

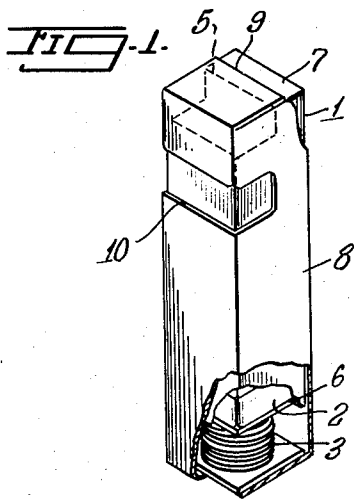
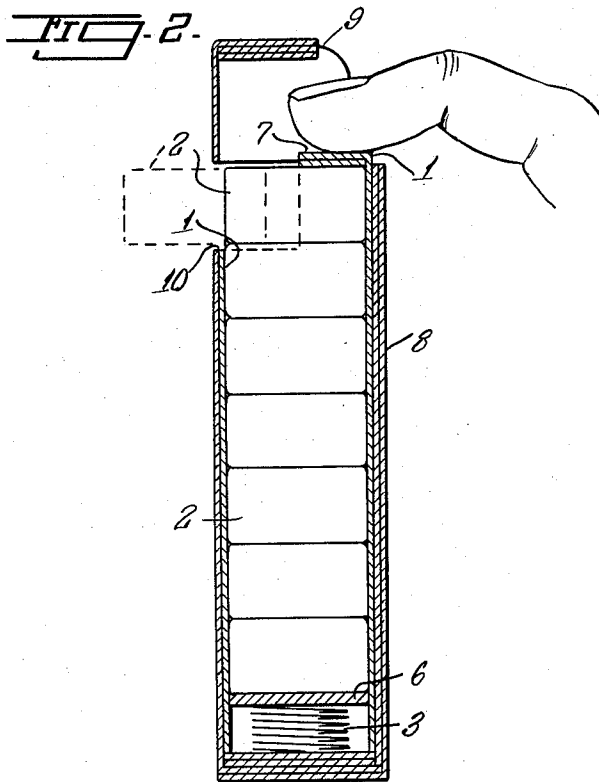
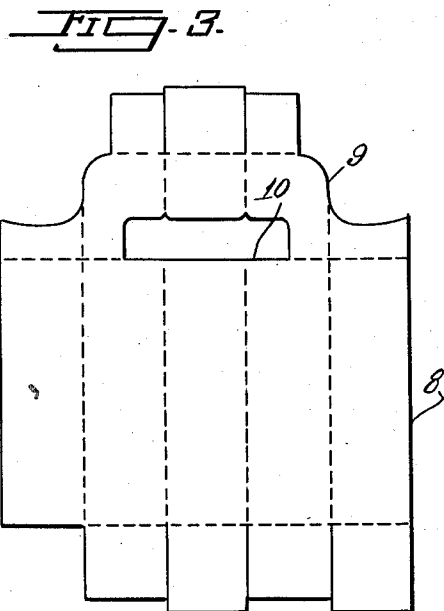
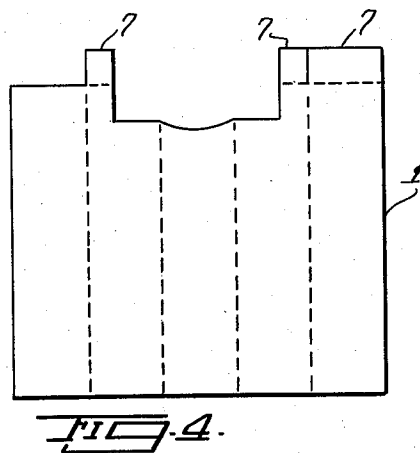
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DISPOSABLE DISPENSER PACKAGE

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DISPOSABLE DISPENSER PACKAGE

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9 Claims. (Cl. 206—42)

This invention relates to a dispensing package of tablets or the like. It particularly concerns a carton for containing tablets which is normally in sealed or closed condition and which is provided with a finger-pressure operable element to dispose a desired number of the tablets adjacent a dispensing opening where it may be manually removed. Although the invention is primarily directed to the dispensing of flat plates or tablets of candy or medicine, it is also suited to the packaging and dispensing of other articles, such as cigars or cigarettes.

In its preferred embodiment, the invention comprises an inner casing or sleeve containing a stack of tablets or other articles which are pressed against the top edge of the casing by a compression spring acting between an outer sealing container and the lower open end of the casing. When the casing is depressed, one tablet is disposed adjacent an opening in the outer container. The spring has the dual function of restoring the inner sleeve to its original position, and the stack within it to its dispensing position.

The preferred form of the invention is illustrated in the drawing, in which—

Fig. 1 is a three-dimensional view of the package of tablets in closed position, the walls of the inner sleeve and outer container being partly broken away at a lower corner to expose the stack of tablets and the compression spring;

Fig. 2 is a sectional view of the same package in open position, the top tablet of the stack being positioned at the dispensing opening;

Fig. 3 illustrates the form of cut sheet used to make the outer container; and

Fig. 4 illustrates the cut sheet used to make the inner sleeve or casing.

The materials used to make the container may be paper, moisture-proofed cardboard, a lamination of aluminum foil and paper or cardboard, a thin metal or plastic sheet, or any other suitable material.

The package comprises an inner sleeve or slide structure 1 having a cross section of any desired geometric configuration, e.g. rectangular or circular, which contains a stack of flat tablets 2 having an outline osculating the interior surface of the sleeve. Where the inner sleeve 1 is circular in cross section it is preferable that the outer container conform thereto. The lower end of the sleeve 1 is open, or is provided with an opening, so that the compression spring 3 can act on follower 6 to push the stack upwardly against the cross ledge 7 formed at the upper end of the sleeve. The sleeve 1 has a cut-away part at its upper end forming an opening 5 which serves to permit the exposing of the front surface as well as of a desired portion of the two side surfaces and the top surface of the tablet to be dispensed. The longitudinal depth of the cut-away portion is large enough to permit the removal of one tablet, and small enough to prevent the unintentional removal of more than one. The follower 6 may be a sheet of any material or a box of suitable cross section having its lower face open to receive the spring. The

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depth of the follower box could be made sufficient to fully receive the spring when the latter is compressed to its desired maximum.

The outer container 8 is closed at its lower end, against 5 which end the spring rests or bears. The outer container is provided with two cut-out portions. The one at the upper right edge, at 9, permits the finger-tip depression of the inner sleeve. The opening at 10, in the outer container, is sufficiently extensive, longitudinally and around 10 the sides, to permit easy finger-tip removal of a tablet. Part of the side faces of the inner sleeve may extend within and be exposed by the opening 10. These features facilitate removal of the tablet.

Figs. 3 and 4 are self-explanatory. They represent 15 die-cutting diagrams of the outer container and the inner sleeve.

A special advantage of the device is that only one compression spring is necessary to keep the dispenser closed and the stack in dispensing position. The spring has the 20 dual function of closing the package and of pushing the stack of tablets against the upper end of the casing. The latter occurs automatically upon removal of a tablet, and the former upon release of manual depressing force on the upper end of the inner casing.

Various modifications may be made within the context 25 of the appended claims and the described principles of the invention.

The compression spring may be replaced by any resilient means acting between the container and the inner 30 sleeve to restore the sleeve to closed position and the stack to its dispensing position. For example, a rubber band attached to the container and extending through opposite longitudinal slots (not shown) in the side walls of the inner sleeve, across and against the lower end of the 35 stack of tablets, could be used.

I claim:

1. A normally closed dispenser comprising an inner casing, the casing having at one end a crosswise extending ledge and having an opening at said end extending longitudinally and also extending crosswise completely across 40 the width of the casing and at two opposite sides extending toward the ledge, to facilitate finger-tip removal of contents of the dispenser, an outer container in which the casing is slidably contained, means including a resilient member supported by the container and having access 45 into the lower part of the casing to push the contents against the cross-ledge, the outer container having an edge opening at one end extending substantially longitudinally, crosswise, and also transversely, to expose 50 part, and only part, of the ledge surface, whereby a finger may have access to the ledge surface to depress the inner casing, the outer container having a crosswise extending opening which also extends transversely part way around the two opposite sides, said crosswise opening having a 55 longitudinal width sufficient to permit finger-tip removal of a portion of the contents, whereby upon depressing the ledge against the action of the resilient member said portion of the contents is juxtaposed adjacent the crosswise opening of the outer container and may be removed 60 manually, the said resilient member thereupon restoring the contents to their position abutting the ledge, and upon release of the ledge the resilient member restores the inner casing and its ledge to original position against said end of the container.

2. A normally closed dispenser package comprising a longitudinal stack of articles to be dispensed, a slide structure containing the stack, the outer longitudinal contour of the stack and inner longitudinal surface of the slide structure at least in part osculating each other, the slide 70 structure providing at one end a crosswise extending ledge and having an opening at said end extending longitudinally more than the longitudinal thickness of one but

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less than two of the dispensable units of said stack and extending crosswise completely across the width of the slide structure and, at two opposite sides, extending toward the ledge to facilitate finger-tip removal of a portion of the contents, the lower other end of the slide structure being open, the stack being wholly contained between the ledge and the lower end of the slide structure, an outer container in which the slide structure is slidably contained, a spring member supported by the container having access to the lower end of the stack to push the stack against the cross-ledge, the outer container having an edge opening at one end extending substantially longitudinally, crosswise, and also transversely, to expose part, and only part, of the ledge surface, whereby a finger may have access to the ledge surface to depress the inner slide structure, the outer container having a crosswise extending opening which also extends transversely part way around the two opposite sides, said crosswise opening having a longitudinal width sufficient to permit finger-tip removal of one unit of said articles, whereby upon depressing the ledge against the force of the spring member a unit of said articles is juxtaposed adjacent the crosswise opening of the outer container and may be removed manually, the said spring member thereupon restoring the stack to its position abutting the ledge, and upon release of the ledge the spring restores the inner slide structure and its ledge to original position against said end of the container.

3. A normally closed dispenser package comprising an inner slide structure about the contents of the package, the slide structure having at one end a crosswise extending ledge and having an opening at said end extending longitudinally a distance to permit withdrawal of a portion of the contents of the package, and extending crosswise completely across the width of the slide structure and extending toward the ledge, to facilitate finger-tip removal of contents of the package, the lower other end region of the slide structure having an opening, the package contents being wholly contained between the ledge and the lower end of the slide structure, an outer container in which the slide structure is slidably contained, resilient means supported by the container and having access to the lower part of the slide structure to push the contents against the cross-ledge, the outer container having an edge opening at one end extending substantially longitudinally, crosswise, and also transversely, to expose part, and only part, of the ledge surface, whereby a finger may have access to the ledge surface to depress the slide structure, the outer container having a crosswise extending opening which also extends transversely part way around the two opposite sides, said crosswise opening having a longitudinal width sufficient to permit finger-tip removal of a part of the contents, whereby upon depressing the ledge against the force of the resilient means said part of the contents is juxtaposed adjacent the crosswise opening of the outer container and may be removed manually, the said resilient means thereupon restoring the contents to their position abutting the ledge, and upon release of the ledge the resilient means restores the slide structure and its ledge to original position against said end of the container.

4. A normally closed dispenser package comprising a longitudinal stack of tablets to be disposed, a casing containing the stack, the outer longitudinal contour of the stack and inner longitudinal surface of the casing at least in part conforming with each other, the casing providing at one end a crosswise extending ledge and having an opening at said end extending longitudinally more than the longitudinal thickness of a tablet of said stack and extending crosswise completely across the width of the casing and extending to the ledge at two opposite sides, to facilitate finger-tip removal of a tablet, the lower other end of the casing being open, the stack being wholly contained between the ledge and the lower end of the casing, an outer container in which the casing is slidably con-

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tained, a compression spring supported by the container and having access to the lower end of the stack to push the stack against the cross-ledge, the outer container having an edge opening at one end extending substantially longitudinally and also crosswise to expose part, and only part, of the end surface of the ledge, whereby a finger may have access to the end surface of the ledge to depress the inner casing, the outer container having a crosswise extending opening which also extends transversely part way around the two opposite sides, said crosswise opening being displaced from the end having the edge opening a distance less than the longitudinal extent of the corner opening and having a longitudinal width sufficient to permit finger-tip removal of a tablet, whereby upon depressing the ledge against the force of the spring at least one tablet is juxtaposed adjacent the crosswise opening of the outer container and may be removed manually, the said spring thereupon restoring the stack to its position abutting the ledge, and upon release of the ledge the spring restores the inner casing and its ledge to original position against said end of the container.

5. A normally closed dispenser package comprising a longitudinal stack of tablets to be dispensed, a slide structure about the stack, the outer longitudinal contour of the stack and inner longitudinal surface of the casing at least in part osculating each other, the slide structure providing at one end a crosswise extending ledge and having an opening at said end extending longitudinally more than the longitudinal thickness of one but less than two of the dispensable tablets of said stack and extending crosswise completely across the width of the casing and extending toward the ledge at two opposite sides, to facilitate finger-tip removal of a tablet, the stack being wholly contained between the ledge and the lower end of the slide structure, an outer container in which the slide structure is slidably contained, a spring supported by the container and having access to the stack in position adjacent the lower end of the stack to push the stack against the cross-ledge, the outer container having an edge opening at one end extending substantially longitudinally, crosswise, and also transversely, to expose part, and only part, of the ledge surface, whereby a finger may have access to the ledge surface to depress the inner slide structure, the outer container having a crosswise extending opening, said crosswise opening having a longitudinal width sufficient to permit finger-tip removal of a tablet, whereby upon depressing the ledge against the force of the spring at least one tablet is juxtaposed adjacent the crosswise opening of the outer container and may be removed manually, the spring restoring the stack to its position abutting the ledge, and upon release of the ledge the spring restores the inner slide structure and its ledge to original position against said end of the container.

6. A normally closed dispenser package comprising a longitudinal stack of articles to be dispensed, a casing containing the stack, the outer longitudinal contour of the stack and inner longitudinal surface of the casing at least in part osculating each other, the casing providing at one end a crosswise extending ledge and having an opening at said end which extends longitudinally more than the longitudinal thickness of one but less than two of the articles of said stack and extends crosswise completely across the width of the casing and at two opposite sides extends toward the ledge, the stack being wholly contained between the ledge and the lower end of the casing, an outer container in which the casing is slidably contained, a resilient means in position to push the stack against the cross-ledge, the outer container having an edge opening at one end extending in a direction having a longitudinal component, also extending crosswise, and transversely, to expose part, and only part, of the ledge surface, whereby a finger may have access to the end surface of the ledge to depress the inner casing, the outer container having a crosswise extending opening which also extends transversely part way around the

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two opposite sides, having a longitudinal width sufficient to permit finger-tip removal of a dispensable article, whereby upon depressing the ledge against the force of the resilient means at least one dispensable article is juxtaposed adjacent the crosswise opening and may be removed manually, the resilient means restoring the stack to its position abutting the ledge, and upon release of the ledge the resilient means restores the inner casing and its ledge to original position against said end of the container.

7. A normally closed dispenser package comprising a longitudinal stack of articles to be dispensed, a slide structure containing the stack, the outer longitudinal contour of the stack and inner longitudinal surface of the slide structure at least in part osculating each other, the slide structure providing a ledge at one end and having an opening at said end extending longitudinally more than the longitudinal thickness of one but less than two of the dispensable units of said stack and extending crosswise of the width of the slide structure to facilitate finger-tip removal of a portion of the contents, the other end of the slide structure being open, the stack being wholly contained between the ledge and the said other end of the slide structure, an outer container in which the slide structure is slidably contained, a spring member in the container having access to the lower end of the stack to push the stack against the ledge, the outer container having an edge opening at one end extending substantially longitudinally, crosswise, and also transversely, to sufficiently expose the ledge surface so that a finger may have access to the ledge surface to manually depress the inner slide structure, the outer container having a crosswise extending opening, said crosswise opening having a longitudinal width sufficient to permit finger-tip removal of a unit of said articles, whereby upon depressing the ledge against the force of the spring member a unit of said articles is juxtaposed adjacent the crosswise opening of the outer container and may be removed manually, the said spring member thereupon restoring the stack to its position abutting the ledge, and upon release of the ledge the spring restores the inner slide structure and its ledge to original position against said end of the container.

8. A dispenser package comprising an outer container, a slide structure about the package contents within the outer container, said slide structure being movable longitudinally of the outer container and having a side wall extending longitudinally of the outer container, the slide structure having a transverse portion, means including a resilient member supported by the outer container, said means abutting the contents of the inner slide structure to push the contents against said transverse portion of the slide structure and thereby normally push the inner slide

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structure towards the said end of the outer container, the outer container having a side dispensing opening and an opening permitting access to the said transverse portion of the inner slide structure to facilitate manual depression of the latter against the force of the resilient member, said side wall of the slide structure having a side opening which is thus brought into juxtaposition with respect to the side dispensing opening of the outer container to permit removal of the contents, the resilient member moving the slide structure to close said side dispensing opening upon release of manual depressing force, and automatically pushing the package contents against the said transverse portion of the slide structure upon removal of a part of the contents.

9. A disposable package for dispensing contained articles, comprising an outer container having an end member, a slide structure within the outer container, said slide structure being movable longitudinally of the outer container and having a side wall extending longitudinally of and adjacent to a side wall of the outer container, said slide structure having a transverse ledge at an end region, means including a resilient member supported by the outer container, said means abutting the contents of the inner slide structure to push the contents against the said ledge of the slide structure and thereby normally push the inner slide structure towards said end member of the outer container, the outer container having a side dispensing opening in said side wall thereof and having an opening in said end member thereof permitting access to the said ledge of the inner slide structure to facilitate manual depression of the latter against the force of the resilient member, said side wall of the slide structure having a side opening which is thus brought into juxtaposition with respect to the side dispensing opening of the outer container to permit removal of the contents, the resilient member moving the slide structure to close said side dispensing opening upon release of manual depressing force, and automatically pushing the package contents against the ledge of the slide structure upon removal of a part of the contents, stop means for the slide structure, the slide structure abutting the stop means at its position of maximum depression.

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