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(54) **PACKAGING BOX**

(57) This application relates to the field of article packaging technologies, and in particular, to a packing box. The packing box provided in this application includes an inner box and an outer box, where an inner wall of the outer box is provided with a first abutting portion, an outer side wall of the inner box is provided with an elastic protruding portion, and when the inner box is accommodated in a first accommodating cavity of the outer box, the elastic protruding portion abuts against the first abutting portion in a pull-out direction, and in this case, the packing box is in a locked state; and when the elastic protruding portion is pressed by using an external force, the elastic

protruding portion is staggered with the first abutting portion, so that the inner box and the outer box are in an unlocked state. A locking structure is formed by using the elastic protruding portion and the first abutting portion for the packing box, and the locking structure is relatively simple. In addition, the locked state can be released by pressing the elastic protruding portion by using a finger, and the unlock is very convenient. Because the locking structure of the packing box is arranged in the first accommodating cavity, the unlocking position is relatively concealed, which can effectively prevent children from opening by mistake.

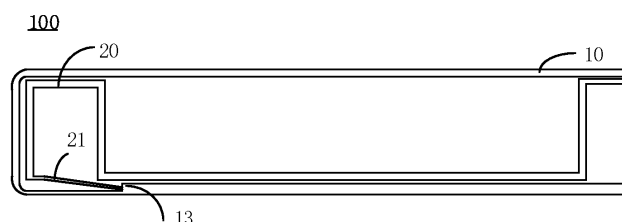


FIG. 3

Description

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application claims priority to Chinese Patent Application No. 202021176243.8, entitled "PACKING BOX" filed with the China National Intellectual Property Administration on June 22, 2020, which is incorporated herein by reference in its entirety.

TECHNICAL FIELD

[0002] Embodiments of this application relate to the field of article packaging technologies, and in particular, to a packing box.

BACKGROUND

[0003] According to the conventional concept, the function of packaging is to protect goods, facilitate transportation, and promote sales. In the design of a packaging structure, most merchants focus on the requirements for convenience, and due to costs, many manufacturers often do not pay enough attention to the consideration of packaging safety. In addition, many consumers have a lack of awareness that opening-proof drug bottle packaging should be used in drugs and health care products, and at the time of purchase, the consumers pay more attention to the price of products and the convenience of use and have a serious lack of awareness of the safety of product packaging.

[0004] Due to the immaturity of children's cognitive ability and behavior control ability, children often open the packaging of drugs or chemical products due to improper monitoring. Children's safety packaging is a kind of packaging used for children's safety, and a special locking structure of the packaging makes it difficult for children under five years old to open the packaging or take out articles in the packaging within a certain period of time, but it is not difficult for normal adults to open the packaging.

[0005] In a process of implementing this application, the inventor found that in the prior art, an opening position of a locking structure in lockable packaging is relatively exposed, and the position of the locking structure has relatively weak elasticity, and a protection function is not strong. In addition, the locking structure in the existing packaging still has problems such as complex structure and large size.

SUMMARY

[0006] To overcome the defects in the prior art existing in a lockable package that an opening position is exposed relatively and a locking structure is relatively complex, and the technical problem to be resolved by embodiments of this application is to provide a packing box with a relatively simple structure and a relatively concealed

opening position of a locking structure.

[0007] To resolve the foregoing technical problem, a technical solution adopted in the embodiments of this is as follows: a packing box is provided, including:

an outer box, where the outer box is provided with a first accommodating cavity and an outer box opening in communication with the first accommodating cavity, and a first abutting portion arranged on an inner wall of the outer box; and

an inner box, accommodated in the first accommodating cavity, where the inner box is slidable in and out of the first accommodating cavity through the outer box opening, and an elastic protruding portion is arranged on an outer wall of the inner box; when the inner box is accommodated in the first accommodating cavity, the elastic protruding portion abuts against the first abutting portion, so that the inner box and the outer box are in a locked state; and when the elastic protruding portion is pressed by using an external force, the elastic protruding portion moves to the first accommodating cavity and is staggered with the first abutting portion, so that the inner box and the outer box are in an unlocked state.

[0008] Optionally, the outer box includes an outer box side wall, an inner wall of the outer box side wall is provided with a recessed portion, the recessed portion is configured to accommodate the elastic protruding portion, and a side portion of the recessed portion opposite to the elastic protruding portion forms the first abutting portion; and

the outer box side wall is provided with a first through hole, the first through hole is located in the recessed portion, and when the inner box is accommodated in the first accommodating cavity, a position of the first through hole corresponds to a position of the elastic protruding portion.

[0009] Optionally, the outer box further includes a separating plate, and the separating plate is arranged between the outer box and the inner box, and a length of the separating plate is less than a length of the outer box side wall, and the recessed portion is formed by a region on the outer box side wall that is not covered by the separating plate.

[0010] Optionally, the outer box further includes an outer box bottom wall, and the outer box bottom wall is connected to the outer box side wall;

one end of the outer box side wall away from the outer box bottom wall is provided with a notch; and/or the outer box bottom wall is provided with a second through hole.

[0011] Optionally, two elastic protruding portions are arranged on the outer wall of the inner box, the two elastic protruding portions are arranged facing away from each other, and two first abutting portions are arranged on the inner wall of the outer box; and

when the inner box is accommodated in the first accommodating cavity, the two elastic protruding portions respectively abut against the two first abutting portions.

[0012] Optionally, the inner box is provided with a second accommodating cavity, the packing box further includes an inner lining accommodated in the second accommodating cavity, the inner lining is provided with an inner cavity, and the inner cavity is configured to accommodate an article.

[0013] Optionally, the elastic protruding portion includes an elastic piece, one end of the elastic piece is connected to the outer wall of the inner box, and an other end of the elastic piece is relatively away from the outer wall of the inner box.

[0014] Optionally, the inner box includes an inner box bottom wall, and a partial region of the inner box bottom wall is cut and folds toward a direction away from the outer wall of the inner box, to form the elastic piece.

[0015] Optionally, a second abutting portion is further arranged on the inner wall of the outer box side wall, the second abutting portion is closer to the outer box opening than the first abutting portion, and the second abutting portion is configured to abut against the elastic protruding portion, to restrict a movable range of the inner box in a pull-out direction.

[0016] Optionally, the outer box side wall folds towards the first accommodating cavity at the outer box opening, to form the second abutting portion.

[0017] Beneficial effects of this embodiment of this application are as follows: different from situations in the prior art, the packing box provided in the embodiments of this application includes an inner box and an outer box, where an inner wall of the outer box is provided with a first abutting portion, an outer side wall of the inner box is provided with an elastic protruding portion, and when the inner box is accommodated in a first accommodating cavity of the outer box, the elastic protruding portion abuts against the first abutting portion, so that the packing box is in an locked state; and when the elastic protruding portion is pressed by using an external force, the elastic protruding portion is staggered with the first abutting portion, so that the inner box and the outer box are in an unlocked state. A locking structure is formed by using the elastic protruding portion and the first abutting portion for the packing box, and the locking structure is relatively simple. In addition, the locked state can be released by pressing the elastic protruding portion by using a finger, and the unlock is very convenient. Because the locking structure of the packing box is arranged in the first accommodating cavity, the unlocking position is relatively concealed, which can effectively prevent children from opening by mistake.

BRIEF DESCRIPTION OF THE DRAWINGS

[0018] One or more embodiments are exemplarily described with reference to the corresponding figures in the accompanying drawings, and the descriptions are not to

be construed as limiting the embodiments. Components in the accompanying drawings that have same reference numerals are represented as similar components, and unless otherwise particularly stated, the figures in the accompanying drawings are not drawn to scale.

FIG. 1 is a schematic structural diagram in which a packing box is in a closed state according to an embodiment of this application.

FIG. 2 is a schematic structural diagram of an outer box and an inner box when a packing box is in an opening state according to an embodiment of this application.

FIG. 3 is a cross-sectional view of a packing box according to an embodiment of this application.

FIG. 4 is a schematic structural diagram of an inner box from a perspective according to an embodiment of this application.

FIG. 5 is a cross-sectional view of an outer box according to an embodiment of this application.

FIG. 6 is a cross-sectional view of a packing box according to an embodiment of this application.

FIG. 7 is a schematic structural diagram in which a packing box is in a closed state from a perspective according to an embodiment of this application.

FIG. 8 is a schematic structural diagram of an inner lining according to an embodiment of this application.

FIG. 9 is a schematic structural diagram in which a packing box is in an opening state according to an embodiment of this application.

FIG. 10 is a cross-sectional view of a packing box according to an embodiment of this application.

DETAILED DESCRIPTION

[0019] Embodiments of this application are described in detail below, and examples of the embodiments are shown in the accompanying drawings, where the same or similar elements or the elements having the same or similar functions are denoted by the same or similar reference numerals throughout the description. The embodiments described below with reference to the accompanying drawings are exemplary and used only for explaining this application, and should not be construed as a limitation on this application.

[0020] It should be noted that, when a component is expressed as "being fixed to" another component, the component may be directly on the another component, or one or more intermediate components may exist between the component and the another component. When one component is expressed as "being connected to" another component, the component may be directly connected to the another component, or one or more intermediate components may exist between the component and the another component. The terms "vertical", "horizontal", "left", "right", "inner", "outside", and similar expressions used in this specification are merely used for an illustrative purpose.

[0021] Unless otherwise defined, all technical and scientific terms used herein have the same meaning as commonly understood by one of ordinary skill in the art to which this application belongs. Terms used in the specification of this application are merely intended to describe objectives of the specific embodiments, but are not intended to limit this application. A term "and/or" used in this specification includes any or all combinations of one or more related listed items.

[0022] FIG. 1 and FIG. 2 are schematic structural diagrams of a packing box 100 according to an embodiment of this application. As shown in FIG. 1 and FIG. 2, the packing box 100 provided in this embodiment of this application includes an outer box 10 and an inner box 20. The outer box 10 is provided with a first accommodating cavity 11 and an outer box opening 12a, the first accommodating cavity 11 is in communication with the outer box opening 12a, the inner box 20 is mounted in the first accommodating cavity 11, the inner box 20 slidably fits the outer box 10, and the inner box 20 slides in and out of the first accommodating cavity 11 through the outer box opening 12a. Optionally, the packing box 100 may be a full paper packing box. Compared with a box made of a plastic accessory, the full paper packing box 100 is easy to recycle, can meet a requirement for environmental protection, and reduces the manufacturing costs and the manual assembly costs.

[0023] FIG. 3 is a cross-section view of a packing box 100 according to an embodiment of this application. As shown in FIG. 3, an outer side wall of the inner box 20 is provided with an elastic protruding portion 21, an inner side wall of the outer box 10 is provided with a first abutting portion 13, the elastic protruding portion 21 abuts against the first abutting portion 13 in a pull-out direction, so that the inner box 20 and the outer box 10 are in a locked state and it is difficult to take out the inner box 20 from the outer box 10. When the elastic protruding portion 21 is pressed by using an external force, the elastic protruding portion 21 is staggered with the first abutting portion 13, so that the inner box 20 and the outer box 10 are in an unlocked state. In this case, the inner box 20 may be pushed (pulled) out of the outer box 10. For example, the first abutting portion 13 may be pressed by using a left hand, and the inner box 20 may be simultaneously pulled out of the outer box 10 by using a right hand.

[0024] FIG. 4 is a schematic structural diagram of an inner box 20 from a perspective according to an embodiment of this application. As shown in FIG. 4, in some embodiments, the elastic protruding portion 21 includes an elastic piece, one end of the elastic piece is connected to an outer wall of the inner box 20, and an other end of the elastic piece is relatively away from an outer wall of the inner box 20. Specifically, the inner box 20 includes an inner box bottom wall. In some embodiments of this application, a partial region on the inner box bottom wall may be cut and folds toward a direction away from the outer wall of the inner box, to form the elastic piece for the elastic protruding portion 21.

[0025] FIG. 5 is a cross-sectional view of an outer box 10 according to an embodiment of this application. As shown in FIG. 5, in some embodiments, for ease of pressing the elastic protruding portion 21, a first through hole 15 is further provided on the outer box 10. When the outer box 10 and the inner box 20 are in the locked state, a position of the first through hole 15 corresponds to a position of the elastic protruding portion 21. Therefore, a finger may pass through the first through hole 15 and press the elastic protruding portion 21, to unlock the packing box 100. A shape and a size of the first through hole 15 may be set according to an actual requirement. The shape of the first through hole 15 may match the shape of the finger, for example, the shape of the first through hole 15 may be round or oval. The size of the first through hole 15 may be set to a size that allows the finger to pass through. There may be one or more first through holes 15. Optionally, to better meet users' usage habits, in some embodiments, there are two first through holes 15. In this case, a forefinger and a middle finger of the left hand may respectively pass through the two first through holes 15 and then press the elastic protruding portion 21, to unlock the packing box 100, and then the right hand pushes (pulls) the inner box 20 out of the outer box 10.

[0026] In some embodiments, the outer box 10 includes an outer box bottom wall. The outer box bottom wall is connected to an outer box side wall, an inner side surface of the outer box side wall is provided with a recessed portion 14, the recessed portion 14 is configured to accommodate the elastic protruding portion 21, and a side portion of the recessed portion 14 opposite to the elastic protruding portion 21 forms the first abutting portion 13. Optionally, the first through hole 15 may be located in the recessed portion 14.

[0027] Continuing to refer to FIG. 5, in some embodiments, to avoid a case that after the packing box 100 is unlocked, the inner box 20 is completely pulled out of the outer box 10 by using an excessively large external force, causing the inner box 20 to fall off from the outer box 10, the inner wall of the outer box 10 is further provided with a second abutting portion 16, the second abutting portion 16 is arranged on one side of the first abutting portion 13 in the pull-out direction, and the second abutting portion 16 is configured to restrict a movable range of the inner box 20 in the pull-out direction. Optionally, the second abutting portion 16 may be closer to the outer box opening than the first abutting portion 13. After the inner box 20 is pulled out by a specific distance in the pull-out direction, the elastic protruding portion 21 abuts against the second abutting portion 16, to prevent the inner box 20 from falling off from the outer box 10. Optionally, in some embodiments of this application, the second abutting portion 16 is formed by folding the outer box side wall towards the first accommodating cavity 11.

[0028] FIG. 6 is a cross-section view of a packing box 100 according to another embodiment of this application. As shown in FIG. 6, in some embodiments, the outer box 10 further includes a separating plate 17. The separating

plate 17 is arranged between the outer box 10 and the inner box 20, a length of the separating plate 17 is less than a length of the outer box side wall, and the recessed portion 14 is formed by a region on the outer box side wall that is not covered by the separating plate 17.

[0029] As shown in FIG. 6, in some embodiments, the outer box 10 is further provided with an outer box opening 12b, and the outer box opening 12a and the outer box opening 12b are arranged opposite to each other. The outer wall of the inner box 20 is further provided with an elastic protruding portion 22, and the elastic protruding portion 21 and the elastic protruding portion 22 are arranged facing away from each other. The inner wall of the outer box 10 is further provided with a first abutting portion 18. When the inner box 20 is accommodated in the first accommodating cavity 11, the elastic protruding portion 21 abuts against the first abutting portion 13, and the elastic protruding portion 22 abuts against the first abutting portion 18. In this case, the packing box 100 is in a locked state, and the inner box 20 cannot be taken out from the outer box 10 through both the outer box opening 12a and the outer box opening 12b. When the elastic protruding portion 21 is pressed by using an external force, the elastic protruding portion 21 is staggered with the first abutting portion 13, and the inner box 20 may be taken out from the outer box opening 12a. When the elastic protruding portion 22 is pressed by using an external force, the elastic protruding portion 22 is staggered with the first abutting portion 18, and the inner box may be taken out from the outer box opening 12b.

[0030] Specifically, in some embodiments, the outer box side wall includes a first outer box side wall, a second outer box side wall, a third outer box side wall, and a fourth outer box side wall that are connected to each other. The first outer box side wall and the third outer box side wall are arranged opposite to each other, and the second outer box side wall and the fourth outer box side wall are arranged opposite to each other. The first abutting portion 13 and the second abutting portion 16 are arranged on an inner side surface of the first outer box side wall. Referring to FIG. 7, to facilitate pulling out the inner box 20 from the outer box 10, the outer box 10 is further provided with a notch 12 and/or a second through hole 19, to expose the inner box 20 locally. Therefore, the finger may touch the inner box 20 after passing through the second through hole 19 or the notch 12. In a case that the packing box 100 is unlocked, a user may hold the inner box 20 after fingers pass through the second through hole 19 (or the notch 12) and pull (or push) the inner box 20 out of the outer box 10. A shape of the notch 12 may be a U shape or a semi-circle, and a shape of the second through hole 19 may be a polygon or an oval.

[0031] Further, in the example, there are two notches 12, and the two notches 12 are provided on sides of the second outer box side wall and the fourth outer box side wall close to the outer box openings. In some embodiments, to facilitate pulling out the inner box from the outer

box, the second through holes 19 are provided on the second outer box side wall and the fourth outer box side wall. In some other embodiments, to facilitate pushing the outer box out of the inner box, the second through hole 19 is provided on the outer box bottom wall, and in a case that the packing box 100 is unlocked, the finger may pass through the second through hole 19 and then push the inner box 20 out of the outer box 10.

[0032] Referring to FIG. 8 to FIG. 10, in some embodiments, to improve a buffer effect of the packing box 100, the packing box 100 further includes an inner lining 30. In this embodiment, one side of the inner box 20 is provided with a second accommodating cavity 22, the inner lining 30 is accommodated in the second accommodating cavity 22, and a size and a shape of the inner lining 30 match a size and a shape of the second accommodating cavity 22. An inner cavity 31 is provided on the inner lining 30, and the inner cavity 31 is configured to store an article. The article stored in the inner cavity 31 may be an e-cigarette product, a drug, or another article harmful to children. To adapt the packing box 100 to different articles, the shape of the inner cavity 31 matches a shape of a to-be-stored article. In this embodiment, the packing box 100 is adapted to a plurality of to-be-stored articles by changing the inner lining 30.

[0033] An operation procedure of the packing box provided in this application is as follows, when the packing box 100 is in the locked state, the elastic protruding portion 21 abuts against the first abutting portion 13, and it is difficult to take out the inner box from the outer box in a push-pull manner. When the elastic protruding portion 21 is pressed by using the external force, the elastic protruding portion 21 is staggered with the first abutting portion 13. In this case, the packing box is in the unlocked state, and the inner box 20 can be conveniently pushed (pulled) out from the outer box 10 at the second through hole 19 (or the notch 12). When the inner box 20 is pulled out from the outer box 10 to a certain degree, the elastic protruding portion 21 abuts against the second abutting portion 16, to prevent the inner box 20 from being further pulled out. In this case, the article placed in the inner lining 30 has been completely expose to the user, and the user may take out the article in the packing box 100. After the packing box 100 is opened, the user may push back the inner box 20 to the outer box 10. In a process of pushing back the inner box 20 to the outer box 10, the elastic protruding portion 21 may rebound to the recessed portion 14, so that the elastic protruding portion 21 abuts against the first abutting portion 13, and the packing box 100 returns to the locked state.

[0034] In the packing box 100 provided in the embodiments of this application, a locking structure is formed by using the elastic protruding portion 21 and the first abutting portion 13, and the locking structure is relatively simple. The locked state can be released by pressing the elastic protruding portion 21 by using a finger, and the unlock is very convenient. Because the locking structure of the packing box 100 is arranged in the first accommo-

dating cavity, the unlocking position is relatively concealed, which can effectively prevent children from opening by mistake. In addition, the packing box 100 may be a full paper packing box. Compared with a box made of a plastic accessory, the full paper packing box 100 is easy to recycle, can meet a requirement for environmental protection, and reduces the manufacturing costs and the manual assembly costs.

[0035] Finally, it should be noted that the foregoing embodiments are merely used for describing the technical solutions of this application, but are not intended to limit this application. Under the ideas of this application, the technical features in the foregoing embodiments or different embodiments may also be combined, the steps may be performed in any order, and many other changes of different aspects of this application also exists as described above, and these changes are not provided in detail for simplicity. It should be understood by a person of ordinary skill in the art that although this application has been described in detail with reference to the foregoing embodiments, modifications can be made to the technical solutions described in the foregoing embodiments, or equivalent replacements can be made to some technical features in the technical solutions, and these modifications or replacements will not cause the essence of corresponding technical solutions to depart from the scope of the technical solutions in the embodiments of this application.

Claims

1. A packing box, comprising:

an outer box, wherein the outer box is provided with a first accommodating cavity and an outer box opening in communication with the first accommodating cavity, and a first abutting portion arranged on an inner wall of the outer box; and an inner box, accommodated in the first accommodating cavity, wherein the inner box is slidable in and out of the first accommodating cavity through the outer box opening, and an elastic protruding portion is arranged on an outer wall of the inner box;

when the inner box is accommodated in the first accommodating cavity, the elastic protruding portion abuts against the first abutting portion, so that the inner box and the outer box are in a locked state; and

when the elastic protruding portion is pressed by using an external force, the elastic protruding portion moves to the first accommodating cavity and is staggered with the first abutting portion, so that the inner box and the outer box are in an unlocked state.

2. The packing box according to claim 1, wherein the

outer box comprises an outer box side wall, an inner wall of the outer box side wall is provided with a recessed portion, the recessed portion is configured to accommodate the elastic protruding portion, and a side portion of the recessed portion opposite to the elastic protruding portion forms the first abutting portion; and

the outer box side wall is provided with a first through hole, the first through hole is located in the recessed portion, and when the inner box is accommodated in the first accommodating cavity, a position of the first through hole corresponds to a position of the elastic protruding portion.

3. The packing box according to claim 2, wherein the outer box further comprises a separating plate, and the separating plate is arranged between the outer box and the inner box, and a length of the separating plate is less than a length of the outer box side wall, and the recessed portion is formed by a region on the outer box side wall that is not covered by the separating plate.

4. The packing box according to claim 2, wherein the outer box further comprises an outer box bottom wall, and the outer box bottom wall is connected to the outer box side wall;

one end of the outer box side wall away from the outer box bottom wall is provided with a notch; and/or
the outer box bottom wall is provided with a second through hole.

5. The packing box according to claim 3, wherein two elastic protruding portions are arranged on the outer wall of the inner box, the two elastic protruding portions are arranged facing away from each other, and two first abutting portions are arranged on the inner wall of the outer box; and when the inner box is accommodated in the first accommodating cavity, the two elastic protruding portions respectively abut against the two first abutting portions.

6. The packing box according to claim 1, wherein the inner box is provided with a second accommodating cavity, the packing box further comprises an inner lining accommodated in the second accommodating cavity, the inner lining is provided with an inner cavity, and the inner cavity is configured to accommodate an article.

7. The packing box according to claim 1, wherein the elastic protruding portion comprises an elastic piece, one end of the elastic piece is connected to the outer wall of the inner box, and an other end of the elastic piece is relatively away from the outer wall of the

inner box.

8. The packing box according to claim 7, wherein the inner box comprises an inner box bottom wall, and a partial region of the inner box bottom wall is cut and folds toward a direction away from the outer wall of the inner box, to form the elastic piece. 5
9. The packing box according to any one of claims 2 to 8, wherein a second abutting portion is further arranged on the inner wall of the outer box side wall, the second abutting portion is closer to the outer box opening than the first abutting portion, and the second abutting portion is configured to abut against the elastic protruding portion, to restrict a movable range of the inner box in a pull-out direction. 10 15
10. The packing box according to claim 9, wherein the outer box side wall folds towards the first accommodating cavity at the outer box opening, to form the second abutting portion. 20

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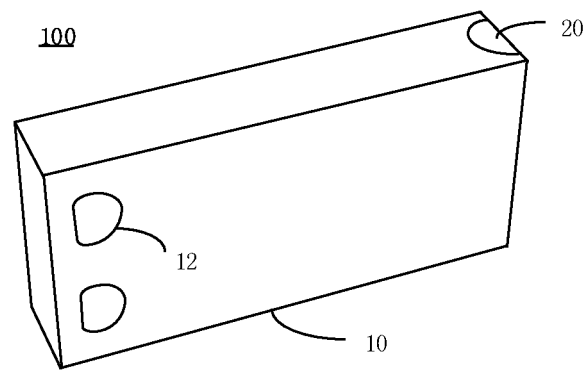


FIG. 1

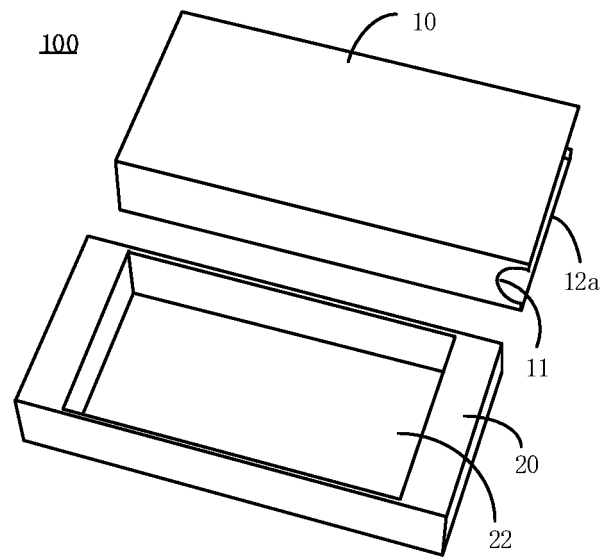


FIG. 2



FIG. 3

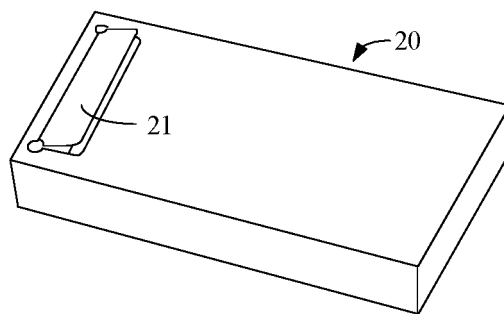


FIG. 4

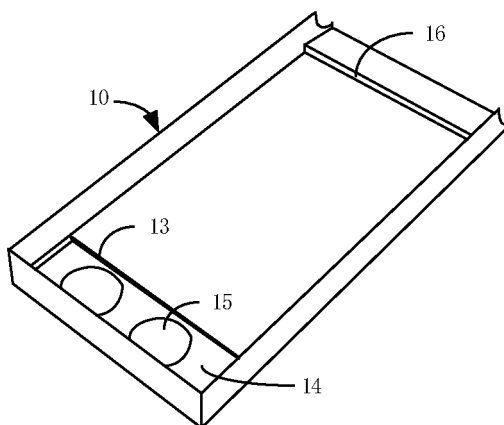


FIG. 5

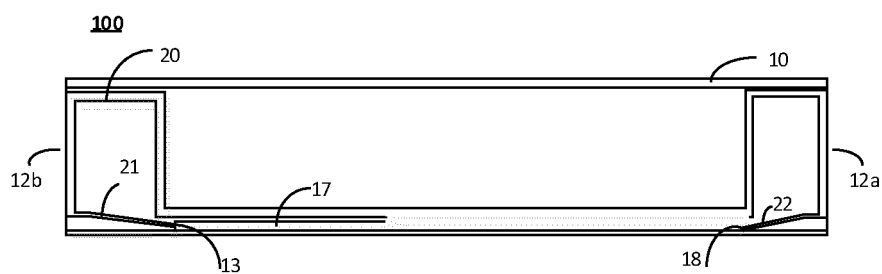


FIG. 6

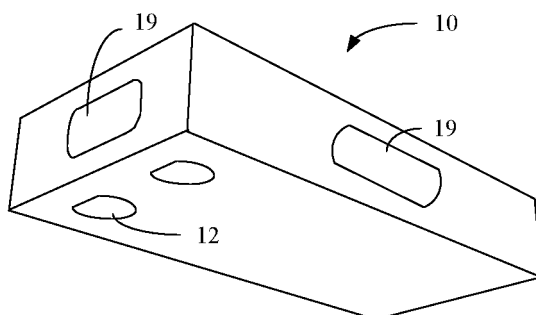


FIG. 7

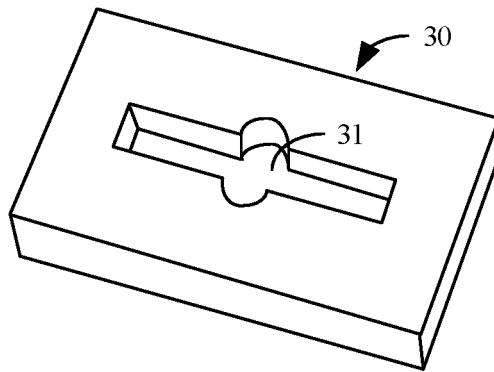


FIG. 8

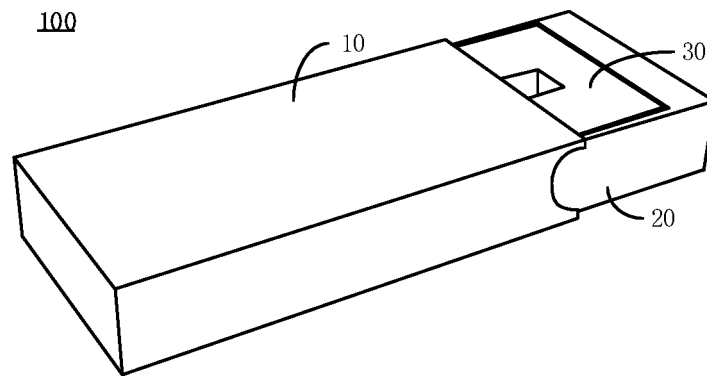


FIG. 9

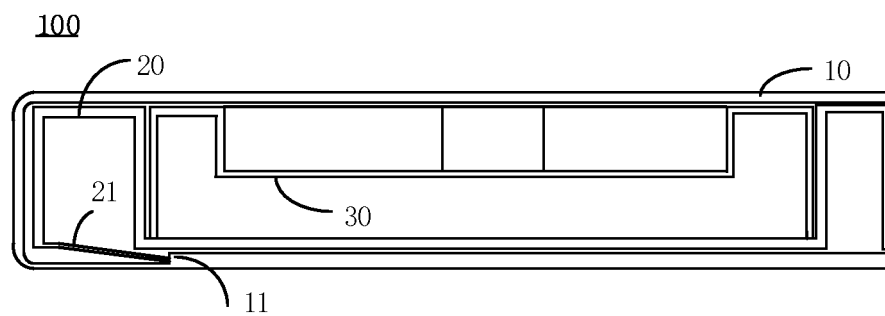


FIG. 10

INTERNATIONAL SEARCH REPORT

International application No.

PCT/CN2021/101201

A. CLASSIFICATION OF SUBJECT MATTER

B65D 5/38(2006.01)i; B65D 6/06(2006.01)i; B65D 50/12(2006.01)i

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

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

B65D

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

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

CNABS; CNTXT; VEN; CNKI; USTXT; EPTXT; WOTXT: 深圳市合元科技, 儿童, 小孩, 防, 锁定, 解锁, child+, kid?, prevent +, resist+, lock+

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
PX	CN 213168926 U (SHENZHEN FIRST UNION TECHNOLOGY CO., LTD.) 11 May 2021 (2021-05-11) claims 1-10	1-10
PX	CN 212172882 U (SHENZHEN GPA GLOBAL ENVIRONMENTAL PROTECTION TECHNOLOGY CO., LTD.) 18 December 2020 (2020-12-18) description, paragraphs [0028]-[0035], and figures 1-6	1-4, 6-10
X	WO 2020033044 A1 (DIAMOND PACKAGING) 13 February 2020 (2020-02-13) description, paragraphs [0035]-[0047], figures 1-27B	1-10
X	CN 102227354 A (R.J. REYNOLDS TOBACCO COMPANY) 26 October 2011 (2011-10-26) description paragraphs [0037]-[0059], figures 1A-6B	1-10
X	CN 110817035 A (MYS GROUP CO., LTD.) 21 February 2020 (2020-02-21) description, paragraphs [0049]-[0074], and figures 1-6	1-4, 6-10
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☐ Further documents are listed in the continuation of Box C.
 ☒ See patent family annex.

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Date of the actual completion of the international search

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Name and mailing address of the ISA/CN

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INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.

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