



(43) International Publication Date
27 September 2012 (27.09.2012)

(51) International Patent Classification:
A47F 1/12 (2006.01)

(21) International Application Number:
PCT/JP2012/001886

(22) International Filing Date:
19 March 2012 (19.03.2012)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2011-063359 22 March 2011 (22.03.2011) JP

(71) Applicant (for all designated States except US): JAPAN
TOBACCO INC. [JP/JP]; 2-1, Toranomom 2-chome, Minato-ku, Tokyo, 1058422 (JP).

(72) Inventor; and

(75) Inventor/Applicant (for US only): TAKEIRI, Hiroyuki
[JP/JP]; c/o Japan Tobacco Inc., 2-1, Toranomom 2-chome, Minato-ku, Tokyo, 1058422 (JP).

(74) Agent: HAYAMI, Shinji; Gotanda TG Bldg. 9F, 9-2, Nishi-Gotanda 7-chome, Shinagawa-ku, Tokyo, 1410031 (JP).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

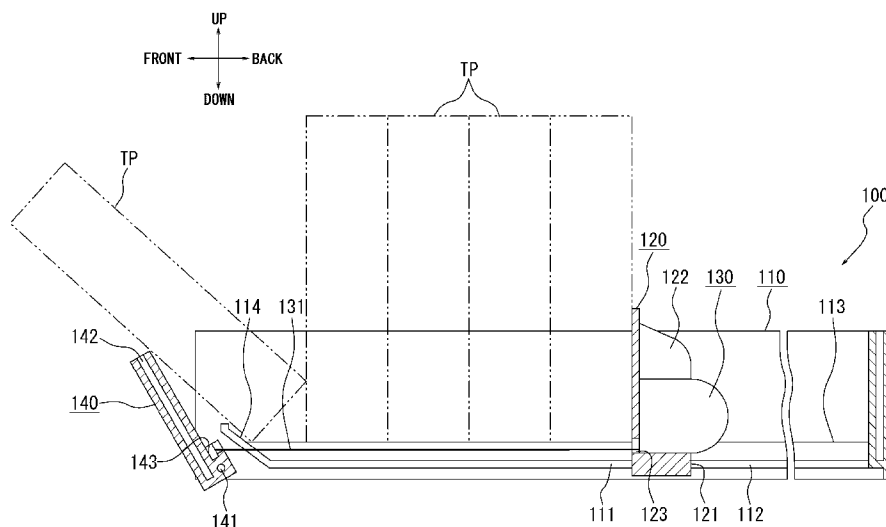
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))

(54) Title: MAGAZINE UNIT

[Fig. 1]



(57) Abstract: A magazine unit (100) accommodates a plurality of cigarette commodities (TP) in a box-shaped magazine main body (110) in a state of being arranged in a front-back direction. A push slider (120) which pushes the cigarette commodities (TP) frontward with elastic force is arranged slidably in a front-back direction at the inside of the magazine main body (110). A front flap (140) which constitutes a front face of the magazine main body (110) is axially supported as being swingable between a raised state and an inclined state of being inclined from the raised state. The front flap (140) is urged with elastic force from the inclined state to ward the raised state.

Description

Title of Invention: MAGAZINE UNIT

Technical Field

[0001] The present invention relates to a magazine unit which accommodates a plurality of cigarette commodities in a state of being arranged in a front-back direction.

Background Art

[0002] Cigarette commodities are currently displayed and sold in stores such as so-called convenience stores. The "cigarette commodity" mentioned here means not a cigarette which is actually smoked but a rectangular solid package which accommodates a plurality of cigarettes and a carton which accommodates a plurality of the packages.

[0003] The cigarette display system for displaying cigarette commodities includes a plurality of magazine units and a system frame, for example (see Patent Literature 1: JPA 2000-060691). The magazine unit is formed of transparent colorless resin to be a box-like shape elongated in a front-back direction having a top face opened, for example.

[0004] In the magazine unit, upright cigarette commodities are accommodated from the upper side in a state of being arranged in the front-back direction. A push slider is attached on a bottom face of the magazine unit as being slidable in the front-back direction.

[0005] More specifically, an opening elongated in the front-back direction is formed at the bottom part of the magazine unit. Upward-protruded ribs are formed on both left and right sides of the opening. The push slider is attached to the pair of ribs and the opening as being slidable in the front-back direction.

[0006] Further, a wound plate spring to serve as an urging mechanism is attached at a back part of the push slider. One end of the plate spring is pulled out from the push slider and attached to a front bottom part of the magazine unit.

[0007] Accordingly, the push slider slidable in the front-back direction is urged frontward with elastic force by the plate spring. Therefore, the plurality of cigarette commodities accommodated in the magazine unit is pushed to the frontmost part by the push slider.

[0008] The system frame holds a plurality of magazine units arranged in the vertical and lateral directions. The system frame includes a plurality of guide rails and a single main frame. A pair of guide rails holds both sides of the magazine unit. For example, the main frame is formed into a cuboid shape with metal bars. A plurality pairs of guide rails are fixed to certain positions of the main frame.

[0009] In the abovementioned cigarette display system, for example, 20 magazine units are mounted in the system frame in an array of 4 rows and 5 columns. For example, about 10 to 13 pieces of cigarette commodities are accommodated in each of the magazine

units.

- [0010] Cigarette commodities are formed in a rectangular solid shape in which a front face and a back face, two side faces, and a top face and a bottom face are different in size. Among the above, the front face and the back face have largest area while a brand name and the like are printed on the maximum faces. In the abovementioned cigarette display system, cigarette commodities are accommodated in an upright state in the transparent colorless magazine units and are displayed in a state that the front face or the back face of the cigarette commodity is located at the front face of the magazine unit. For example, 20 brands of cigarette commodities can be displayed while accommodating 10 pieces for each.
- [0011] When selling a cigarette commodity, the cigarette commodity is simply required to be pulled out upward from the frontmost position of the magazine unit. When the cigarette commodity is pulled out, subsequent cigarette commodities accommodated in the magazine unit are pushed frontward by the push slider. Therefore, the magazine unit maintains the state of displaying the cigarette commodity at the frontmost position even after one or plural cigarette commodities are pulled out therefrom.
- [0012] When restocking cigarette commodities in the cigarette display system, a magazine unit is detached from the system frame. Cigarette commodities are accommodated in the magazine unit, and the magazine unit having the cigarette commodities accommodated therein is mounted in the system frame. Accordingly, the cigarette commodities can be easily restocked in the magazine unit in a state that the magazine unit is detached from the system frame.
- [0013] The magazine unit having an upper-face-opened tray structured with a transparent body in which commodities are displayed is accommodated in the abovementioned cigarette display system.
- [0014] Commodities are pushed forward by the push slider and are elastically contacted to the inside of a front flap. The front flap is swingable within a predetermined angle range and the commodity can be elevated through a holding portion formed at the lower end part. Therefore, the commodity can be easily pulled out in an oblique direction.

Citation List

Patent Literature

- [0015] [PTL 1] Japanese Laid-open patent publication NO. 2000-060691

Summary of Invention

- [0016] In the magazine unit of Patent Literature 1, the front flap swung frontward is returned to a closed state as being approximately vertical by gravity. However, with such a front flap, it is difficult to restrain a subsequent cigarette commodity at the frontmost

position.

- [0017] This is because it takes time until the front flap is raised to be approximately vertical by gravity and the front flap cannot resist momentum of the subsequent cigarette commodities pushed by the push slider. Accordingly, with a conventional magazine unit, there has been a problem that the second and subsequent cigarette commodities fall from the magazine unit when the frontmost cigarette commodity is pulled out.
- [0018] To address the above issues, the present invention provides a magazine unit which enables to easily pull out a frontmost cigarette commodity as the front flap being in an opened state and to hold a frontmost cigarette commodity to be approximately vertical while the front flap becomes in a closed state rapidly after a cigarette commodity is pulled out.
- [0019] A magazine unit of the present invention includes a magazine main body which accommodates a plurality of cigarette commodities in a state of being arranged in a front-back direction, a push slider which pushes the cigarette commodities frontward as being arranged slidably in the front-back direction at the inside of the magazine main body, a slider urging mechanism which urges the push slider frontward with elastic force, a front flap which constitutes a front face of the magazine main body and which is axially supported as being swingable between a raised state and an inclined state of being inclined from the raised state, and a flap urging mechanism which urges the front flap with elastic force from the inclined state toward the raised state.
- [0020] In the magazine unit as described above, the slider urging mechanism and the flap urging mechanism may be formed in an integrated front-back urging mechanism.
- [0021] In the magazine unit as described above, the front-back urging mechanism may interlock the push slider and the front flap.
- [0022] In the magazine unit as described above, the front-back urging mechanism may include a wire reel which accommodates, with elastic force, a wire capable of being pulled out.
- [0023] In the magazine unit as described above, the wire reel may be mounted to a back part of the push slider, the front flap may have an axis axially supporting the front flap at the vicinity of a lower end thereof as being swingable and the front end of the wire may be connected to the front flap at a position above the axis.
- [0024] In the magazine unit as described above, a slope to displace the cigarette commodity upward may be formed at an inner front end of the magazine main body and the wire may be inserted to the inside of the slope.
- [0025] Further, the components of the present invention are not necessarily independent entities. A plurality of components may be formed as a single member, a single component may be formed as a plurality of members, a component may be a part of another component, and a part of a component may overlap a part of another

component.

- [0026] According to the magazine unit of the present invention, the front flap is urged from the inclined state toward the raised state with elastic force by the flap urging mechanism. Therefore, the frontmost cigarette commodity can be easily pulled out as the front flap being in the inclined state, and then, subsequent cigarette commodities are maintained to be approximately vertical while the front flap becomes into the raised state rapidly after the cigarette commodity is pulled out.

Brief Description of Drawings

- [0027] The above and other objects, features and advantages will be more apparent from the following description of certain preferred embodiments and following drawings corresponding thereto.
- [0028] [fig.1] This is a schematic vertically-sectioned side view illustrating an inner structure of a magazine unit of an embodiment of the present invention as a front flap being in an opened state.
- [fig.2] This is a schematic vertically-sectioned side view illustrating the inner structure of the magazine unit as the front flap being in a closed state.
- [fig.3] This is a vertically-sectioned side view of respective components illustrating an assembling structure of the magazine unit.
- [fig.4] This is a schematic plane view illustrating the structure of the magazine unit as the front flap being in the closed state.

Description of Embodiments

- [0029] In the following, one embodiment of the present invention will be described with reference to the drawings. Here, the same name is used for the same part of the present embodiment as the abovementioned example in the related art and detailed description will not be repeated. A magazine unit 100 of the present embodiment accommodates a plurality of cigarette commodities TP to arrange in a front-back direction.
- [0030] As illustrated in Figs. 1 to 4, the magazine unit 100 includes a magazine main body 110, a push slider 120, a front flap 140, a slider urging mechanism and a flap urging mechanism. The magazine main body 110 is a tray which accommodates a plurality of cigarette commodities in a state of being arranged in the front-back direction. The magazine main body 110 of the present embodiment has a box-like shape of which top and front faces are entirely opened. The push slider 120 pushes cigarette commodities TP frontward as being arranged slidably in the front-back direction at the inside of the magazine main body 110. The slider urging mechanism to be described later urges the push slider 120 frontward with elastic force. The front flap 140 constitutes the front face of the magazine main body 110. The front flap 140 is axially supported as being swingable between a raised state of being raised to be approximately vertical so as to

close the opening at the front face of the magazine main body 110 and an inclined state of being inclined from the raised state. The front flap 140 in the inclined state is inclined having the upper end thereof oriented to fall frontward. The raised state is a state to close the opening at the front end of the magazine main body 110. The inclined state is a state to open the opening. The front flap 140 is axially supported at the vicinity of the lower end thereof. The flap urging mechanism to be described later urges the front flap 140 with elastic force from the inclined state toward the raised state.

- [0031] The front flap 140 in the raised state is raised as being approximately orthogonal to a bottom plate 111 of the magazine main body 110. In a case that the magazine unit 100 is horizontally installed, the front flap 140 is in a state of being raised to be approximately vertical. Here, being approximately vertical of the front flap 140 denotes that the front flap 140 is raised along a front face of a frontmost cigarette commodity TP. The angle formed between the bottom plate 111 of the magazine main body 110 and the front flap 140 is not necessarily limited to 90 degrees.
- [0032] The front flap 140 in the inclined state is parallel to or is obliquely intersected with the bottom plate 111 of the magazine main body 110. In the inclined state, the front flap 140 of the present embodiment is inclined having the upper end thereof oriented to fall frontward. Accordingly, the lower end of a cigarette commodity TP is not interfered with the front flap 140 when the cigarette commodity TP is withdrawn and pulled out upward from the magazine main body 110.
- [0033] The magazine unit 100 of the present embodiment includes a front-back urging mechanism. The front-back urging mechanism is a mechanism which includes one or plural members having elastic urging force in the front-back direction of the magazine unit 100. In the present embodiment, the front-back urging mechanism is exemplified by a wire reel 130. The wire reel 130 applies urging force to both the slider urging mechanism and the flap urging mechanism. In other words, the wire reel 130 functions as the slider urging mechanism and the flap urging mechanism. The wire reel 130 interlocks the push slider 120 and the front flap 140.
- [0034] As illustrated in Fig. 3, the wire reel 130 includes a reel main body 132, a wire (a resin wire 131) and an elastic member (not illustrated). The wire in the present embodiment is the resin wire 131 made of flexible resin material. The resin wire 131 is accommodated in the reel main body 132 to be capable of being pulled out from the reel main body 132. The elastic member is arranged in the reel main body 132 and urges the wire with elastic force in a direction of being accommodated in the reel main body 132. Examples of the elastic member include a plate spring which is wound helically. As illustrated in Figs. 1 and 2, the wire reel 130 is mounted to a back part of the push slider 120. The front end of the resin wire 131 is connected above the axial

support position of the front flap 140.

- [0035] A slope 114 to displace a cigarette commodity TP upward is formed at the inner front end of the magazine main body 110 as the front being upped. The top end part of the resin wire 131 pulled out from the reel main body is inserted to the inside of the slope 114.
- [0036] More specifically, the magazine main body 110 and the front flap 140 are formed of hard resin which is transparent and colorless. An opening 112 is formed at the bottom plate 111 of the magazine main body 110 in the front-back direction.
- [0037] A lower part 121 of the push slider 120 is formed to have a front face as being laid-H-shaped and is slidably engaged with the abovementioned opening 112 of the magazine main body 110. A left and right pair of guide rails 113 is formed at the bottom plate 111 of the magazine main body 110 to smoothen slide motion of cigarette commodities TP.
- [0038] A left and right pair of ribs 122 is formed at a back part of the push slider 120. The wire reel 130 is mounted to the center of the left and right pair of ribs 122. The wire reel 130 incorporates a coil spring (not illustrated) and accommodates the resin wire 131 capable of being pulled out with elastic force.
- [0039] The resin wire 131 is inserted to a through-hole 123 (Fig. 3) at a lower part of the push slider 120 and a gap between the left and right pair of guide rails 113 of the magazine main body 110 (Fig. 4). The abovementioned slope 114 of which front end is inclined upward is formed at the bottom plate 111 of the magazine main body 110. The resin wire 131 inserted to the slope 114 is connected to an engaging portion 143 at a back face of the front flap 140.
- [0040] Accordingly, the resin wire 131 is not interfered with cigarette commodities TP supported by the guide rails 113 and the resin wire 131 is not interfered also with the frontmost cigarette commodity TP which is displaced upward by the slope 114.
- [0041] The front flap 140 has circular protrusions 141 formed bilaterally at the lower end thereof. The protrusions 141 constitute the axis to support the front flap 140 to be swingable to the magazine main body 110. The resin wire 131 is connected to the front flap 140 at a position above the protrusions 141. Accordingly, when the resin wire 131 tows the engaging portion 143 with winding force of the wire reel 130, a moment load in a direction of inclining backward is applied to the upper end of the front flap 140.
- [0042] Here, to apply a large moment load to the front flap 140 with the towing force of the resin wire 131, it is preferable to enlarge vertical length between a top end position of the resin wire 131 (the engaging portion 143) which is towed approximately in the horizontal direction and the axial center of the protrusions 141. In the present embodiment, the vertical length can be enlarged by arranging the protrusions 141 at the vicinity of the lower end of the front flap 140 and arranging the engaging portion 143

thereabove.

- [0043] As described later, it is preferable that the resin wire 131 is not interfered with cigarette commodities TP and that the engaging portion 143 is not protruded upward from the slope 114. Therefore, the engaging portion 143 of the present embodiment is formed at a position having intermediate height of the slope 114 and having comparable height with the through-hole 123 of the push slider 120.
- [0044] As illustrated in Figs. 1 and 2, the vertical height position of the top end position of the resin wire 131 (the engaging portion 143) is little varied when the front flap 140 is swung to open and close. Accordingly, the resin wire 131 is always towed as being approximately horizontal in the front-back direction.
- [0045] This is because the moving direction of the engaging portion 143 located above (right above) the protrusion portion 141 is to be a tangential direction of a circle having the center thereof at the protrusion portion 141 (that is, horizontally frontward) when the front flap 140 is opened from a closed state (Fig. 2) having the protrusion 141 as the axial center. Accordingly, the resin wire 131 is not separated from the engaging portion 143 even when the front flap 140 is swung to open and close.
- [0046] The front flap 140 is maintained at the closed state as being approximately vertical by being abutted to the front end face of the slope 114. Here, as described above, the front flap 140 is formed to be transparent and colorless and is formed with an upper-face-opened pocket 142 to which a price tag and the like can be inserted.
- [0047] With the structure as described above, in the magazine unit 100 of the present embodiment, a plurality of cigarette commodities TP are accommodated as being arranged in the front-back direction in the magazine main body 110 which is box-shaped having the upper and front faces opened, as illustrated in Fig. 2.
- [0048] The box-like shape of the magazine main body 110 denotes to include faces and frames which are formed in an approximately rectangular solid shape so as to be capable of holding a plurality of cigarette commodities TP aligned in the front-back direction and maintaining an arrangement state thereof. In the magazine main body 110 of the present embodiment, the back face may be opened in addition to the upper and front faces. Further, it is also possible that the bottom face and one side face are opened partly.
- [0049] The plurality of cigarette commodities TP are urged frontward by the push slider 120 which is urged frontward by the wire reel 130 as being supported slidably in the front-back direction. As illustrated in Figs. 1 and 2, the front flap 140 is axially supported at the front face opening of the magazine main body 110 in the vicinity of the lower end as being swingable between the closed state to be approximately vertical and the opened state to be inclined frontward.
- [0050] Since the front flap 140 is urged with elastic force by the wire reel 130 from the

opened state to the closed state, it is possible to quickly transmit from the opened state to the closed state. After the one or plural frontmost cigarette commodities TP are pulled out obliquely upward as the front flap 140 being in the opened state, the front flap 104 returned to the closed state concurrently with or earlier than reaching of another subsequent cigarette commodity TP to the frontmost position with proceeding.

[0051] Accordingly, the one or plural frontmost cigarette commodities TP can be easily pulled out as the front flap 140 being in the opened state, and then, the next frontmost cigarette commodity TP is maintained to be vertical as the front flap 140 becoming into the closed state rapidly after the one or plural cigarette commodities TP are pulled out. Therefore, another cigarette commodity TP is prevented from falling from the magazine unit 100 when the frontmost cigarette commodity TP is pulled out. Accordingly, stable removing operation can be performed.

[0052] As described above, the slider urging mechanism to urge the push slider 120 frontward and the flap urging mechanism to urge the front flap 140 in a rising direction are actualized by the integral wire reel 130. Accordingly, proceeding operation of the push slider 120 and rising operation of the front flap 140 occur concurrently. Therefore, proceeding operation of subsequent cigarette commodities TP right after the one or plural frontmost cigarette commodities TP are pulled out can be favorably suppressed by the front flap 140 which is in the rising operation. Further, since the wire reel 130 combines the slider urging mechanism and the flap urging mechanism, high productivity of the magazine unit 100 is obtained as reducing part count.

[0053] Since the frontward urging to the push slider 120 and the backward urging to the front flap 140 are performed by utilizing the elastic force of the common wire reel 130, stable removing operation can be performed as described above regardless of magnitude of the elastic force of the wire reel 130.

[0054] This is because backward closing speed of the front flap 140 and urging force thereto is enlarged similarly to enlarging of proceeding speed of the subsequent cigarette commodities TP and frontward urging force to the front flap 140 in a case that the elastic force of the wire reel 130 is large.

[0055] The wire reel 130 of the present embodiment is provided with the elastic member such as a coil spring at the inside of the reel main body 132. The elastic member is elastically deformed while the resin wire 131 is pulled out from the reel main body 132 and winding force is applied to the resin wire 131 owing to restoring force thereof. The coil spring (the elastic member) is not exposed to the outside as being accommodated in a case of the wire reel 130. Since the coil spring (the elastic member) which is elastically deformed in a repeated manner is protected by the reel main body 132 (the case), reliability and durability thereof are excellent. Meanwhile, since the resin wire 131 to be exposed to the outside the reel main body 132 is a string-shaped member

made of soft and flexible resin material such as nylon, it is safe even when a user touches the resin wire 131 with a finger and the like.

[0056] Since the wire reel 130 is mounted to the back part of the push slider 120, the back part of the push slider 120 to be dead space can be effectively utilized. Further, the front end of the resin wire 131 is connected above the axis, or the axial support position, of the front flap 140. Accordingly, the front flap 140 can be reliably urged backward with a simple structure.

[0057] Since the left and right pair of guide rails 113 is formed at the bottom plate 111 of the magazine main body 110 and the resin wire 131 is inserted to the gap therebetween, the resin wire 131 is not interfered with bottom faces of cigarette commodities TP which are supported by the guide rails 113.

[0058] Since the slope 114 inclined upward is formed at the front end of the bottom plate 111 of the magazine main body 110, one or plural frontmost cigarette commodities TP are exclusively displaced upward so that the frontmost cigarette commodity is easily pulled out. The length of the slope 114 in a front-back direction may be equal to or longer than half of the front-back size of one piece of the cigarette commodity TP. The length of the slope 114 in a front-back direction is preferable to surpass the front-back size of one piece of the cigarette commodity TP, because a plurality of the frontmost cigarette commodities TP are displaced upward and become easy to pull out together. The length of the slope 114 in a front-back direction is preferable to be shorter than or equal to the front-back size of three pieces of the cigarette commodities TP.

[0059] Further, since the resin wire 131 is inserted to the inside of the slope 114, the resin wire 131 is not interfered also with the frontmost cigarette commodity TP. Since the front flap 140 is transparent and colorless and is formed with the upper-face-opened pocket 142, a price tag and the like can be inserted to the pocket 142.

[0060] Here, not limited to the present embodiment, the present invention allows various modifications without departing from the scope thereof. For example, the above embodiment exemplifies that the front flap 140 can be reliably urged backward with a simple structure by connecting the front end of the resin wire 131 above the axial support position of the front flap 140.

[0061] However, it is also possible to support the front flap 140 by a rotation shaft (not illustrated) not by the protrusions 141 and to fix the resin wire 131 to the rotation shaft as being wound. The winding direction of the resin wire 131 around the rotation shaft is selected such that the front flap 140 in the inclined state is urged toward the raised state in the case the resin wire 131 is towed backward.

[0062] This application claims priority based on Japanese patent application No. 2011-063359 filed on March 22, 2011 and entire disclosure thereof is incorporated herein.

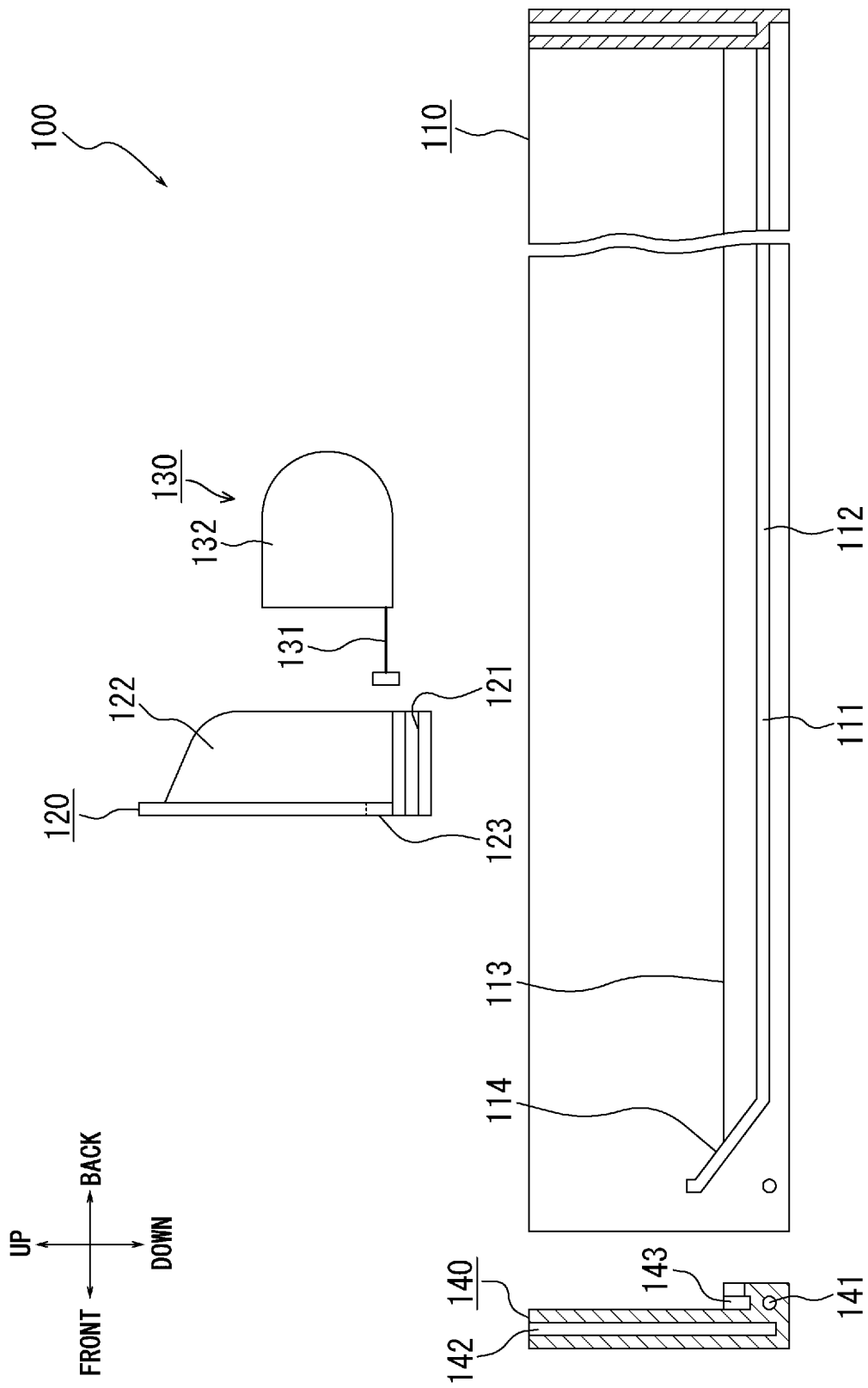
Claims

- [Claim 1] A magazine unit, comprising:
a magazine main body which accommodates a plurality of cigarette commodities in a state of being arranged in a front-back direction;
a push slider which pushes the cigarette commodities frontward as being arranged slidably in the front-back direction at the inside of the magazine main body;
a slider urging mechanism which urges the push slider frontward with elastic force;
a front flap which constitutes a front face of the magazine main body and which is axially supported as being swingable between a raised state and an inclined state of being inclined from the raised state; and
a flap urging mechanism which urges the front flap with elastic force from the inclined state toward the raised state.
- [Claim 2] The magazine unit according to claim 1, further comprising a front-back urging mechanism,
wherein the front-back urging mechanism applies urging force to both the slider urging mechanism and the flap urging mechanism.
- [Claim 3] The magazine unit according to claim 2,
wherein the front-back urging mechanism interlocks the push slider and the front flap.
- [Claim 4] The magazine unit according to claim 2 or claim 3,
wherein the front-back urging mechanism is structured with a wire reel including a reel main body, a wire which is accommodated in the reel main body to be capable of being pulled out from the reel main body, and an elastic member which is arranged in the reel main body and which urges the wire with elastic force in a direction of being accommodated in the reel main body.
- [Claim 5] The magazine unit according to claim 4,
wherein the wire reel is mounted to a back part of the push slider;
the front flap has an axis axially supporting the front flap at the vicinity of a lower end thereof as being swingable; and
a front end of the wire is connected to the front flap at a position above the axis.
- [Claim 6] The magazine unit according to claim 5,
wherein a slope to displace the cigarette commodity upward is formed at an inner front end of the magazine main body as the front being

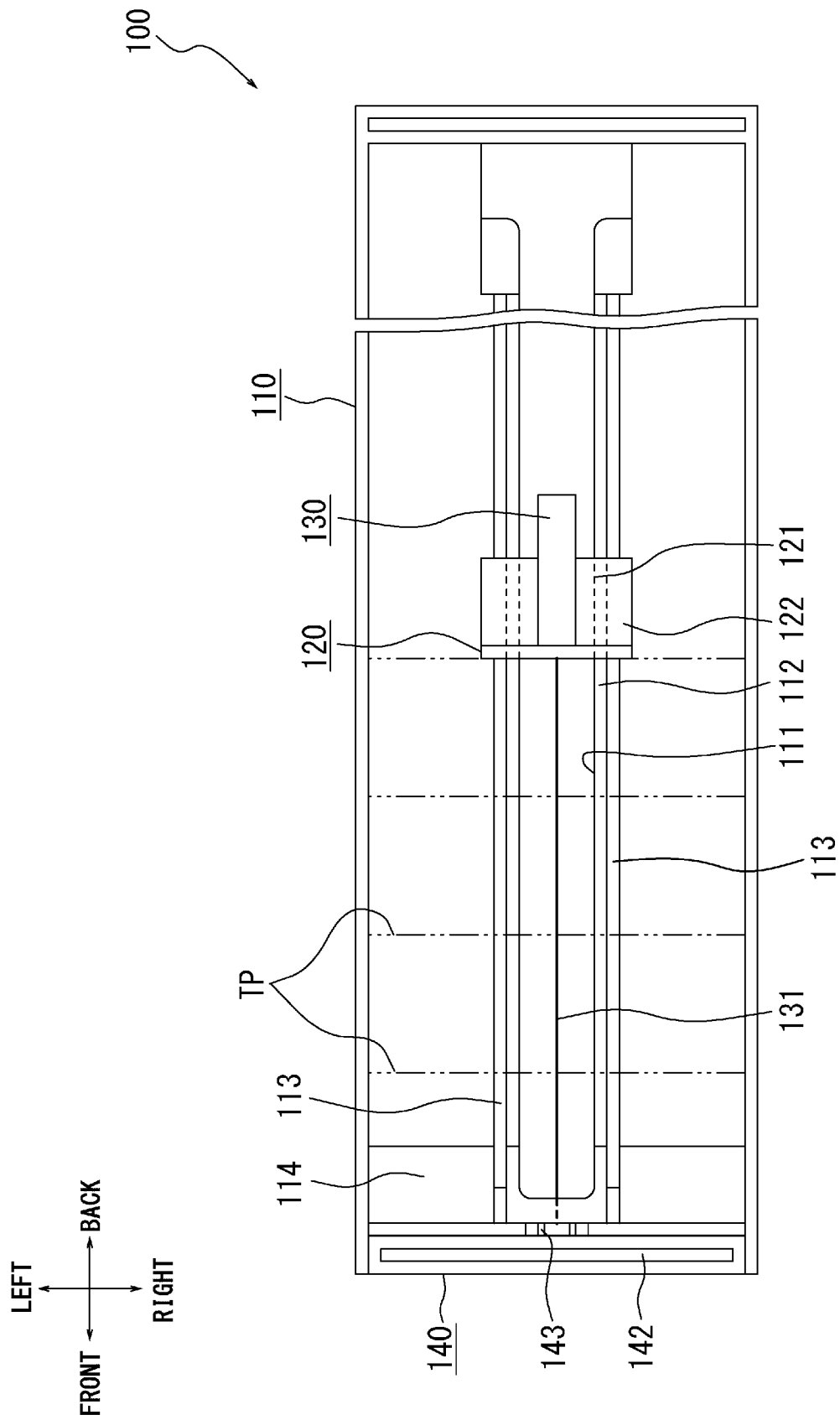
upped; and

a top end part of the wire pulled out from the reel main body is inserted to the inside of the slope.

[Fig. 3]



[Fig. 4]



INTERNATIONAL SEARCH REPORT

International application No
PCT/JP2012/001886

A. CLASSIFICATION OF SUBJECT MATTER
INV. A47F1/12
ADD.

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)
A47F G07F

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)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2 934 212 A (JACOBSON) 26 April 1960 (1960-04-26) figures 1-5	1-6
X	US 2 522 896 A (RIFKIN ET AL) 19 September 1950 (1950-09-19) figures 1, 2	1-3



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)

"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

"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

"&" document member of the same patent family

Date of the actual completion of the international search

29 June 2012

Date of mailing of the international search report

06/07/2012

Name and mailing address of the ISA/

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040,
Fax: (+31-70) 340-3016

Authorized officer

Linden, Stefan

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/JP2012/001886

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 2934212	A	26-04-1960	NONE	

US 2522896	A	19-09-1950	NONE	
