



(12) **EUROPEAN PATENT APPLICATION**
published in accordance with Art. 153(4) EPC

(43) Date of publication:
01.10.2014 Bulletin 2014/40

(51) Int Cl.:
A47K 13/16 (2006.01) **A47K 13/14** (2006.01)

(21) Application number: **12852087.1**

(86) International application number:
PCT/CN2012/079967

(22) Date of filing: **10.08.2012**

(87) International publication number:
WO 2013/075517 (30.05.2013 Gazette 2013/22)

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

(30) Priority: **25.11.2011 CN 201120479751 U**
07.12.2011 PCT/CN2011/083624

(71) Applicants:
• **Chien, Li-chen**
Changhua City, Changhua County 50061 (TW)
• **Chien, Hsiu-yi**
Changhua City, Changhua County 50061 (TW)

(72) Inventors:
• **Chien, Li-chen**
Changhua City, Changhua County 50061 (TW)
• **Chien, Hsiu-yi**
Changhua City, Changhua County 50061 (TW)

(74) Representative: **Lang, Christian**
LangPatent
Anwaltskanzlei IP Law Firm
Rosenheimer Strasse 139
81671 München (DE)

(54) **DISPOSABLE TOILET HYGIENIC SEAT COVER AND LAYING METHOD THEREOF**

(57) A disposable toilet hygienic seat cover is suitable for being laid on a toilet seat (11) having a toilet seat cover (12), and mainly consists of a seat cover ring sheet (20), a covering sheet (30), a covering concave portion (40), and a positioning unit (50). The disposable toilet hygienic seat cover has a covering concave portion (40) that covers a front portion (121) of the toilet seat cover and a front portion (111) of the toilet seat. Therefore, the covering sheet (30) for defining the covering concave portion (40) can also cover and be positioned at the front

portion (121) of the toilet seat cover and the front portion (111) of the toilet seat. Hence, the covering sheet (30) does not move randomly, thus preventing the skin, trousers, or skirt of a toilet user from contacting the front portion (121) of the toilet seat cover or the external surface of the front portion (111) of the toilet seat, thereby ensuring hygienic toilet using and solving the problem of bacterial infection. Also disclosed is a method for laying the disposable toilet hygienic seat cover.

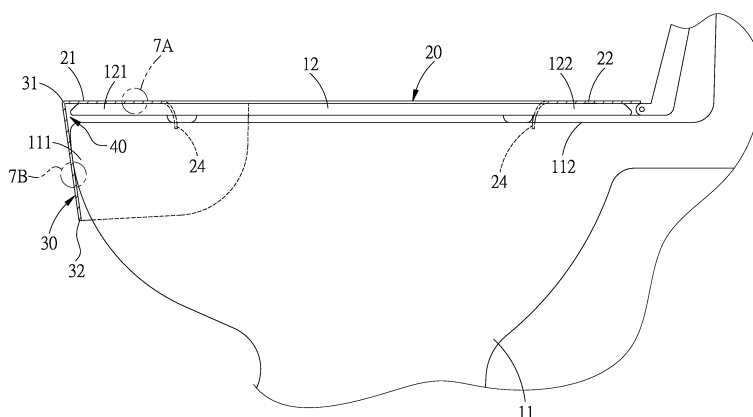


FIG.4

DescriptionBACKGROUND OF THE INVENTIONField of the Invention

[0001] The present invention relates to a toilet seat, and more particularly to a disposable toilet hygienic seat cover.

Description of the Prior Art

[0002] A toilet usually comprises a toilet seat cover 12 disposed on a toilet seat 11, as shown in Fig. 1, and the toilet seat cover 12 and the toilet seat 11 are the most likely contaminated areas, as indicated by the circles in Fig. 1, which are the front and rear portions 111, 112 of the toilet seat 11, and the front and rear portions 121, 122 of the toilet seat cover 12. Therefore, hygienic seat covers are developed, such as the hygienic seat covers disclosed in the patents of US 5557809A, US5392469A, US2003/208836A1, US6851131B1, GB2182688A, US2011/271433A1, GB1600786A, WO03/096861A1, and US671 1756B1. The hygienic seat covers are laid on the seat cover of the toilet seat to prevent direct contact of the user's skin with the toilet seat 11 or the toilet seat cover 12, so as to improve hygienic conditions and prevent bacterial infection.

[0003] However, these abovementioned toilet seat covers fail to provide any laying methods due to their structural defects, so the user has to lay the seat covers on the toilet by his/her individual experience. Since the abovementioned toilet seat covers do not have any structure to over the front portions of the toilet seat cover 12 and the toilet seat, the covering sheet is likely to move unexpectedly, or is likely to be lifted up or folded, so that the user's skin, pants or skirts will come into contact with the front portions of the toilet seat cover and the toilet seat, causing hygienic toilet problem and bacterial infection.

[0004] The present invention has arisen to mitigate and/or obviate the afore-described disadvantages.

SUMMARY OF THE INVENTION

[0005] The primary objective of the present invention is to provide a disposable toilet hygienic seat cover which can be laid on the toilet seat very easily.

[0006] Another objective of the present invention is to provide a method for laying the disposable toilet hygienic seat cover on the toilet seat, which is capable of blocking the user's skin, pants or skirts from the front portions of the toilet seat cover and the toilet seat, thereby ensuring hygienic toilet using and solving the problem of bacterial infection.

[0007] To solve the above objectives, a disposable toilet hygienic seat cover suitable for being laid on a toilet seat having a toilet seat cover, the toilet seat cover including a front portion and a rear portion aligned with a front portion and a rear portion of the toilet seat, and the disposable toilet hygienic seat cover comprising:

a seat cover ring sheet laid on the toilet seat cover and including a front arc-shaped edge aligned with the front portions of the toilet seat cover and the toilet seat, and a rear arc-shaped edge aligned with the rear portions of the toilet seat cover and the toilet seat;

a covering sheet disposed on the seat cover ring seat located toward the front portion of the toilet seat and including an upper arc-shaped edge fixed to the front arc-shaped edge of the seat cover ring seat, and a lower arc-shaped edge which is opposite to the upper arc-shaped edge and located within a scope defined by the upper arc-shaped edge;

a covering concave portion being defined by the front arc-shaped edge of the seat cover ring sheet and the covering sheet, to cover the front portions of the toilet seat cover and the toilet seat; and

a positioning unit being disposed at the rear arc-shaped edge of the seat cover ring sheet, and repeatedly fixed to the rear portion of the toilet seat cover;

the disposable toilet hygienic seat cover is characterized in that the seat cover ring sheet further comprises an inner annular edge which includes a plurality of stop portions, and each of the stop portions includes an outer edge connected to the inner annular edge, and an inner edge opposite to the outer edge, the inner edges of the stop portions define an inner circle which is smaller than a central hole of the toilet seat cover, and each two neighboring stop portions are connected by a perforated line, when the perforated lines are broken, the stop portions will hang down from the inner annular edge.

[0008] Preferably, the seat cover ring sheet is made of composite materials and includes a waterproof layer used to abut against the toilet seat, and an outer layer disposed on the waterproof layer.

[0009] Preferably, the outer layer is made of absorbent and breathable materials, including pure wood pulp, disinfected

recycled pulp, non-woven, or tulle, and the waterproof layer is made of waterproof materials, including Polyvinyl chloride film, polyethylene film, or a waterproof plastic.

[0010] Preferably, the covering sheet is made of composite material and includes a waterproof layer used to abut against the toilet seat, and an outer layer disposed on the waterproof layer.

[0011] Preferably, the outer layer is made of absorbent and breathable materials, including pure wood pulp, disinfected recycled pulp, non-woven, or tulle, and the waterproof layer is made of waterproof materials, including Polyvinyl chloride film, polyethylene film, or a waterproof plastic.

[0012] Preferably, the covering sheet and the seat cover ring sheet are separately formed by high frequency welding or integrally formed as a unitary structure by hot pressing molding.

[0013] Preferably, the lower arc-shaped edge is finished with a serger stitch, to form a shower-cap structure.

[0014] Preferably, the positioning unit is an adhesive tape.

[0015] A method for laying the disposable toilet hygienic seat cover in accordance with the present invention comprises the steps of:

positioning the disposable toilet hygienic seat cover by sleeving the covering concave portion onto the front portions of the toilet seat cover and the toilet seat; and
holding the rear arc-shaped edge of the seat cover ring sheet and pulling it in a direction opposite to the front arc-shaped edge, then pulling it downward toward the rear portion of the toilet seat cover, thus finishing the laying of the disposable toilet hygienic seat cover of the present invention on the toilet seat cover of the toilet seat.

BRIEF DESCRIPTION OF THE DRAWINGS

[0016]

Fig. 1 is an exploded view of a conventional toilet seat;

Fig. 2 is an exploded view of a disposable toilet hygienic seat cover in accordance with the present invention and a toilet seat;

Fig. 3 shows that the disposable toilet hygienic seat cover in accordance with the present invention is laid on the toilet seat;

Fig. 4 is a cross sectional view taken along the line 4-4 of Fig. 3;

Fig. 5 is a top view showing that the disposable toilet hygienic seat cover in accordance with the present invention is laid on the toilet seat, wherein the perforated lines are not broken;

Fig. 6 is a side view showing that the disposable toilet hygienic seat cover in accordance with the present invention is laid on the toilet seat;

Fig. 7A is an enlarged view of a part of Fig. 4 showing the structure of the seat cover ring sheet;

Fig. 7B is an enlarged view of a part of Fig. 4 showing the structure of the covering sheet;

Fig. 8A shows that the disposable toilet hygienic seat cover in accordance with the present invention is made of high frequency welding;

Fig. 8B shows that the disposable toilet hygienic seat cover in accordance with the present invention is made of hot pressing;

Fig. 8C shows that the disposable toilet hygienic seat cover in accordance with the present invention is made of overlock sewing;

Fig. 9 shows another embodiment of the disposable toilet hygienic seat cover in accordance with the present invention;

Fig. 10 shows that the another embodiment of the disposable toilet hygienic seat cover in accordance with the present invention is laid on a toilet seat; and

Fig. 11 is a flow chart showing the steps of the method for laying the disposable toilet hygienic seat cover in accordance with the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0017] The present invention will be clearer from the following description when viewed together with the accompanying drawings, which show, for purpose of illustrations only, the preferred embodiment in accordance with the present invention.

[0018] Referring to Figs. 2-5, a disposable toilet hygienic seat cover in accordance with the present invention is suitable for being laid on a toilet seat 11 having a toilet seat cover 12. The toilet seat cover 12 has a front portion 121 and a rear portion 122 aligned with a front portion 111 and a rear portion 112 of the toilet seat 11, and the front portion 111 of the toilet seat 11 is located inward with respect to the front portion 121 of the toilet seat cover 12. The disposable toilet

hygienic seat cover comprises: a seat cover ring sheet 20, a covering sheet 30, a covering concave portion 40, and a positioning unit 50.

[0019] The seat cover ring sheet 20 is laid on the toilet seat cover 12 and includes a front arc-shaped edge 21 aligned with the front portions 121, 111 of the toilet seat cover 12 and the toilet seat 11, and a rear arc-shaped edge 22 aligned with the rear portions 122, 112 of the toilet seat cover 12 and the toilet seat 11. In this embodiment, the seat cover ring sheet 20 further comprises an inner annular edge 23 which includes a plurality of stop portions 24, and each of the stop portions 24 includes an outer edge 241 connected to the inner annular edge 23, and an inner edge 242 opposite to the outer edge 241. The inner annular edges 23 of the stop portions 24 define an inner circle which is smaller than a central hole 123 of the toilet seat cover 12, and each two neighboring stop portions 24 are connected by a perforated line 243 which extends from the outer edge 241 to a position which is 2-2.5 mm away from the inner edge 242. When the perforated lines 243 are broken, the stop portions 24 will hang down from the inner annular edge 23.

[0020] The covering sheet 30 is disposed on the seat cover ring sheet 20, located toward the front portion 111 of the toilet seat 11, and includes an upper arc-shaped edge 31 fixed to the front arc-shaped edge 21 of the seat cover ring sheet 20, and a lower arc-shaped edge 32 which is opposite to the upper arc-shaped edge 31 and located within the scope defined by the upper arc-shaped edge 31. Namely, the covering sheet 30 tapers from the upper arc-shaped edge 31 toward the lower arc-shaped edge 32, so that the lower arc-shaped edge 32 is located within the scope of the upper arc-shaped edge 31, as shown in Figs. 4 and 5. In this embodiment, the covering sheet 30 and the seat cover ring sheet 20 are separately formed by high frequency welding or integrally formed as a unitary structure by hot pressing molding.

[0021] The covering concave portion 40 is defined by the front arc-shaped edge 21 of the seat cover ring sheet 20 and the covering sheet 30, to cover the front portions 121, 111 of the toilet seat cover 12 and the toilet seat 11.

[0022] The positioning unit 50 includes two adhesive tapes located at two sides of the rear arc-shaped edge 22 of the seat cover ring sheet 20, and can be repeatedly glued to the rear portion 122 of the toilet seat cover 12.

[0023] What mentioned above are the structures of the disposable toilet hygienic seat cover of the present invention, and for the method for making it, reference should be had to the following descriptive matter.

[0024] Referring to Figs. 4-6 and 11, in order to lay the disposable toilet hygienic seat cover of the present invention on the toilet seat cover 12 of the toilet seat 11 in a quick, easy and precise manner, a method for laying the disposable toilet hygienic seat cover has been taken into consideration when designing the disposable toilet hygienic seat cover. It only takes two steps to lay the present invention on the toilet seat after the user pulls apart the positioning unit 50 and unfolds the covering sheet 30, namely, a step 61 of initial positioning and a step 62 of pulling.

[0025] The step 61 of initial positioning is to sleeve the covering concave portion 40 onto the front portions 121, 111 of the toilet seat cover 12 and the toilet seat 11, so that the disposable toilet hygienic seat cover is roughly positioned, as shown in Fig. 6.

[0026] The step 62 of pulling is to hold the rear arc-shaped edge 22 of the seat cover ring sheet 20 and pull it in a direction opposite to the front arc-shaped edge 21, then pull it downward toward the rear portion 122 of the toilet seat cover 12, so that the positioning unit 50 is positioned at the rear portion 122 of the toilet seat cover 12, namely, the laying of the disposable toilet hygienic seat cover of the present invention on the toilet seat cover 12 of the toilet seat 11 is done, as shown in Figs. 4 and 5.

[0027] The covering concave portion 40 defined by the front arc-shaped edge 21 of the seat cover ring sheet 20 and the covering sheet 30 is used as initial positioning of the seat cover, then the seat cover ring sheet 20 is pulled downward toward the rear portion 122 of the toilet seat cover 12, and finally the positioning unit 50 is pressed down by using thumb, so that the disposable toilet hygienic seat cover of the present invention can be easily laid on the toilet seat cover 12 of the toilet seat 11.

[0028] After the disposable toilet hygienic seat cover of the present invention is laid on the toilet seat cover 12 of the toilet seat 11, the covering concave portion 40 covers the front portions 121, 111 of the toilet seat cover 12 and the toilet seat 11, therefore, the covering sheet 30 which defines the covering concave portion 40 also covers the front portions 121, 111 of the toilet seat cover 12 and the toilet seat 11. By such arrangements, after the laying of the disposable toilet seat cover is done, the covering sheet 30 can be prevented from undesired displacement, or can be prevented from being lifted up or folded, so as to completely block the user's skin, pants or skirts from the front portions 121, 111 of the toilet seat cover 12 and the toilet seat 11, thereby ensuring hygienic toilet using and solving the problem of bacterial infection.

[0029] Referring then to Figs. 4 and 7A, the seat cover ring sheet 20 is made of composite materials and includes a waterproof layer 25 used to abut against the toilet seat 11, and an outer layer 26 disposed on the waterproof layer 25 and used to contact the user's skin. The outer layer 26 is made of absorbent and breathable materials, such as pure wood pulp, disinfected recycled pulp, non-woven, or tulle, with these materials, the user won't feel sticky even when the user's butt sweat after sitting for a long time in hot weather. The waterproof layer 25 is made of waterproof materials, such as Polyvinyl chloride (PVC) film, polyethylene (PE) film, or a waterproof plastic, so as to block the germs that live on the toilet seat 11 and the toilet seat cover 12. The seat cover ring sheet 20 and the covering sheet 30 have to be made of the same material in order to make manufacturing easier. As shown in Figs. 4 and 7B, the covering sheet 30

is also made of the same composite material and includes a waterproof layer 34 used to abut against the toilet seat 11, and an outer layer 35 disposed on the waterproof layer 34. The outer layer 35 is made of absorbent and breathable materials, such as pure wood pulp, disinfected recycled pulp, non-woven, or tulle, and the waterproof layer 34 is made of waterproof materials, such as Polyvinyl chloride (PVC) film, polyethylene (PE) film, or a waterproof plastic.

[0030] Referring to Figs. 8A-8C, the method for manufacturing the disposable toilet hygienic seat cover of the present invention depends on the material forming the waterproof layer. For example, if the waterproof layer is made of petrochemical polymers, the manufacturing method can be high frequency welding, hot pressing, and overlock. If the waterproof layer is made of waterproof rubber, and manufacturing method can be overlock, as shown in Fig. 8C, and includes preparing a material laminated with both the seat cover ring sheet 20 and the covering sheet 30, the lower arc-shaped edge 32 is finished with a serger stitch 33, to form a shower-cap structure.

[0031] Referring then to Figs. 9 and 10, at one end of each of the perforated lines 243 between two neighboring stop portions 24 is formed an identification hole 244 which is located closer to the inner edge 242 of the stop portions 24 than the perforated lines 243. The identification hole 244 is located about 2-2.5 mm from the inner edge 242 of the stop portions 24, and has a diameter of 3-4 mm. The identification hole 244 makes it easy for the user to know the position of the perforated lines 243, allowing the user to decide the position where the stop portions 24 are broken. If the user does not tear the perforated line in advance, the perforated lines 243 will also automatically be broken, when the user sits on the seat cover, and the stop portions 24 will hang down from the inner annular edge 23.

REFERENCE NUMBERS LIST

20	11	toilet seat	111	front portion
	112	rear portion	12	toilet seat cover
	121	front portion	122	rear portion
	123	central hole		
25	20	seat cover ring seat	21	front arc-shaped edge
	22	rear arc-shaped edge	23	inner annular edge
	24	stop portion	241	outer edge
	242	inner edge	243	perforated line
	244	identification hole	25	waterproof layer
30	26	outer layer		
	30	covering sheet	31	upper arc-shaped edge
	32	lower arc-shaped edge	33	serger stitch
	34	waterproof layer	35	outer layer
35	40	covering concave portion		
	50	positioning unit		
	61	step of initial positioning	62	step of pulling

Claims

1. A disposable toilet hygienic seat cover suitable for being laid on a toilet seat having a toilet seat cover, the toilet seat cover including a front portion and a rear portion aligned with a front portion and a rear portion of the toilet seat, and the disposable toilet hygienic seat cover comprising:

a seat cover ring sheet laid on the toilet seat cover and including a front arc-shaped edge aligned with the front portions of the toilet seat cover and the toilet seat, and a rear arc-shaped edge aligned with the rear portions of the toilet seat cover and the toilet seat;

a covering sheet disposed on the seat cover ring seat located toward the front portion of the toilet seat and including an upper arc-shaped edge fixed to the front arc-shaped edge of the seat cover ring seat, and a lower arc-shaped edge which is opposite to the upper arc-shaped edge and located within a scope defined by the upper arc-shaped edge;

a covering concave portion being defined by the front arc-shaped edge of the seat cover ring sheet and the covering sheet, to cover the front portions of the toilet seat cover and the toilet seat; and

a positioning unit being disposed at the rear arc-shaped edge of the seat cover ring sheet, and repeatedly fixed to the rear portion of the toilet seat cover.

2. The disposable toilet hygienic seat cover as claimed in claim 1, wherein the seat cover ring sheet is made of

composite materials and includes a waterproof layer used to abut against the toilet seat, and an outer layer disposed on the waterproof layer.

3. The disposable toilet hygienic seat cover as claimed in claim 2, wherein the outer layer is made of absorbent and breathable materials, including pure wood pulp, disinfected recycled pulp, non-woven, or tulle, and the waterproof layer is made of waterproof materials, including Polyvinyl chloride film, polyethylene film, or a waterproof plastic.

4. The disposable toilet hygienic seat cover as claimed in claim 1, wherein the covering sheet is made of composite material and includes a waterproof layer used to abut against the toilet seat, and an outer layer disposed on the waterproof layer.

5. The disposable toilet hygienic seat cover as claimed in claim 4, wherein the outer layer is made of absorbent and breathable materials, including pure wood pulp, disinfected recycled pulp, non-woven, or tulle, and the waterproof layer is made of waterproof materials, including Polyvinyl chloride film, polyethylene film, or a waterproof plastic.

6. The disposable toilet hygienic seat cover as claimed in claim 1, wherein the covering sheet and the seat cover ring sheet are separately formed by high frequency welding or integrally formed as a unitary structure by hot pressing molding.

7. The disposable toilet hygienic seat cover as claimed in claim 1, wherein the lower arc-shaped edge is finished with a serger stitch, to form a shower-cap structure.

8. The disposable toilet hygienic seat cover as claimed in claim 1, wherein the positioning unit is an adhesive tape.

9. The disposable toilet hygienic seat cover as claimed in claim 1 is **characterized in that** the seat cover ring sheet further comprises an inner annular edge which includes a plurality of stop portions, and each of the stop portions includes an outer edge connected to the inner annular edge, and an inner edge opposite to the outer edge, the inner edges of the stop portions define an inner circle which is smaller than a central hole of the toilet seat cover, and each two neighboring stop portions are connected by a perforated line, when the perforated lines are broken, the stop portions will hang down from the inner annular edge.

10. A method for laying the disposable toilet hygienic seat cover as claimed in claim 1 comprising the steps of:

positioning the disposable toilet hygienic seat cover by sleeving the covering concave portion onto the front portions of the toilet seat cover and the toilet seat; and
holding the rear arc-shaped edge of the seat cover ring sheet and pulling it in a direction opposite to the front arc-shaped edge, then pulling it downward toward the rear portion of the toilet seat cover, thus finishing the laying of the disposable toilet hygienic seat cover of the present invention on the toilet seat cover of the toilet seat.

Amended claims under Art. 19.1 PCT

1. A disposable toilet hygienic seat cover suitable for being laid on a toilet seat having a toilet seat cover, the toilet seat cover including a front portion and a rear portion aligned with a front portion and a rear portion of the toilet seat, and the disposable toilet hygienic seat cover comprising:

a seat cover ring sheet laid on the toilet seat cover and including a front arc-shaped edge aligned with the front portions of the toilet seat cover and the toilet seat, and a rear arc-shaped edge aligned with the rear portions of the toilet seat cover and the toilet seat;

a covering sheet disposed on the seat cover ring seat located toward the front portion of the toilet seat and including an upper arc-shaped edge fixed to the front arc-shaped edge of the seat cover ring seat, and a lower arc-shaped edge which is opposite to the upper arc-shaped edge and located within a scope defined by the upper arc-shaped edge;

a covering concave portion being defined by the front arc-shaped edge of the seat cover ring sheet and the covering sheet, to cover the front portions of the toilet seat cover and the toilet seat; and

a positioning unit being disposed at the rear arc-shaped edge of the seat cover ring sheet, and repeatedly fixed to the rear portion of the toilet seat cover;

the disposable toilet hygienic seat cover being **characterized in that** the seat cover ring sheet further comprises

an inner annular edge which includes a plurality of stop portions, and each of the stop portions includes an outer edge connected to the inner annular edge, and an inner edge opposite to the outer edge, the inner edges of the stop portions define an inner circle which is smaller than a central hole of the toilet seat cover, and each two neighboring stop portions are connected by a perforated line, when the perforated lines are broken, the stop portions will hang down from the inner annular edge.

2. The disposable toilet hygienic seat cover as claimed in claim 1, wherein the seat cover ring sheet is made of composite materials and includes a waterproof layer used to abut against the toilet seat, and an outer layer disposed on the waterproof layer.

3. The disposable toilet hygienic seat cover as claimed in claim 2, wherein the outer layer is made of absorbent and breathable materials, including pure wood pulp, disinfected recycled pulp, non-woven, or tulle, and the waterproof layer is made of waterproof materials, including Polyvinyl chloride film, polyethylene film, or a waterproof plastic.

4. The disposable toilet hygienic seat cover as claimed in claim 1, wherein the covering sheet is made of composite material and includes a waterproof layer used to abut against the toilet seat, and an outer layer disposed on the waterproof layer.

5. The disposable toilet hygienic seat cover as claimed in claim 4, wherein the outer layer is made of absorbent and breathable materials, including pure wood pulp, disinfected recycled pulp, non-woven, or tulle, and the waterproof layer is made of waterproof materials, including Polyvinyl chloride film, polyethylene film, or a waterproof plastic.

6. The disposable toilet hygienic seat cover as claimed in claim 1, wherein the covering sheet and the seat cover ring sheet are separately formed by high frequency welding or integrally formed as a unitary structure by hot pressing molding.

7. The disposable toilet hygienic seat cover as claimed in claim 1, wherein the lower arc-shaped edge is finished with a serger stitch, to form a shower-cap structure.

8. The disposable toilet hygienic seat cover as claimed in claim 1, wherein the positioning unit is an adhesive tape.

9. A method for laying the disposable toilet hygienic seat cover as claimed in claim 1 comprising the steps of:

positioning the disposable toilet hygienic seat cover by sleeving the covering concave portion onto the front portions of the toilet seat cover and the toilet seat; and
holding the rear arc-shaped edge of the seat cover ring sheet and pulling it in a direction opposite to the front arc-shaped edge, then pulling it downward toward the rear portion of the toilet seat cover, thus finishing the laying of the disposable toilet hygienic seat cover of the present invention on the toilet seat cover of the toilet seat.

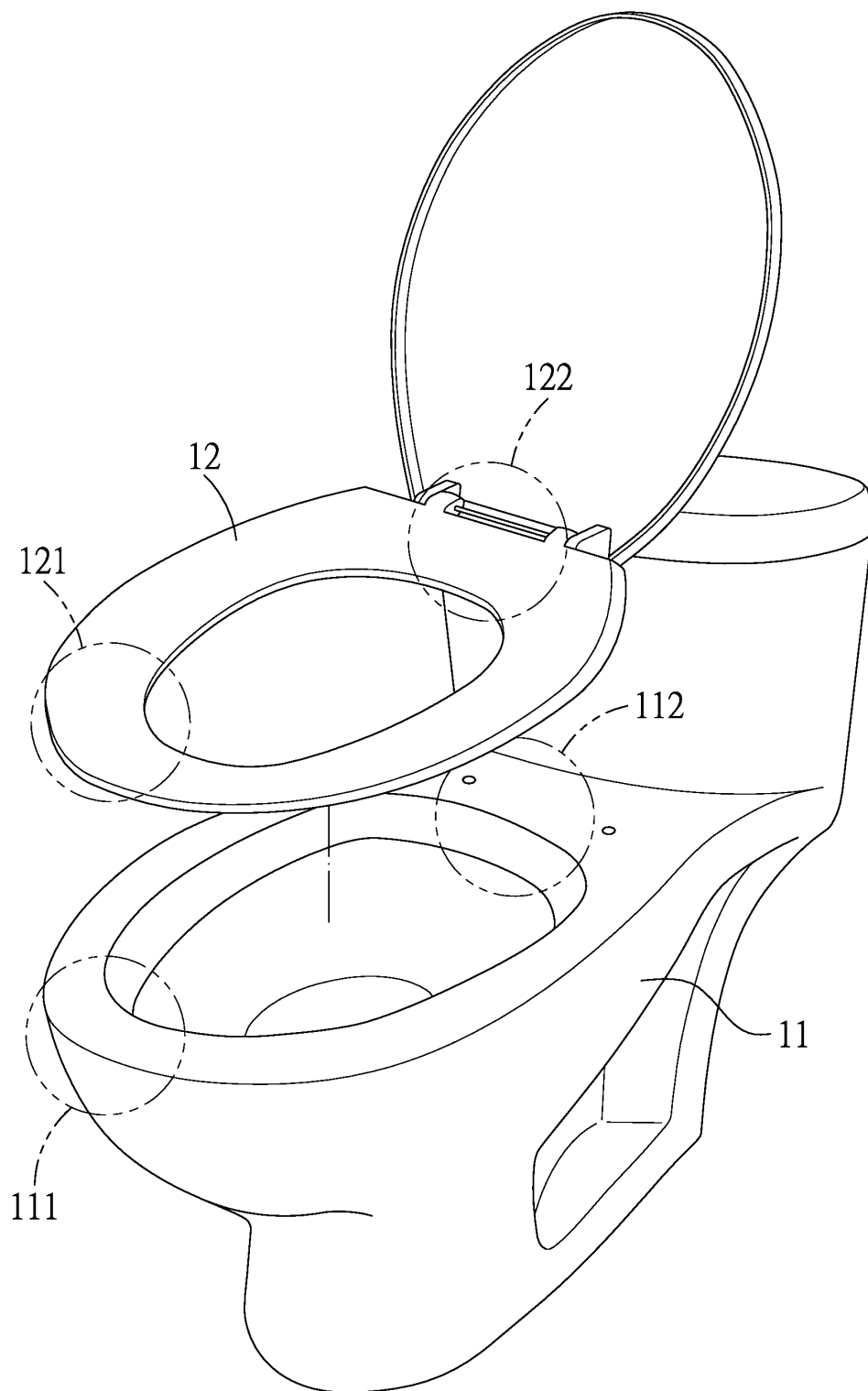


FIG.1
PRIOR ART

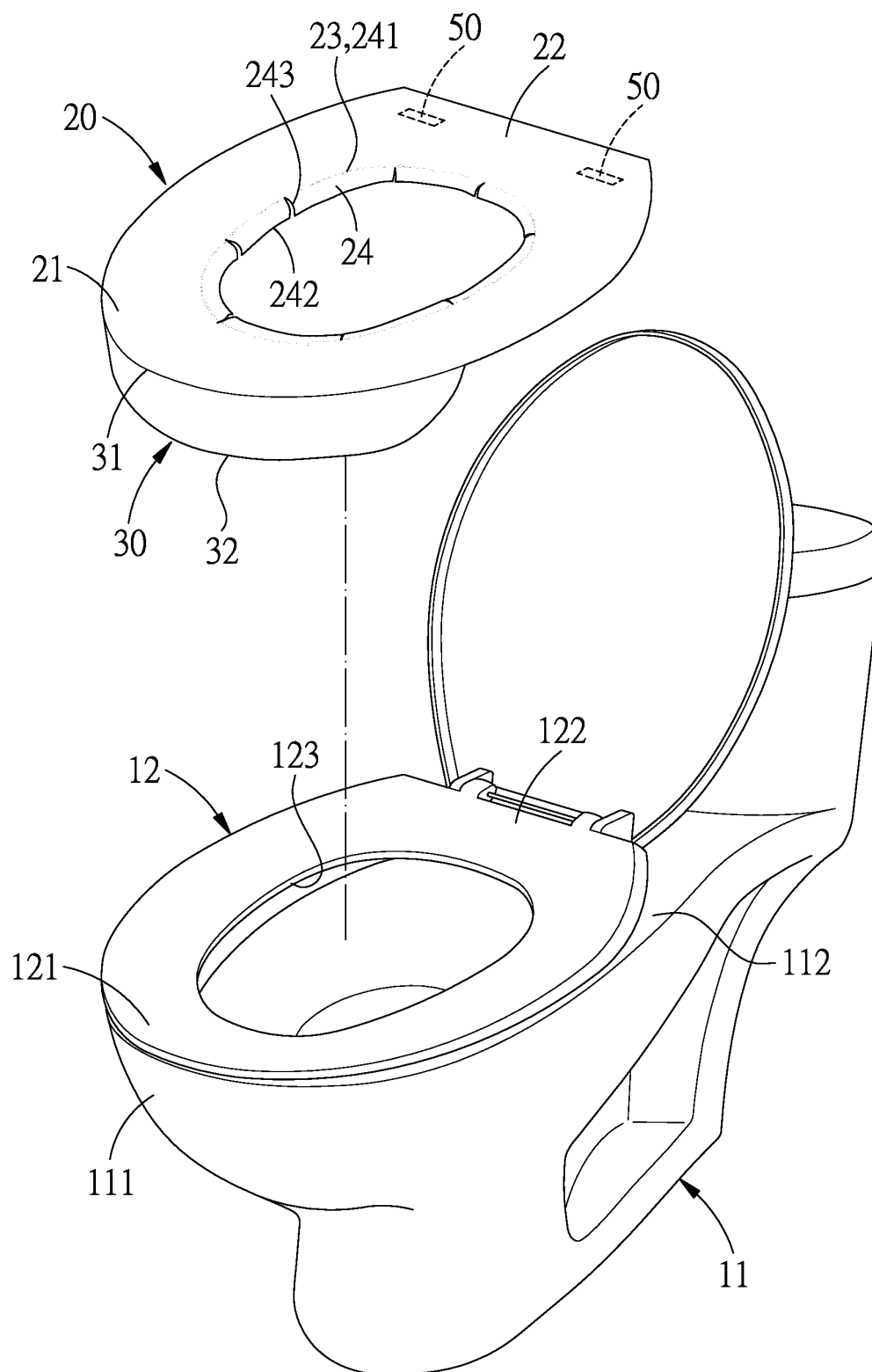


FIG.2

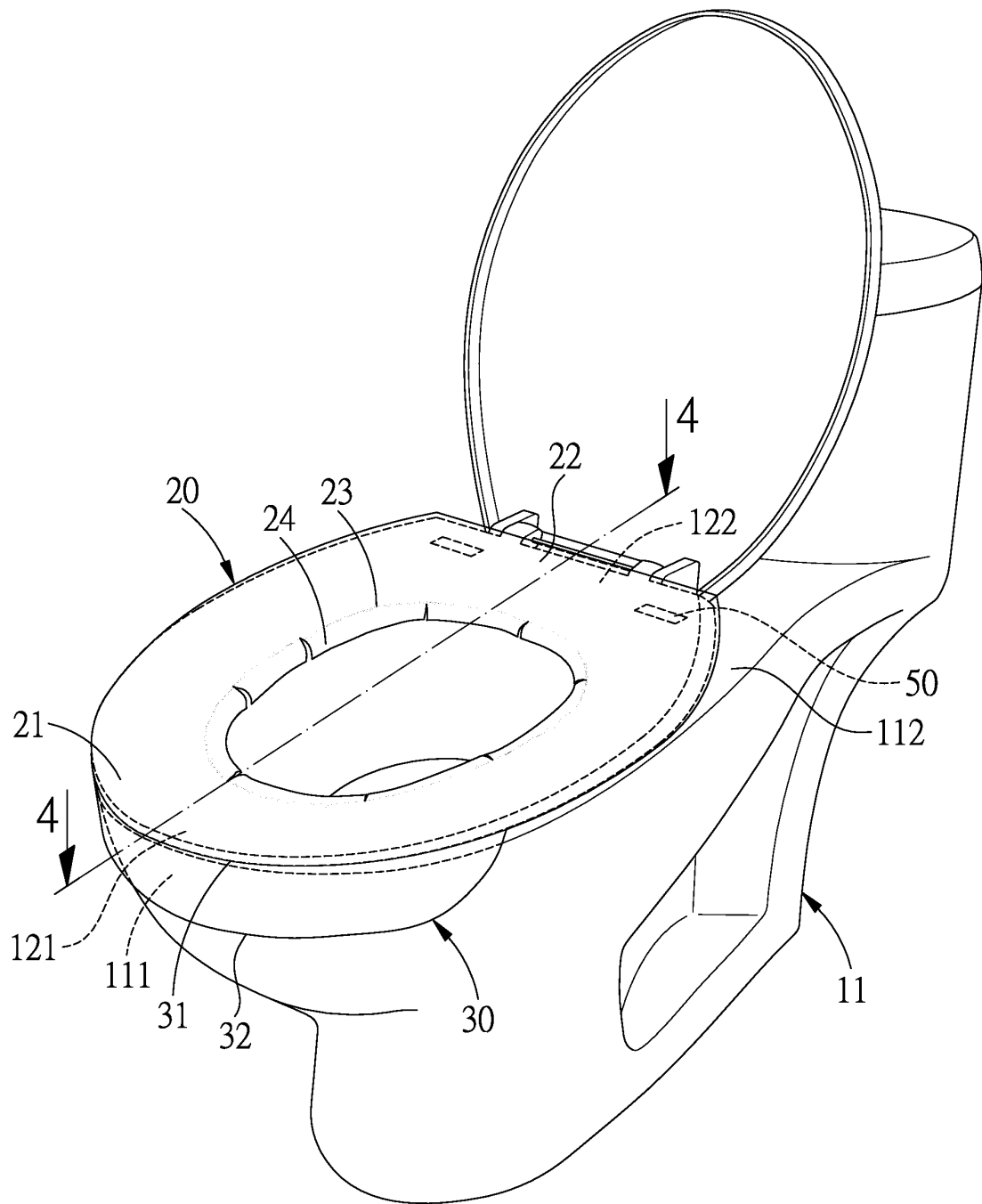


FIG.3

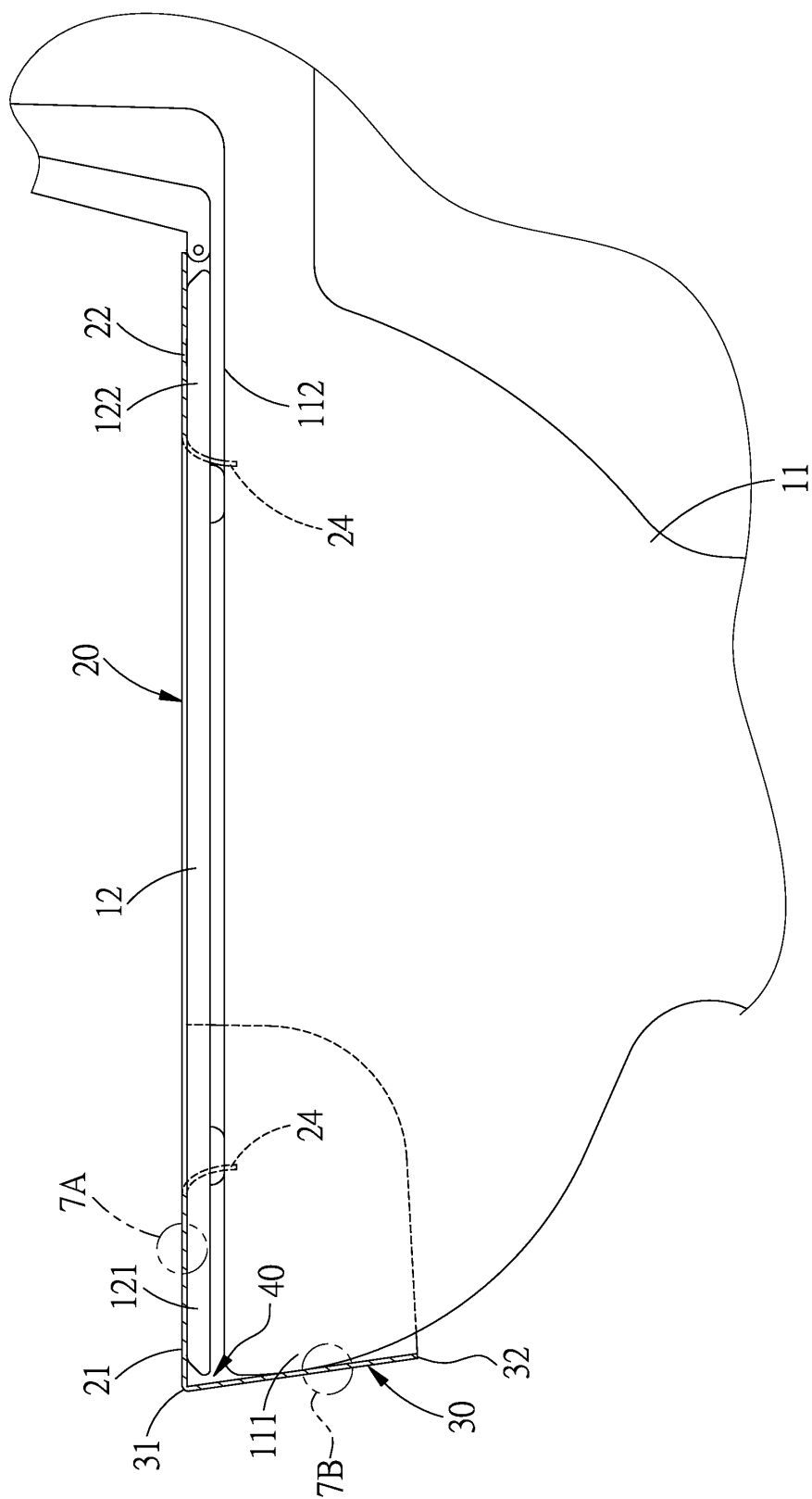


FIG. 4

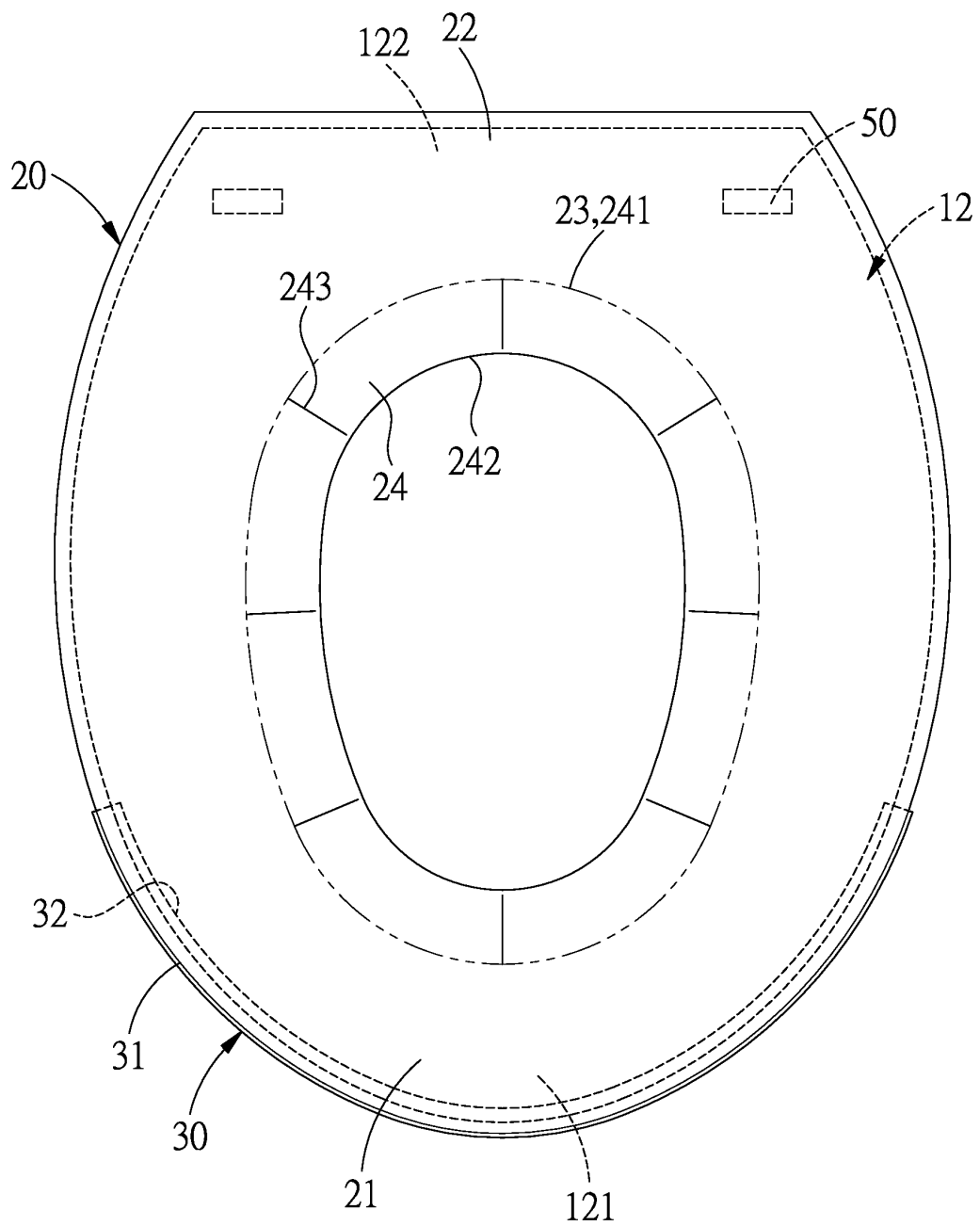


FIG.5

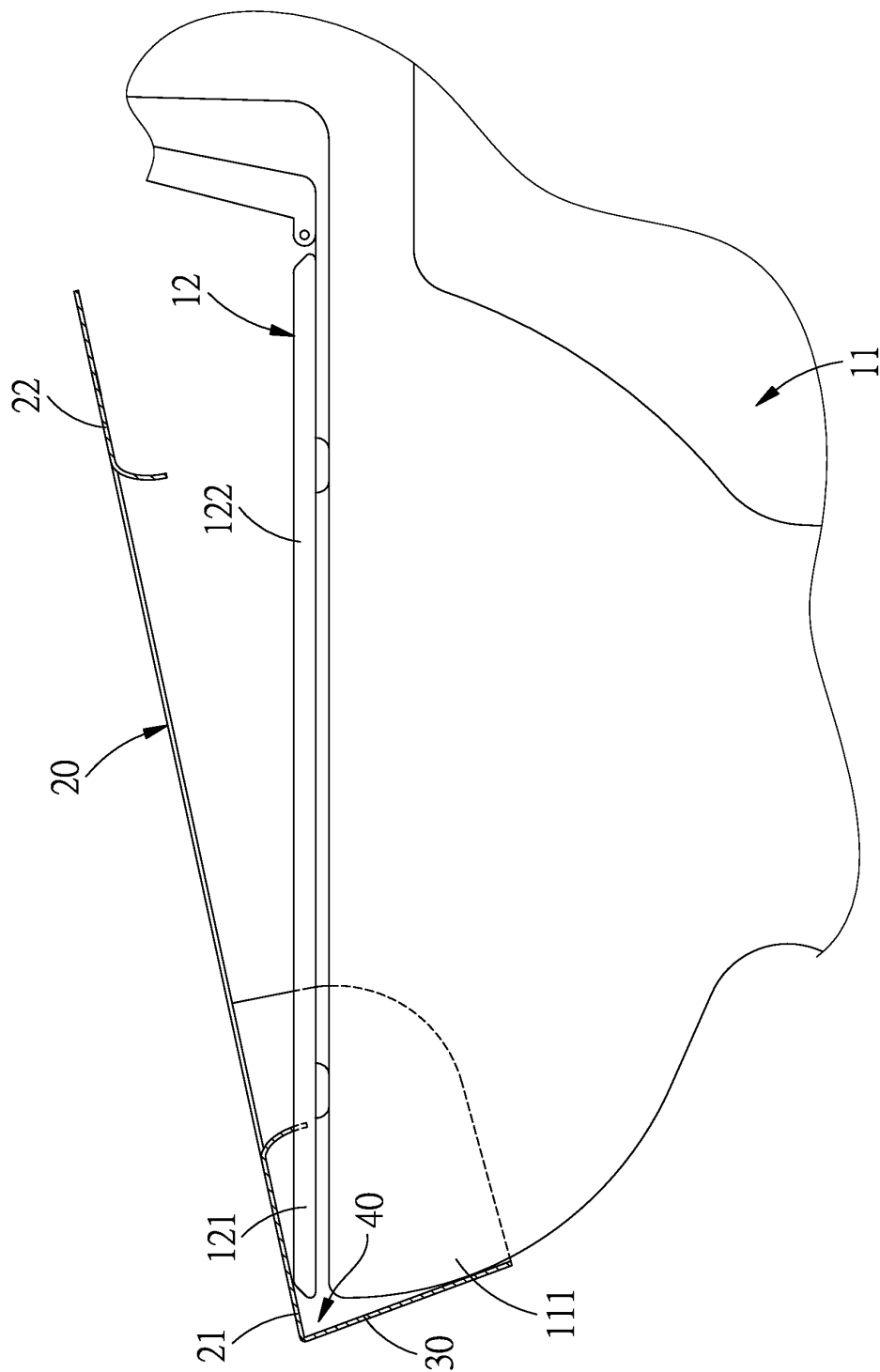


FIG.6

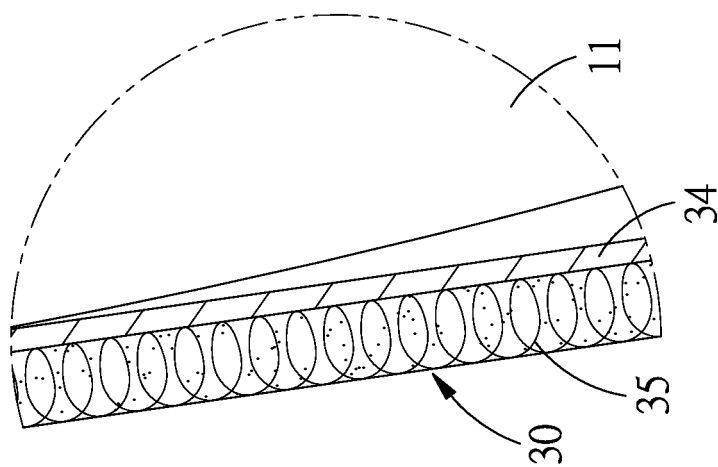


FIG. 7B

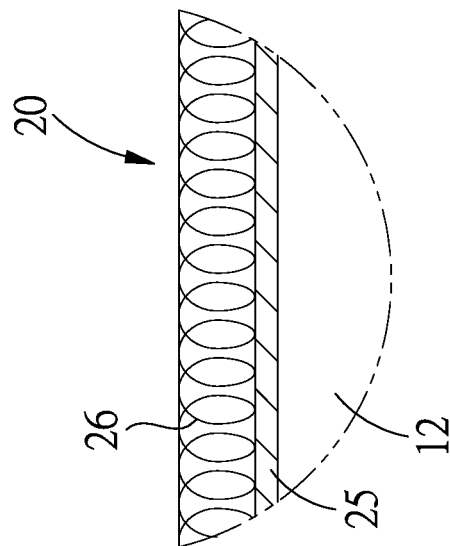


FIG. 7A

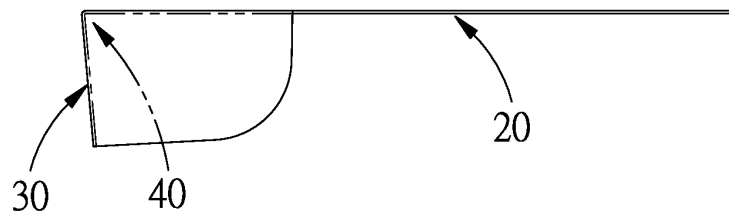


FIG. 8A

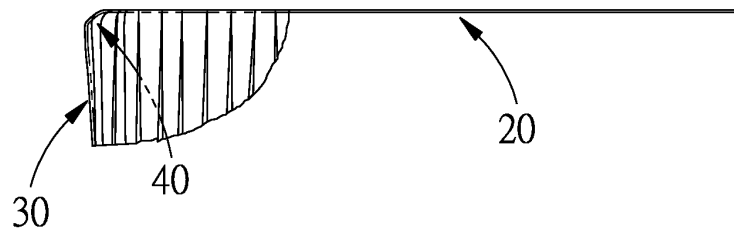


FIG. 8B

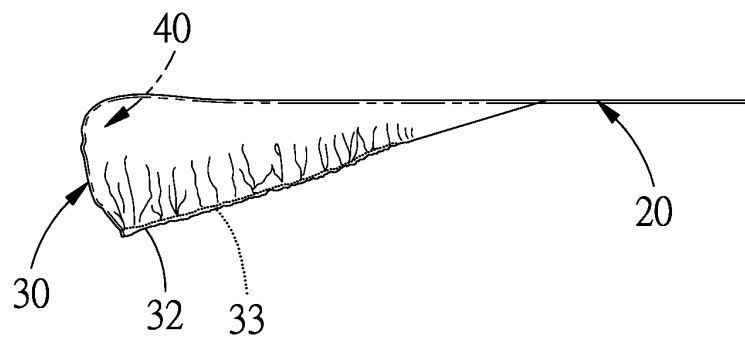


FIG. 8C

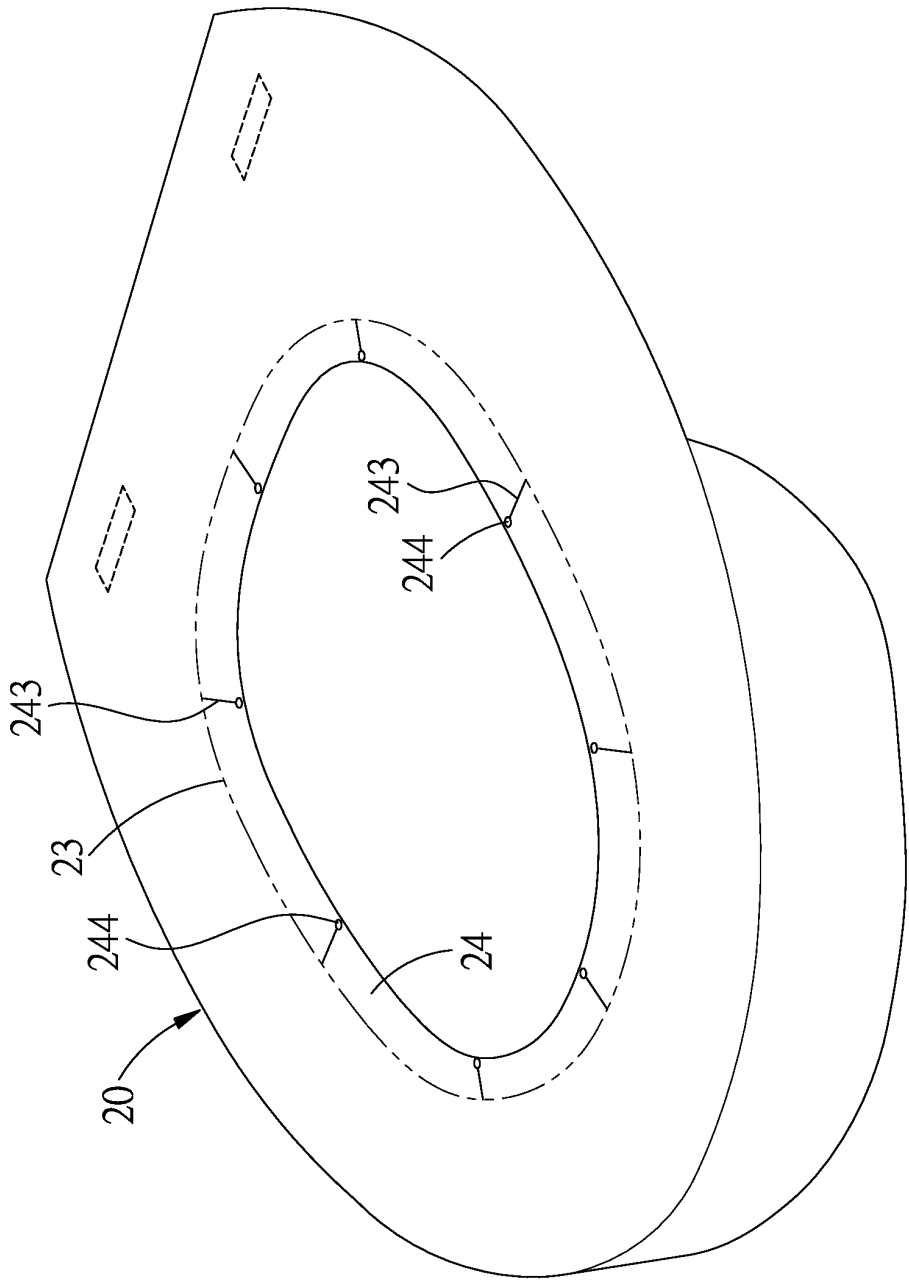


FIG.9

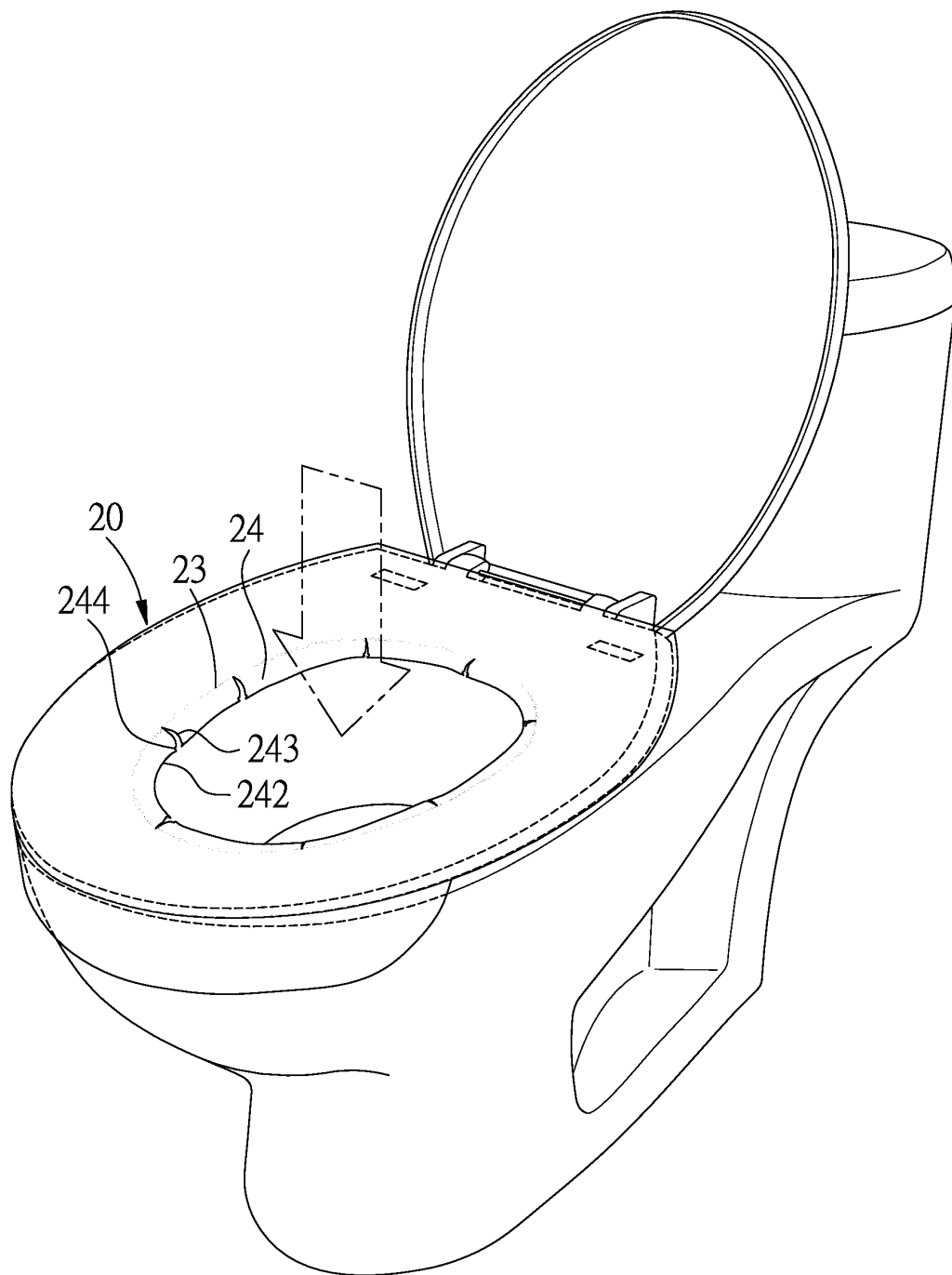


FIG.10

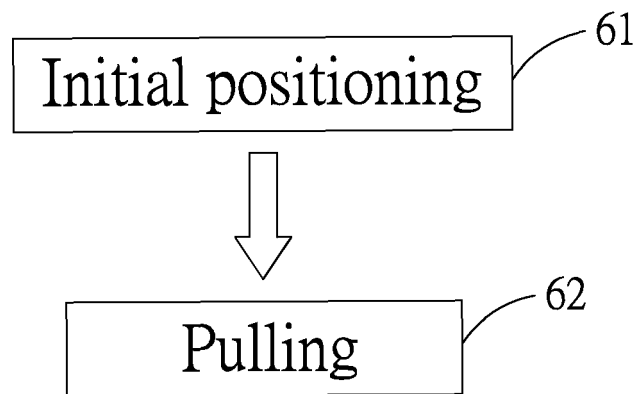


FIG.11

INTERNATIONAL SEARCH REPORT

International application No.

PCT/CN2012/079967

A. CLASSIFICATION OF SUBJECT MATTER

See the extra sheet

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)

IPC: A47K 13/-

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, USTXT, WOTXT, EPTXT: sheet, disposable, portable, mat, cover, flap, contaminate

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	CN 201798679 U (LI, Chunyan), 20 April 2011 (20.04.2011), description, paragraphs 9-13, and figure 1	1-8
Y	CN 2683005 Y (ZHANG, Yaozhen), 09 March 2005 (09.03.2005), description, particular embodiments, and figure 1	1-8
Y	CN 1456122 A (SHEN, Hua), 19 November 2003 (19.11.2003), description of the figures, and figure 3	3, 5
Y	CN 2206605 Y (CHEN, Niming), 06 September 1995 (06.09.1995), description, page 1, line 21	6

☒ Further documents are listed in the continuation of Box C.☒ See patent family annex.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier application or patent but published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

10 November 2012 (10.11.2012)

Date of mailing of the international search report

22 November 2012 (22.11.2012)

Name and mailing address of the ISA/CN:
 State Intellectual Property Office of the P. R. China
 No. 6, Xitucheng Road, Jimenqiao
 Haidian District, Beijing 100088, China
 Facsimile No.: (86-10) 62019451

Authorized officer

WANG, Rui

Telephone No.: (86-10) 62085823

INTERNATIONAL SEARCH REPORT

International application No.

PCT/CN2012/079967

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	KR 20100009648 U (AN, J.N.), 04 October 2010 (04.10.2010), description, paragraphs 8-9, and figures 1-2	1
Y	US 20020184701 A1 (JOHNSON, T.L.), 12 December 2002 (12.12.2002), description, paragraphs 21-24, and figures 2-3	1
A	FR 1108590 A (JOAQUIN, P.S.), 16 January 1956 (16.01.1956), the whole document	1-10
A	US 4050105 A (MARCEAUX, L.J.), 27 September 1977 (27.09.1977), the whole document	1-10
A	DE 20018356 U (MEYER, U.), 15 March 2001 (15.03.2001), the whole document	1-10

Form PCT/ISA/210 (continuation of second sheet) (July 2009)

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/CN2012/079967

Patent Documents referred in the Report	Publication Date	Patent Family	Publication Date
CN 201798679 U	20.04.2011	None	
CN 2683005 Y	09.03.2005	None	
CN 1456122 A	19.11.2003	None	
CN 2206605 Y	06.09.1995	None	
KR 20100009648 U	04.10.2010	None	
US 20020184701 A1	12.12.2002	None	
FR 1108590 A	16.01.1956	None	
US 4050105 A	27.09.1977	None	
DE 20018356 U	15.03.2001	None	

Form PCT/ISA/210 (patent family annex) (July 2009)

INTERNATIONAL SEARCH REPORT

International application No.

PCT/CN2012/079967

5

(CONTINUATION OF SECOND SHEET) A. CLASSIFICATION OF SUBJECT MATTER

A47K 13/16 (2006.01) i

10

A47K 13/14 (2006.01) i

15

20

25

30

35

40

45

50

55

Form PCT/ISA/210 (extra sheet) (July 2009)

REFERENCES CITED IN THE DESCRIPTION

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

Patent documents cited in the description

- US 5557809 A [0002]
- US 5392469 A [0002]
- US 2003208836 A1 [0002]
- US 6851131 B1 [0002]
- GB 2182688 A [0002]
- US 2011271433 A1 [0002]
- GB 1600786 A [0002]
- WO 03096861 A1 [0002]
- US 6711756 B1 [0002]