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(54) **BOX-SHAPED INSERT ELEMENT FOR INSERTION INTO A BOX-SHAPED CONTAINER**

(57) The present invention relates to a box-shaped insert element (10) for insertion into a box-shaped container (C) for accommodating consumer goods, like tobacco articles, the container (C) having an inner as well as an outer surface and an opening area (O) for removing the consumer goods, wherein the box-shaped insert element (10) is adapted to be placed in the opening area (O) of the container, and wherein the box-shaped insert element (10) comprises:

- an access opening (22) through which the consumer

goods can be removed from the container (C) and which is covered by a resealable closing element (24); and
- at least one attachment portion (29a, 29b) for attaching the insert element (10) to an inner surface of the container (C),
wherein the insert element (C) is made of a material comprising at least one rigid layer, and wherein the extension of the insert element (10) in a height direction (H) is at least substantially smaller than the extension of the container (C) in the height direction (H).

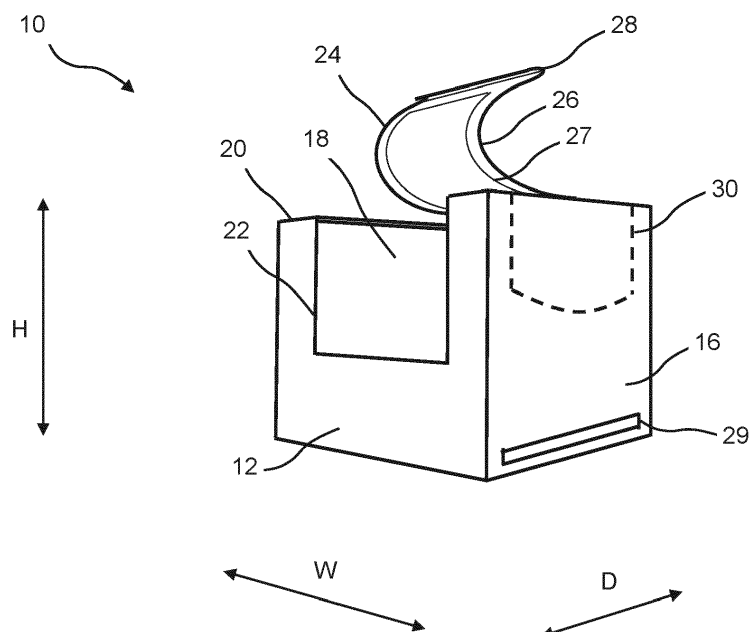


Fig. 1

Description

Technical field

[0001] The present invention relates to a box-shaped insert element for insertion into a box-shaped container for accommodating consumer goods. Furthermore, the present invention relates to a box-shaped container for consumer goods comprising a boxed-shaped insert element. Further, the present invention relates to a supply roll onto which plane insert elements blanks are wound up, a supply stack which provides box-shaped insert elements and a method for manufacturing box-shaped insert elements for insertion into a box-shaped container for accommodating consumer goods.

Background

[0002] In practice, it is known that containers for consumer goods, like tobacco articles, sweets etc., having a box and a lid hinged to the box and reversibly closing an opening of the container, comprise a collar surrounding the opening of the container being adjacent to the lid. The collar or insert element is made of cardboard and includes four side walls defining a space for accommodating the consumer goods. The upper edges of the four side walls define an opening through which the consumer goods can be removed from the container and which is reversibly closed by the lid. The collar is affixed on its lower portion to the inner surface of the box adjacent to the lid.

[0003] The collar can serve different purposes. In the case of containers for tobacco articles, such as cigarettes, it consists of presenting the tobacco articles nicely in a frame and protecting the tobacco articles against damage at their portions protruding from the box when the lid is pivoted rearwards.

[0004] In a standard packaging machine or line for producing containers for consumer goods, like tobacco articles, the containers are already pre-fabricated, i.e. die-cut and creased, and then fed into the machine or line. Just the collars are die-cut and creased in the standard packaging machine, followed by the steps of joining container and collar for finishing the assembly of the container.

[0005] Furthermore, tobacco articles accommodated inside a container are usually fully wrapped into a flexible liner, like a paper-aluminum-liner. The portion of the liner adjacent to the lid and protruding from the container's box is torn-off when the tobacco articles are to be removed from the container, like a cigarette pack, after the first opening of the container. After the removal of the respective portion of the liner the portion of the tobacco articles protruding from the box are not protected against drying-out any longer.

[0006] Since, moreover, these collars do not comprise a top wall, an attachment of a resealable label for covering the consumer goods such that the quality of the con-

sumer goods is preserved after the first opening of the container, is difficult or even not possible.

[0007] To ensure that the tobacco articles remain protected against drying-out after the first opening of the container, there are in practice two solutions known:

According to the first one, the tobacco articles are enwrapped and sealed inside a flexible packaging bag which can be formed by the paper-aluminum-liner mentioned above. The flexible packaging bag has an access opening through which the tobacco articles can be removed. The access opening is covered by a resealable label so that the quality of the tobacco articles is preserved after the first and every following removal of the tobacco articles. During the manufacturing process of a cigarette pack or container, the flexible packaging bag with the tobacco articles inside is inserted into a pre-assembled container. Thus, an individual production step for enwrapping and sealing the tobacco articles in the flexible packaging liner to form a bag as well as an individual step for labelling the access opening of the bag are required. However, containers with a flexible packaging bag are produced in a different packaging machine or line than the standard machine mentioned above.

[0008] According to the second solution, an inner box having an access opening reversibly sealed by a label is accommodated inside an outer box forming the hinged-lid container, wherein the consumer goods are protected against drying-out inside the inner box. In practice, such a solution is called box-in-box.

[0009] A respective box-in-box resealable cigarette container is known from US patent 10,124,953 which discloses a rigid outer box and rigid inner box. The outer box has four side walls and a bottom wall connecting the four side walls as well as a hinged top configured to provide access to an inner space of the outer box. The inner box which has also four side walls and a bottom wall connecting the side walls, is a laminate of a paperboard and an inner liner and has a pre-cut opening configured to provide access to an inner volume of the inner box. The inner box has almost the same dimensions with the only difference that they are slightly smaller than that of the outer box so that the inner box can be inserted into the outer box to form the box-in-box design. A pull tab covers the opening. The pull tab includes a first adhesive that releasably adheres an edge portion of the pull tab to the inner box and a second adhesive that permanently adheres the pull tab to the inner box and the outer box.

[0010] However, the box-in-box solution requires not only more material, as a complete inner box is inserted in a complete outer box, but also a completely different machine having, inter alia, an additional labelling module.

Object

[0011] Therefore, it is an object of the invention to provide an insert element for insertion into a box-shaped container for accommodating consumer goods, a box-shaped container comprising an box-shaped insert ele-

ment, a method for manufacturing an box-shaped insert element, a supply roll onto which plane insert element blanks configured to be folded and assembled are wound up, and a supply stack which provides box-shaped insert elements which all overcome the disadvantages mentioned above, in particular which allow a simplified, material-reduced manufacturing of packages or containers for consumer goods having an insert element by means of standard packaging machine.

Summary

[0012] The aforesaid object with respect to the insert element is achieved by the features of claim 1. Advantageous configurations of the invention regarding the insert element are described in dependent claims 2 to 8 and also below.

[0013] According to the present invention, a box-shaped insert element for insertion into a box-shaped container for accommodating consumer goods, like tobacco articles, is provided. The container has an inner as well as an outer surface and an opening area for removing the consumer goods. The box-shaped insert element is adapted to be placed in the opening area of the container, wherein the box-shaped insert element comprises an access opening through which the consumer goods can be removed from the container and which is covered by a resealable closing element, and at least one attachment portion for attaching the insert element to an inner surface of the container. The insert element is made of a material comprising at least one rigid layer. The extension of the insert element in a height direction is at least substantially smaller than the extension of the container in the height direction.

[0014] This solution greatly simplifies the manufacturing process of a container for consumer goods in a standard packaging machine, in particular a container for accommodating tobacco articles, like cigarettes. On the one hand, the three-dimensional, preferably collar-like insert element is able to protect the upper portions of the tobacco articles protruding of the container against damage, in particular against drying-out, and on the other hand, such an insert element can be processed by standard packaging machines without additional labelling modules. In addition, less material is required for the container provided with the insert element according to the present invention. In addition, since the insert element is already provided with a resealable closure or closing element, it is possible to prevent the consumer goods inside the container from being affected by, for example, drying out, despite simplified production.

[0015] Box-shaped means that the shape of the insert element is preferably prismatic, cuboid or orthorhombic, but has no bottom wall. In a preferred embodiment, a front wall or front side and a rear wall or rear side of the insert element are parallel to each other, and side walls or lateral walls of the insert element are also parallel to each other and perpendicular to the front wall and the

rear wall. Furthermore, a top wall or top side is perpendicular to the front wall, the rear wall and the two side walls. The insert element is bottomless to reduce, on the one hand, the material usage and to be able, on the other hand, to still cover or to cap consumer goods accommodated inside the box-shaped container when inserted into the container. The extension of the insert element in a height direction, i.e. perpendicular to the top wall, is at least substantially smaller than that of the corresponding box-shaped container, like a cigarette pack, in which the insert element is arranged wherein the height direction of a container as well as of an insert element is the direction perpendicular to the top wall. In other words, the dimensions of the insert element in the circumferential direction can be chosen to be slightly smaller than the internal dimensions of the container for being able to insert the insert element into the container so that the outer circumference of the insert element is approximately equal to the inner circumference of the container. For the longitudinal or height dimensions of the insert element, however, it is sufficient if these are selected in such a way that the front and rear walls and the two side walls of the insert element, when inserted into the container, cover the corresponding walls of the container.

[0016] The two side walls may each preferably comprise two material portions of which one is connected with the front wall and the other is connected to the rear wall. Both material portions may overlap each other, whereby one material portion becomes the inner material portion and the other the outer material portion. The inner and the outer material portion may be bonded to each other by means of a permanent adhesive, like a water-based, solvent or a hot melt adhesive.

[0017] In another preferred embodiment, the insert element is made of a two-dimensional blank wherein the blank can be folded such that two ends of the blank are connected with each other to form the three-dimensional insert element. The connection of both ends can be at one of the walls of the insert element, preferably at the rear wall. Alternatively, the blank can be configured such that a folding of the blank is possible with two connections being provided on opposite walls.

[0018] The container into which the insert element is inserted is also box-shaped, i.e. the container can preferably prismatic, cuboid or orthorhombic. In other words, the container has a front and rear wall, two side walls connecting the front and rear walls and a bottom. Thus, the container may be in the most simply embodiment a cuboid with an opening area extending in one or two walls. Preferably, the container comprises a box and a lid hinged to the box.

[0019] The at least one attachment portion may be provided on at least one of the front wall, the rear wall, or the side walls. The surface area of the at least one attachment portion may be at least substantially smaller or very much smaller than the surface area of the respective wall on which the at least one attachment portion is provided. If an attachment portion is provided on more than

one wall of the insert element, the surface area of the attachment portion, which may be provided as at least one attachment strip or point, or as a combination of both or any other shape, may be different on the respective wall.

[0020] In a further preferred embodiment, the outer surface area of the front wall of the insert element may be different, preferably at least substantially equal or unequal to the outer surface area of the rear wall of the insert element, wherein preferably the outer surface area of the rear wall of the insert element is substantially larger than the outer surface area of the top wall and the outer surface area of one side wall of insert element. It is also conceivable that the outer surface area of the front wall and the rear wall of the insert element are approximately equal or that the outer surface area of the rear wall is smaller or larger than that of the front wall.

[0021] Outer surface area means the surface area referred to the outer edges or borderlines of the respective wall, i.e. in particular the material-free surface area of the access opening is not subtracted from the corresponding wall.

[0022] Referring to a container for consumer goods having box and a pivotable lid hinged to the box, like a container for cigarettes or a cigarette pack, respectively, the rear wall is usually higher than the front wall. Thus, the rear wall of the insert element should preferably be shorter in the height direction than the front wall to perfectly fit into the box of the container without wasting any material.

[0023] Alternatively or additionally, the access opening is formed at least partially in the front wall and in the top wall of the insert element. Accordingly, the access opening preferably cut into the front wall and the top wall comprises two opening portions connected to each other wherein one is arranged in the plane of the top wall and the other is arranged in the plane of the front wall, wherein both portions are at least substantially perpendicular to each other.

[0024] The distance between the access opening and the side walls may be at least substantially equal. In other words, the access opening is arranged centrally referred to a width direction of the insert element, wherein the width direction is the direction perpendicular to both side walls. It is also possible that the access opening is arranged asymmetrically referred to the width direction of the insert element.

[0025] Further, the material of the top wall and the front wall may form a circulation around the access opening on at least three sides, i.e. the access opening can either reach to the connecting edge between top and rear wall or the material of the top and front wall forms a closed circulation around the access opening. Preferably, the access opening is surrounded by enough material of the front and top wall so that the resealable closing element can reliably seal the access opening and that the stability of the insert element against deformation is ensured.

[0026] It is also possible for the access opening to ex-

tend to an outer edge of the front wall opposite to the connecting edge between front and top wall. In such a case, the access opening of an insert element inserted into a container extends into the inside of the container and the resealable closing element can have such a length that it extends to the outer surface of the container and adheres to the outer surface of the front wall of the container.

[0027] Preferably, the surface area portions of the access opening provided in the top and front wall are at least substantially equal. Further preferably, the distances between the access opening and the borderlines of the front wall and the top wall which are perpendicular to the side walls may be different.

[0028] The shape of the access opening area may be any shape allowing for a comfortable removal of consumer goods, e.g. the surface area of the access opening projected into a plane, i.e. the two-dimensional surface area of the access opening, may be rectangular, circular, oval, etc. The periphery of the access opening area may be cut, die-cut, laser-cut, or by any other method known for cutting and separating material and the die-cut part inside the periphery of the access opening may be removed, wherein the removing is preferably performed by a suction or vacuuming unit.

[0029] In another preferred embodiment, the at least one rigid layer is made of cardboard and/or plastic. The material of which the insert element is made comprises at least one rigid layer. Preferably, the rigid layer is a cardboard layer with a grammage of 150 to 600 g/m², and preferably of 200 to 300 g/m². The at least one rigid layer may be printed and lacquered, or even untreated, i.e. white-coloured without any decoration. The rigid layer may also be a plastic layer.

[0030] Additionally or alternatively, the material of the insert element comprising at least one rigid layer is a laminate additionally comprising at least one metallized layer and/or a varnishing layer to form a gas and/or water steam barrier layer. The laminate comprises the rigid layer, such as the layer of cardboard and/or plastic, an aluminium layer or any other layer metallized with aluminium and/or a varnishing layer to generate a gas and/or water steam barrier against the contamination of the consumer goods. Preferably, one aluminium layer is arranged between at least two cardboard layers. It is also conceivable that the insert element is a laminate as a combination of at least one cardboard layer and at least one plastic layer or even only plastic layers, wherein a layer of aluminium or any other layer metallized with aluminium and/or a varnishing layer is arranged therebetween. Further preferably, the insert element may comprise at least one barrier layer, such as a barrier lacquer or a coating with barrier properties, like SiO_x, AlO_x, EVOH or any other known barrier layer. The barrier lacquer or coating may be applied on at least one layer made of cardboard, metallized cardboard, paper, plastic film or a laminate of at least two of said materials. Yet further preferably, the insert element comprising at least one barrier layer may be a lam-

inate of at least two cardboards or metallized cardboards, wherein the at least one barrier layer is arranged either between the cardboards or on at least one outer surface area of the laminated cardboards.

[0031] In yet another preferred embodiment, the top wall of the insert element may have at least one lateral wing, preferably two lateral wings, at least substantially perpendicularly protruding in direction of the side walls of the insert element, wherein preferably the outer edge of the lateral wings is at least substantially arc- or archway-shaped. The wings can have the same width as the top wall, wherein the width in this case is referred to a depth direction of the insert element which is at least substantially perpendicular to the front and rear wall. However, it is also possible that the wings can have a smaller width.

[0032] These wings are configured to stabilize the assembled insert element, while the arc shape of the outer edge of the wings is configured to facilitate the assembly of the insert element. Other shapes of the lateral wings, such a rectangular shape, can also be possible.

[0033] Each wing is affixed to at least one of the material portions of the corresponding side wall at which the wing is to be fixed, by means of a permanent adhesive, like a water-based, solvent or a hot melt adhesive.

[0034] In a further preferred embodiment, the resealable closing element may have a hinge portion at least substantially permanently attached to the rear wall of the insert element, a resealable portion resealably attached to at least substantially the front and the top wall, and a preferably adhesion-reduced handling portion to uncover and recover the access opening.

[0035] The surface area of the resealable closing element is at least substantially larger than the surface area of the access opening to ensure that the access opening is fully covered so that the consumer goods are preserved when the resealable closing element is attached to the outer surface of the insert element.

[0036] The resealable closing element covering the access opening of the insert element may have a shape corresponding to the surface shape of the access opening projected into a plane, wherein the resealable closing element may preferably cover at least partially the front wall, the top wall, and the rear wall when adhered or attached to the outer surface of the insert element.

[0037] The resealable closing element may comprise at least one layer. A variety of materials is usable, such as e.g. polyethylene terephthalate (PET), polyolefin (PO) such as polypropylene (PP) or polyethylene (PE), cellophane, acetate, paper, composites of paper and plastic, or any combination of the materials mentioned. Preferably, the first film is made of a PET or a PP film, with a thickness between 20 μm and 80 μm , more preferably between 40 μm and 60 μm .

[0038] Additionally or alternatively, the resealable closing element comprises at least one layer of paper, or even metallized paper to achieve good barrier properties. Preferably, the at least one layer of paper or metallized

paper comprises at least one barrier layer, such as a barrier lacquer or a coating with barrier properties, like SiOx, AlOx, EVOH or any other known barrier layer. Further preferably, the resealable closing element comprising at least one barrier layer may be a laminate of at least two papers or metallized papers, wherein the at least one barrier layer is arranged either between the papers or on at least one outer surface area of the laminated papers. The thickness of such a resealable closing element is preferably between 40 μm and 150 μm , further preferably between 60 μm and 100 μm .

[0039] The at least one material layer of the resealable closing element may be translucent, transparent, coloured, or metallized.

[0040] The thickness of the at least one material layer complies with the stiffness needed for conveniently opening and reclosing the insert element, i.e. uncovering and recovering the access opening.

[0041] Preferably, the resealable closing element may comprise two or even more layers which are bonded together. It is of advantage if at least one of the two layers contains a metallization, e.g. an aluminium metallization.

[0042] If the resealable closing element comprises more than one layer, then the layers may preferably be bonded to each other or laminated one upon the another by means of an adhesive layer, such as a permanent adhesive layer, or by means of a lamination adhesive, such as water-based adhesives, solvent-based adhesives, two-component adhesives based on polyurethane (PU), or hot melt adhesives. The adhesives may inter alia be based on acrylic or rubber.

[0043] The resealable closing element may be printed on at least one its sides. In case of a multi-layer closing element, the printing may be a sandwich print at which the printing is arranged between two layers such that the printing is protected against abrasion or contamination.

[0044] Preferably, the resealable closing element may be at least substantially flexible such that the resealable closing element is conveniently and reliably detachable from and re-attachable to the insert element as well as being able to follow the uncovering and/or recovering movement induced by the customer without any material degradation or damage.

[0045] The inner side of the resealable closing element facing the outer surface of the insert element may be coated with a resealable adhesive layer. The resealable adhesive may be a pressure sensitive adhesive or a viscoelastic adhesive which preserves its adhesive force at room temperature and under dry conditions. As a resealable adhesive a water-based adhesive, a solvent-based adhesive, or a hot melt adhesive, preferably a UV-cured hot melt adhesive can be used. The resealable adhesive may comprise rubber, such as a synthetic rubber with styrene block copolymers (like styrene-isoprene/butadiene-styrene (SIBS) or styrene-butadienestyrene (SBS)), polyurethane (PUR), or acrylates. Preferably, UV-cured acrylic hot melt adhesives compounded with resins, tackifiers, and further additives are used for the resealable

adhesive of the first adhesive layer.

[0046] The coat weight of the resealable adhesive layer may be between 5 g/m² and 50 g/m², preferably between 10 g/m² and 30 g/m², and more preferably between 15 g/m² and 25 g/m², wherein the latter corresponds to an adhesive layer thickness of 15 μm to 25 μm.

[0047] The resealable adhesive layer is such that a repeated detaching and reattaching of the resealable closing element does not substantially change the adhesive properties of the layer for at least as long as there are consumer goods to be removed through the access opening. In other words, it is possible to remove the consumer goods individually without degrading the adhesive properties of the resealable adhesive layer.

[0048] The inner side of the resealable closing element can be pre-treated to enhance the bonding of the resealable adhesive layer to the resealable closing element, e.g. using a bonding agent.

[0049] Preferably, the resealable adhesive layer is only coated to the portion of the inner side of the first resealable adhesive layer which surrounds the access opening when the resealable closing element is at least substantially fully attached or adhered to the outer surface of the insert element such that the surface area of the access opening is not facing any resealable adhesive. This ensures that the consumer goods accommodated inside the insert element according to the present invention do not come into contact with the resealable adhesive. Advantageously, there is a small strip of a few tenths of millimetres surrounding the periphery of the access opening to prevent any contact between the adhesive layer and the consumer goods.

[0050] The hinge portion around which the resealable closing element is pivotable may be realized by an adhesion-increased area arranged between the inner side of the resealable closing element and the outer surface of the insert element. However, the hinge portion may be attached to the insert element in any other way as long as it is ensured that the hinge portion cannot be detached from the insert element during normal use. The hinge portion may be provided on the rear wall and adjacent to the connecting borderline between top wall and rear wall.

[0051] This hinge portion may prevent a complete detachment of the resealable closing element from the insert element during the opening or detaching movement of the resealable closing element.

[0052] The hinge portion may preferably extend in the width direction of the insert element.

[0053] The adhesion-increased area may be generated by coating a permanent adhesive layer on top of the resealable adhesive layer or instead of the resealable adhesive layer at the corresponding area on the inner side of the resealable closing element.

[0054] The permanent adhesive may be any kind of pressure sensitive adhesive mentioned before.

[0055] Additionally or alternatively, the adhesion-increased area is realized by providing at least a primer layer between the resealable closing element and the

resealable adhesive layer to increase the adhesion of the resealable adhesive layer. The primer is printed onto the inner side of the resealable closing element by using a standard printing method, like flexo, rotogravure, letterpress, offset or any other printing method. There are used appropriate varnishes or inks to increase the bonding of an adhesive onto, like UV, water-based, solvent-based ones or the like.

[0056] The handling portion of the resealable closing element may be realized by an adhesion-reduced area. The adhesion-reduced area may be arranged between the inner side of the resealable closing element and the outer surface of the insert element. The adhesion-reduced area may be provided between two facing or closely spaced borderlines of the resealable closing element and the access opening on the front wall of the insert element when the resealable closing element at least substantially fully adheres to the outer surface of the insert element. The two facing or closely spaced borderlines may preferably be the borderlines perpendicular to the two side walls.

[0057] Preferably, the adhesion-reduced area at least substantially extends in the width direction of the insert element. And further preferably, the extension of the adhesion-reduced area, referred to a state in which the resealable closing element is attached or adhered to the insert element, is larger in the width direction, i.e. perpendicular to the two side walls, than the extension in a longitudinal direction, i.e. parallel to the front wall and perpendicular to the top wall.

[0058] The reduction in adhesion applies to the resealable adhesive layer, which is arranged between the resealable closing element and the insert element. The reduction in adhesion may be gradual reduction, e.g. for creating a finger lift tab to peel off the resealable closing element from the insert element, wherein a gradual reduction does also include a reduction in adhesion to zero, i.e. no adhesion. The adhesion-reduced area may also be adhesion-free, i.e. an area within which the resealable adhesive layer has a gap.

[0059] The reduction in adhesion may be caused by applying a deadening agent such as an ink, a lacquer or a powder to a predetermined area of the resealable adhesive layer so that the adhesive force of this area is deadened to a desired degree. It is also possible to apply the deadening agent by pattern printing to obtain a gradient of an increasing or decreasing adhesive force in at least one direction of the adhesion-reduced area. Thus, the force required to peel off the resealable closing element from the insert element can be adjusted.

[0060] In another preferred embodiment, the adhesion-reduced area between the inner side of the resealable closing element and the outer surface of the insert element may be realized by applying a release layer, e.g. a varnish containing a release agent, like silicone or the like, on the corresponding outer surface of the insert element. Accordingly, the resealable adhesive on the inner side of the resealable closing element covers the area

of the inner side of the closing element provided for the adhesion-reduced area and its adhesive force is not reduced in any way.

[0061] The handling portion can also be used to be firmly attached to a lid of a container for consumer goods so that when the lid is opened, the resealable closing element is also removed from the access opening and uncovers it. When the lid is closed, the fixed attachment of the resealable closing element to the lid causes the closing element to be pulled back so that the access opening is recovered. For this purpose, the end section of the resealable closing element opposite the hinge portion may be provided with a permanent adhesive, which is then used to attach the closing element to the inside of the lid.

[0062] In yet another preferred embodiment, a masking element may be provided on an inner side of the resealable closing element facing the access opening, wherein preferably the masking element at least substantially fully covers the access opening.

[0063] The surface area of the masking element may preferably be larger than the surface area of the access opening and smaller than the surface area of the resealable closing element. On the one hand, this ensures that the resealable closing element is attachable along the entire circumference of the access opening and on the other hand, that the consumer goods are protected against the resealable adhesive layer coated on the inner side of the resealable closing element.

[0064] Preferably, the surface area of the masking element may overlap the periphery of the access opening by 0.5 to 1 mm.

[0065] The masking element for protecting the consumer goods against a contamination with the resealable adhesive adheres to the resealable adhesive layer on the inner side of the resealable closing element. The shape of the masking element preferably corresponds to the shape of the access opening projected into a plane and the shape of the resealable closing element. This masking element serves as a protective layer between the adhesive layer and the consumer goods.

[0066] The masking element, which is preferably plane, can be made of a variety of materials such as PET-, PP-, PE-, PO-, cellophane-, acetate-films, or paper, or even laminates of aluminium foil and paper or plastic.

[0067] Preferably, the masking element is of a transparent material, whereby the inner side of the first resealable adhesive layer remains visible to the customer when the first resealable adhesive layer is peeled off or detached from the outer surface of the insert element.

[0068] In order to avoid any detachment of the masking element from the resealable adhesive layer the flexibility of the masking element has to be high enough. This can be achieved by using very thin materials such that the masking element is able to follow the movement or shaping of the resealable closing element when peeled off or detached. A low thickness provides a high flexibility of

the masking element which in turn may supersede an additional permanent adhesive layer between the resealable closing element and the masking element.

[0069] Besides the high flexibility required, a sufficient bonding between the resealable adhesive layer and the masking element is necessary. Therefore, either the surface tension or the coating of masking element has to be suitable. To increase the bonding, typical surface treatments, like corona or plasma treatment, or other methods, like the application of a top coating or a primer, can be applied. The resealable closing element and/or the masking element are preferably resistant to hostile environmental impacts, like high humidity or high ambient temperature.

[0070] Additionally or alternatively, a permanent adhesive layer is arranged between the resealable closing element and the masking element for permanently attaching the masking element to the inner side of resealable closing element. This may be an option to additionally secure the position of the masking element on the inner side of the resealable closing element.

[0071] Preferably, the resealable closing element and/or the masking element may be printed on at least one side.

[0072] In case of multi-layered resealable closing element, the inner sides of the layers may be printed forming a sandwich print.

[0073] The printing may be performed by flexo printing, rotogravure, offset printing, etc.

[0074] The printing can also be done by screen printing, letterpress printing or any other common printing technique.

[0075] In a further preferred embodiment, the at least one rigid layer for the manufacturing of an insert element may comprise a plurality of material layers laminated upon each other, wherein the lamination between the material layers is omitted in the area intended to be the access opening. The rigid layer may for example comprise a cardboard layer of 250g/m² which is to form the inner surface of the insert element and a metallized paper of 80 g/m² which is to form the outer surface of the insert element, wherein the metallized layer of the metallized paper is arranged between the paper and the cardboard layer. The paper layer and the cardboard layer are laminated together except in the area of the access opening. After covering the metallized paper in the area of the access opening by a resealable closing element and after preparing the access opening from the cardboard layer side, the blanked or die-cut part of the cardboard layer inside the access opening is removed, while the corresponding part of the paper layer adheres to resealable closing element. Hence, the die-cut part of the metallized paper layer forms a masking element, wherein the paper's metallized layer faces the inside of the insert element. The advantage of this embodiment is that the masking element does not have to be added as an additional element to the production process of the insert element.

[0076] In another preferred embodiment, the front wall, the top wall, the side walls and the rear wall of the insert element may be at least partially covered by at least one adhesive covering element at least partially surrounding the resealable closing element. Hence, the resealable closing element is embedded in the adhesive covering element and both elements together cover partially or even fully all walls of the outer surface of the insert element. Consequently, the outer surface of the insert element has a homogeneous or uniform appearance and a full-surface protective barrier in the area of the covered walls. Preferably, the resealable closing element and the adhesive covering element may either be separated or at least partially connected along the borderline of the resealable closing element which is adjacent to the hinge portion on the rear wall of the insert element.

[0077] Furthermore, the thickness and accordingly, the weight of the insert element may be reduced due to the reinforcement of the full-surface coverage of the resealable closing element and adhesive covering element. Accordingly, the inner material portions of the side walls are not covered by the adhesive covering element.

[0078] Alternatively, the adhesive covering element may at least partially cover only the front, top, and rear wall, whereby the side walls of the insert element are not additionally covered.

[0079] Preferably, a primer layer may be arranged between the adhesive covering element and the outer surface of the insert element to increase the bonding of the resealable adhesive layer therebetween. The adhesive covering element can also be applied to the outer surface of the insert element by means of a permanent adhesive.

[0080] The object of the present invention can further be solved by a supply roll onto which plane insert element blanks configured to be folded and assembled to form box-shaped insert elements and to be attached to a container for consumer goods as described above are wound up.

[0081] To be folded and to be assembled means that all walls of the insert element are arranged in a common plane.

[0082] Before folding the walls according to preferably creased folding lines, the individual insert element blanks unwound from the supply roll have to be separated by cutting, by ripping along a prepared perforation line or the like. Afterwards, the corresponding layers of the side walls and the wings are adhered to each other by means of an adhesive to fix the folded three-dimensional body of the insert element.

[0083] The object of the present invention can further be solved by a supply stack or cassette which provides box-shaped insert elements configured to be inserted into a box-shaped container. The insert elements are stored, stacked or the like in the supply stack preferably in a finished condition or ready to use, wherein they are preferably individually extractable or removable from the supply stack. Due to the provision of completed or finished insert elements to manufacturing process of con-

tainers, such as cigarette packs, the manufacturing steps and the complexity of the manufacturing line can be reduced.

[0084] In another preferred embodiment, the insert elements provided in form of a supply roll or stack may be semi-finished, i.e. just the access openings have been die-cut, cleared, and covered by resealable closing elements, but folding lines still have to be creased in the manufacturing line and possible further die-cutting lines have to be added.

[0085] The object of the present invention can further be solved by a box-shaped container for accommodating consumer goods, like tobacco articles, the container having an inner as well as an outer surface, wherein the container may comprise an opening area for removing the consumer goods, and a box-shaped insert element adapted to be placed in the opening area of the container, wherein the box-shaped insert element comprises an access opening through which the consumer goods can be removed from the container and which is covered by a resealable closing element, and at least one attachment portion for attaching the insert element to an inner surface of the container. The insert element may be made of a material comprising at least one rigid layer. The extension of the insert element in a height direction may be at least substantially smaller than the extension of the container in the height direction.

[0086] The insert element adapted to be placed in the opening area of the container preferably corresponds and/or is formed according to the insert element described above and therefore, the container includes all the advantages associated with said insert element.

[0087] Advantageously, the container may be at least partially wrapped in a protective film. Particularly, the lower portion of the container may be protected by protective film which is wrapped said portion. The protective film may preferably be transparent. Before the first opening of the container, the protective film may be wrapped around or cover the entire container. In order to open the container, a portion of the protective film wrapped around the opening area has to be removed by means of a tearing tape.

[0088] Additionally or alternatively, the container may further comprise a box, and a liftable lid covering the insert element.

[0089] The insert element at least substantially may protrude from the box in direction of the lid, and wherein the at least one attachment portion of the insert element is attached to the inner surface of the box at least to one of the front wall, one side wall or the rear wall.

[0090] The lid may be hinged to the box at the rear wall of the container, wherein the lid is pivotable around a hinge line extending substantially perpendicular between the two side walls for opening and closing the container.

[0091] The insert element may be provided inside the container adjacent to the lid when the container is in a closed state such that the access opening of the insert element faces the front wall and the top wall of the lid.

[0092] The lid may also be slid on the insert element attached to the inner surface of the box, i.e. the lid and the box are not connected to each other. Therefore, the outer circumferential dimension of the insert element has to perfectly fit the inner circumferential dimension of the lid.

[0093] In a preferred embodiment, the resealable closing element may be permanently attached to the inner surface of the front wall of the lid such that the resealable closing element automatically uncovers and recovers the access opening of the insert element when the container is opened and reclosed.

[0094] In general, two types of uncovering and recovering the access opening of an insert element provided inside a container having a pivotable lid are possible.

[0095] The first type of uncovering is manual. After opening the container by pivoting its lid, the resealable closing element is manually peeled off the insert element by means of the customer's fingers in that the customer initially grabs the resealable closing element at its handling portion and then peels off the closing element in the direction of opening movement of the lid.

[0096] In case of a manually detachable resealable closing element, both the inner and the outer side of the resealable closing element are visible to the customer which has to be taken into account in view of printing, decorating and layer material selection.

[0097] The second type of uncovering is automatic, i.e. the resealable closing element follows the opening movement of the lid because it is attached to the inner surface of the lid by means of an additional, permanent adhesive layer on an area of the outer side of the resealable closing element which is adjacent to the borderline at which the adhesion-reduced area is provided as also already described above. The additional, permanent adhesive layer may preferably be applied when the container is completely assembled.

[0098] If the resealable closing element is to be peel off automatically, only the inner side of the resealable closing element is visible to the customer.

[0099] In another preferred embodiment, the container may further comprise a flexible packaging sleeve provided inside the container, wherein the flexible packaging sleeve and the insert element together form an at least substantially closed casing accommodating the consumer goods.

[0100] The flexible packaging sleeve inside a container preferably accommodates a lower portion of the consumer goods. The flexible packaging sleeve may preferably be closed on one side which is adjacent to the bottom wall of the container.

[0101] The flexible packaging sleeve may preferably comprise at least one material liner made of a paper and/or an aluminium layer into which the consumer goods are wrapped to protect them against humidity and drying. This flexible packaging sleeve may preferably cover only the portion of the consumer goods below the insert element. Further preferably, the flexible packaging

sleeve is affixed to one or more walls of the container and/or the insert element.

[0102] Preferably, a total height of the closed casing may correspond at least substantially to an inner height of the container. Thus, the maximal space inside the closed casing is available for the consumer goods and no space is wasted between the closed casing and the container.

[0103] The object of the present invention can finally be solved by a method for manufacturing a box-shaped insert element for insertion into a box-shaped container for accommodating consumer goods, like tobacco articles, wherein the method comprises the steps of:

- die-cutting a contour of a plane insert element blank;
- die-cutting an access opening in the plane insert element blank;
- removing die-cut part from inside the access opening;
- creasing folding lines;
- applying at least a resealable closing element to a side of the plane insert element blank forming an outer surface of the insert element, wherein the access opening is at least substantially fully covered by the resealable closing element.

[0104] Preferably, the method further comprises the steps of:

- unwinding at least a first feedstock web of a rigid material from a first supply roll;
- unwinding at least a second feedstock web of a metallized layer from a second supply roll;
- laminating the first and the second feedstock web;
- printing at least one side of the insert element blank and/or the resealable closing element; and
- winding up the finished web comprising a plurality of completed, concatenated and preferably uniform insert elements blanks onto a third supply roll.

[0105] Completed means that the insert elements blanks unwound from a supply roll in a manufacturing line for manufacturing containers, such as cigarettes, do just require the following processing steps to be transformed into an insert element according to the present invention:

- separating the individual insert element blanks;
- folding the plane insert element blank to form a box-shaped insert element; and
- joining the corresponding walls of the box-shaped insert element to fix the three-dimensional insert element.

[0106] In the following, further advantages and embodiments of the present invention are described in conjunction with the attached drawings. Thereby, the expression "left", "right", "below"/"down", and "above"/"top" are re-

ferred to the drawings in an orientation of the drawings which allows the normal reading of the reference signs. The drawings should not necessarily represent the forms of execution to scale. Rather, the drawings, where useful for explanation, are executed in schematic and/or slightly distorted form. The invention's features revealed in the description, in the drawings, and in the claims may be essential for any continuation of the invention, either individually or in any combination. The general idea of the invention is not limited to the exact form or detail of the preferred embodiments shown and described below or to a subject-matter which would be limited in comparison to the subject-matter of the claims. For the sake of simplicity, identical or similar parts or parts with identical or similar functions are hereinafter referred to by the same reference signs.

[0107] In the drawings:

- Fig. 1 shows a perspective view of an insert element according to the present invention;
- Fig. 2 shows a top view of an unfolded and disassembled insert element blank without a resealable closing element according to the present invention;
- Fig. 3 shows a top view of an insert element blank according to the present invention;
- Fig. 4 shows a top view of another insert element blank covered by a resealable closing element and an adhesive covering element according to the present invention; and
- Fig. 5 shows a perspective view of a container according to the present invention.

Detailed description

[0108] In Fig. 1, an insert element 10 according to the present invention is shown. Insert element 10 is adapted to be inserted into a box-shaped or cuboid-shaped container C for accommodating consumer goods, like tobacco articles (e.g. cigarettes), to cover an opening area O of container C as it will be explained below in more detail in connection with Fig. 4.

[0109] Insert element 10 has a front wall 12 extending vertically in Fig. 1, a rear wall 14 (not shown in Fig.1) opposite and parallel to front wall 12, two side walls 16, 18 also extending vertically, in relation to Fig. 1, as well as arranged parallel to each other and connecting front wall 12 with rear wall 14, and a top wall 20. A bottom wall is not provided as the cavity of box-shaped insert element 10 defined by front and rear walls 12, 14, side walls 16, 18 and top wall 20 is thus connected to the interior volume of container C. Front wall 12, rear wall 14, side walls 16, 18 and top wall or ceiling wall 20 together also form a cuboid or box, the respective walls 12 to 20 being

integrally connected to the adjacent wall at an angle of at least approximately 90°.

[0110] A height direction H of insert element 10 is perpendicular to top wall 20 and parallel to front wall 12, rear wall 14 and both side walls 16, 18. A width direction W of insert element 10 is perpendicular to height direction H and to both side walls 16, 18, while a depth direction D of insert element 10 is perpendicular to height direction H and width direction W.

[0111] For orientation purposes, height, width, and depth direction H, W, D of insert element 10 are indicated in all figures. For reasons of presentation, the surface areas of walls 12, 14, 16, 18, 20 in Figs. 1 and 4 do not correspond to that in Figs. 2 and 3.

[0112] In Fig. 1, one of two lateral wings 30, 32 is indicated which laterally protrude from top wall 20 into height direction H inside insert element 10. Both wings 30, 32 are configured to stabilize assembled insert element 10.

[0113] Side walls 16, 18 each comprise two material portions 34, 36, 38, 40, as shown in Figs. 2 and 3, of which material portions 34, 36 are connected to front wall 12 and material portions 38, 40 are connected to rear wall 14. Material portions 34, 38 and respectively, material portions 36, 40 overlap each other if insert element 10 is folded and assembled as shown in Fig. 1. Wings 30, 32 may each be joint with either one or both of the corresponding material portions 34, 36, 38, 40. It is also possible that each of side walls 16, 18 comprises only one material portion 34, 38 or 36, 40, respectively, wherein this only one material portion per side wall 16, 18 can be connected to front wall 12 or rear wall 14.

[0114] At the lower edges of side wall 16 of insert element 10 shown in Fig. 1, attachment portion 29 in form of an attachment strip is provided by which insert element 10 can be attached to the inner surface of the corresponding side wall of container C so that insert element 10 does not move any further inside container C once inserted into container C. Attachment portion 29 can also be provided on front wall 12, rear wall 14, or side wall 18. But it is also possible to provide a plurality of attachment portions 29 on at least one of front wall 12, rear wall 14, and side walls 16, 18. Attachment portion 29 can have any shape or form suitable for attaching insert element 10 to the inner surface of container C. Attachment portion 29 can also pass over at least one edge or borderline between to neighbouring walls of insert element 10. It is also conceivable that attachment portion 29 forms a closed circulation around the lower edge of insert element 10.

[0115] In Fig. 1, in the area of front wall 12 and top wall 20 of insert element 10, an access opening 22 is provided which, in a two-dimensional projection, forms a rectangular area as shown in Fig. 2.

[0116] Access opening 22 is covered by a resealable closing element 24 in such a way that access opening 22 can be uncovered to remove the consumer goods from container C and recovered again. Thus, the con-

sumer goods contained in container C are not exposed to harmful environmental influences which could, for example, cause the consumer goods to dry out.

[0117] Referring to Fig. 2, access opening 22 is arranged centrally referred to width direction W, i.e. the distance between access opening 22 and side walls 16, 18 formed from material portions 34, 36, 38, 40 is at least substantially equal. Furthermore, access opening 22 is completely enclosed by the material of front wall 12 and top wall 20, wherein the distance between a folding line 48, which is arranged at the borderline or edge between top wall 20 and rear wall 14, and access opening 22 is preferably smaller than the distance between access opening 22 and the upper or top borderline of front wall 12. Preferably, the surface portions of access opening 22 provided in front wall 12 and top wall 20 are at least substantially equal. Access opening 22 can also extend to folding line 48 in the downwards direction such that access opening 22, referred to Fig. 2, is only surrounded left, right, and above by material of top and front wall.

[0118] Insert element 10 is made of a material that includes at least one stiff or rigid layer. For example, insert element 10 can be made of a cardboard material or a plastic material, which can be provided with further layers on its top and/or bottom for decoration or other purposes. To provide a starting product for insert element 10, a two-dimensional blank B is die-cut of a sheet of cardboard material or plastic material, for example, having the shape of a rectangle or a square as shown in Fig. 2. During or after the die-cutting process for producing blank B, an access opening 22 can be die-cut, whereby the die-cut part inside access opening 22 is removed, as well as the remains of the cardboard material or the plastic material that are not used for blank B.

[0119] In Fig. 2, a top view of the outer surface of two-dimensional blank B for insert element 10 is shown in an unfolded and disassembled state. Blank B has a rectangular or square shape as well as die-cut access opening 22 located centrally in relation to width direction W of blank B. In the area of top wall 20, in relation to Fig. 2, two wings 30, 32 are provided at the edge wherein each has an archway shape in the direction of the outside of blank B. The arc or archway-shape of wings 30, 32 facilitates the assembly of insert element 10.

[0120] In order to fold and assemble insert element 10 from blank B, a first pair of parallel folding lines 42, 44, which extend vertically in Fig. 2, and a second pair of parallel folding lines 46, 48, which extend horizontally in Fig. 2, are provided. Folding lines 42, 44, 46, 48 can be creased or grooved continuously or in sections along the predetermined lines.

[0121] After applying resealable closing element 24 on the surface of blank B which is intended to be the outer surface of insert element 10 as shown in Fig. 3, material portions 34, 36, 38, 40 and wings 30, 32 are folded along folding lines 42, 44 by about 90° in the direction pointing into the plane of Fig. 3. Subsequently, front wall 12 and rear wall 14 are folded along folding lines 46, 48 also by

about 90° in the direction pointing into the plane of Fig. 3. After that, material portions 34, 36, 38, 40 and wings 30, 32 are affixed to each other, e.g. by means of a permanent adhesive, to fix the cuboid shape of insert element 10.

[0122] In the following, details of resealable closing element 24 are explained in connection with Figs. 1 and 3.

[0123] In Fig. 1, resealable closing element 24 is at least partially detached from insert element 10 uncovering access opening 22. In particular, a resealable portion 26 of resealable closing element 24 is detached from front wall 12 and top wall 20, while a hinge portion 25 (shown in Fig. 3) is permanently attached to rear wall 14 and prevents a complete detachment of resealable closing element 24 from insert element 10. The detachment of resealable closing element 24 can be introduced and controlled by means of a handling portion 28 comprising an adhesion-reduced area on the inner side of resealable closing element 24 facing access opening 22.

[0124] In the top view of blank B presented Fig. 3, resealable closing element 24 is applied to blank B, wherein resealable closing element 24 fully covers access opening 22. Resealable closing element 24 partially covers front wall 12, rear wall 14, and top wall 20. Resealable closing element 24 has a rectangular shape and is preferably made of a flexible film material. The size of resealable closing element 24 is such that it covers access opening 22 of insert element 10 on all four side edges of access opening 22. As also shown in Fig. 3, resealable closing element 24 extends from front wall 12 over top wall 20 to rear wall 14. Resealable closing element 24 is provided on blank B with a distance to each edge of blank B wherein the dimensions of blank B and resealable closing element 24 in relation to width direction W are matched to one another in such a way that resealable closing element 24 is positioned centrally, like access opening 22.

[0125] Hinge portion 25 which, referred to Fig. 3, is provided at the lower end portion of resealable closing element 24 and extends preferably exclusively in the area of rear wall 14 in width direction W over the full width of resealable closing element 24. Hinge portion 25 is permanently fixed to the outer surface of rear wall 14, e.g. via a permanent adhesive which is provided on the inner side of resealable closing element 24 facing the outer surface of rear wall 14. Hinge portion 25 of resealable closing element 24 prevents a complete detachment of resealable closing element 24 when uncovering access opening 22.

[0126] Handling portion 28 of resealable closing element 24 is provided, referred to Fig. 3, between the upper borderline of access opening 22 and the upper borderline of resealable closing element 24 and opposite to hinge portion 25 such that a full circulation of resealable portion 26 around access opening 22 still remains. Handling portion 28 extends preferably exclusively in the area of front wall 12 in horizontal direction, also in relation to Fig. 3, over the full width of resealable closing element 24.

[0127] On resealable closing element 24, between hinge portion 25 and handling portion 28, there is provided resealable portion 26 which is coated with a resealable adhesive layer on the inner side of resealable closing element 24 facing access opening 22, wherein the resealable adhesive layer can also extend in the area of handling portion 28.

[0128] Using handling portion 28, a customer can grasp resealable closing element 24 and lift it off access opening 22 or return it so that resealable closing element 24 covers access opening 22 again. For this purpose, handling portion 28 is on its inner surface side facing front wall 12 provided with an adhesion-reduced area. Due to the adhesion-reduced area the force initially needed to overcome the adhesive resistance exerted by the adhesive bond between resealable adhesive layer and the outer surface of insert element 10, when resealable closing element 24 fully adheres to or is fully attached to the outer surface of insert element 10, is reduced. The reduction in adhesion may be a reduction to zero, i.e. adhesive-free, so that a customer grabbing resealable closing element 24 at its handling portion 28 does not contaminate his fingers with resealable adhesive. In case that only resealable portion 26 is coated with a resealable adhesive layer, handling portion 28 is already reduced in adhesion to zero, i.e. adhesive-free.

[0129] A masking element 27 may preferably be arranged between blank B and the inner side of resealable closing element 24 facing access opening 22, wherein the surface area of masking element 27 is equal or even slightly larger than the surface area of access opening 22 but smaller than the surface area of resealable closing element 24. Access opening 22, masking element 27, and resealable closing element 24 are of the same rectangular shape. Masking element 27 ensures that consumer goods accommodated inside insert element 10 do not come into contact with resealable portion 26 when resealable closing element 24 covers access opening 22.

[0130] The outer dimensions of cuboid-shaped or box-shaped insert element 10 are sized such that they correspond at least approximately to the inner dimensions of box-shaped container C, i.e. the circumference along front wall 12, rear wall 14, and side walls 16, 18 of insert element 10 at least substantially corresponds to the corresponding circumference inside container C, so that insert element 10 can be inserted or pushed via opening area O into the interior of container C and fixed there on at least one inner surface of container C. Insert element 10 is pushed or inserted into container C to such an extent that outer surface portions of at least one of the walls of insert element 10, i.e. front wall 12, rear wall 14 or one of side walls 16, 18, in the region of the non-existent bottom wall of insert element 10 at least partially overlap with at least one of the corresponding inner surfaces of container C. Of course, two, three or all four walls 12 to 18 of insert element 10 can also overlap with corresponding inner surfaces of container C; at least one of walls 12 to 18 of insert element 10 has to overlap with at least one

of the corresponding inner surfaces of container C to ensure that the position of insert element 10 inside container C can be fixed.

[0131] In Fig. 4, another embodiment of a two-dimensional blank B for insert element 10 is shown. The surface of blank B intended to be the outer surface of insert element 10 is covered by resealable closing element 24 (dotted pattern) sealing access opening 22 and a adhesive covering element 49 (diagonally hatched pattern), wherein adhesive covering element 49 covers front wall 12, top wall 20, rear wall 14, and material portions 34, 36. The hatched and dotted pattern is used in Fig. 4 to make it easier to distinguish both closing elements 24, 49 from each other. Both closing elements 24, 49 can be of the same material or of different ones. Resealable closing element 24 and adhesive covering element 49 can either be fully separated, as shown in Fig. 4, or at least partially connected along a borderline 50 on rear wall 14. Thus, resealable closing element 24 is embedded in adhesive covering element 49 by what the outer surface of insert element 10 gets a homogeneous or uniform appearance and a full-surface protective barrier in the area of covered walls 12 to 20.

[0132] In Fig. 5, a container C is shown in an opened state, i.e. a lid 51 has been pivoted rearwards uncovering the inner volume of container C. Container C comprises an insert element 10 according to the present invention inserted into opening area O. Container C comprises a box 53 and lid 51. Lid 51 is pivotable around a hinge line 55 extending in width direction W on the rear wall of container C.

[0133] The directions H, W, D defined for insert element 10 in Fig. 1 do also apply for container C. Moreover, the expressions "front wall", "rear wall", "top wall" and "side wall" specified for insert element 10 apply accordingly to container C, box 53, and lid 51.

[0134] Insert element 10 is arranged at the upper end of box 53 covering opening area O of box 53, wherein at least a lower portion of insert element 10 is arranged inside box 53 and affixed by means of attachment portions 29a, 29b, which can be covered by a permanent adhesive layer, to at least one of the inner surfaces of the walls of box 53.

[0135] Inside box 53, a flexible packaging sleeve 57 or inner liner (not shown) for accommodating a lower portion of the consumer goods can be provided. Flexible packaging sleeve 57 may preferably be closed on side facing the bottom wall of box 53. Preferably, flexible packaging sleeve 57 lies against or touches the inner surface of box 53. Flexible packaging sleeve 57 is affixed to one or more walls of box 53 and/or insert element 10.

[0136] Flexible packaging sleeve 57 and insert element 10 form an at least substantially completely enclosing casing around the consumer goods whose height preferably corresponds to the inner height of container C such that the maximal space inside the casing is available for consumer goods.

[0137] In Fig 5, an automatic uncovering and recover-

ing of access opening 22 is presented. Resealable closing element 24 is attached to the inner surface of lid 51 by means of an additional, permanent adhesive layer at handling portion 28 on the outer side of resealable closing element 24. Consequently, resealable closing element 24 follows the opening and closing movement of lid 51 when lid 51 is pivoted around hinge line 55. Hence, resealable closing element 24 forms a convex curve or S-curve when being detached from insert element 10. In order to further support the forming of a S-curve it is of advantage if resealable closing element 24 is not only permanently affixed to rear wall 14 but also partially to a small portion of top wall 20 adjacent to the edge between top wall 20 and rear wall 14.

Claims

1. A box-shaped insert element (10) for insertion into a box-shaped container (C) for accommodating consumer goods, like tobacco articles, the container (C) having an inner as well as an outer surface and an opening area (O) for removing the consumer goods, wherein the box-shaped insert element (10) is adapted to be placed in the opening area (O) of the container, and wherein the box-shaped insert element (10) comprises:

- an access opening (22) through which the consumer goods can be removed from the container (C) and which is covered by a resealable closing element (24); and
- at least one attachment portion (29a, 29b) for attaching the insert element (10) to an inner surface of the container (C),

wherein the insert element (C) is made of a material comprising at least one rigid layer, and wherein the extension of the insert element (10) in a height direction (H) is at least substantially smaller than the extension of the container (C) in the height direction (H).

2. The box-shaped insert element (10) according to claim 1, wherein the box-shaped insert element (10) has at least a front wall (12), a rear wall (14), two side walls (16, 18), and a top wall (20), and wherein preferably the top wall (20) has at least one lateral wing (30, 32) at least substantially perpendicularly protruding in the direction of the side walls (16, 18).
3. The box-shaped insert element (10) according to claim 1 or 2, wherein the access opening (22) is formed at least partially in the front wall (12) of the insert element (10) and in the top wall (20) of the insert element (10), wherein the material of the top wall (20) and the front wall (12) forms an at least substantially continuous circulation around the ac-

cess opening (22) on at least three sides of the access opening (22).

4. The box-shaped insert element (10) according to one of the preceding claims, wherein the at least one rigid layer is made of cardboard and/or plastic.
5. The box-shaped insert element (10) according to one of the preceding claims, wherein the material of the insert element (10) comprising at least one rigid layer is a laminate additionally comprising at least one metallized layer and/or a varnishing to form a gas and/or water steam barrier.
6. The box-shaped insert element (10) according to one of the preceding claims, wherein the resealable closing element (24) has a hinge portion (25) at least substantially permanently attached to the rear wall (14) of the insert element (10), a resealable portion (26) resealably attached to at least substantially the front wall (12) and the top wall (20), and a preferably adhesion-reduced handling portion (28) to uncover and recover the access opening (22).
7. The box-shaped insert element (10) according to one of the preceding claims, wherein a masking element (27) is provided on an inner side of the resealable closing element (24) facing the access opening (22), wherein preferably the masking element (27) at least substantially fully covers the access opening (22).
8. The box-shaped insert element (10) according to one of the preceding claims, wherein the front wall (12), the top wall (20), the side walls (16, 18) and the rear wall (14) of the insert element (10) are at least partially covered by at least one adhesive covering element at least partially surrounding the resealable closing element (24).
9. A supply roll onto which plane insert element blanks (B) configured to be folded and assembled to form box-shaped insert elements (10) according to one of the preceding claims are wound up.
10. A supply stack which provides box-shaped insert elements (10) according to one of the preceding claims configured to be inserted into a box-shaped container (C).
11. A box-shaped container (C) for accommodating consumer goods, like tobacco articles, the container (C) having an inner as well as an outer surface, wherein the container (C) comprises:
 - an opening area (O) for removing the consumer goods; and
 - a box-shaped insert element (10) adapted to be placed in the opening area (O) of the con-

tainer (C), and wherein the box-shaped insert element (10) comprises:

- an access opening (22) through which the consumer goods can be removed from the container (C) and which is covered by a resealable closing element (24); and
- at least one attachment portion (29a, 29b) for attaching the insert element (10) to an inner surface of the container (C),

wherein the insert element (10) is made of a material comprising at least one rigid layer, and wherein the extension of the insert element (10) in a height direction (H) is at least substantially smaller than the extension of the container (C) in the height direction (H).

12. The box-shaped container (C) according to claim 11, wherein the container (C) further comprises:

- a box (53); and
- a liftable lid (51) covering the insert element (10);

wherein the insert element (10) at least substantially protrudes from the box (53) in direction of the lid (51), and wherein the at least one attachment portion (29a, 29b) of the insert element (10) is attached to the inner surface of the box (53) at least to one of the front wall (12), one side wall (16, 18) or the rear wall (14).

13. The box-shaped container (C) according to claims 11 or 12, wherein the resealable closing element (24) is permanently attached to the inner surface of the front wall of the lid such that the resealable closing element (24) automatically uncovers and recovers the access opening (22) of the insert element (10) when the container (C) is opened and reclosed.

14. The box-shaped container (C) according to one of claims 11 to 13, wherein the container (C) further comprises a flexible packaging sleeve (57) provided inside the container (C), wherein the flexible packaging sleeve (57) and the insert element (10) together form an at least substantially closed casing accommodating the consumer goods.

15. A method for manufacturing a box-shaped insert element (10) for insertion into a box-shaped container (C) for accommodating consumer goods, like tobacco articles, wherein the method comprises the steps of:

- die-cutting a contour of a plane insert element blank (B);
- die-cutting an access opening (22) in the plane

insert element blank (B);

- removing die-cut part from inside the access opening (22);
- creasing folding lines (42, 44, 46, 48); and
- applying at least a resealable closing element (24) to a side of the plane insert element blank (B) forming an outer surface of the insert element (10), wherein the access opening (22) is at least substantially fully covered by the resealable closing element (24).

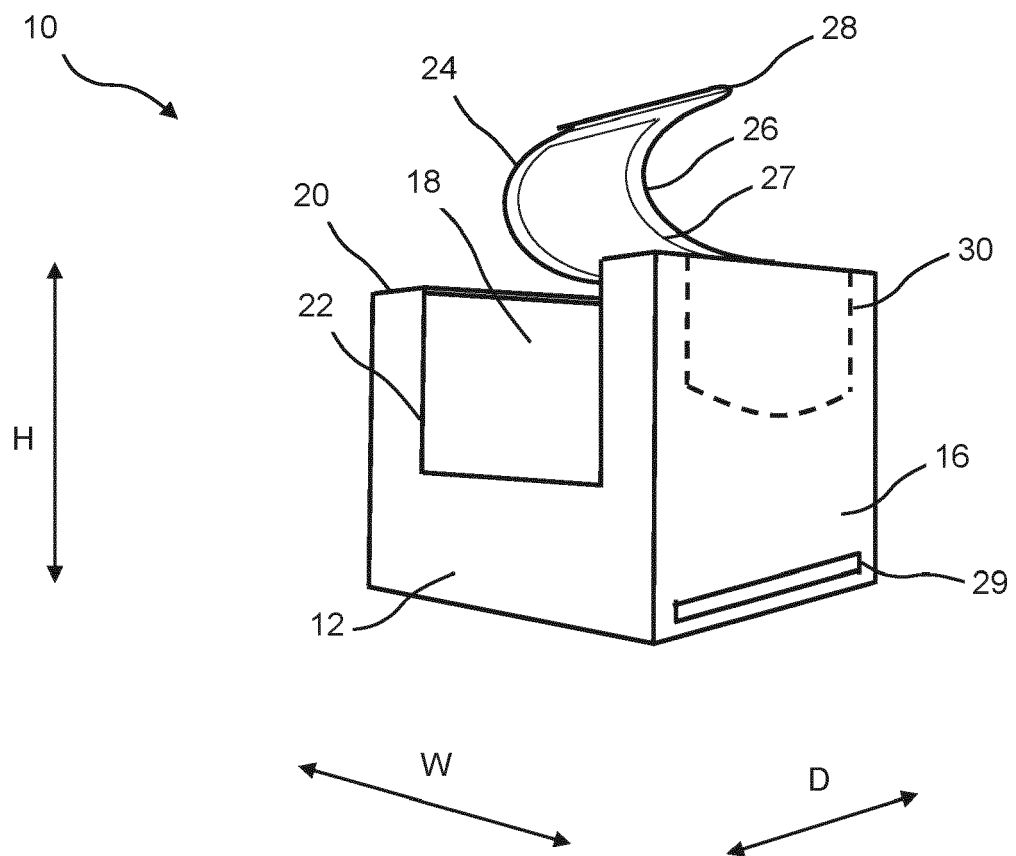


Fig. 1

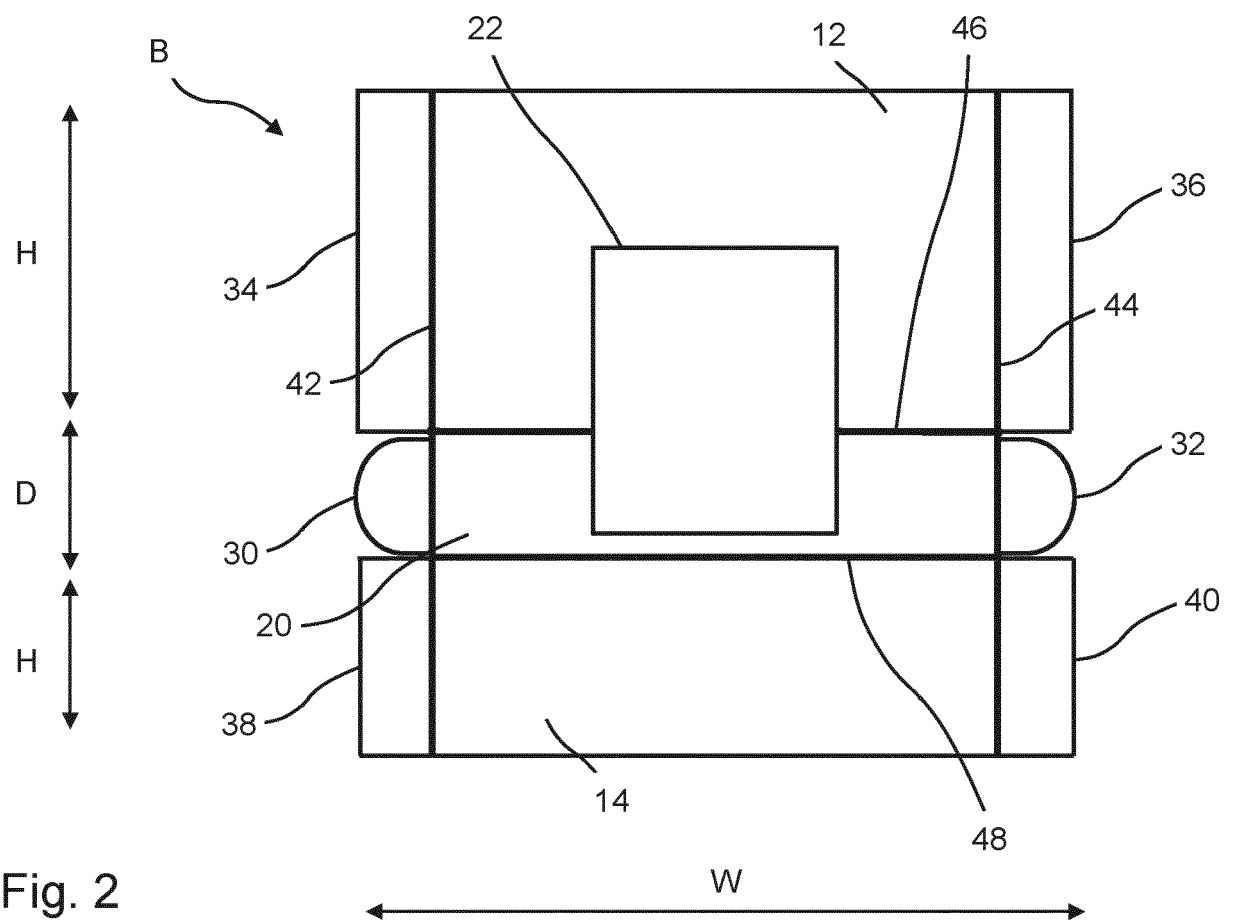
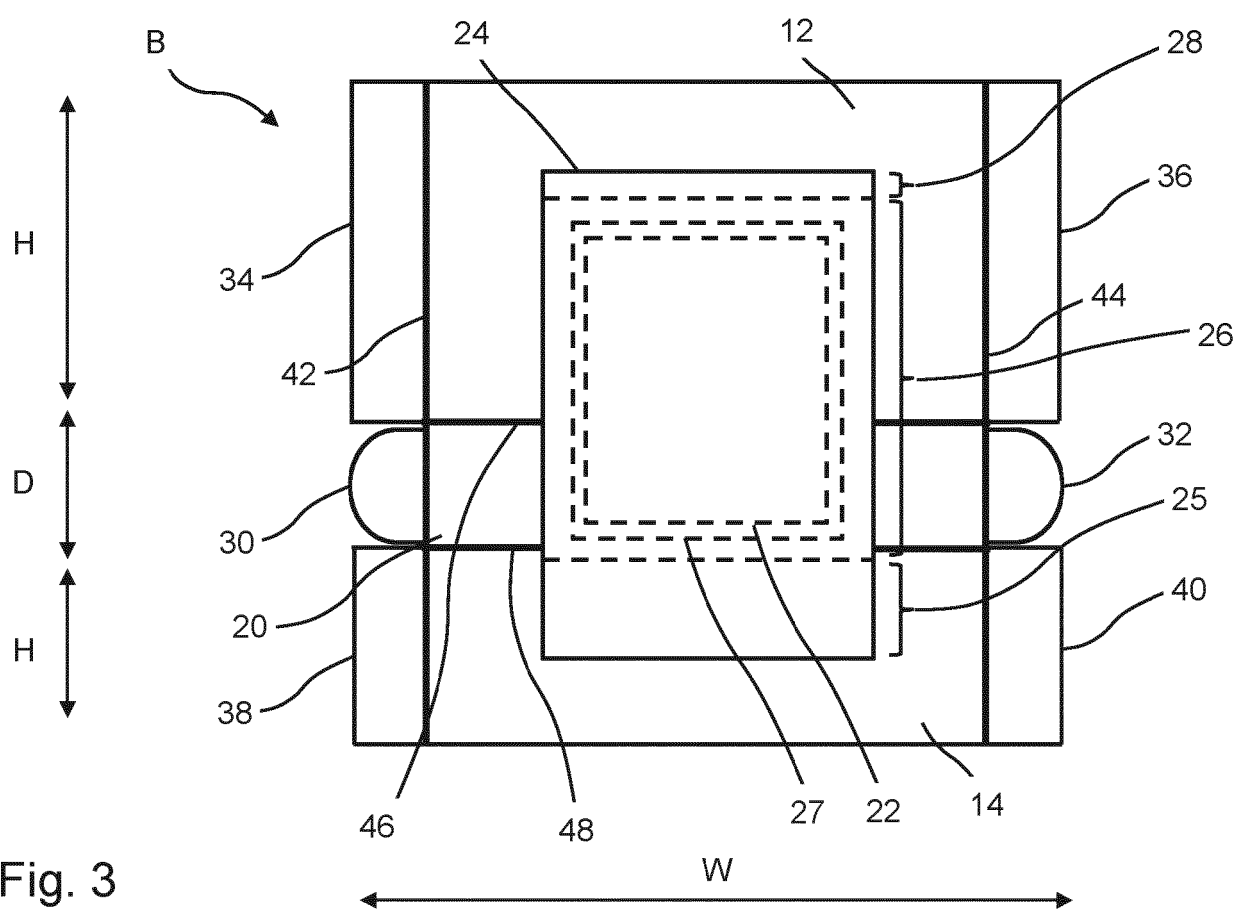
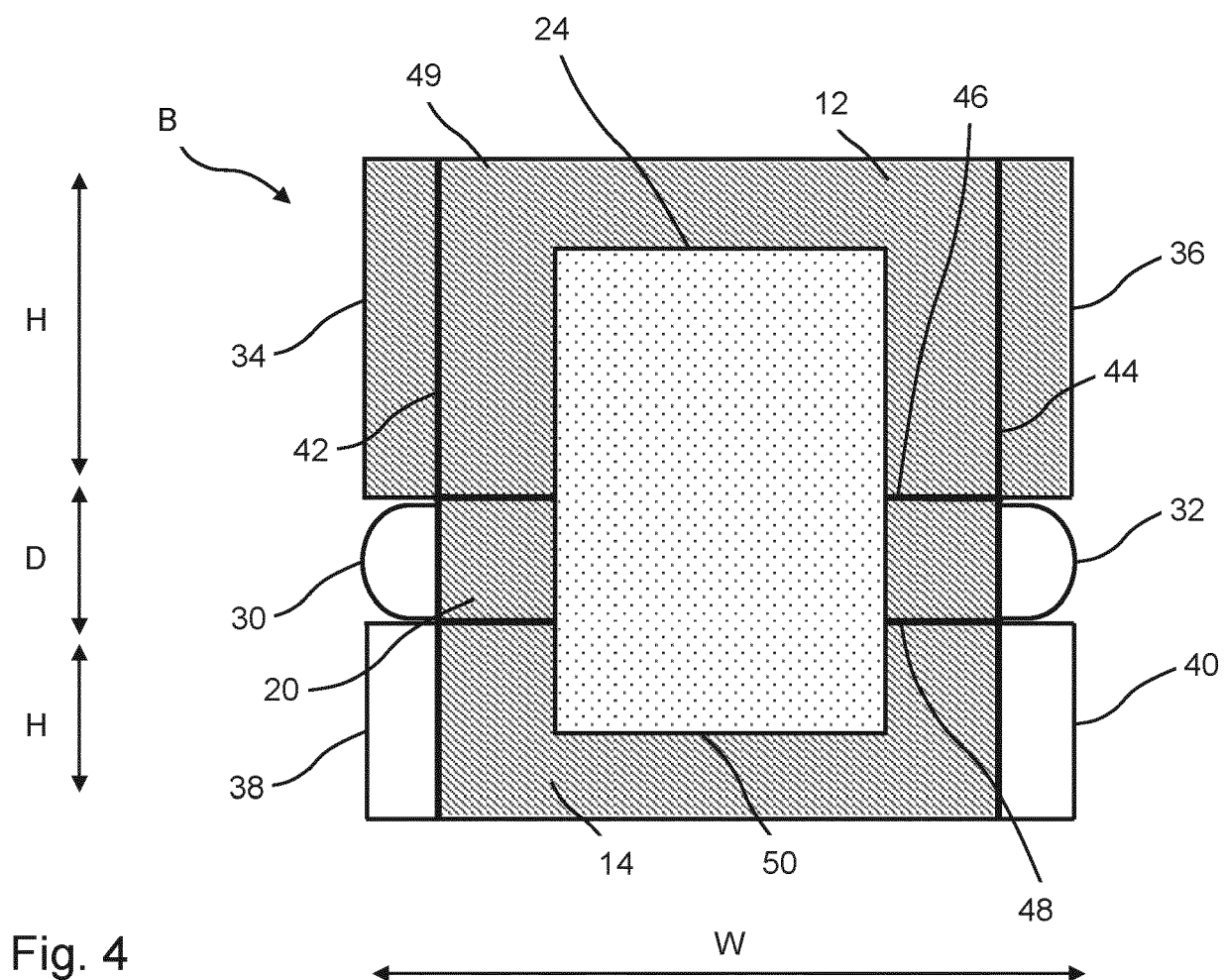


Fig. 2





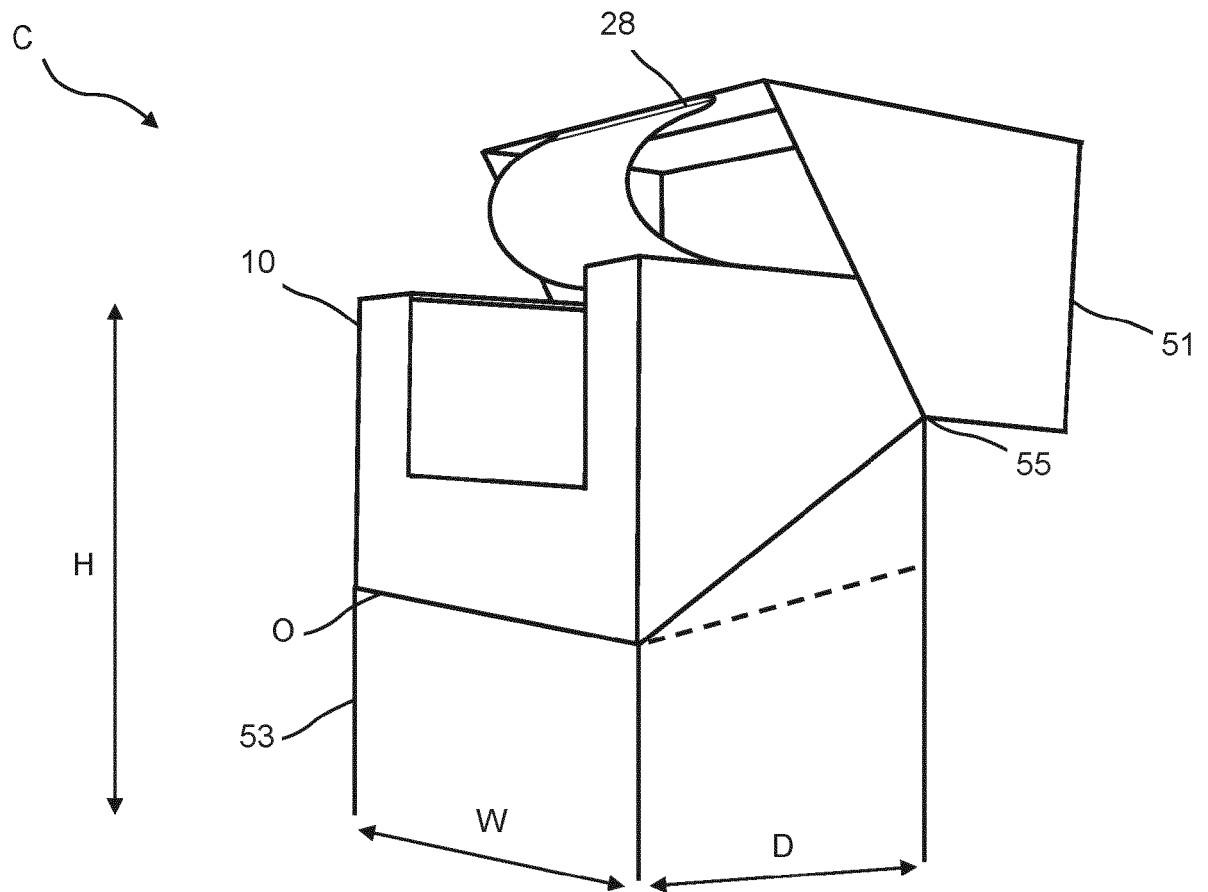


Fig. 5



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