outer container 33 a portion of the collar 53 protruding from the front portion of the inner envelope can be subsequently shaped.

[0089] A third wrapping unit, interposed between the first and the second wrapping unit allows, in fact, to couple the collar 53 to the inner envelope before folding the blank, as previously described, carrying out the fold on the sides and at the same time on the top portion of the same. In this way, the third wrapping unit allows to apply the collar 53 wholly covering the front portion and to partly cover the upper portion of the inner envelope visible when the latter is inserted within the outer container 33.

[0090] The cutting device also carries out the movable portions 113 to extend between the connection hinge 443 and an upper portion of the inner envelope 13 at the upper wall 343 or with the peripheral edge 153 of the collar 53 superimposed on the upper portion.

[0091] A further embodiment (not shown) of the package of smoking articles, in particular of cigarettes, according to the present invention differs from the embodiments previously described and shown in Figures 1-3 for the presence of a collar integrated to the outer container. In particular, the collar can be shaped as described previously in one of the embodiments described and illustrated and by carrying out on the rigid outer container an embossed portion at the lid. Said embossed portion reproduces the shape of a traditional collar, or of one of the collars described above for the second or third embodiment, carrying out a collar integrated with the front wall and with the lateral walls of the outer container. The coupling of the lid with the remaining part of the outer container is guaranteed even if the same is made by folding a single blank.

[0092] In use for said package, it applies what has already been said for the package 1 with respect to the first embodiment to which reference is made.

[0093] Also for carrying out a package with integrated

collar the packing machine described above can be used and, therefore, reference to its description should be made as well. The only difference is relative to the conformation of the blank which is fed to the feeding line already provided with the embossed portion.

[0094] Alternatively, if the blank is fed to the above-mentioned feeding line devoid of the integrated collar portion, it is necessary to provide for the same by means of a device able to form the necessary embossments on the blank. Therefore, in this case, before carrying out the folding of the blank around the inner envelope on the fifth wheel, the shaping device generates an embossed portion carrying out a collar integrated to the front wall of the outer container at the extraction opening. The lid is, therefore, superimposed with the embossed portion when arranged in the second closing position.

[0095] In this way, the collar allows the joining of the lid with the remaining part of the outer container while maintaining a sufficiently rigid conformation which avoids the common defect of the "smiling" package, that is, one that leaves a gap between the lid and the front wall.

[0096] In the embodiments described wherein the package is provided with the collar, and in particular where the collar wholly covers the front portion and/or part of the upper portion of the inner envelope, the collar may be provided with inscriptions and/or logos and/or images on the outer surface visible to a user.

[0097] The package of smoking articles described above has numerous advantages.

[0098] In the first place, the package of smoking articles, according to the present invention, allows the opening of the outer container and the access to the extraction opening with a single gesture, acting by means of the simple rotation and arrangement of the lid in the first opening position. The access to the group of cigarettes is immediate and simultaneous with the lid rotation. The ability to maintain unchanged the face and, at least partially, upper appearance of the inner envelope allows to improve the usability and ergonomics of the package of smoking articles, previously described in an exemplifying plurality of alternative embodiments, with respect to similar packages of smoking articles of the type known. In particular, by obtaining the extraction opening starting from the connection hinge it is possible to carry out the opening of the package without detaching and dispersing wrapping material leaving the aesthetic appearance of the package itself nearly unchanged. This leads to the pleasant user experience of having a like-new package available at each cigarette extraction.

[0099] The particular shape of the movable portion and/or of the collar creates a barrier adapted to maintain aroma and is simply and economically implemented. In addition, the same shape helps to prevent the dispersion of tobacco particles when the package is open.

[0100] The extension of the collar to entirely cover the front portion and/or part of the upper portion also allows to obtain a large surface of the same on which inscriptions and/or logos and/or images can be carried out so as to be visible to the user when the package is open.

[0101] Finally, the package of smoking articles described above can be produced in a simple and economic way by using a standard packing machine (which only requires minor modifications). The production of the package does not require, therefore, the use of special packing machines of considerable design and production cost.

[0102] Because of the many advantages of the package described above, said package can also be used to contain articles other than cigarettes, such as food products (candies, chocolates or other sweets).

Claims

1. A package (1) of smoking articles, in particular of cigarettes, comprising:

- an unsealed soft inner envelope (11) constituted by a sheet of wrapping material enclosing a group (21) of said smoking articles, said envelope (11) comprises at least an upper portion (211), a front portion, a rear portion and first and a second opposing lateral portions, said wrapping sheet is provided with a front flap and a rear flap superimposed and not sealed at least along the free upper and lateral edges of said flaps, respectively at said upper portion (211) and at said first lateral portion of said envelope (11);
- a rigid outer container (31) of substantially polyhedral shape and enclosing said envelope (11), said container (31) comprises at least a front wall (131), a rear wall and a bottom wall and is provided with an extraction opening for said smoking articles, opposite to said bottom wall;
- a rigid lid (41) hinged to said rear wall along a connection hinge (441) and able to rotate between an opening position and a closing position of said extraction opening, said lid (41) comprising at least a face wall (141), a back wall (241) and an upper wall (341), said face wall and back wall being respectively coplanar to said front (131) and rear walls in said closing position of said lid (41); said envelope (11) is provided with a movable portion (111) arranged at said extraction opening and solidly joined to said lid (41), said movable portion (111) remains joined to one or more internal surfaces of said lid (41) after the first placement of said lid (41) in said opening position;

wherein said movable portion (111) extends from said rear portion of said inner envelope (11), at said connection hinge (441), to the upper free edge of said rear flap, superimposed in said upper portion (211) of said envelope (11), after the first placement

of said lid (41) in said opening position said envelope (11) covers said group (21) of smoking articles wholly in said front portion and partially in said upper portion and said movable portion (111) uncovers said group (21) of smoking articles wholly in said rear portion and partially in said upper portion;
said package (1) is **characterized in that** said movable portion (111) is free at three contiguous edges, and a fourth edge is integral with said rear portion of said envelope (11) along said connection hinge (441), two of said three contiguous edges constitute said upper and lateral free edges of said rear flap and the remaining contiguous edge is defined by a cut that extends from said connection hinge (441) to said free upper edge of said rear flap, along said second lateral portion.

2. The package (1) according to claim 1, wherein said movable portion (111) is glued to said back (241) and/or upper (341) walls of said lid (41).

3. The package (1) according to claim 1 or 2 and comprising a collar (51) joined to said envelope (11) and protruding from said extraction opening towards said lid (41), wherein said collar (52) wholly covers the front portion of said inner envelope (12) at said face wall.

4. The package (3) according to claim 1 or 2 and comprising a collar (53) joined to said envelope and protruding from said extraction opening towards said lid (43), wherein said collar (53) entirely covers the front portion and partly covers the upper portion of said envelope.

5. The package according to claim 3 or 4, wherein said collar is part of said front wall and is defined by an embossed portion on said front wall.

6. The package according to one or more of claims 3 to 5, wherein said collar is provided with inscriptions and/or logos and/or images on the external surface visible to a user.

7. A packing method for making a package (1) of smoking articles, in particular of cigarettes, comprising the steps of:

- carrying out a plurality of portions with piecewise pass-through cuts defining a plurality of movable portions (111) on a wrapping tape;
- getting a sheet of wrapping material provided with a movable portion (111) by cutting said tape;
- folding said sheet, enclosing a group (21) of said smoking articles by placing said movable portion (111) at an extraction opening, carrying out an unsealed soft inner envelope (11) provided with a movable portion (111) to extract said cigarettes, said envelope (11) comprises at least an upper portion (211), a front portion, a rear portion and a first and a second lateral portions opposite one to the other, said envelope is provided with a front flap and with a rear flap superimposed and not sealed at least along the free upper and lateral edges of said flaps, respectively at said upper portion (211) and at said first lateral portion of said inner envelope (11);
- folding a first portion of a blank, enclosing said inner envelope (11), carrying out a rigid outer container (31) of substantially polyhedral shape, said container (31) comprises at least a front wall (131), a rear wall, a bottom wall and an extraction opening for said smoking articles, opposite to said bottom wall;
- folding a second portion of said blank carrying out a rigid lid (41) hinged to said rear wall along a connection hinge (441) and able to rotate between an opening position and a closing position of said extraction opening, said lid (41) comprising at least a face wall (141), a back wall (241) and an upper wall (341), said face wall and back wall being respectively coplanar to said front (131) and rear walls in said closing position of said lid (41);
- solidly joining said movable portion (111) to said lid (41), said movable portion (111) remains joined to one or more internal surfaces of said lid (41) after the first placement of said lid (41) in said opening position;

the method is **characterized in that** said movable portion (111) extends from said rear portion of said inner envelope (11), at said connection hinge (441), to the upper free edge of said rear flap, superimposed in said upper portion (211) of said envelope (11) ;
and **in that** said sheet is folded around said group of smoking articles by placing said movable portion (111) from said connection hinge (441) to said upper portion (211) of said envelope (11) at said upper wall (341);
and **in that** said movable portion (111) is joined to the internal surfaces of said back (241) and/or upper (341) walls of said lid (41) .

8. The method according to claim 7, wherein it comprises a further step of making an embossed portion on said blank at said extraction opening, prior to fold said blank around said inner envelope, said embossed portion carrying out a collar integrated to said outer container.

9. The method according to claim 7, wherein it comprises a further step of applying a collar (51) to said inner envelope (11) at said extraction opening.

10. The method according to claim 8 or 9, wherein it comprises a further step of getting said collar (52) prior to the application of it to said inner envelope (12), said collar (52) is shaped to wholly cover the front portion of said inner envelope (12) at said face wall.

11. The method according to claim 8 or 9, wherein it comprises a further step of getting said collar (53) prior to the application of it to said inner envelope, said collar (53) is shaped to wholly cover the front portion of said inner envelope at said face wall and to partly cover the upper portion of said inner envelope at said upper wall (343).

Patentansprüche

1. Packung (1) für Rauchartikel, insbesondere für Zigaretten, die Folgendes umfasst:

- eine unversiegelte, nachgiebige innere Hülle (11), die durch eine Lage Einwickelmaterial gebildet wird, die eine Gruppe (21) der Rauchartikel umschließt, wobei die Hülle (11) wenigstens einen oberen Abschnitt (211), einen vorderen Abschnitt, einen hinteren Abschnitt und einen ersten und einen zweiten seitlichen Abschnitt, die einander gegenüberliegen, umfasst, wobei die Lage zum Einwickeln mit einer vorderen Lasche und einer hinteren Lasche versehen ist, die überlappen und wenigstens entlang der freien oberen und seitlichen Kanten der Laschen jeweils bei dem oberen Abschnitt (211) und bei dem ersten seitlichen Abschnitt der Hülle (11) unversiegelt sind;
- einen starren äußeren Behälter (31) von im Wesentlichen polyedrischer Form, der die Hülle (11) umschließt, wobei der Behälter (31) wenigstens eine vordere Wand (131), eine hintere Wand und eine untere Wand umfasst und mit einer Entnahmeöffnung für die Rauchartikel gegenüber der unteren Wand versehen ist;
- einen starren Deckel (41), der an der hinteren Wand entlang eines Verbindungsgelenks (441) angelenkt ist und zwischen einer Öffnungsposition und einer Schließposition der Entnahmeöffnung gedreht werden kann, wobei der Deckel (41) wenigstens eine Frontwand (141), eine Rückwand (241) und eine obere Wand (341) umfasst, wobei die Frontwand und die Rückwand in der Schließposition des Deckels (41) jeweils koplanar mit der vorderen (131) und der hinteren Wand sind;

wobei die Hülle (11) mit einem beweglichen Abschnitt (111) versehen ist, der an der Entnahmeöffnung angeordnet ist und mit dem Deckel (41) stabil verbunden ist, wobei der bewegliche Abschnitt (111) nach der ersten Platzierung des Deckels (41) in der Öffnungsposition mit einer oder mehreren inneren Oberflächen des Deckels (41) verbunden bleibt;
wobei sich der bewegliche Abschnitt (111) von dem hinteren Abschnitt der inneren Hülle (11) bei dem Verbindungsgelenk (441) zu der oberen freien Kante der hinteren Lasche erstreckt, wobei er in dem oberen Abschnitt (211) der Hülle (11) überlappt, wobei nach der ersten Platzierung des Deckels (41) in der Öffnungsposition die Hülle (11) die Gruppe (21) von Rauchartikeln vollständig in dem vorderen Abschnitt und teilweise in dem oberen Abschnitt bedeckt und wobei der bewegliche Abschnitt (111) die Gruppe (21) von Rauchartikeln vollständig in dem hinteren Abschnitt und teilweise in dem oberen Abschnitt freigibt;
wobei die Packung (1) **dadurch gekennzeichnet ist, dass** der bewegliche Abschnitt (111) an drei zusammenhängenden Kanten frei ist und dass eine vierte Kante mit dem hinteren Abschnitt der Hülle (11) entlang des Verbindungsgelenks (441) einteilig ist, wobei zwei der drei zusammenhängenden Kanten die obere und die seitlichen freien Kanten der hinteren Lasche bilden und wobei die verbleibende zusammenhängende Kante durch einen Schnitt definiert ist, der sich von dem Verbindungsgelenk (441) entlang des zweiten seitlichen Abschnitts zu der freien oberen Kante der hinteren Lasche erstreckt.

2. Packung (1) nach Anspruch 1, wobei der bewegliche Abschnitt (111) an der Rückwand (241) und/oder der oberen (341) Wand des Deckels (41) festgeklebt ist.

3. Packung (1) nach Anspruch 1 oder 2, die einen Kragen (51) umfasst, der mit der Hülle (11) verbunden ist und von der Entnahmeöffnung in Richtung des Deckels (41) vorsteht,
wobei der Kragen (52) den vorderen Abschnitt der inneren Hülle (12) an der Frontwand vollständig bedeckt.

4. Packung (3) nach Anspruch 1 oder 2, die einen Kragen (53) umfasst, der mit der Hülle verbunden ist und von der Entnahmeöffnung in Richtung des Deckels (43) vorsteht, wobei der Ansatz (53) den vorderen Abschnitt vollständig bedeckt und den oberen Abschnitt der Hülle teilweise bedeckt.

5. Packung nach Anspruch 3 oder 4, wobei der Kragen Teil der vorderen Wand ist und durch einen geprägten Abschnitt an der vorderen Wand definiert ist.

6. Packung nach einem oder mehreren der Ansprüche 3 bis 5, wobei der Kragen mit Aufschriften und/oder Logos und/oder Bildern auf der äußeren Oberfläche versehen ist, die für einen Benutzer sichtbar sind.

7. Verpackungsverfahren zum Herstellen einer Packung (1) von Rauchartikeln, insbesondere von Zigaretten, wobei das Verfahren die folgenden Schritte umfasst:

- Ausführen mehrerer Abschnitte mit stückweise vorliegenden Durchbrüchen, die mehrere bewegliche Abschnitte (111) an einem Einwickelband definieren;
- Erhalten einer Lage aus Einwickelmaterial, das durch Schneiden des Bandes mit einem beweglichen Abschnitt (111) versehen ist;
- Falten der Lage, Umschließen einer Gruppe (21) der Rauchartikel durch Platzieren des beweglichen Abschnitts (111) an einer Entnahmeöffnung, Ausführen einer unverschlossenen nachgiebigen inneren Hülle (11), die mit einem beweglichen Abschnitt (111) versehen ist, um die Zigaretten zu entnehmen, wobei die Hülle (11) wenigstens einen oberen Abschnitt (211), einen vorderen Abschnitt, einen hinteren Abschnitt und einen ersten und einen zweiten seitlichen Abschnitt, die einander gegenüberliegen, umfasst, wobei die Hülle mit einer vorderen Lasche und mit einer hinteren Lasche versehen ist, die überlappen und wenigstens entlang der freien oberen und seitlichen Kanten der Laschen jeweils bei dem oberen Abschnitt (211) und bei dem ersten seitlichen Abschnitt der inneren Hülle (11) nicht versiegelt sind;
- Falten eines ersten Abschnitts eines Zuschnitts, wobei die innere Hülle (11) umschlossen wird, Ausführen eines starren äußeren Behälters (31) von im Wesentlichen polyedrischer Form, wobei der Behälter (31) wenigstens eine vordere Wand (131), eine hintere Wand, eine untere Wand und eine Entnahmeöffnung für die Rauchartikel gegenüber der unteren Wand umfasst;
- Falten eines zweiten Abschnitts des Zuschnitts, um einen starre Deckel (41) auszuführen, der an der hinteren Wand entlang eines Verbindungsgelenks (441) angelenkt ist und zwischen einer Öffnungsposition und einer Schließposition der Entnahmeöffnung gedreht werden kann, wobei der Deckel (41) wenigstens eine Frontwand (141), eine Rückwand (241) und eine obere Wand (341) umfasst, wobei die Frontwand und die Rückwand jeweils koplanar mit der vorderen (131) und der hinteren Wand in der Schließposition (111) des Deckels (41) sind;
- stabiles Verbinden des beweglichen Abschnitts (111) mit dem Deckel (41), wobei der bewegliche Abschnitt (111) nach der ersten Patzierung des Deckels (41) in der Öffnungsposition mit einer oder mehreren inneren Oberflächen des Deckels (41) verbunden bleibt;

wobei das Verfahren **dadurch gekennzeichnet ist, dass** sich der bewegliche Abschnitt (111) von dem hinteren Abschnitt der inneren Hülle (11) bei dem Verbindungsgelenk (441) zu der oberen freien Kante der hinteren Lasche erstreckt, wobei er in dem oberen Abschnitt (211) der Hülle (11) überlappt;
und dadurch, dass die Lage um die Gruppe von Rauchartikeln gefaltet wird, indem der bewegliche Abschnitt (111) von dem Verbindungsgelenk (441) zu dem oberen Abschnitt (211) der Hülle (11) bei der oberen Wand (341) platziert wird;
und dadurch, dass der bewegliche Abschnitt (111) mit den inneren Oberflächen der hinteren (241) und/oder oberen (341) Wand des Deckels (41) verbunden ist.

8. Verfahren nach Anspruch 7, wobei es einen weiteren Schritt zum Ausbilden eines geprägten Abschnitts bei dem Zuschnitt bei der Entnahmeöffnung vor dem Falten des Zuschnitts um die innere Hülle umfasst, wobei der geprägte Abschnitt einen Kragen ausführt, der mit dem äußeren Behälter einteilig ist.

9. Verfahren nach Anspruch 7, wobei es einen weiteren Schritt zum Aufbringen eines Kragens (51) bei der inneren Hülle (11) bei der Entnahmeöffnung umfasst.

10. Verfahren nach Anspruch 8 oder 9, wobei es einen weiteren Schritt zum Erhalten des Kragen (52) vor dem Aufbringen des Kragens bei der inneren Hülle (12) umfasst, wobei der Kragen (52) so geformt ist, dass er den vorderen Abschnitt der inneren Hülle (12) bei der vorderen Wand vollständig bedeckt.

11. Verfahren nach Anspruch 8 oder 9, wobei es einen weiteren Schritt zum Erhalten des Kragens (53) vor dem Aufbringen des Kragens bei der inneren Hülle umfasst, wobei der Kragen (53) so geformt ist, dass er den vorderen Abschnitt der inneren Hülle bei der Frontwand vollständig bedeckt und den oberen Abschnitt der inneren Hülle bei der oberen Wand (343) teilweise bedeckt.

Revendications

1. Emballage (1) d'articles à fumer, en particulier de cigarettes, comprenant :

- une enveloppe interne souple non scellée (11) constituée par une feuille de matériau d'enveloppement enfermant un groupe (21) desdits articles à fumer, ladite enveloppe (11) comprend au moins une partie supérieure (211), une partie avant, une partie arrière et des première et

deuxième parties latérales opposées, ladite feuille d'enveloppement est dotée d'un rabat avant et d'un rabat arrière superposés et non scellés au moins le long des bords supérieurs et latéraux libres desdits rabats, respectivement au niveau de ladite partie supérieure (211) et au niveau de ladite première partie latérale de ladite enveloppe (11) ;

- un contenant externe rigide (31) de forme sensiblement polyédrique et enfermant ladite enveloppe (11), ledit contenant (31) comprend au moins une paroi avant (131), une paroi arrière et une paroi inférieure et est doté d'une ouverture d'extraction pour lesdits articles à fumer, à l'opposé de ladite paroi inférieure ;

- un couvercle rigide (41) articulé sur ladite paroi arrière le long d'une charnière de connexion (441) et apte à tourner entre une position d'ouverture et une position de fermeture de ladite ouverture d'extraction, ledit couvercle (41) comprenant au moins une paroi de face (141), une paroi de fond (241) et une paroi supérieure (341), ladite paroi de face et ladite paroi de fond étant, respectivement, coplanaires auxdites parois avant (131) et arrière dans ladite position de fermeture dudit couvercle (41) ; ladite enveloppe (11) est dotée d'une partie mobile (111) agencée au niveau de ladite ouverture d'extraction et solidement raccordée audit couvercle (41), ladite partie mobile (111) reste raccordée à une ou plusieurs surfaces internes dudit couvercle (41) après la première mise en place du couvercle (41) dans ladite position d'ouverture ;

dans lequel ladite partie mobile (111) s'étend depuis ladite partie arrière de ladite enveloppe interne (11), au niveau de ladite charnière de connexion (441), jusqu'au bord libre supérieur dudit rabat arrière, superposé dans ladite partie supérieure (211) de ladite enveloppe (11), après la première mise en place dudit couvercle (41) dans ladite position d'ouverture ladite enveloppe (11) recouvre ledit groupe (21) d'articles à fumer en totalité dans ladite partie avant et en partie dans ladite partie supérieure et ladite partie mobile (111) découvre en totalité ledit groupe (21) d'articles à fumer dans ladite partie arrière et en partie dans ladite partie supérieure ;
ledit emballage (1) étant **caractérisé en ce que** ladite partie mobile (111) est libre au niveau de trois bords contigus, et un quatrième bord est formé d'un seul tenant avec ladite partie arrière de ladite enveloppe (11) le long de ladite charnière de connexion (441), deux desdits trois bords contigus constituent lesdits bords libres supérieur et latéral dudit rabat arrière et le bord continu restant est défini par une découpe qui s'étend de ladite charnière de connexion (441) jusqu'audit bord supérieur libre dudit rabat arrière, le long de ladite deuxième partie latérale.

2. Emballage (1) selon la revendication 1, dans lequel ladite partie mobile (111) est collée auxdites parois de fond (241) et/ou supérieure (341) dudit couvercle (41).

3. Emballage (1) selon la revendication 1 ou 2 et comprenant une collerette (51) raccordée à ladite enveloppe (11) et faisant saillie depuis ladite ouverture d'extraction vers ledit couvercle (41),
dans lequel ladite collerette (52) recouvre en totalité la partie avant de ladite enveloppe interne (12) au niveau de ladite paroi de face.

4. Emballage (3) selon la revendication 1 ou 2 et comprenant une collerette (53) raccordée à ladite enveloppe et faisant saillie depuis ladite ouverture d'extraction vers ledit couvercle (43), ladite collerette (53) recouvrant en totalité la partie avant et recouvrant en partie la partie supérieure de ladite enveloppe.

5. Emballage selon la revendication 3 ou 4, dans lequel ladite collerette fait partie de ladite paroi avant et est définie par une partie gaufrée sur ladite paroi avant.

6. Emballage selon une ou plusieurs des revendications 3 à 5, dans lequel ladite collerette est dotée d'inscriptions et/ou de logos et/ou d'images sur la surface externe visible à un utilisateur.

7. Procédé d'emballage pour fabriquer un emballage (1) d'articles à fumer, en particulier de cigarettes, comprenant les étapes consistant à :

- réaliser une pluralité de parties dotées de découpes traversantes en morceaux définissant une pluralité de parties mobiles (111) sur un ruban d'enveloppement ;
- obtenir une feuille de matériau d'enveloppement pourvue d'une partie mobile (111) en découpant ledit ruban ;
- plier ladite feuille, enfermer un groupe (21) desdits articles à fumer en plaçant ladite partie mobile (111) au niveau d'une ouverture d'extraction, réaliser une enveloppe interne souple non scellée (11) dotée d'une partie mobile (111) pour extraire lesdites cigarettes, ladite enveloppe (11) comprend au moins une partie supérieure (211), une partie avant, une partie arrière et des première et deuxième parties latérales opposées, ladite enveloppe est dotée d'un rabat avant et d'un rabat arrière superposés et non scellés au moins le long des bords supérieurs et latéraux libres desdits rabats, respectivement au niveau de ladite partie supérieure (211) et au niveau de ladite première partie latérale de ladite enveloppe interne (11) ;

- plier une première partie d'une ébauche, enfermer ladite enveloppe interne (11), réaliser un contenant externe rigide (31) de forme sensiblement polyédrique, ledit contenant (31) comprenant au moins une paroi avant (131), une paroi arrière, une paroi inférieure et une ouverture d'extraction pour lesdits articles à fumer, à l'opposé de ladite paroi inférieure ;
- plier une deuxième partie de ladite ébauche en réalisant un couvercle rigide (41) articulé sur ladite paroi arrière le long d'une charnière de connexion (441) et apte à tourner entre une position d'ouverture et une position de fermeture de ladite ouverture d'extraction, ledit couvercle (41) comprenant au moins une paroi de face (141), une paroi de fond (241) et une paroi supérieure (341), ladite paroi de face et ladite paroi de fond étant, respectivement, coplanaires auxdites parois avant (131) et arrière dans ladite position de fermeture dudit couvercle (41) ;
- raccorder solidement ladite partie mobile (111) audit couvercle (41), ladite partie mobile (111) reste raccordée à une ou plusieurs surfaces internes dudit couvercle (41) après la première mise en place dudit couvercle (41) dans ladite position d'ouverture ;

le procédé étant **caractérisé en ce que** ladite partie mobile (111) s'étend de ladite partie arrière de ladite enveloppe interne (11), au niveau de ladite charnière de connexion (441), jusqu'au bord libre supérieur dudit rabat arrière, superposé dans ladite partie supérieure (211) de ladite enveloppe (11) ;
et **en ce que** ladite feuille est pliée autour dudit groupe d'articles à fumer en plaçant ladite partie mobile (111) de ladite charnière de connexion (441) jusqu'à ladite partie supérieure (211) de ladite enveloppe (11) au niveau de ladite paroi supérieure (341) ;
et **en ce que** ladite partie mobile (111) est raccordée aux surfaces internes desdites parois de fond (241) et/ou supérieure (341) dudit couvercle (41).

8. Procédé selon la revendication 7, dans lequel est comprise une étape supplémentaire de réalisation d'une partie gaufrée sur ladite ébauche au niveau de ladite ouverture d'extraction, avant de plier ladite ébauche autour de ladite enveloppe interne, ladite partie gaufrée réalisant une collerette intégrée audit contenant externe.

9. Procédé selon la revendication 7, dans lequel est comprise une étape supplémentaire d'application d'une collerette (51) sur ladite enveloppe interne (11) au niveau de ladite ouverture d'extraction.

10. Procédé selon la revendication 8 ou 9, dans lequel est comprise une étape supplémentaire d'obtention de ladite collerette (52) avant son application sur ladite enveloppe interne (12), ladite collerette (52) étant conformée pour recouvrir en totalité la partie avant de ladite enveloppe interne (12) au niveau de ladite paroi de face.

11. Procédé selon la revendication 8 ou 9, dans lequel est comprise une étape supplémentaire d'obtention de ladite collerette (53) avant son application sur ladite enveloppe interne, ladite collerette (53) étant conformée pour recouvrir en totalité la partie avant de ladite enveloppe interne au niveau de ladite paroi de face et recouvrir en partie la partie supérieure de ladite enveloppe interne au niveau de ladite paroi supérieure (343).

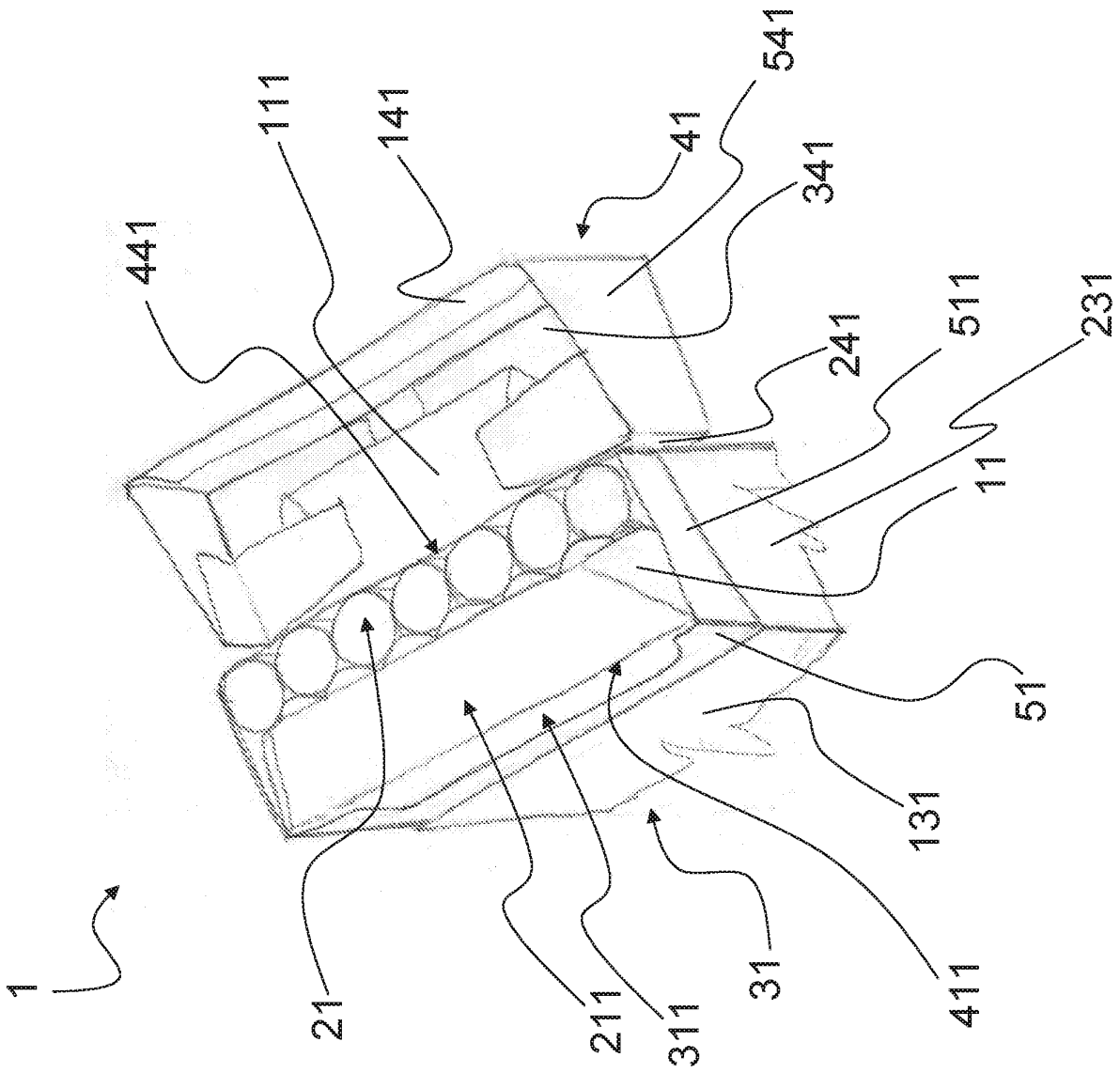


FIG. 1

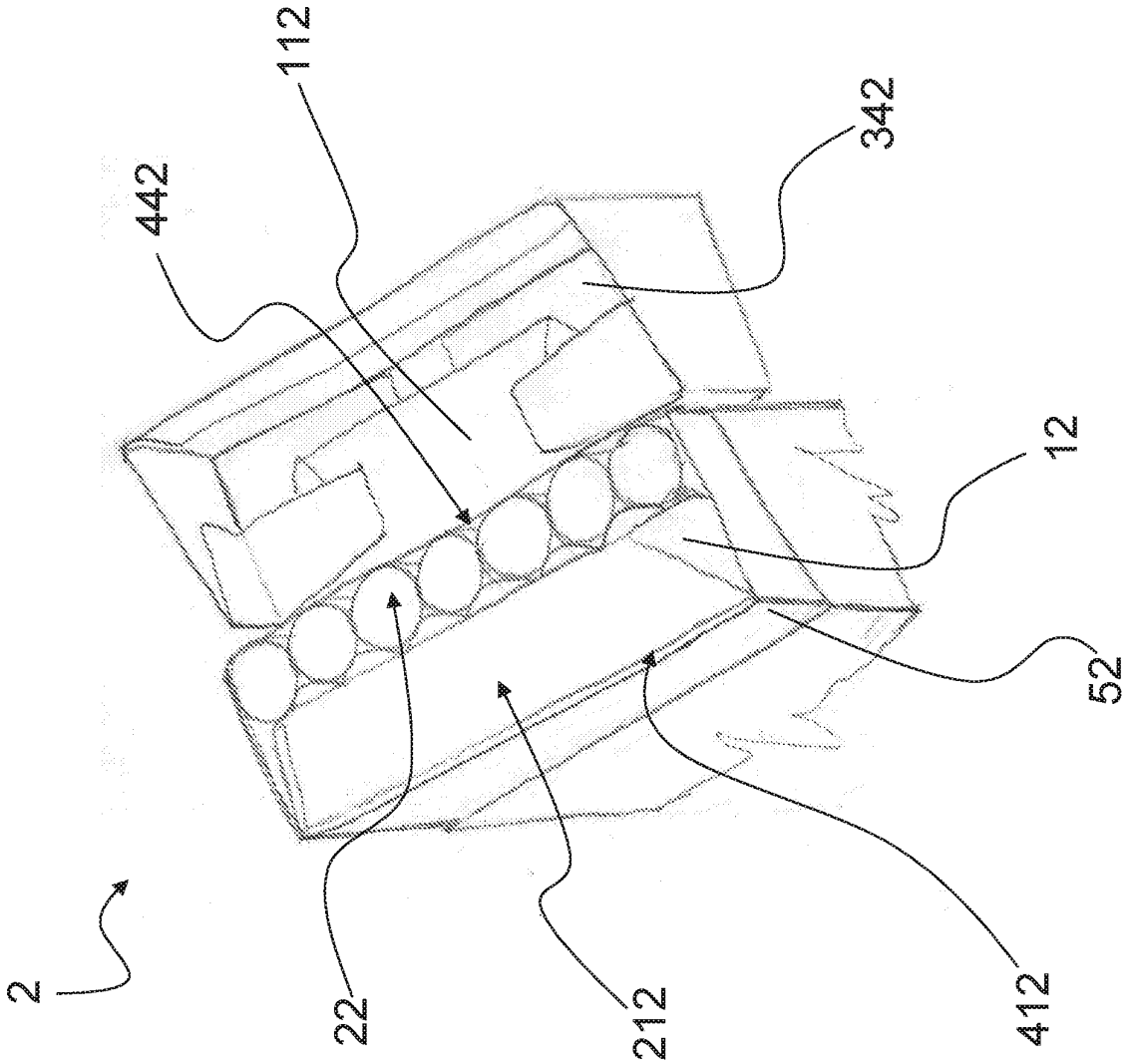


FIG. 2

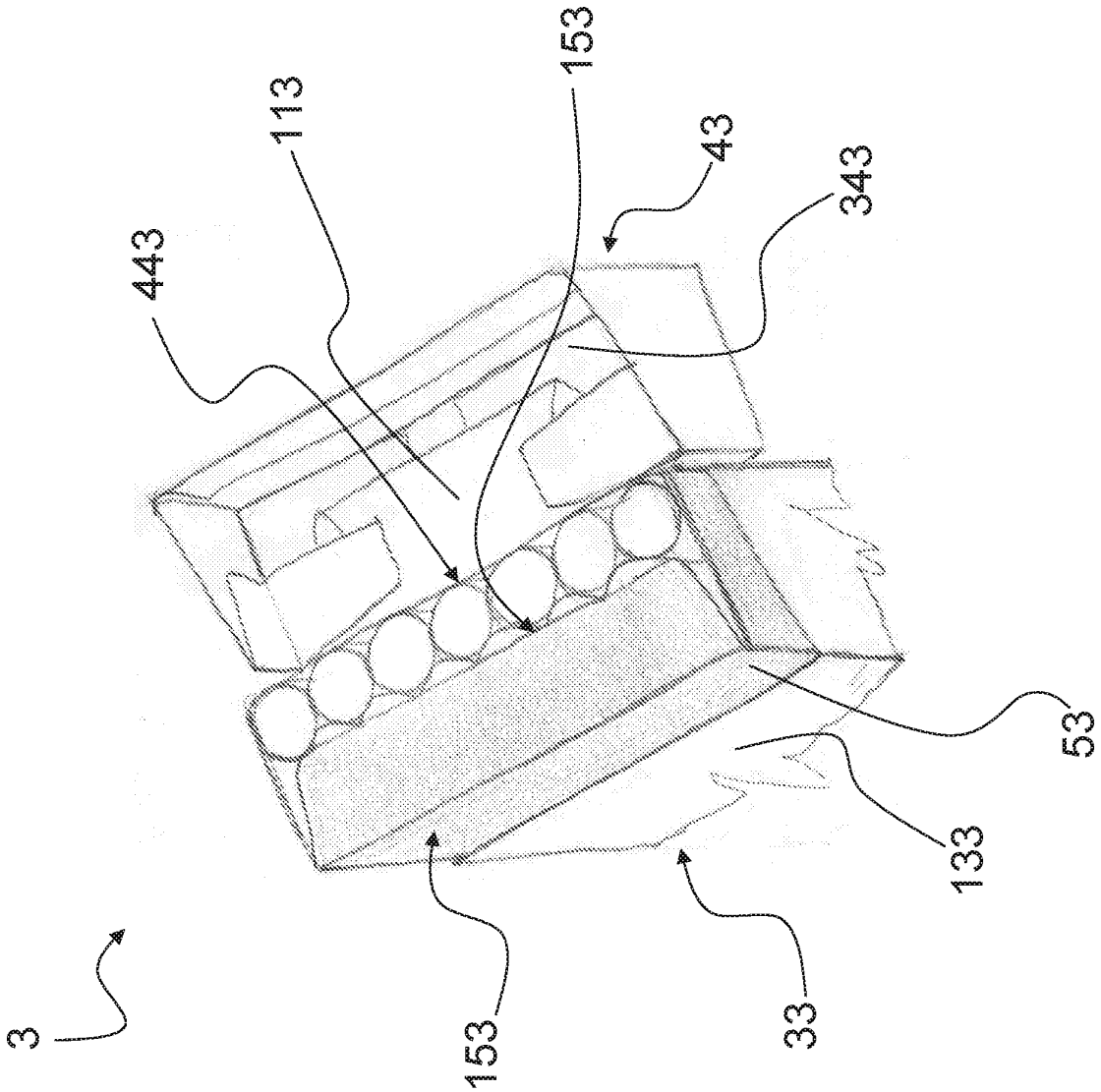


FIG. 3

REFERENCES CITED IN THE DESCRIPTION

This list of references cited by the applicant is for the reader's convenience only. It does not form part of the European patent document. Even though great care has been taken in compiling the references, errors or omissions cannot be excluded and the EPO disclaims all liability in this regard.

Patent documents cited in the description

- EP 1591027 B1 **[0007]**
- EP 1591027 A1 **[0013]**
- WO 2013076863 A1 **[0014]**