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(54) **ABUTTING-TYPED PAPER COVER**

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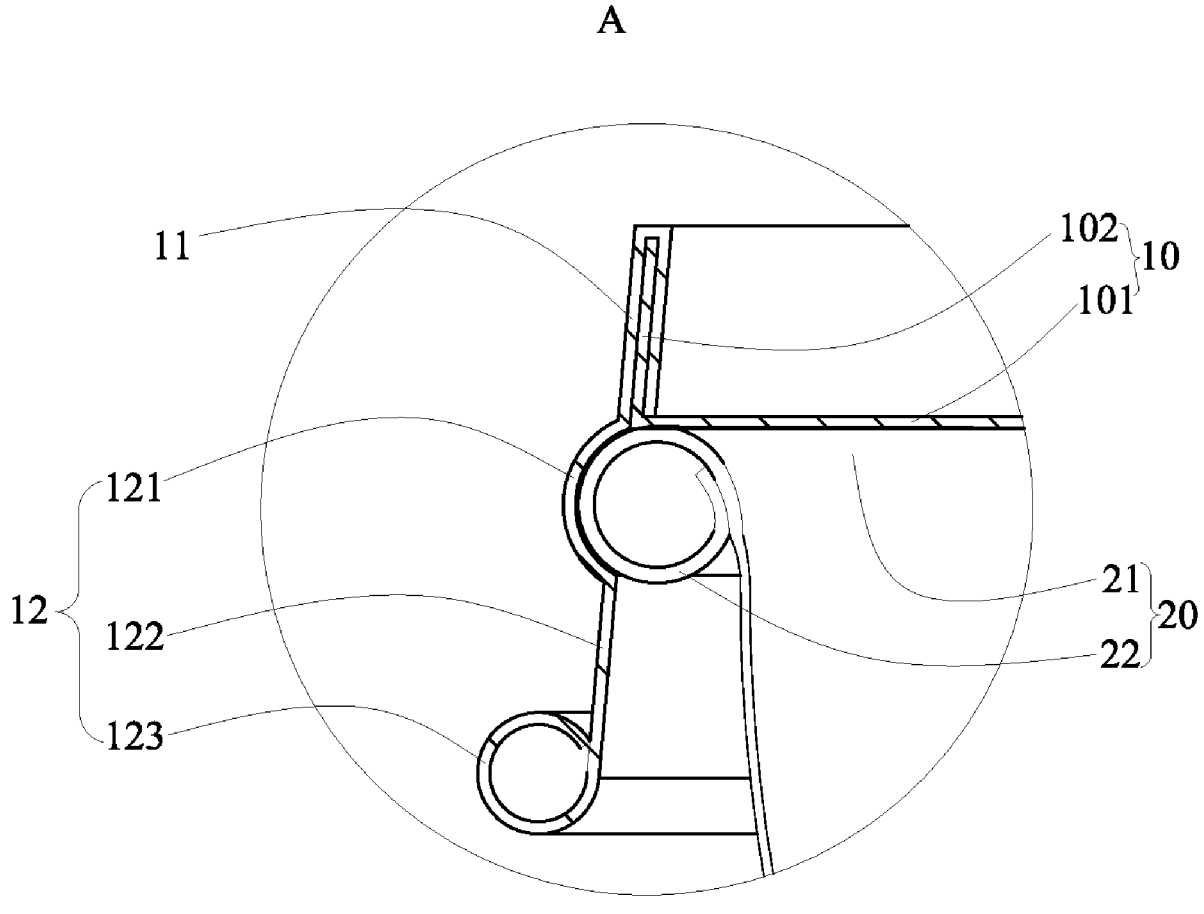
(57) **ABSTRACT**

A abutting-typed paper cover includes a cover body, a reinforced guide portion, and a buckling portion. The cover body includes a flat face and a cover rim. The reinforced guide portion is disposed on the cover rim and wraps on three outer side walls of the cover rim. The buckling portion extends from the reinforced guide portion and an extending direction of the buckling portion is opposite to that of the cover rim. On a section taken along a vertical line perpendicular to a plane where the flat face is located the buckling portion includes an arc-shaped section. One end of the arc-shaped section is abutted against the flat face. When the abutting-typed paper cover is covered on a container, a curling rim of the container will abutt against the flat face and the arc-shaped section. The abutting-typed paper cover can be fixed on the container 20 and it will not fall off without external force, and it can form a better seal with the container so that the liquid in the container will not leak out.



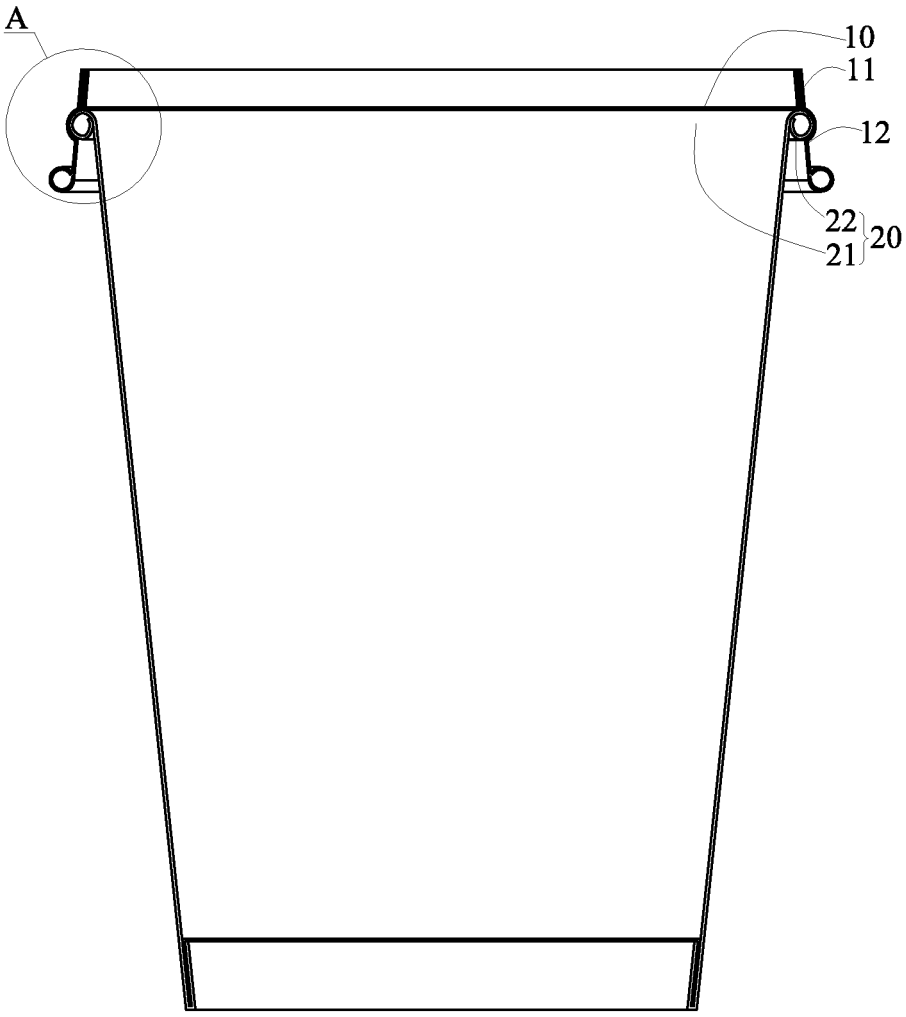


FIG. 1

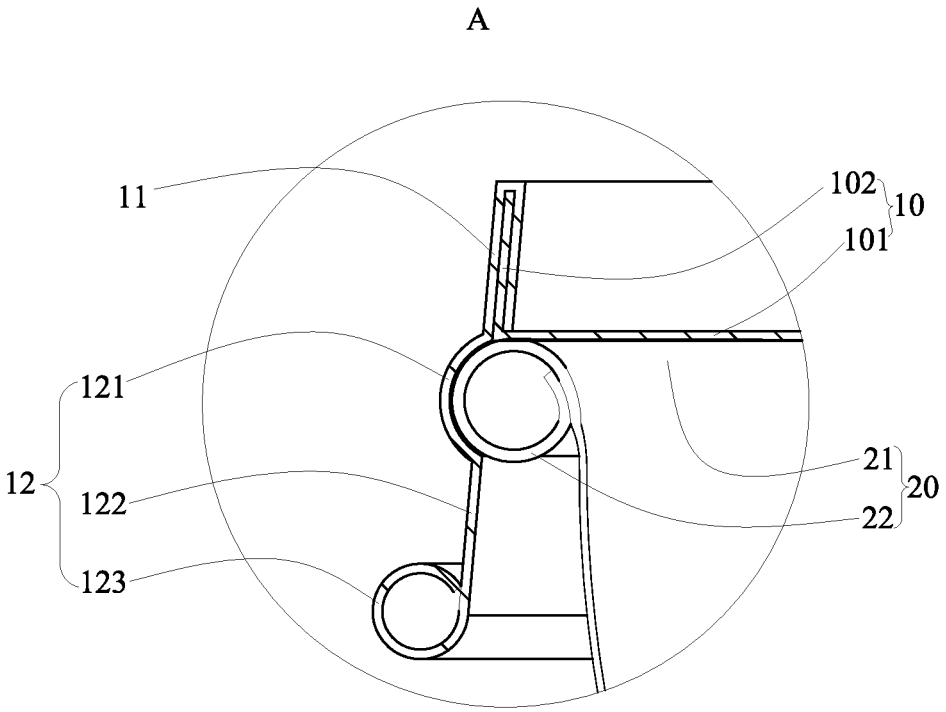


FIG. 2

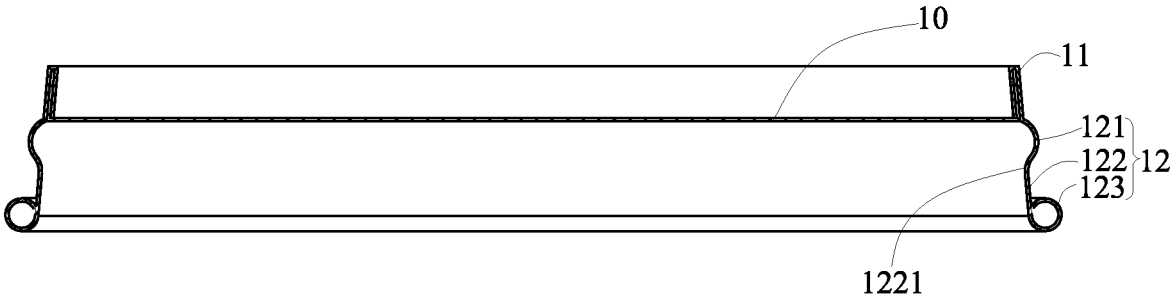


FIG. 3

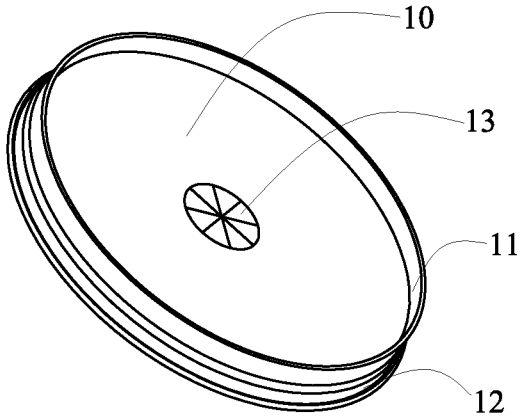


FIG. 4

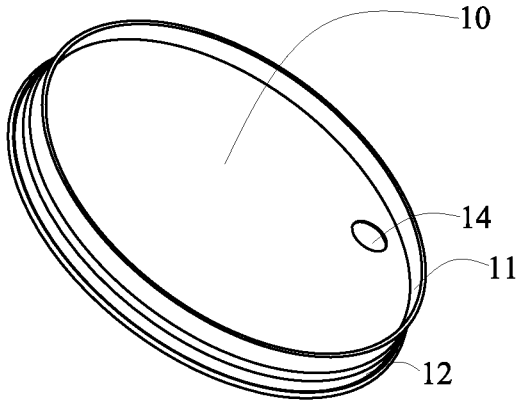


FIG. 5

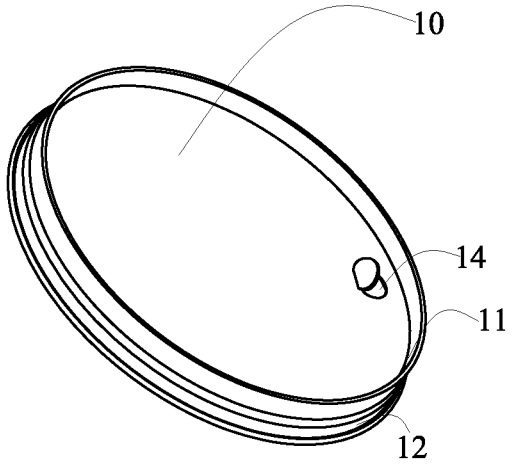


FIG. 6

ABUTTING-TYPED PAPER COVER

BACKGROUND

1. Technical field

[0001] The present invention relates to a paper cover, and more particularly to an abutting-typed paper cover.

2. Description of the Related Art

[0002] In ordinary daily life, with the rise of the take-out food industry, paper bowls and paper cups have become the choice of most takeout merchant. They are environmentally friendly and cheap, and have been strongly recommended by businesses and the government. When the paper bowl or paper cup is filled with liquid or solid food that needs to be covered, a cover must be used. However, the current cover is made of plastic. The use of plastic to make the cover is not in line with the world's environmental protection trends and requirements.

[0003] Therefore, it is necessary to provide an abutting-typed paper cover which makes it possible to solve the above problem.

BRIEF DESCRIPTION OF THE DRAWINGS

[0004] Many aspects of the embodiments can be better understood with references to the following drawings. The components in the drawings are not necessarily drawn to scale, the emphasis instead being placed upon clearly illustrating the principles of the embodiments. Moreover, in the drawings, like reference numerals designate corresponding parts throughout two views.

[0005] FIG. **1** is a schematic view of an abutting-typed paper cover according to an embodiment.

[0006] FIG. **2** is a partially enlarged schematic view of the abutting-typed paper cover of FIG. **1** in A.

[0007] FIG. **3** is a sectional schematic view of the abutting-typed paper cover of FIG. **1**.

[0008] FIG. **4** is a schematic view of the abutting-typed paper cover of FIG. **1** which has a sucker hole.

[0009] FIG. **5** is a schematic view of the abutting-typed paper cover of FIG. **1** which has a direct drinking hole.

[0010] FIG. **6** is a schematic view of the abutting-typed paper cover of FIG. **1** which has another direct drinking hole.

DETAILED DESCRIPTION

[0011] The present application is illustrated by way of example and not by way of limitaion in the figures of the accompanying drawings. It should be noted that references to "an" or "one" embodiment in this application arenot necessarily to the same embodiment, and such references mean at least one.

[0012] Referring to FIG. **1** to FIG. **6**, an abutting-typed paper cover is shown in accordance with an examplary emobodiment of the present invention. The abutting-typed paper cover is used to cover a container **20**. The container **20** includes a container opening **21**, and a curling rim **22** arranged on the container opening **21**. The abutting-typed paper cover includes a cover body **11**, a reinforced guide portion **11** provided on the cover body **10**, and a buckling portion **12** extending from the reinforced guide portion **11**. The abutting-typed paper cover can be made of food paper, and the cover body **10**, the reinforced guide portion **11** and the buckling portion **12** can all be made of food paper with a weight of 70 to 600 grams. The food paper can be double-sided PE coated paper or single-sided PE coated paper.

[0013] The cover body **10** includes a flat face **101**, and a cover rim **102** arranged on the flat face **101** and extending towards a side of the flat face **101**. The cross secion of the flat face **101** taken along the vertical line perpendicular to the plane where the flat face **101** is located may be any shape, such as a circle, a square, a polygon, and so on, which can be designed according to actual needs. In the present embodiment, only for explaining the structure and working principle of the present invention, the flat face **101** has a shape of circle. The cover rim **102** extends from an edge of the flat face **101**, and an angle between the extending direction of the cover rim **102** and the vertical line perpendicular to the plane where the flat face **101** is located is an acute angle, and the acute angle is 0 to 15 degrees. Specifically, the acute angle between the extending direction of the cover rim **102** and the vertical line of the plane where the flat face **101** is located is 0 degree. The flat face **101** and the cover rim **102** are integrally formed. In the direction along the vertical line of the plane where the flat face **101** is located, the height of the cover rim **102** is between 2 mm and 20 mm to facilitate aesthetics.

[0014] The reinforced guide portion **11** is provided on the cover rim **102** and wraps on the three outer side walls of the cover rim **102**. Therefore, the reinforced diversion portion **11** has a cross section of a groove-shaped structure taken along the vertical line of the plane where the cover surface **101** is located. The reinforce guide portion **11** may be adhered to the cover rim **102** by food grade glue. The reinforced guide portion **11** can not only be used for sealing a free edge of the cover rim **102**, but also can improve the strength and stiffness of the cover rim **102**. If without the reinforced guide portion **11**, the free edge of the cover rim **102** will be exposed to the outside, which is not conductive to aesthetics. Moreover, since the free edge of the cover rim **102** will be the part that can be directly taken by the user's hand, the cover rim **102** need more strength and stiffness. The reinforced guide portion **11** will help to improve the strength and stiffness of the cover rim **102** so that the cover rim **102** will not be crushed when taken. If the cover rim **102** is crushed when in use, it will affect the user experience.

[0015] The buckling portion **12** extends from the reinforcing guide portion **11**, and the extending direction of the buckling portion **12** is opposite to the extending direction of the cover rim **102**. Specifically, the buckling portion **12** is integrally formed with one side of the reinforced guide portion **11** which has the groove-shaped structure. In the prior art, a cover rim bent form the cover body is directly buckled on a container. Due to physical limitains, when a whole piece of paper is bent out of the cover rim, multiple wrinkles must be formed at the joint of the cover rim and the cover body. When the cover with the wrinkles is abuckled on the container, the liquid in the container will inevitabley leak out from the wrinkles, which causing a bad user experience. In the present embodiment, the cover rim **102** of the cover body **10** is used to improve the strength and stiffness of the entire paper cover, and the buckling portion **12** is used to buckle with the container **20**. Since the buckle portion **12** is not in the bending process, there will be no wrinkles so that there will be no leakage or seepage during use. On a section taken along the vertical line which is perpendicular to the

plane where the flat face **101** is located, the buckling portion **12** includes an arc-shaped section **121**, an push-stop section **122** connected to the arc-shaped section **121**, and an push-stop curling rim **123** arranged at the free end of the push-stop section **122**. One end of the arc-shaped section **121** is connected to the flat face **101**. As a result, when the abutting-typed paper cover is buckled on the curling rim **22** of the container **20**, a side part of the curling rim **22** abuts against the arc-shaped section **121** and a top part of the curling rim **22** abuts against the flat face **101**. Because of the arc-shaped section **121**, it will prevent the curling rim **22** of the container **20** from slipping off the arc-shaped section **121**. The angle between the chord of the arc-shaped section **121** and which is perpendicular to the plane where the flat face **101** is located is an acute angle, and the acute angle is between 0 degrees and 30 degrees. A central angle of the arc-shaped section **121** is less than or equal to 180 degrees so as to easy to insert into the curling rim **22** of the container **20**. An angle between the extending direction of the push-stop section **122** and the vertical line of the flat face **101** is an acute angle, and the acute angle is between 0 degree and 15 degrees. In order to make it easier for the curling rim **22** of the container to insert into the arc-shaped section **121**, the push-stop section **122** further includes a transition section **1221**. The transition section **1221** is connected to the arc-shaped section **121**. The transition section **1221** is arc-shaped, and the curvature direction of the transition section **1221** is opposite to that of the arc-shaped section **121**. The push-stop curling rim **123** is provided on the free end of the push-stop section **122**, and its structure should be the prior art. The function of the push-stop curling rim **123** is not only to hide the edge of the push-stop section **122**, but also to be beautiful. Because of the push-stop curling rim **123**, it makes it easier to buckle in the container **20** and the buckling portion **12** has better stiffness and is not easy to be crushed. The shape of the push-stop curling rim **123** may be a circle, a polygon, or the like. The height of the abutting-typed paper cover is between 10 mm and 60 mm.

[0016] The abutting-typed paper cover further includes a sucker hole **13** provided on the flat face **101**. The sucker hole **13** may be a through hole, or at least three punching covers may be provided on the through hole so as to cover the through hole. Understandable, in order to make the punching cover easy to be folded and not torn from the flat face **101**, the joints between at least three punching cover and the sucker hole **13** are provided creases. In the present embodiment, the sucker hole **13** include a through hole **131**, and six punching covers **132** covered on the through hole **131**. The joints between each of the punching cover **132** and the through hole **131** has a crease **133**.

[0017] Moreover, the abutting-typed paper cover further includes a direct drinking hole **14**. The direct drinking hole **14** is a through hole, and the through hole may be polygonal, circular, or elliptical. The Polygon hole can be quadrilaterals, hexagons, etc. The direct drinking hole **14** further includes a hole cover covered thereon, and a connection provided between the cover and the through hole. A crease is disposed on the connection so as to facilitate the opening of the cover and not to tear the flat face **101** when it is opened.

[0018] As described above, the abutting-typed paper cover is made of paper, which meets the requirements of environmetal protection. Moreover, the abuttig-type paper cover has the cover body **10**,and the cover body **10** has the cover rim **102**. Therefore, when the reinforced guide portion **11** is disposed on the cover rim **102**, the strength of the abutting-typed paper cover can be ensured, so that the abutting-typed paper cover has a high stiffness. As a result, when user uses the abutting-typed paper cover, it will not be easily crushed. Since the buckling portion **12** extends from the reinforced guide portion **11**, and the extending direction of the buckling portion **12** is opposite to that of the cover rim **102**, no wrinkles are formed during the bending process. Therefore, when the buckling portion **12** is buckled on the curling rim **22** of the container **20**, no leakage will occur, and the sealling property is ensured. The buckling portion **12** is provided with the arc-shaped section **121**, and one end of the arc-shaped section **121** abuts on the flat cover **101**, so that when the abutting-typed paper cover is buckled on the container **20**, the cover rim **22** abuts on the arc-shaped section **121** and the flat face **101**. Therefore, the abutting-typed paper cover can be fixed on the container **20** and it will not fall off without external force, and it can form a better seal with the container so that the liquid in the container will not leak out.

[0019] While the disclosure has been described by way of example and in terms of exemplary embodiment, it is to be understood that the disclosures is not limited thereto. To the contrary, it is intended to lamp shade various modifications and similar arrangements (as would be apparent to those skilled in the art). Therefore, the scope of the appended claims should be accorded the broadest interpretation so as to encompass all such modifications and similar arrangements.

What is claimed is:

1. An abutting-typed paper cover, which is used to buckling on a container, the container comprising a container opening , and a curling rim arranged on the container opening, the abutting-typed paper cover comprising:

a cover body, the cover body comprising a flat face, and a cover rim extending from the flat face, an angle between an extending direction of the cover rim and a vertical line of a plane where the flat face is located being an acute angle, the acute angle being between 0 degree and 15 degrees;

a reinforced guide portion disposed on the cover body, the reinforced guide portion being fixed on the cover rim and wrapping on the three outer side walls of the cover rim; and

a buckling portion extending from the reinforce guide portion, and an extending direction of the buckling portion being opposite to that of the cover rim, on a section taken along the vertical line of the plane where the flat face is located the buckling portion comprising an arc-shape section, one end of the arc-shape being abutted against the flat face, when the abutting-typed paper cover is buckled on the container opening of the container the curling rim is abutting against on the flat face and the arc-shape section.

2. The abutting-typed paper cover as claimed in claim **1**, wherein the acute angle between the extending direction of the cover rim and the vertical line of the plane where the flat face is located is 0 degree.

3. The abutting-typed paper cover as claimed in claim **1**, wherein a height of the cover rim is between 2 mm to 20 mm along the vertical line of the plane where the flat face is located.

4. The abutting-typed paper cover as claimed in claim **1**, wherein on the section taken along the vertical line of the plane where the flat face is located the reinforced guide portion has a groove-shaped structure, the reinforced guide portion is directly adhered to the three outer side walls of the cover rim.

5. The abutting-typed paper cover as claimed in claim **4**, wherein the buckling portion is integrally formed with one side of the reinforce guide portion which has the groove-shaped structure.

6. The abutting-typed paper cover as claimed in claim **1**, wherein a central angle of the arc-shaped section is less than or equal to 180 degrees.

7. The abutting-typed paper cover as claimed in claim **1**, wherein an angle between a chord of the arc-shaped section and which is perpendicular to the plane where the flat face is located is an acute angle, and the acute angle is between 0 degrees and 30 degrees.

8. The abutting-typed paper cover as claimed in claim **1**, wherein the buckling portion further comprises a push-stop section connected to the arc-shaped section, a length of the push-stop section is larger than or equal to a chord of the arc-shaped section.

9. The abutting-typed paper cover as claimed in claim **8**, wherein an angle between an extending direction of the push-stop section and the vertical line of the plane where the flat face is located is an acute angle.

10. The abutting-typed paper cover as claimed in claim **9**, wherein the angle between an extending direction of the push-stop section and the vertical line of the plane where the flat face is located is between 0 degree to 15 degrees.

11. The abutting-typed paper cover as claimed in claim **8**, wherein the buckling portion further comprises an push-stop curling rim arranged at the free end of the push-stop section.

12. The abutting-typed paper cover as claimed in claim **8**, wherein the push-stop section comprises a transition section, the transition section **1221** is arc-shaped.

13. The abutting-typed paper cover as claimed in claim **1**, wherein the abutting-typed paper cover further comprises a sucker hole provided on the flat face.

14. The abutting-typed paper cover as claimed in claim **13**, wherein the sucker hole is a through hole.

15. The abutting-typed paper cover as claimed in claim **13**, wherein the sucker hole is coverd by at least three punching covers, at least three punching covers are connected to the sucker hole.

16. The abutting-typed paper cover as claimed in claim **1**, wherein the abutting-typed paper cover further comprises a direct drinking hole provided on the flat face.

17. The abutting-typed paper cover as claimed in claim **16**, wherein the direct drinking hole is a through hole and is a polygon hole.

18. The abutting-typed paper cover as claimed in claim **16**, wherein the direct drinking hole further comprises a hole cover covered thereon, and a connection provided between the hole cover and the direct drinking hole, a crease is disposed on the connection.

* * * * *