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(54) A LINING OF A SANITARY CIGARETTE CASE AND THE SANITARY CIGARETTE CASE WITH THE SAME

(57) The present invention discloses an inner lining sheet for a sanitary cigarette case, disposed between a cigarette case body and an aluminum foil paper, in which four fold lines including two transverse and two longitudinal fold lines, are formed on the inner lining sheet, in which the front and rear transverse fold lines, both located in the middle part of the inner lining sheet, are parallel to each other, and the left and right longitudinal fold lines, both located below the transverse fold line, are parallel to each other; thus dividing the inner lining sheet into five parts including a front surface, a left side surface, a right side surface, a rear surface and an enclosure surface, in which an enclosure surface is formed by a part defined between the front and rear transverse fold lines, a top edge of the left side surface is lower than the front transverse fold line and a top edge of a left part of the front surface is also lower than the front transverse fold line. A tobacco-shred end of a cigarette is positioned at the enclosure surface side, thus preventing the tobacco-shred end from being exposed and holding the cigarette from falling off. The inner lining sheet according to the present invention can be folded into shape without bonding. The present invention further relates to a sanitary cigarette case including the inner lining sheet.

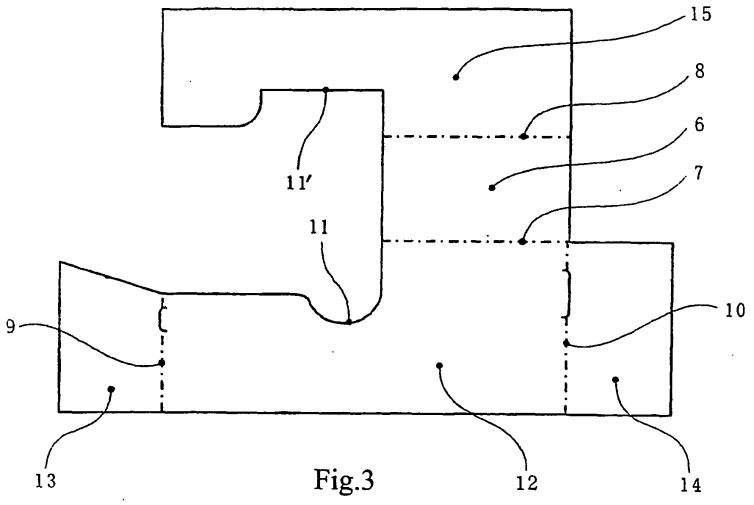


Fig.3

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Description

TECHNICIL FIELD

[0001] This invention relates to the technical field of cigarette packing, in particular, to an inner lining sheet for a sanitary cigarette case on which four fold lines including two transverse lines and two longitudinal lines are formed, in which an enclosure surface is defined by two transverse lines among the four fold lines, and to a sanitary cigarette case including the same.

BACKGROUND OF THE INVENTION

[0002] The hard cigarette packing case with a hinged-lid, invented in the U.K. 60 years ago, has become the prevailing type of cigarette packing. However, it involves a major defect due to that a smoker's fingers must touch the filter tip during taking out a cigarette, which brings about a sanitary problem which is paid close attention by the society. Regarding this problem, China Customers Association issued No. 6 Consuming Caution in May, 2001 entitled "smoking is a main way to get ill by mouth", to warn that the filter tip spreads disease, and appeals to the related departments for changing the current packing method of cigarettes with filter tips.

[0003] Against this background, a Chinese Patent application No. ZL01131395.1 (Publishing No. CN1346780A) entitled "Sanitary Cigarette Case" is proposed. It discloses a sanitary cigarette case which is to be opened from one side, so that a cigarette can be taken out with fingers nipping a middle part of the cigarette, thereby avoiding bacterial and viral spreading via contact, which results in a significant improvement in the field of cigarette packing. For the cigarette case in the prior art, however, an enclosure surface thereof preventing a tobacco-shred end of the cigarette (i.e. the end opposite the filter tip) from being exposed and hold the cigarette from falling off, is formed by bonding two projections provided on an inner lining sheet. As a result, it increases the difficulty in renovating a cigarette packing machine and potentially has a disadvantageous influence on the stability of packing quality.

SUMMARY OF THE INVENTION

[0004] A main object of the present invention is to provide an inner lining sheet free from bonding, which meets the technical requirements of the "Sanitary Cigarette Case" and is at the same time adapted to existing cigarette packaging facilities so as to create conditions for industrialized application of the "Sanitary cigarette case".

[0005] Another object of the present invention is to provide a sanitary cigarette case including such an inner lining sheet.

[0006] In order to achieve one or more of the above-mentioned and/or other objects, the present invention is directed to an inner lining sheet for a sanitary cigarette case, which is preferably made of cardboard through die-cutting. The inner lining sheet is to be disposed between a cigarette case body of the cigarette case and an aluminum foil paper, in which the aluminum foil paper wraps cigarettes. Four fold lines including two transverse and two longitudinal fold lines, are formed on the inner lining sheet, in which a front transverse fold line and a rear transverse fold line, both located in a middle part of the inner lining sheet, are parallel to each other, and a left longitudinal fold line and a right longitudinal fold line, both located below the front transverse fold line, are parallel to each other. The four fold lines divide the inner lining sheet into five parts, i.e., a front surface, a left side surface, a right side surface, a rear surface and an enclosure surface, in which the enclosure surface is formed by a part defined between the front transverse fold line and the rear transverse fold line, a top edge of the left side surface is lower than the front transverse fold line and a top edge of a left part of the front surface is also lower than the front transverse fold line. A tobacco-shred end of a cigarette is positioned at a side of the enclosure surface so that the tobacco shred end is not exposed to the outside and thereby prevents cigarettes from falling off.

[0007] The present invention is further characterized in that: the inner lining sheet being divided by the two longitudinal fold lines so as to form the front surface, the left side surface and the right side surface of a cigarette case. A notch is formed on a top edge of the left part of the front surface, and a corresponding notch, opposite to the notch on the top edge of the left part of the front surface, is formed on a top edge of the rear surface. These two notches provide a space for taking out a cigarette with fingers nipping its middle part and render a passage for pulling out the cigarette. Preferably, the top edge of the right side surface has the same height as the front transverse fold line and forms an enclosure end of a cigarette wrap in cooperation with the enclosure surface. The inner lining sheet according to the present invention can be folded into its folded state by a cigarette packing machine without bonding.

[0008] The inner lining sheet according to the present invention, is free from bonding, meets the technical requirements of the "Sanitary Cigarette Case" and is at the same time adapted to existing cigarette packaging facilities. It is easy to renovate the existing facilities so as to put the present invention into practice and thereby promote industrialized application of the sanitary cigarette case.

[0009] The present invention further provides a sanitary cigarette case including the inner lining sheet described above,

in which the inner lining sheet is to be disposed between the cigarette case body and the aluminum foil paper.

BRIEF DISCRIPTION OF THE DRAWINGS

[0010]

FIG. 1 is a schematic view showing a sanitary cigarette case with a lid being opened;
FIG. 2 is a schematic view showing a sanitary cigarette case in service state, in which cigarettes are accommodated in the cigarette case and one of the cigarettes is being pulled out;
FIG. 3 is a view showing an inner lining sheet in a deployed state according to the present invention;
FIG. 4 is a structural view showing the inner lining sheet in a folded state according to the present invention.

Reference description

[0011]

1.	cigarette case body	2.	inner lining sheet
3.	aluminum foil paper	4.	cigarette
5.	filter tip	6.	enclosure surface
7.	front transverse fold line	8.	rear transverse fold line
9.	left longitudinal fold line	10.	right longitudinal fold line
11, 11'.	notch	12.	front surface
13.	left side surface	14.	right side surface
15.	rear surface		

DETAILED DESCRIPTION OF THE INVENTION

[0012] FIG. 1 is a schematic view showing a sanitary cigarette case with a lid being opened. The sanitary cigarette case consists of an outermost cigarette case body 1, an innermost aluminum foil paper 3, and an inner lining sheet 2 located between the cigarette case body 1 and the aluminum foil paper 3, in which the aluminum foil paper 3 wraps cigarettes accommodated in the cigarette case. Preferably, the inner lining sheet 2 is made of cardboard through a die-cutting process.

[0013] FIG. 2 is a schematic view showing the sanitary cigarette case is in service state, in which cigarettes are accommodated in the sanitary cigarette case. When the aluminum foil paper 3 is ripped off at an open end (upper end in Figs. 1-2 and 4) of the cigarette case, most of a cigarette 4 and a filter tip 5 thereof are visible. An enclosure surface 6 prevents the tobacco-shred end (i.e. end opposite to the filter tip) of the cigarettes from being exposed and holds the cigarette 4 at the top from falling off along a direction towards the lid. Therefore, the cigarette 4 can be taking out with fingers nipping its middle part without contacting the filter tip 5.

[0014] FIG. 3 is a deployed view showing the inner lining sheet 2 according to the present invention. Four fold lines, including two transverse and two longitudinal fold lines, are formed on the inner lining sheet 2, in which the front transverse fold line 7 and the rear transverse fold line 8, both located in the middle part of the inner lining sheet, are parallel to each other, and the left longitudinal fold line 9 and the right longitudinal fold line 10, both located below the transverse fold line 7, are parallel to each other and orthogonal substantially to the front transverse fold line 7 and the rear transverse fold line 8. The four fold lines divide the inner lining sheet 2 into five parts, i.e., a front surface 12, a left side surface 13, a right side surface 14, a rear surface 15 and an enclosure surface 6, in which the enclosure surface 6 is formed by a part defined between the front transverse fold line 7 and the rear transverse fold line 8. As shown in Fig. 3, a top edge of the left side surface 13 is lower than the front transverse fold line 7 and a top edge of a left part of the front surface 12 is also lower than the front transverse fold line 7. A notch 11 is formed on the top edge of the left part of the front surface 12 and a corresponding notch 11 ', opposite to the notch 11, is formed on the top edge of the rear surface 15. The notches 11, 11' provide a space for taking out the cigarette 4 with fingers nipping its middle part. Preferably, the top edge of the right side surface 14 has the same height as the front transverse fold line 7.

[0015] FIG. 4 is a structural view showing the inner lining sheet 2 in its folded state according to the present invention, the inner lining sheet 2 is folded into its folded state from its deployed state. With the inner lining sheet 2 being folded along the front transverse fold line 7 and the rear transverse fold line 8, the enclosure surface 6 is defined and formed at the open end. A tobacco-shred end of the cigarette 4 is positioned at the side of the enclosure surface 6, thus preventing the tobacco shred end from being exposed and holding the cigarette 4 from falling off in the direction towards the lid.

When the inner lining sheet 2 is folded along a left longitudinal fold line 9, the left side surface 13 at the open end of the cigarette case is formed with the top edge of the left side surface 13 being lower than the front transverse fold line 7. The notch 11 is formed in the middle part of the front surface 12 and the corresponding notch 11', opposite to the notch 11, is formed in the rear surface 15. The notches 11, 11' provide a space for taking out the cigarette 4 with fingers and render a passage for pulling out the cigarette 4. With the inner lining sheet 2 being folded along the longitudinal fold line 10, the right side surface 14 is formed at the open end of the cigarette case, which forms an enclosure end in cooperation with the enclosure surface 6 and the rear surface 15.

[0016] The present invention further provides a sanitary cigarette case including the cigarette case body 3, the aluminum foil paper 3 disposed inside the cigarette case body 3, and the inner lining sheet 2 disposed between the cigarette case body 1 and the aluminum foil paper 3.

[0017] With simple structure and being free from bonding, the inner lining sheet according to the present invention is adapted to industrialization.

[0018] Although the present invention has been shown and described through embodiments, it would be appreciated by those skilled in the art that any changes or modifications made to this embodiment and their equivalents without departing from the principles and spirit of the invention fall into the protection scope of which is defined in the attached claims.

Claims

1. An inner lining sheet for a sanitary cigarette case, the inner lining sheet being adapted to be disposed between a cigarette case body and an aluminum foil paper, the inner lining sheet comprising four fold lines formed thereon, the four fold lines including front and rear transverse lines and left and rear longitudinal fold lines,
   Wherein the front transverse fold line and the rear transverse fold line are parallel to each other and both located in a middle part of the inner lining sheet,
   wherein the left longitudinal fold line and the right longitudinal fold line are parallel to each other and both located below the transverse fold line;
   wherein the front and rear transverse lines and the left and rear longitudinal fold lines divide the inner lining sheet into five parts including a front surface, a left side surface, a right side surface, a rear surface and an enclosure surface, in which the enclosure surface is formed by a part defined between the front transverse fold line and the rear transverse fold line; and
   wherein a top edge of the left side surface is lower than the front transverse fold line and a top edge of a left part of the front surface is lower than the front transverse fold line.

2. The inner lining sheet for a sanitary cigarette case according to claim 1, wherein a notch is formed on the top edge of the left part of the front surface and a corresponding notch, opposite to the notch formed on the top edge of the left part of the front surface, is formed on the top edge of the rear surface.

3. The inner lining sheet for a sanitary cigarette case according to claims 1 or 2, wherein the top edge of the right side surface has the same height as the front transverse fold line.

4. The inner lining sheet for a sanitary cigarette case according to claims 1, 2 or 3, wherein the inner lining sheet is made of a cardboard through die-cutting.

5. A sanitary cigarette case, comprising:

   a cigarette case body
   an aluminum foil paper disposed inside the cigarette case body; and
   an inner lining sheet according to any one of claims 1-4, in which the inner lining sheet is disposed between the cigarette case body and the aluminum foil paper.

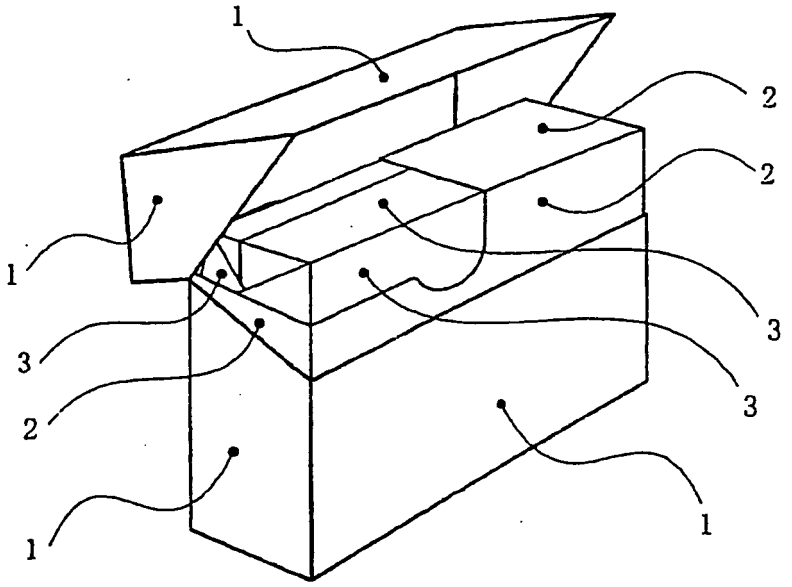


Fig.1

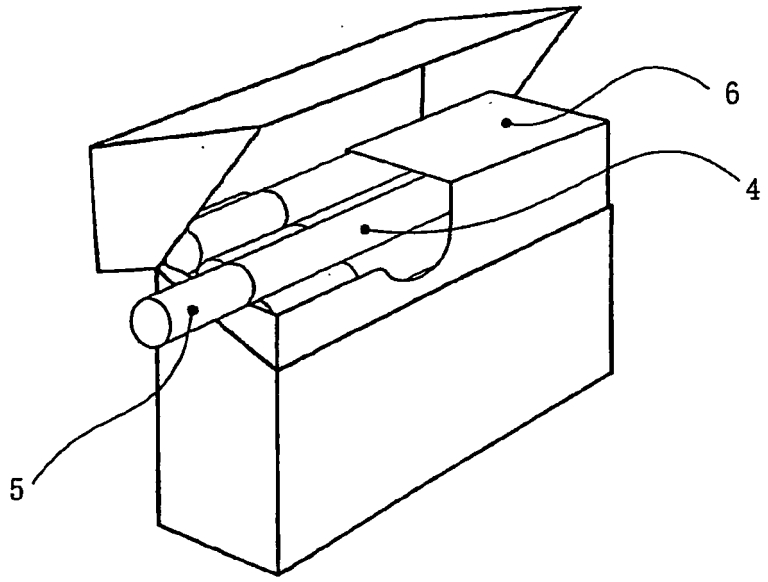


Fig.2

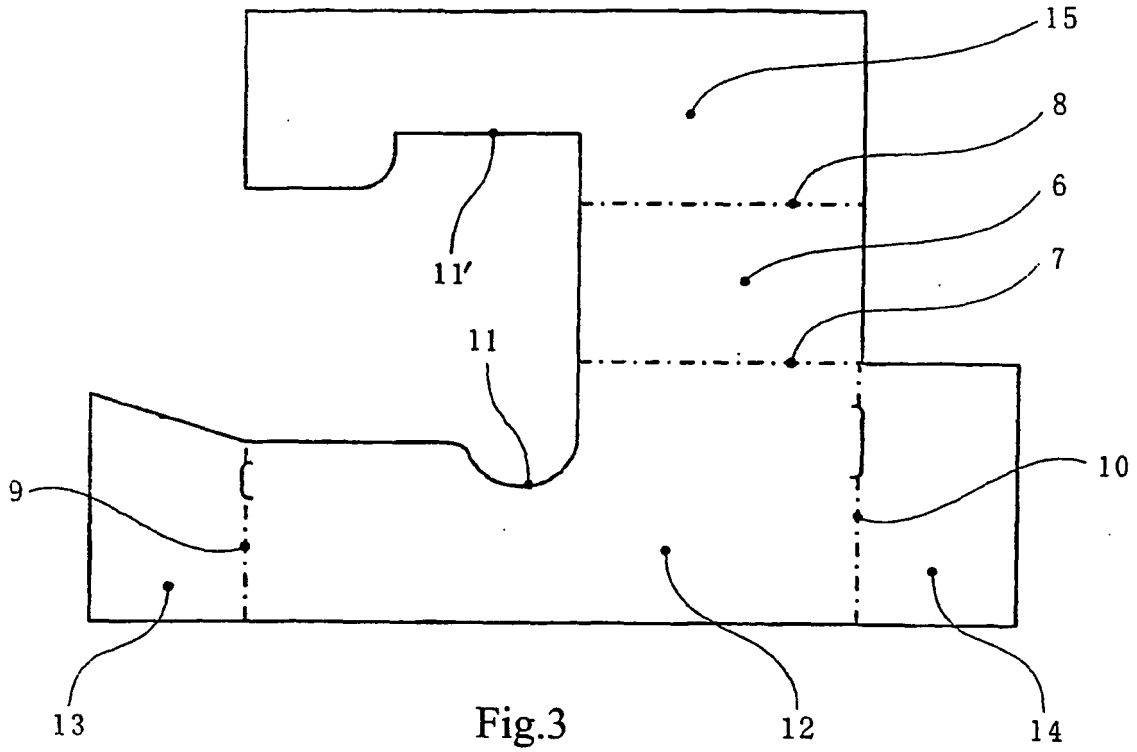


Fig.3

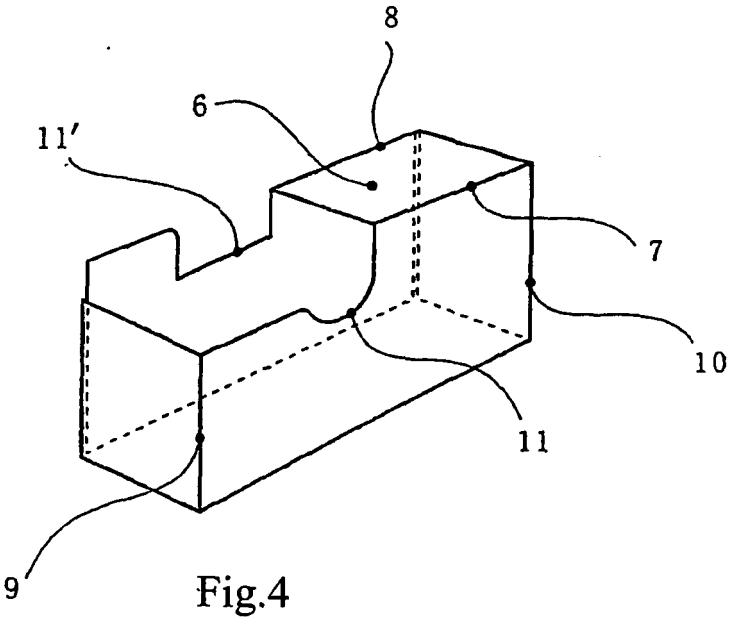


Fig.4

INTERNATIONAL SEARCH REPORT

International application No.
PCT/CN2005/001215

A. CLASSIFICATION OF SUBJECT MATTER

IPC[7] B65D5/56 B65D85/10

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[7] B65D5/42,5/56 B65D85/08,85/10

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

CHINESE INVENTION AND UTILITY MODELS PATENT APPLICATIONS FROM 1985-2005

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

EPODOC, PAJ, WPI, CNPAT: (B65D5/56 AND B65D85/10)/IC OR (CIGARETTE AND (BOX+ OR CARTON+ OR PACK+ OR CASE) AND ((SIDE+ AND OPEN+) OR LIN+))

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

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"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

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
11.Oct.2005(11.10.05)	17 · NOV 2005 (17 · 11 · 2005)
Name and mailing address of the ISA/CN The State Intellectual Property Office, the P.R.China 6 Xitucheng Rd., Jimen Bridge, Haidian District, Beijing, China 100088 Facsimile No. 86-10-62019451	Authorized officer WANG, Zhongqiong Telephone No. 86-10-62085471

Form PCT/ISA /210 (second sheet) (April 2005)

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.
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CN, A, 1346780	01.May.2002	None	

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REFERENCES CITED IN THE DESCRIPTION

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