Fig. 1

Fig. 2

Fig. 3

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DRAWER-TYPE CARTON
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ABSTRACT OF THE DISCLOSURE

The present invention concerns a drawer-type carton containing means for automatically opening the lid. Said means are characterized in that a flap is provided at the upper edge of a back wall of the inner case of the carton and a hook portion, bent back outwardly and upwardly and having elastic properties, is provided on the back of said flap. An extension bent inwardly and also having elastic properties, is provided at the upper edge of the back wall of the outer case. When the inner case is pushed upwardly, the portion of the flap of the inner case interlocks with the extension of the outer case by the action of their mutual traction, and the upper edge of the inner case is opened and bent backward.

This invention relates to a drawer-type carton provided with means for automatically opening and bending backward an upper edge of an inner case and also provided with means for preventing the inner case from slipping out of either an open top or an open bottom of an outer case of rectilinear form. It is an important object of the present invention to provide a carton wherein its inner case will not go up far enough to slip out of the top of its outer case when the bottom of its inner case is pushed up against the outer case.

Another object of the present invention is to provide a carton wherein its inner case will not go down far enough to slip out of the bottom of its outer case when the ceiling of its inner case is pushed down to close the lid.

Still another object of the present invention is to provide a carton wherein said automatic opening means nor its operations are detectable from the outside and thereby people will be very much interested in it.

So far various kinds of simple drawer-type cartons have been devised for holding cigarettes, candies, and other articles. But all of the conventional cartons require two separate operations. That is to say, to open the inner case and remove its contents, it is necessary to push the inner case out of the outer case, and also to push and open a bendable lid at an upper edge of the inner case by a finger or finger tips. A smoker cannot take a cigarette out of this conventional carton easily and quickly when he wants to take a short rest when he is very busy. When this conventional carton is used for a candy box, a child will find it very cumbersome to perform two separate operations when he wants to take candies out of it. In addition to these disadvantages, there are still other disadvantages in the conventional carton. It will injure the appearance of the carton and will deplete interest in it when a means for closing its lid is seen from outside while the lid is being closed. What is more, its inner case is apt to slip upwardly out of the top of its outer case when its inner case is pushed up too far, and also

its inner case is apt to slip downwardly out of the bottom of its outer case when its inner case is pushed down too far.

The carton of the present invention has none of these disadvantages. With the simple means provided in this carton, only one simple operation of pushing up the bottom of its inner case is required to automatically open its lid and bend it backward in a smart, comfortable manner, no further complicated operations are required. As the means for opening its lid is not detectable from outside when it is closed, the carton is a very interesting one. Further, its inner case will not slip unexpectedly out of either the top or the bottom of its outer case and will be able to stop completely after a suitable sliding.

As a drawer-type carton, therefore, the carton of the present invention is perfect in all respects and has a remarkable effect. A preferred embodiment of the present invention is shown in the accompanying drawings in which:

FIGURE 1 is a rear perspective view of an inner case of the present invention when it is closed within an outer case.

FIGURE 2 is a sectional view of an inner case of the present invention cut along the line A—A of FIGURE 1 when the inner case is closed within an outer case.

FIGURE 3 is an enlarged sectional view of a drop-resisting device in the inner case.

Referring now to the drawings, an outer case 1 is formed having a small vertical dimension and a rectangular form, with its top and bottom open.

An extension 4 folded over along an upper edge 3 of a back wall 2 of an outer case 1 extends inwardly, said extension having an elastically at its fold. Only a back wall 10 of an inner case 5 connects a main part 8 to a lid 9 at a fold line 11 bendable backward, the back wall being a continuous wall from the main part 8 to the lid 9. The rest of the main part 8 and that of the lid 9 are separated at 16. Behind a lid's back wall 12 is provided a flap 13 whose top starts at the top of said lid's back wall 12 and is spaced from it and hangs downwardly. A slit a is made in a downward tongue or flap shape in the flap 13 and the cut portion is bent back upwardly to form a hook portion b. A slit d is made in an upward tongue shaped form on a back wall 10 of the inner case 5, and the cut portion is bent upwardly and outwardly to form a stopping and holding piece e. A lower edge e of the flap 13 is always placed between the stopping and holding piece e and the back wall 10 in such a manner as to prevent the flap 13 from going down too far. A drop-resisting piece f is provided at both ends of the top of the inner case 5, said piece f protruding slightly from said both ends.

Now we are going to describe how to use the carton of the present invention. A really simple action of pushing up the bottom of the inner case 5 in the direction of the arrow indicated in FIGURE 2 will raise the inner case 5, together with the flap 13, until the hook portion b, bending outwardly from the flap 13, automatically interlocks with the elastic extension 4 of the outer case 1. After this occurs, only the flap 13 is restrained from going up. When the inner case is made to go up further, the lid 9 of the inner case 5 under the cut of the flap 13 which is now restrained from going up will bend backward from the fold line 11, and the slit 16, which is to be separated from the side walls, will be opened so that the lid 9 will automatically open and bend backward. As this carton can be easily opened by a simple action of pushing up the bottom of its inner case, it has an advantage of being comfortably smart, and so it is suitable to the taste of modern people. Both the fit b of the inner case 5 and the extension 4 of the outer case 1 are pieces which are bent back and which have elastic proper-
ties. When the fit b of the inner case 5 interlocks automatically with the extension 4 of the outer case 1, therefore, there will be practically no possibility of making such mistakes as are commonly found in a device of the conventional carton wherein the extension is made to be inserted into a hole in the inner case. In closing the carton, it is just enough to push down the lid 9 of the inner case 5 in the opposite direction, and the interlocking between the extension 4 and the hook portion b will be released. The flap 13 will lie between the back wall 2 of the outer case 1 and the back wall 10 of the inner case 5, touching both of them in the parallel direction, and the extension 4 will lie between the back wall 2 and the flap 13, touching both of them in the parallel direction. Therefore, this kind of trick cannot be seen from outside, and so the carton of the present invention will provide a very interesting one.

As a lower edge e of the flap 13 lies always between the back wall 10 of the inner case 5 and a stopping and holding piece c, the lower edge e of the flap 13 will be stopped and constrained to go down by means of the stopping and holding piece c when the inner case 5 is pushed up to open the lid 9 of the carton of the present invention. Thus this device will prevent the inner case 5 from going up beyond a certain distance, and so it will completely prevent the inner case 5 from going up so far as to slip out of the top of the outer case 1. In preventing the inner case 5 from slipping out of the outer case 1, we do not insert the lower edge e of the flap 13 between the stopping and holding piece c and the back wall 10 of the inner case 5 after the inner case 5 starts moving, because the lower edge e of the flap 13 is always lying between the stopping and holding piece c and the back wall 10 of the inner case 5. Thus the carton of the present invention has an advantage that no mistake of insertion can be made and that its operation can be accomplished accurately and completely. What is more, when the lid is closed, a drop-resisting piece f always makes a close contact with the upper edge g of the outer case 1 and prevents the inner case 5 from dropping any further, and securely holds the inner case 5 from dropping out of the outer case 1. Thus the carton may be said to be a really perfect one in all respects.

What we claim is:

1. A carton having an automatically opening cover, said carton comprising an outer sleeve-like casing having an unapertured back wall which extends the full length of the outer casing, an extension having resiliently attached to the edge of the back wall at the upper edge thereof and bent downwardly along the inside surface of the back wall, an inner casing slideable within said outer casing and having a cover constituted by a top panel, and at least a cover rear panel and cover side panels depending therefrom, the cover rear panel being hinged to the upper edge of the back wall of the inner casing, and a flap hingedly secured to the cover and extending downwardly between the back walls of the inner and outer casings and having an upwardly extending hook portion projecting therefrom engageable with said extension of the outer casing causing the cover on the inner case to be opened and bent backward when the inner casing is urged upwardly and means for preventing the inner case from slipping out of the upper end of the outer casing comprising a stopping and holding piece which is bent outwardly and upwardly from the back wall of the outer casing and engageable with lower edge of the flap depending from the cover when said inner casing is urged upward to the point where the cover is opened and bent backwards.

2. A carton as claimed in claim 1, further comprising means for preventing the inner casing from slipping out of the lower end of the outer casing of the carton and comprising extensions on the ends of the cover top panel projecting slightly outwardly from both ends of the cover top panel and engageable with the top edge of the outer casing.

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