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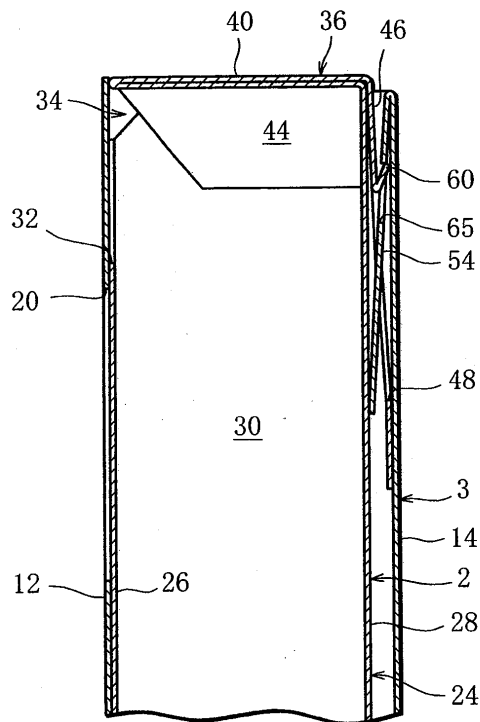
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(54) **SLIDE PACKAGE**

(57) A slide package (10) of the invention includes a rectangular outer box (3) having an opening (18) at a top thereof, and an inner box (2) accommodated in the outer box (3) and slidable upward from the opening (18). The inner box has a top wall (40) closing the opening (18) of the outer box (3) and a lid flap (46) extending downward from the top wall (40). When the inner box (2) is slid upward from the opening (18), an upper part of the inner box (2) is exposed to open the front side of the slide package. The lid flap (46) has a click tab (60) projecting rearward toward an outer rear wall (14) of the outer box (3), and the outer box (3) has an opening (65) with which the click tab (60) can be engaged. The click tab (60) is engaged with the opening (65) and urges the inner box (2) forward against the outer box (3) while the inner box (2) is accommodated in the outer box (3) with the opening (18) closed with the top wall (40), and disengages from the opening (65) when the inner box (2) is slid upward.

FIG. 4



## Description

### Technical Field

[0001] The present invention relates to slide packages suited for containing cigarettes.

### Background Art

[0002] As packages for containing cigarettes, a hinge lid type cigarette package, for example, has been widely known which comprises a rectangular body and a lid joined to the body by a hinge.

[0003] There has also been proposed a cigarette package capable of producing an audible sound when the lid is opened or closed, in order to make the user realize that the lid is being opened or has been completely closed.

[0004] In Patent Document 1, for example, a part of the box body is allowed to project across the hinge, and when the lid is opened, the projecting part bends to produce an audible sound.

[0005] On the other hand, in Patent Document 2, an engaging means is provided between the lid and the box body, and when the lid is opened and closed, the engaging means produces an audible sound. The engaging means also has the function of engaging the lid with the box body, to prevent the lid from opening accidentally while the lid is closed, thereby preventing the cigarettes from dropping out of the package.

### Citation List

#### Patent Literature

[0006]

Patent Document 1: Unexamined Japanese Patent Publication No. 2005-287508

Patent Document 2: Unexamined Japanese Patent Publication No. H11-49149

### Summary of Invention

#### Technical Problem

[0007] In recent years, cigarette packages with various shapes, besides the hinge lid type cigarette packages, have come to be increasingly used. A sliding type cigarette package (slide package), for example, has been proposed which comprises a rectangular outer box opening at a top thereof and an inner box slidably accommodated in the outer box.

[0008] There has also been a demand for a sliding type cigarette package which has the function of producing an audible sound, like the cigarette packages of Patent Documents 1 and 2, when the inner box is slid back into the outer box. The audible sound producing mechanisms

disclosed in Patent Documents 1 and 2 can be applied to hinge lid type cigarette packages, but it is difficult to apply these mechanisms to sliding type cigarette packages.

[0009] Also, in the case of sliding type cigarette packages, a gap is liable to be created between the inner and outer boxes, and small fragments of tobacco shreds of cigarettes, for example, may possibly pass through the gap to the outside. Thus, there has been a demand for a structure which is simple yet capable of preventing the passage of such small fragments.

[0010] The present invention was made in view of the above circumstances, and an object thereof is to provide a slide package capable of producing an audible sound by means of a simple structure when an inner box is slid back into an outer box, and also capable of reducing a gap between the inner and outer boxes while the inner box is accommodated in the outer box, thereby improving sealing performance of the slide package.

#### Solution to Problem

[0011] The above object is achieved by a slide package of the present invention, which includes: a rectangular outer box having an opening; and an inner box accommodated in the outer box and slidable outward from the opening, the inner box having a wall section closing the opening of the outer box and a rear wall extending from the wall section in a sliding direction, part of the inner box being exposed when the inner box is slid outward from the opening, to open a front side of the slide package, wherein the rear wall of the inner box has a protrusion projecting rearward toward the outer box, the outer box has an engaging hole with which the protrusion can be engaged, and the protrusion is engaged with the engaging hole and urges the inner box frontward against the outer box while the inner box is accommodated in the outer box with the opening closed with the wall section, and disengages from the engaging hole when the inner box is slid outward.

[0012] Preferably, the protrusion is supported on the inner box so as to be pivotable in the sliding direction, and the protrusion is engaged with the engaging hole with a distal end thereof directed outward and urges the inner box frontward with the distal end in contact with the rear wall of the outer box while the inner box is accommodated in the outer box with the opening closed, and disengages from the engaging hole with the distal end reversed when the inner box is slid outward.

[0013] Preferably, the inner box includes a box body, a lid section connected to a rear end of the box body and pivotable back and forth, the lid section including the wall section, and a lid opening device which pulls a rear part of the lid section to cause the lid section to pivot rearward when the inner box is slid outward.

[0014] The lid opening device preferably includes an engaging member extending from the rear part of the lid section in the sliding direction and engaging with the outer

box.

**[0015]** The protrusion is preferably provided on the engaging member.

### Advantageous Effects of Invention

**[0016]** With the slide package according to the present invention, an audible sound is produced when the protrusion of the inner box being accommodated in the outer box engages with the engaging hole, whereby the user can be notified of the accommodation of the inner box and is also encouraged to put the inner box in the completely accommodated position.

**[0017]** Also, while the inner box is accommodated in the outer box, the protrusion urges the inner box forward against the outer box, so that the gap between the front part of the outer box and the inner box is reduced, making it possible to improve sealing performance.

### Brief Description of Drawings

**[0018]**

FIG. 1 is a perspective view showing the shape of a slide-up package according to a first embodiment of the present invention.

FIG. 2 is a perspective view showing the structure of a rear part of the slide-up package of the first embodiment.

FIG. 3 illustrates the manner of how a lid flap of an inner box is engaged with an inner flap of an outer box in the slide-up package of the first embodiment.

FIG. 4 is a longitudinal sectional view showing an internal structure of the slide-up package of the first embodiment in the state in which the inner box is accommodated in the outer box.

FIG. 5 is a perspective view showing the shape of a slide package according to a second embodiment of the present invention.

FIG. 6 illustrates the manner of how a lid flap of an inner box is engaged with an inner flap of an outer box in the slide package of the second embodiment.

### Description of Embodiments

**[0019]** Slide packages according to embodiments of the present invention will be described below with reference to the drawings.

**[0020]** FIG. 1 is a perspective view showing the external appearance of a slide-up package 1 as a slide package according to a first embodiment of the present invention. FIG. 2 is a perspective view showing the structure of a rear part of the slide-up package of the first embodiment.

**[0021]** The slide-up package 1 is suited for containing rod-shaped smoking articles such as cigarettes.

**[0022]** As illustrated in FIGS. 1 and 2, the slide-up package 1 of this embodiment includes an inner box 2

and an outer box 3. The outer box 3 is in the form of a rectangular parallelepiped and has an outer front wall 12, an outer rear wall 14 (rear wall), and a pair of outer side walls 16. An opening 18 is formed at an upper end of the outer box 3. The outer front wall 12 has an opening, or an aperture 20, formed in a central portion thereof.

**[0023]** The inner box 2 is vertically slidably accommodated in the outer box 3. FIG. 1 illustrates a state in which part of the inner box 2 is projecting upward from the opening 18 of the outer box 3. The inner box 2 also is in the form of a rectangular parallelepiped and includes an inner box body 24. The inner box body 24 has an inner front wall 26, an inner rear wall 28, a pair of inner side walls 30, and an inner bottom wall, not shown.

**[0024]** The inner front wall 26 is partly exposed through the aperture 20. Also, a shallow U-shaped notch 32 is cut in an upper edge of the inner front wall 26.

**[0025]** An inner opening 34 is formed at an upper portion of the inner box body 24 and has its verges defined by the respective upper edges of the inner front wall 26, the inner rear wall 28 and the two inner side walls 30.

**[0026]** The inner box 2 further includes a hinge lid 36 (lid section) connected to the rear verge of the inner opening 34 via a hinge line 38. The hinge lid 36 is pivotable around the hinge line 38 to open and close the inner opening 34.

**[0027]** Specifically, the hinge lid 36 includes a top wall 40 (wall section), a lid rear wall 42, and a pair of lid side walls 44. When the hinge lid 36 is in a closed position, the two lid side walls 44 are located inside the upper portions of the respective outer side walls 16 while the top wall 40 covers the inner opening 34 from above.

**[0028]** As is clear from FIG. 1, a product, for example, an inner pack A, is contained in the inner box 2. The inner pack A includes a bundle of filter cigarettes FC and a wrapper (not shown) wrapping the bundle therein.

**[0029]** When the inner box 2 is in a completely accommodated position where the inner box 2 is contained in its entirety in the outer box 3, the hinge lid 36 assumes the closed position with its top wall 40 located so as to close up the opening 18 of the outer box 3.

**[0030]** On the other hand, when the user holding the slide-up package 1 with his/her hand slides the inner box 2 in the accommodated position upward (outward) with his/her thumb pressed against the inner box 2 through the aperture 20 of the outer box 3, the hinge lid 36 projects upward (outward) from the opening 18 of the outer box 3 while pivoting around the hinge line 38, with the result that the hinge lid 36 is opened as illustrated in FIG. 1. The user can therefore take a filter cigarette FC out of the inner box body 24.

**[0031]** To enable the hinge lid 36 to open in conjunction with the sliding movement of the inner box 2, the slide-up package 1 is equipped with a lid opening device (opening/closing device). The lid opening device will be explained below.

**[0032]** The lid opening device includes a lid flap 46 (engaging member). As is clear from FIGS. 2 and 3, the

lid flap 46 extends from the rear edge of the top wall 40 downward along the lid rear wall 42 to a location between the outer rear wall 14 and the inner rear wall 28. The lid flap 46 has an opening 48 formed therein. The opening 48 has a nearly rectangular shape and has a lower verge extending in the width direction of the slide-up package.

**[0033]** Also, the lid flap 46 has a first folding line 50 extending parallel with the hinge line 38, namely, in the width direction across the lid flap 46. Thus, the lid flap 46 is foldable along the first folding line 50.

**[0034]** Further, as shown in FIG. 3, the lid flap 46 has a second folding line 52 formed therein, where necessary. The second folding line 52 also extends in the width direction across the lid flap 46 and is located between the first folding line 50 and the lower edge of the lid flap 46. For example, the second folding line 52 is located near the lower verge of the opening 48 and is divided by the opening 48 into two segments.

**[0035]** The lid flap 46 is folded along each of the first and second folding lines 50, 52 in such a manner that a lower portion thereof between the lower edge and the first folding line 50 is raised from the inner rear wall 28.

**[0036]** On the other hand, the outer box 3 has an inner flap 54. In FIG. 3, only the outer rear wall 14 of the outer box 3 is illustrated. The inner flap 54 extends from the upper edge of the outer rear wall 14 downward along the inner surface of the outer rear wall 14.

**[0037]** The inner flap 54 is formed such that a width thereof gradually decreases from the upper edge to an intermediate portion of the outer rear wall 14, and a lower end portion of the inner flap 54 has a width smaller than that of the opening 48.

**[0038]** The lower end portion of the inner flap 54 is inserted into the opening 48 from above, as indicated by a dot-dash line in FIG. 3, and thus while the inner box 2 is accommodated in the outer box 3, the inner flap 54 and the lid flap 46 are crossed.

**[0039]** The lower portion of the lid flap 46 is raised as stated above, and thus as the inner rear wall 28 and the outer rear wall 14 are superimposed with the lid flap 46 therebetween, the lower end portion of the inner flap 54 is inserted into the opening 48.

**[0040]** The width of the inner flap 54 and the vertical position of the lower verge of the opening 48 are set such that when the inner box 2 is slid upward from the opening 18 of the outer box 3 to the extent that the hinge lid 36 as well as part of the lid flap 46 are exposed from the outer box 3 as shown in FIG. 2, the inner flap 54 abuts against, or engages with, the side verges of the opening 48 and is prevented from being further inserted into the opening 48. Accordingly, the abutment of the inner flap 54 against the side verges of the opening 48 stops further projection of the lid flap 46 from the outer box 3.

**[0041]** As the inner box 2 is further slid upward from the outer box 3, the hinge lid 36 pivots rearward around the hinge line 38 because further projection of the lid flap 46 is restricted, so that the hinge lid 36 is opened as shown in FIG. 1.

**[0042]** The first folding line 50 is located above the upper edge of the outer rear wall 14 when the inner flap 54 abuts against the side verges of the opening 48 to stop further projection of the lid flap 46, and the hinge line 38 is located above the first folding line 50.

**[0043]** Accordingly, the pivotal motion of the hinge lid 36 around the hinge line 38 is not obstructed by the lid flap 46, and also the bending of the lid flap 46 along the first folding line 50 is not obstructed by the outer rear wall 14. As a result, the hinge lid 36 can be smoothly opened in conjunction with the further projection of the inner box 2.

**[0044]** Further, the lid flap 46 has a click tab 60 (protrusion) adjoining the upper verge of the opening 48. The click tab 60 is formed by cutting the lid flap 46 from the upper verge of the opening 48 upward, to form a pair of slits 61 spaced apart from each other in the width direction and having a length of about 2 mm, for example, and raising the distal end (lower end) of the cut part rearward along a tab folding line 62 connecting the upper ends of the two slits 61.

**[0045]** Furthermore, the inner flap 54 of the outer box 3 has an opening 65 (engaging hole) into which the click tab 60 can be inserted. As shown in FIG. 4, while the inner box 2 is completely accommodated in the outer box 3, the click tab 60 is inserted into the opening 65 and is acutely bent with its distal end reversed, or directed upward.

**[0046]** When the inner box 2 is slid upward from the accommodated state in which the inner box 2 is completely accommodated in the outer box 3, the distal end of the click tab 60 comes into engagement with the upper verge of the opening 65 of the inner flap 54. As the inner box 2 is further slid upward, the click tab 60 reverses and its distal end is directed downward, so that the engagement between the click tab 60 and the inner flap 54 is released. This permits further upward movement of the inner box 2.

**[0047]** As the inner box 2 in the fully slid-up state is slid down into the outer box 3, the distal end of the click tab 60 comes into contact with the upper end of the outer rear wall 14 of the outer box 3 and then reverses, so that the click tab 60 is forced into the space between the outer rear wall 14 and the inner box 2 with its distal end directed upward. The vertical position of the opening 65 and of the click tab 60 is set so that the click tab 60 may be inserted into the opening 65 immediately before the inner box 2 is completely accommodated in the outer box 3.

**[0048]** Thus, the accommodated state of the inner box 2 is maintained by the engagement of the click tab 60 with the inner flap 54.

**[0049]** Also, when the click tab 60 enters the opening 65, the distal end of the click tab 60 strikes the outer rear wall 14 of the outer box 3, producing a click sound (audible sound). Such an audible sound permits the user to easily confirm that the inner box 2 has been completely accommodated in the outer box.

**[0050]** While the inner box 2 is accommodated in the

outer box 3, the click tab 60 is reversed with its distal end kept in contact with the outer rear wall 14 of the outer box 3 as shown in FIG. 4, and because of reaction force to the bending of the click tab 60, the lid flap 46 is urged frontward away from the outer rear wall 14. As a result, the inner box 2 is pressed against the outer front wall 12 of the outer box 3, and thus the top wall 40 of the hinge lid 36 and the front edges of the inner side walls 30 are brought into close contact with the outer front wall 12, improving sealability of the slide-up package 1 while the inner box 2 is accommodated in the outer box 3.

**[0051]** Referring now to FIGS. 5 and 6, a second embodiment of the present invention will be described.

**[0052]** As illustrated in FIG. 5, a slide package 71 according to the second embodiment of the present invention has a shape resembling a matchbox.

**[0053]** The slide package 71 has a construction such that an inner box 72 is slidably accommodated in the outer box 3, as in the foregoing first embodiment; however, the inner box 72 has no hinge lid and its top wall 73 (wall section) is not pivotable.

**[0054]** When the user holding the slide package 71 with his/her hand slides the inner box 72 in the accommodated position upward with his/her thumb pressed against the inner box 72 through the aperture 20 of the outer box 3, the inner box 72 projects upward from the opening 18 of the outer box 3, so that the user can take out a filter cigarette FC from the front side of the inner box 72.

**[0055]** In this embodiment, a lid flap 76 (engaging member) extending downward from the rear edge of the top wall 73 of the inner box has the click tab 60, as shown in FIG. 6, but does not have an opening into which the lower end portion of the inner flap 54 is inserted. Also, the inner flap 54 has the opening 65 formed therein but does not extend substantially downward from the opening 65.

**[0056]** Although the slide package of the second embodiment is constructed in such a manner that the upper part of the inner box 72 is not pivotable, the inner box 72 is provided with the click tab 60 and the outer box 3 has the opening 65 for engagement with the click tab 60, as in the first embodiment. Thus, when the inner box 72 is accommodated in the outer box 3, the click tab 60 engages with the opening 65, enabling the inner box 72 to be held in the accommodated state, and also a click sound can be produced when the inner box 72 is accommodated in the outer box 3. In addition, while the inner box 72 is totally contained in the outer box 3, the distal end of the click tab 60 is in contact with and urges the outer rear wall 14 of the outer box 3, so that the front edges of the inner box 72 can be brought into close contact with the outer box 3, making it possible to improve the sealing performance of the slide package.

**[0057]** In the second embodiment, the click tab 60 may be provided on the inner rear wall 28 of the inner box 72. This makes it possible to omit the lid flap 76.

**[0058]** The present invention is not limited to the foregoing embodiments and may of course be modified in

various ways without departing from the scope of the invention in the appended claims.

**[0059]** In the above description of the embodiments, the present invention is embodied as the slide-up package 1 or the slide package 71. It is to be noted, however, that the present invention is applicable to a wide range of slide boxes having a construction such that an inner box is slidably accommodated in an outer box.

## 10 Reference Signs List

### [0060]

- 1: slide-up package (slide package)
- 2: inner box
- 3: outer box
- 14: outer rear wall (rear wall)
- 18: opening
- 24: inner box body
- 36: hinge lid (lid section)
- 40: top wall (wall section)
- 46: lid flap (lid opening device, engaging member)
- 54: inner flap (lid opening device)
- 60: click tab (protrusion)
- 65: opening (engaging hole)
- 71: slide package
- 72: inner box
- 73: top wall (wall section)
- 76: lid flap (engaging member)

## Claims

1. A slide package comprising: a rectangular outer box having an opening; and an inner box accommodated in the outer box and slidable outward from the opening, the inner box having a wall section closing the opening of the outer box and a rear wall extending from the wall section in a sliding direction, part of the inner box being exposed when the inner box is slid outward from the opening, to open a front side of the slide package, wherein:

the rear wall of the inner box has a protrusion projecting rearward toward the outer box, the outer box has an engaging hole with which the protrusion can be engaged, and the protrusion is engaged with the engaging hole and urges the inner box frontward against the outer box while the inner box is accommodated in the outer box with the opening closed with the wall section, and disengages from the engaging hole when the inner box is slid outward.

2. The slide package according to claim 1, wherein the protrusion is supported on the inner box so as to be pivotable in the sliding direction, and the protrusion is engaged with the engaging hole with a distal end

thereof directed outward and urges the inner box frontward with the distal end in contact with the rear wall of the outer box while the inner box is accommodated in the outer box with the opening closed, and disengages from the engaging hole with the distal end reversed when the inner box is slid outward. 5

3. The slide package according to claim 1 or 2, wherein the inner box includes 10
- a box body,
  - a lid section connected to a rear end of the box body and pivotable back and forth, the lid section including the wall section, and
  - a lid opening device which pulls a rear part of the lid section to cause the lid section to pivot rearward 15 when the inner box is slid outward.
4. The slide package according to claim 3, wherein the lid opening device includes an engaging member extending from the rear part of the lid section in the sliding direction and engaging with the outer box. 20
5. The slide package according to claim 4, wherein the protrusion is provided on the engaging member. 25

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FIG. 1

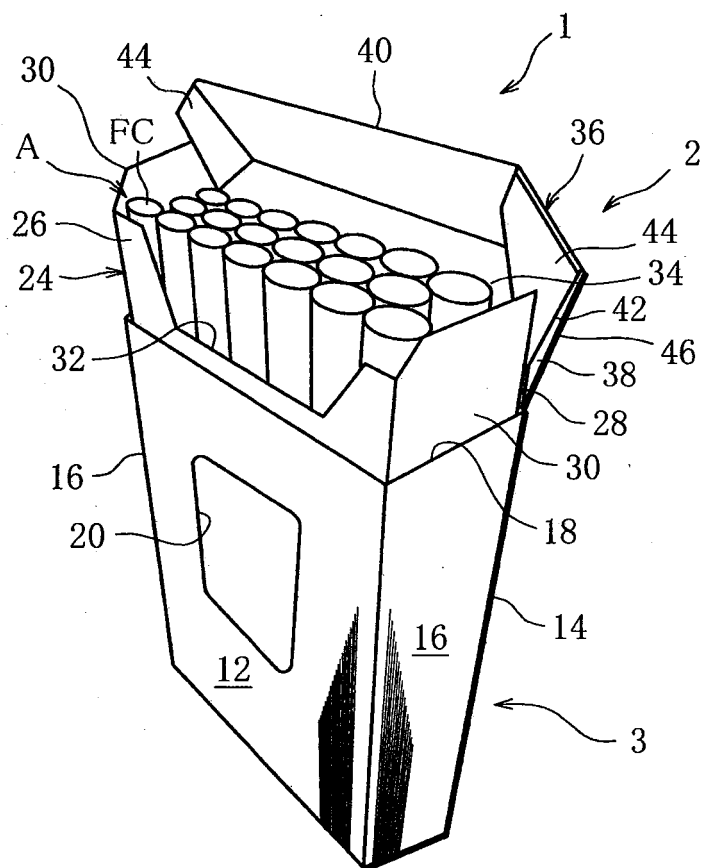


FIG. 2

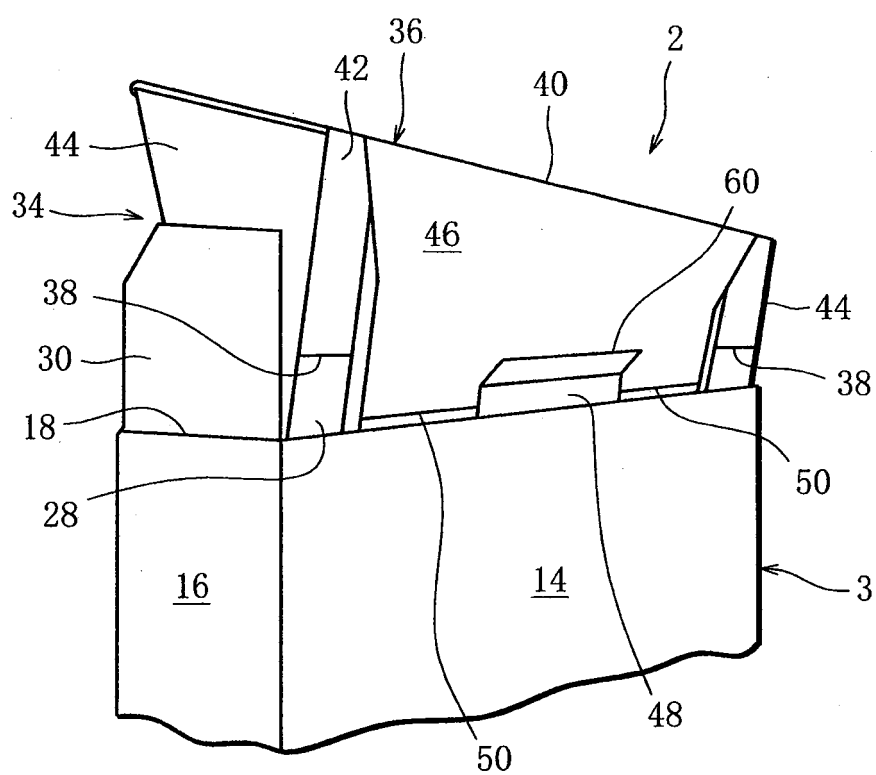


FIG. 3

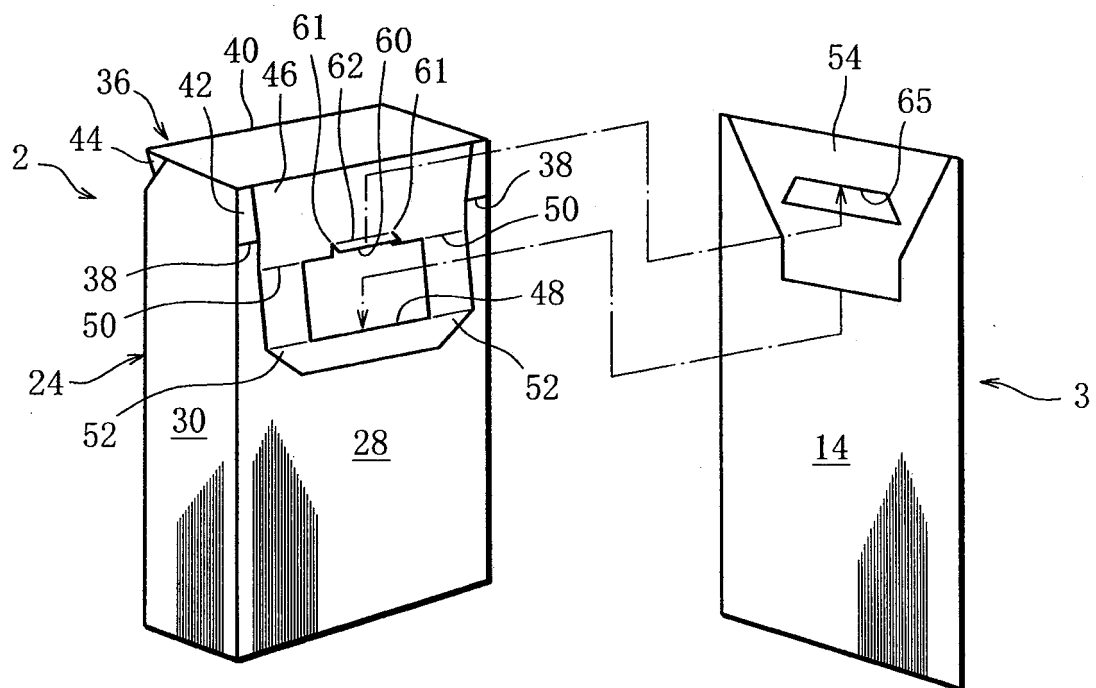


FIG. 4

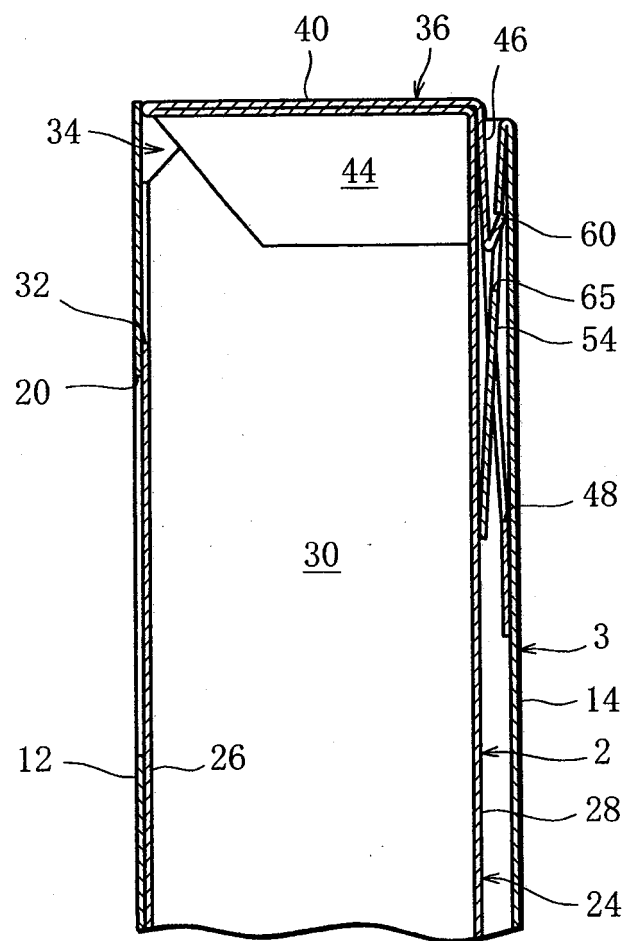


FIG. 5

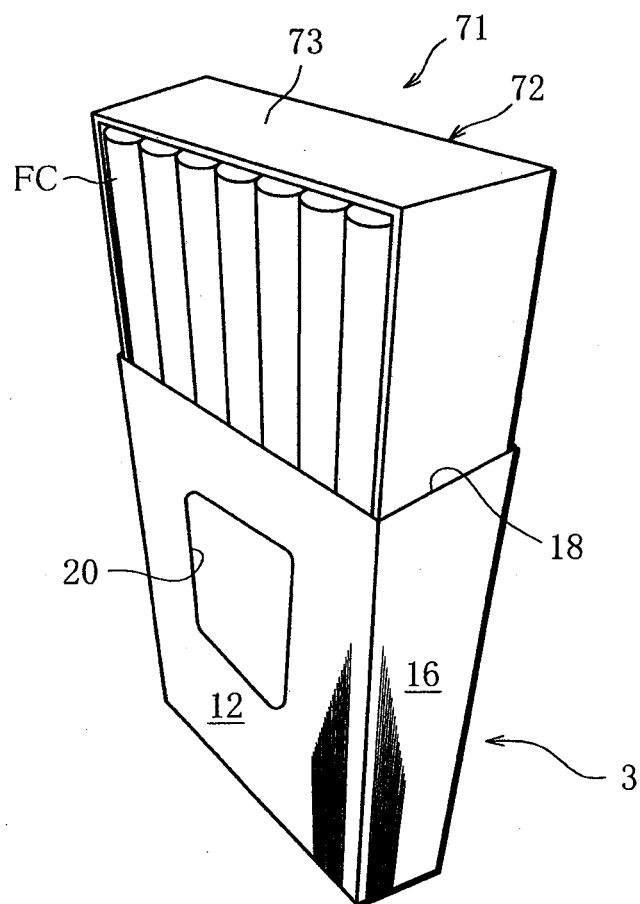
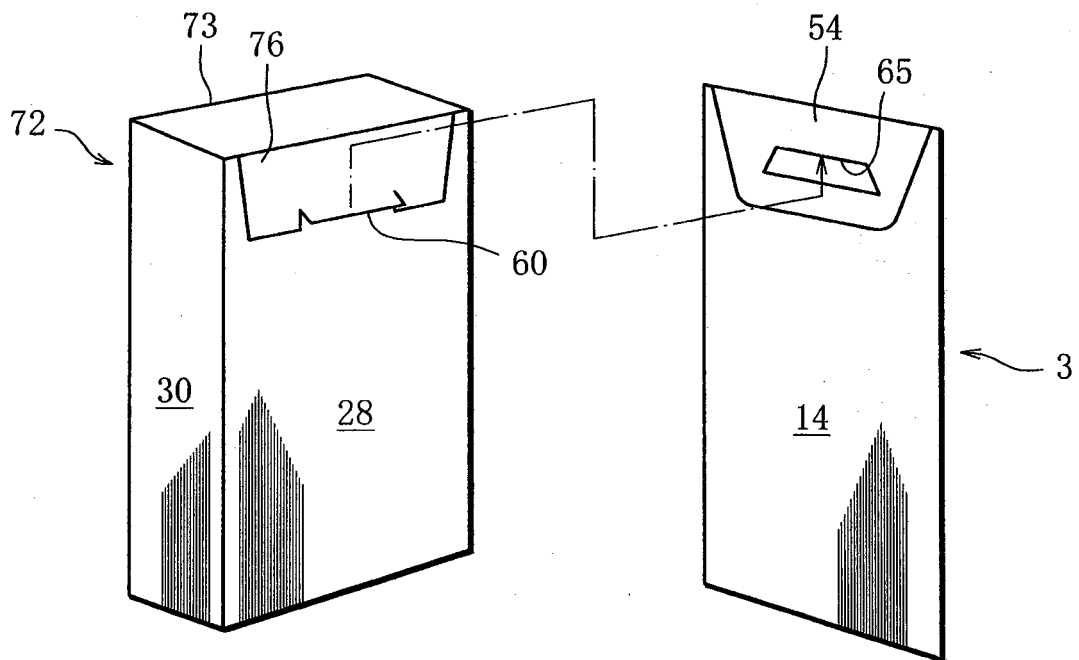


FIG. 6



## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2012/057725

## A. CLASSIFICATION OF SUBJECT MATTER

B65D5/38(2006.01)i, A24F15/12(2006.01)i, B65D85/10(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)

B65D5/38, A24F15/12, B65D85/10

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

Jitsuyo Shinan Koho 1922-1996 Jitsuyo Shinan Toroku Koho 1996-2012  
 Kokai Jitsuyo Shinan Koho 1971-2012 Toroku Jitsuyo Shinan Koho 1994-2012

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

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages                                                                                 | Relevant to claim No. |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| X<br>Y    | JP 2008-94480 A (Furubayashi Shiko Co., Ltd.),<br>24 April 2008 (24.04.2008),<br>entire text; all drawings<br>(Family: none)                                       | 1, 2<br>3-5           |
| X<br>Y    | JP 2004-323079 A (Meiji Seika Kaisha, Ltd.),<br>18 November 2004 (18.11.2004),<br>entire text; all drawings<br>(Family: none)                                      | 1, 2<br>3-5           |
| Y         | JP 2009-292516 A (Japan Tobacco Inc.),<br>17 December 2009 (17.12.2009),<br>entire text; all drawings<br>& US 2011-62175 A1 & EP 2305567 A1<br>& WO 2009/148034 A1 | 3-5                   |

☒ 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

"E" earlier application or patent but published on or after the international filing date

"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)

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"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

"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

"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

"&amp;" document member of the same patent family

Date of the actual completion of the international search  
13 June, 2012 (13.06.12)Date of mailing of the international search report  
26 June, 2012 (26.06.12)Name and mailing address of the ISA/  
Japanese Patent Office

Authorized officer

Facsimile No.

Telephone No.

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

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2012/057725

| C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT |                                                                                                                                |                       |
|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| Category*                                             | Citation of document, with indication, where appropriate, of the relevant passages                                             | Relevant to claim No. |
| Y                                                     | JP 10-35644 A (Dainippon Printing Co., Ltd.),<br>10 February 1998 (10.02.1998),<br>entire text; all drawings<br>(Family: none) | 3-5                   |

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

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2012/057725

**Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)**

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

**Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)**

This International Searching Authority found multiple inventions in this international application, as follows:

The invention of claim 1 cannot be considered to be novel since the invention is disclosed in the document 1 (JP 2008-94480 A (Furubayashi Shiko Co., Ltd.)) or the document 2 (JP 2004-323079 A (Meiji Seika Kaisha, Ltd.)) which were found in this international search, and does not have a special technical feature.

Consequently, it is obvious that claims 1-5 do not have unity of invention, since there is no special technical feature common to claims 1-5.

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☒ As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of additional fees.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

**Remark on Protest**

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☐ No protest accompanied the payment of additional search fees.

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**REFERENCES CITED IN THE DESCRIPTION**

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**Patent documents cited in the description**

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