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ARTICLE DISPENSING CONTAINER

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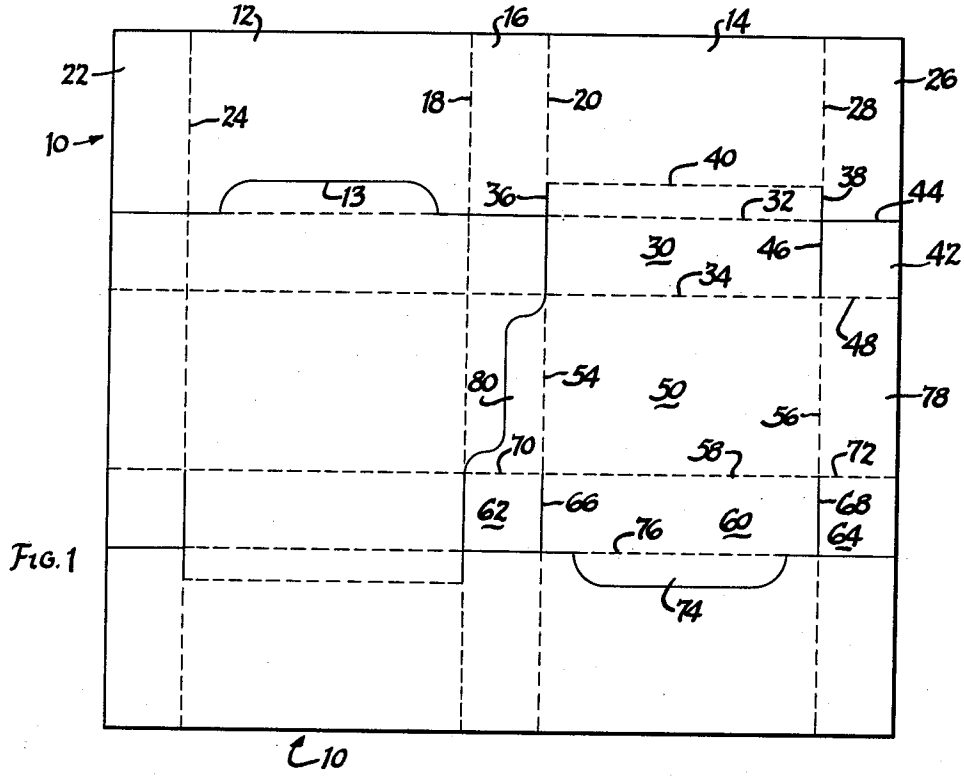


FIG. 1

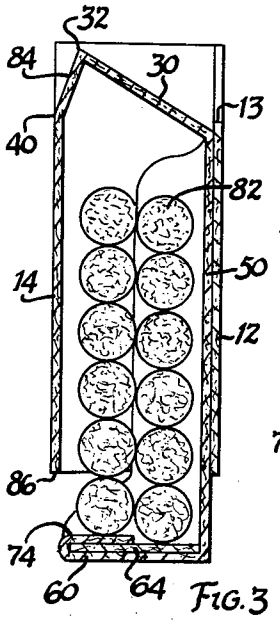


FIG. 3

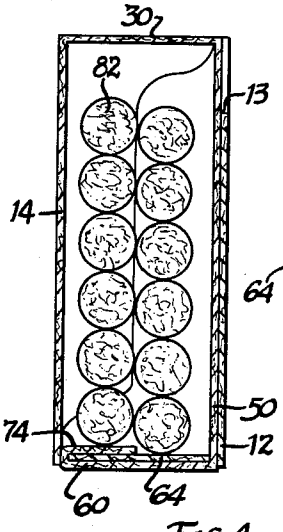


FIG. 4

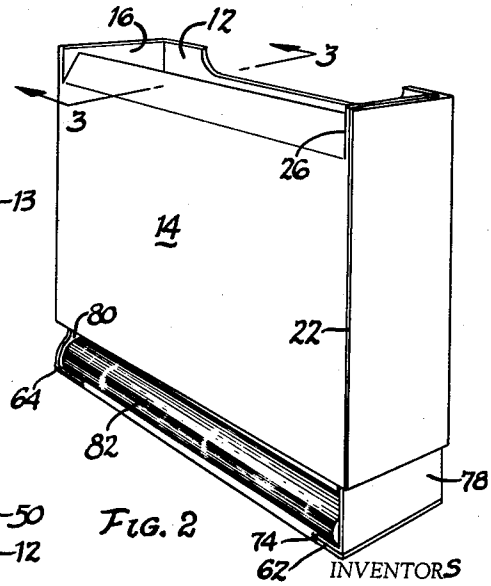


FIG. 2

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ARTICLE DISPENSING CONTAINER

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This invention relates to a box for a plurality of slender elongated articles such as cigarettes, and more particularly to a box in which the elongated articles are dispensed from the side of the box as opposed to the conventional dispensing technique in which the articles are dispensed from the upper end of the container.

An object of the invention is to provide a container constructed from a blank which, when matched with another similar blank, will form a rectangle to thereby provide a design which eliminates waste material in the step of fabricating the blank.

Another object of the invention is to provide a container for slender elongated articles which incorporates an inner sliding wall member which interconnects two side walls of the container to permit movement of one of the walls outwardly upon depression of the other wall for dispensing of the articles.

A further object of the invention is to provide such a container structure in which the dispensing opening is substantially equal to the length of the elongated articles to thereby permit removal of the articles in a lengthwise fashion as opposed to the conventional sliding or pulling action.

A still further object of the invention is to fabricate the container from pasteboard or similar material to result in a container structure which has sufficient strength to retain its shape to thereby avoid damage to the contents.

Another object of the invention is to provide a container which is fabricated from a single blank which is folded and bent to the shape of the final container structure.

Other objects of this invention will appear in the following description and appended claims, reference being had to the accompanying drawing forming a part of this specification wherein like reference characters designate corresponding parts in the several views.

In the drawing:

FIGURE 1 is a plan view of a pair of blanks, each blank being formable into a complete container unit, the blanks being illustrated in matched position, the two blanks forming a rectangle;

FIGURE 2 is a view in perspective of a completed container illustrated in dispensing position;

FIGURE 3 is a sectional view taken substantially along the line 3—3 of FIGURE 2 looking in the direction of the arrows; and

FIGURE 4 is a sectional view similar to FIGURE 3 illustrating the container in the closed condition.

Before explaining the present invention in detail, it is to be understood that the invention is not limited in its application to the details of construction and arrangement of parts illustrated in the accompanying drawings, since the invention is capable of other embodiments and of being practiced or carried out in various ways. Also, it is to be understood that the phraseology or terminology employed herein is for the purpose of description and not of limitation.

FIGURE 1 illustrates a pair of blanks **10** which are dovetailed together to form a rectangle, in a manner similar to that which occurs when the blanks are cut from a section of pasteboard or cardboard by a blanking die. As will be appreciated, the blanks may be formed from a sheet of material which is exactly equal to the

width of the rectangle and thus there will be no wastage of cardboard during the blanking process. This is important from the manufacturing viewpoint because small amounts of wastage in the formation of each blank add up to a considerable amount of material when the blanks are made in large scale production.

Each of the blanks **10** is formable into a container such as the one illustrated in FIGURE 2. The panel **12** of the blank **10** forms the back wall of the container. The panel **12** has a recess **13** which is useful when articles are dispensed. The panel **14** forms the front wall. The back and front walls **12**, **14** are interconnected by an end wall panel **16**, which forms the outer left end wall as viewed in FIGURE 2. Score lines **18**, **20** define the panel **16**. A right end panel **22** is appended to the back panel **12**, this panel being defined by score line **24**. The panel **22** forms the outer right end wall. A right end panel **26** is appended to the front panel **14**, this panel being defined by score line **28**. The panel **26** is glued to the inner surface of panel **22** in the formation of the box structure of FIGURE 2.

A panel structure which forms the top wall, bottom wall and an inner sliding wall extends at substantially right angles from the front wall **14**. Directly appended to the front wall **14** is the bottom wall **30**. This wall is defined by score lines **32**, **34**. A pair of short slits **36**, **38** extend from the bottom wall **30** between the front wall **14** and end walls **16**, **26**. A score line **40** is provided on the front walls and extends between the slits **36**, **38**. The slits **36**, **38** and score line **40** act as a type of hinge to permit depression of the bottom wall **30** into the container during the dispensing action as will be later described.

A tab **42** is provided adjacent to the bottom wall **30**. The tab **42** is defined by slits **44**, **46** and score line **48**. The tab **42** is bent inwardly in the formation of the box and lies on the inner surface of the bottom wall **30**. This tab aids in providing rigidity to the box structure. An inner or sliding wall **50** is appended to the bottom wall **30**. The inner wall **50** is defined by score lines **34**, **54**, **56**, **58**. A top wall **60** is appended to the inner wall **50** along score line **58**. A tab **62**, **64** is provided adjacent each end of the top wall **60**. The tabs **62**, **64** are defined by slits **66**, **68** and score lines **70**, **72**. A third tab **74** is provided along the outer edge of the top wall. In constructing the box of FIGURE 2, the tabs **62**, **64** are bent beneath the top wall **60** and glued in place. The tab **74** is then bent inwardly along score line **76** and also glued in place to result in a top wall structure of relatively high strength. An inner sliding side wall **78**, **80** is provided adjacent each edge of the inner wall **50**. The walls **78**, **80** act to encompass and support the articles within the container. It will be noted that the wall **80** has an essentially S-shaped outer edge. This configuration functions to permit ready accessibility to the articles when the container is in dispensing position as shown in FIGURE 2.

Referring to FIGURES 2, 3 and 4, the method of dispensing from the container can be appreciated. FIGURE 4 illustrates the container in closed position. The container is illustrated as being loaded with cigarettes **82**. The top wall **60** is received within front, back and end walls. In this condition, the cigarettes **82** are entirely enclosed and safeguarded against crushing or other damage. When it is desired to remove a cigarette from the container, the bottom wall **30** is depressed inwardly of the container. Depression of the bottom wall is facilitated by the presence of the recess **13**. When the bottom wall is depressed, hinging action occurs along the score line **32**. Additionally, as will be noted, the hinging action also occurs along the line **40**, the slits **36**, **38**

permitting inward movement of the portion 84 of the front wall 14. This action moves the inner wall 50 outwardly of the container, the wall 50 carrying with it the top wall 60 to form a dispensing opening 86 from which the cigarettes 82 may be removed. After dispensing the top wall 60 is depressed to return the container to the condition illustrated in FIGURE 4.

Having thus described our invention, we claim:

1. A box for a plurality of slender elongated articles, said box being formed from a one-piece blank said box comprising a front wall, a back wall, a top wall, a bottom wall and a pair of end walls, one of said end walls comprising a pair of panels which are adhered together to rigidify the box structure, elongated articles being receivable in the box with the longitudinal axis of the articles extending between the end walls and substantially parallel to the top and bottom walls, an inner back wall positioned within the box and interconnecting the top and bottom walls along one longitudinal edge thereof, and a pair of inner end walls, each appended to one end of the inner back wall, each of the inner end walls having a tab which is adhered to the undersurface of the top wall, said top wall having a flap which is bent thereunder over said tabs and adhered to the undersurface of the top wall, said bottom wall being hingedly depressible inwardly of the box to move the structure defined by the inner back wall, the inner end walls and the top wall outwardly of the box structure to form a dispensing opening between the top wall and the front wall to permit removal of the elongated articles from the box.

2. A box for a plurality of slender elongated articles fabricated from a blank comprising a front wall and

a back wall interconnected to each other by a first end wall, second and third end wall panels each appended to the outer end edge of one of the front wall and back wall, said walls being folded together to form an oblong-shaped structure, said second and third end wall panels being adhered together to rigidify the structure, and a panel structure appended to the lower edge of the front wall at approximately right angles thereto, said panel structure comprising a bottom wall appended directly to the front wall, an inner back wall appended to the bottom wall and a top wall appended to the inner back wall, said inner back wall having an inner end wall appended to each other thereof, said inner back wall lying within the oblong-shaped box structure with the bottom wall and top wall enclosing the upper and lower ends of the oblong-shaped box structure, elongated articles being receivable in the box with the longitudinal axis of the articles being substantially parallel to the front, back, bottom and top walls, said bottom wall being depressible into the box to shift the structure defined by the inner back wall, the inner end walls, and the top wall outwardly of the box to form a dispensing opening for the elongated articles.

References Cited in the file of this patent

UNITED STATES PATENTS

542,903	Truax	July 16, 1895
1,898,056	Johnson	Feb. 21, 1933
1,953,418	MacDonald	Apr. 3, 1934
2,030,797	Knauth	Feb. 11, 1936
2,497,455	Johnson	Feb. 14, 1950
2,577,862	Shaw	Dec. 11, 1951