Sept. 4, 1934. H. V. MARSH 1,972,406

DISPENSING DISPLAY DEVICE

Filed July 11, 1932 2 Sheets-Sheet 1

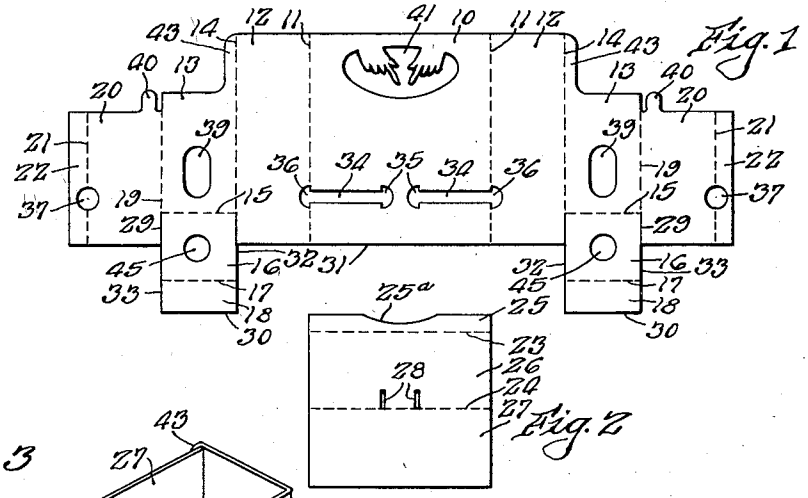


Fig. 1

Fig. 2

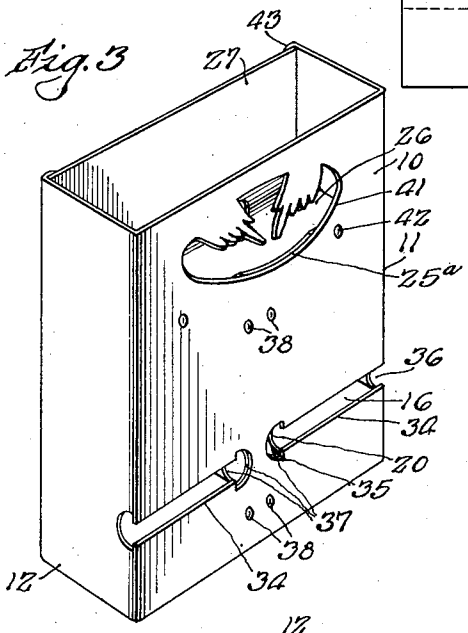


Fig. 3

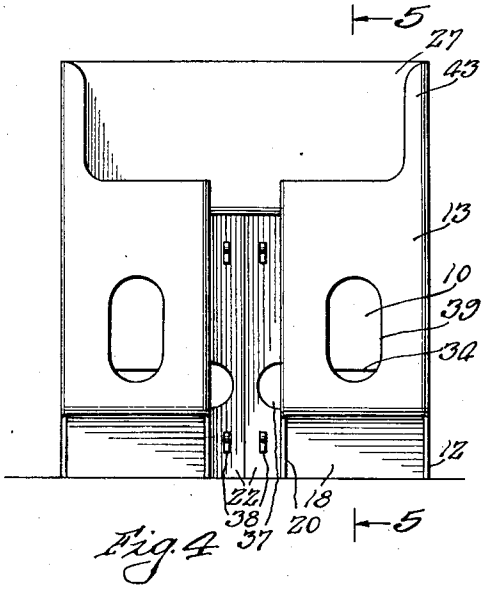


Fig. 4

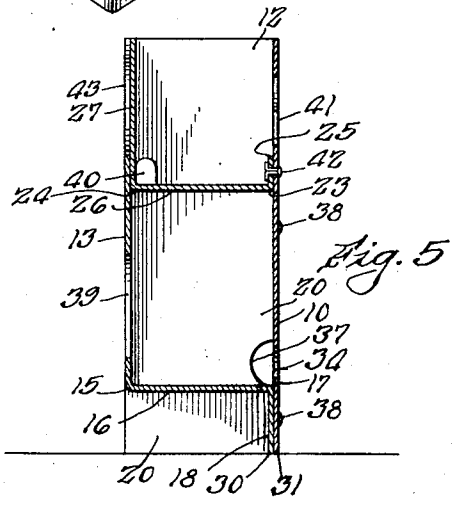


Fig. 5

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DISPENSING DISPLAY DEVICE

Filed July 11, 1932 2 Sheets-Sheet 2

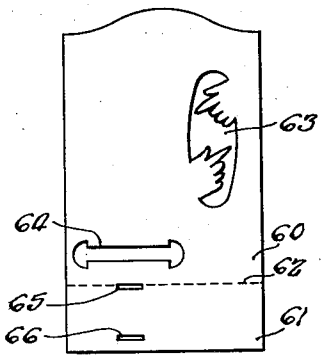


Fig. 6

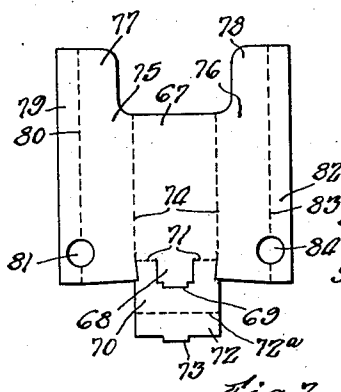


Fig. 7

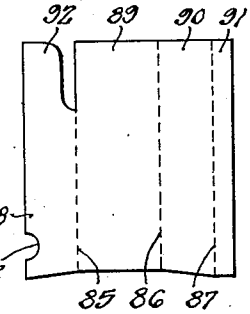


Fig. 8

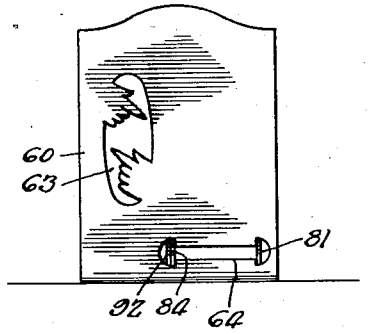


Fig. 9

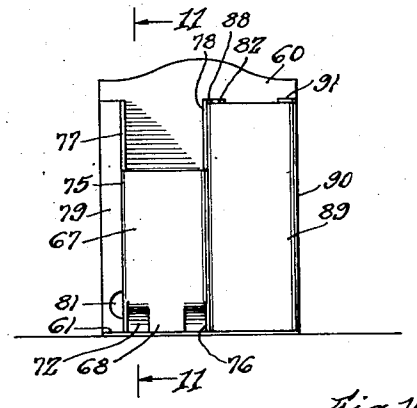


Fig. 10

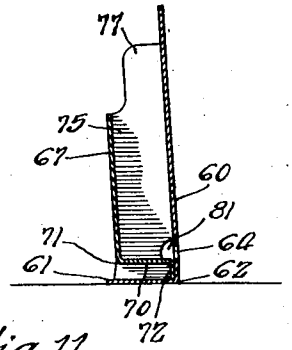


Fig. 11

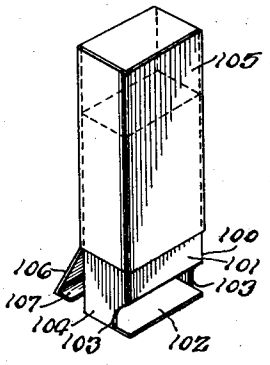


Fig. 12

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Patented Sept. 4, 1934 1,972,406

UNITED STATES PATENT OFFICE

1,972,406

DISPENSING DISPLAY DEVICE

Harry V. Marsh, Chicago, Ill.

Application July 11, 1932, Serial No. 621,775

2 Claims. (Cl. 312—42)

The present invention relates to a device for displaying merchandise and has to do more particularly with such a device suitable for the storing of other merchandise similar to that displayed.

Among the objects of the present invention is the provision of a device for the display and storage of merchandise in a manner to conceal all articles except a few packages for immediate sale.

Further objects of the invention include:

A device for the display and storage of articles of merchandise so that the articles displayed may be removed for sale to be replaced by a similar article dropping into the vacated position from the storage space;

A device configuring in part the shape of human hands for the support of a displayed article;

A device for the storage and display of articles of merchandise in which the storage space is fully or partially inclosed yet readily accessible for replenishment;

A device as the above adapted to be collapsed into a single flat compact body thereby making it suitable for mailing.

Other desirable objects will be made apparent in the following description where like reference characters indicate similar parts throughout and as set forth in the accompanying drawings hereby made a part of this specification and illustrating two forms of the invention.

In said drawings:

Figure 1 is a plan view of a flat body of material from which the main body of the invention is formed by a process of folding;

Figure 2 is a flat element of the device for combining with the part shown in Figure 1;

Figure 3 is a view of the device as taken from the front in angular perspective;

Figure 4 is an orthographic projection of the device in back elevation;

Figure 5 is a section taken in elevation as indicated by the line 5—5 of Figure 4.

Figure 6 is a plan view of a blank of stock material for forming the front side and base for a different form of the invention;

Figure 7 is a plan view of a blank including sections for the formation of a compartment;

Figure 8 is a plan view of a blank used for forming a storage compartment;

Figure 9 is a front elevation of a form of the invention embodying the parts shown in Figures 6, 7 and 8;

Figure 10 is a back elevation of the form of the invention shown in Figure 9;

Figure 11 is a sectional view of a form of the invention and taken with reference to the line 11—11 of Figure 10; and

Figure 12 is a perspective view of a carton cartridge for inserting into a storage compartment.

In the uniformly shaped body illustrated in Figure 1 the unbroken lines within the body of the material are incisions while the broken lines are folding lines.

Any tenacious fibrous material such as a cardboard and capable of holding definite folding lines may be used in the fabrication of the invention.

The present embodiment comprises a cardboard with a layer of thin, tougher and more flexible paper forming the two opposite faces thereof. The folding lines are then permanently defined by drawing a sharp instrument, as a knife edge, along one face of the stock material to entirely sever the thin paper lamination and to penetate the cardboard a suitable distance. With the material thus prepared the two sections on either side of the scored demarcation swing easily about the narrow ligature of the thin lamination opposite the severed strip in much the manner of a hinge.

The section indicated by the reference numeral 10 comprises the front of the device and is bordered by fold lines 11, thus dividing it from the two side sections 12. Adjacent to the sections 12 are sections 13 each for forming the back of a storage compartment in the assembled device. Fold lines 14 are disposed intermediate the sections 12 and 13.

Depending from sections 13 at the fold lines 15 determining the lower edge of the sections 13 are sections 16, each being traversed by a fold line 17 to separate therefrom a section 18. Enjoining the extended edge of the sections 13 defined by the fold lines 19 are sections 20. Fold lines 21 bordering the most extended edge of sections 20 separate said sections from the narrow sections 22.

In Figure 2 is a rectangular member of the same material as the larger sheet of material just described. This member is divided by parallel fold lines 23 and 24 into sections 25, 26 and 27. A concave arcuate edge 25a is provided on section 25. Two slit-like apertures 28 will be observed in section 26.

The following steps are taken in assembling the device from the sheet-like pieces of material shown in Figures 1 and 2. Sections 16 are bent upwardly along the fold lines 15 in a position normal to the sections 13 and as allowed by the incisions 29. Sections 18 are then turned

ninety degrees to sections 16 to present the edges 30 in a vertical plane common to the base line 31 of the multi-sectioned sheet.

Next the whole sheet body is placed upright to rest upon the base edge 31 and the edges 30. Sections 13 are turned backwardly ninety degrees about the axis in the fold line 14 to bring the edges 32 of sections 16 in position against the face of the respective sections 12. A successive turning of the sections 20 about fold lines 19 brings those sections adjacent the edges 33 of sections 16. Sections 22 are articulated to extend normal to sections 20, the breadth of sections 20 being equal to the length of edges 33 so that the articulated sections 22 then project backwardly in alinement with the fold lines 17. A subsequent rotation of ninety degrees of the partially assembled sections about the fold line 11 in a clockwise direction as viewed from above brings the fold lines 17 and sections 22 into a position contiguous to the section 10 in the manner illustrated in Figure 4.

Near the lower side of section 10 will be observed two slots 34 with enlarged suitably shaped thumb sections 35 and 36 at opposite ends. The holes 36 although enjoining the slots are actually within sections 12. The apertures 37 in sections 22 are congruent to the apertures 35 and when the device is folded into the assembled position illustrated in Figure 4 the apertures 37 are brought in registry with the apertures 35.

The sections 22, having been brought in juxtaposition to the back face of section 10, are there secured either by an adhesive or by means mutually penetrating the sections 10 and 22. In the present instance, staples 38 are used by inserting them from the front face of the section 10 through apertures that may be within the secured sections for that purpose.

With the sections thus folded about the sections 16 a storage chamber is formed at either side and at the back of the section 10. Communication from the chambers is had to the front of the device through the slots 34. Longitudinal slots 39 in the sections 13 provide an opening to each chamber from the back.

The rigidity of the chamber bottom section 16 holds the bottom part of the device in the assembled position while the base sections 18 serve as support to prevent the falling of the section from place, Figure 5. The top part of the device is held in the desired set-up position by means of the auxiliary piece shown in Figure 2. This piece has its two sections 25 and 27 bent upwardly along the fold lines 23 and 24 to a position normal to section 26. With the piece deformed in this manner, it is inserted into the top of the device with the two side sections uppermost and with the section 26 resting upon the upper edge of the sections 20. Tongues 40 are projected through the apertures 28.

The section 25 is of the proper height to place the arcuate edge 25*a* in registry with the lower and conforming arcuate edge of the elliptical window 41 cut from the section 10. Fasteners 42 or other suitable means are used for fastening the section 25 to section 10. Upwardly projecting extensions 43 of the sections 13 adjacent the fold lines 14 and the upper portion of sections 13 proper resist a slight impingement imparted thereto by the section 27 as the latter tends to straighten from its folded position. This slight pressure creates a frictional engagement to hold the section 26 in its position normal to the circumjacent sections so that the position of those sections is positively maintained.

The present device is primarily constructed for the storage of a packaged product. In order to fill the storage compartments the section 26 serving as a cover therefor is lifted from its position by grasping the upper edge of the section 27 between the thumb and forefinger and giving a slight upward tug to displace the cover section by pivoting it about the fold line 23.

The parcels may then be dropped in the storage compartments with their major dimension in a horizontal plane in parallelism to the front section of the device. Usually the length of the parcel will be commensurate with the width of the compartment, or the length of the slot 34. The width of the slot 34 is slightly more than the thickness of a parcel accommodated by the compartment when the article is parallelopiped in shape and slightly less than the packaged article is cylindrical. Upon being filled the compartments are again covered by the sections 26, the tongues 40 projecting through apertures 28 incident to the closing.

To extract a parcel from either compartment, it is necessary to extend the thumb and forefinger or other fingers into engagement with the ends of the lower and foremost article in the compartment by way of the apertures 35 and 36. The finger, or thumb, at the opening 36 actually engages one end of an article while the finger or thumb in the opening 35 actually presses against the other end adjacent the aperture 37.

Because of the direct contact of the fingers with the ends of the article, the article is drawn directly from the compartment. There is no frictional resistance to the withdrawal of parallelopiped articles and slight to cylindrical items. If desired, of course, the body of the section 20 adjacent the aperture 37 which in this instance keeps the finger from grasping the article directly by its end may be removed by increasing the size of the aperture 37 so that a finger may grasp the article simultaneously at both ends.

As soon as one article is removed through the slot 34 another will fall into the space vacated thereby. The oblong window like opening 39 which is cut in each of the sections 13 makes it possible to determine the contents of the compartments without raising the cover 26.

Any form of object may be shown in silhouette to depend from the body of the front section into the window for attracting attention. Two human hands are illustrated in the drawings. It is intended that one of the articles for dispensing may be attached in a manner to be co-supported by hands. In addition to the exposition of an article at the window, other articles may be detected through the extraction slots.

A miniature stage is formed behind the window by the top of the cover section 26 to make the device applicable for the arrangement of other articles in some attractive fashion thereon to be observed through the window. With such an arrangement, silhouetted protuberances into the window may be abandoned.

To knock down the device, it is first tilted upon an edge so that a finger may be thrust underneath to engage the sections 16 by means of a hole 45 therein. Thus engaged, the said sections are pulled outwardly and the sections 16 and 18 straightened into alinement with sections 13. Section 26 is next removed from the position covering the compartments and juxtaposed to the upper part of section 10, hinged movement

of the section 27 being had to carry it into a common plane with sections 22 and 26.

At this stage of disassembly the four sides of the storage compartments, since they are hingedly connected at the four upright corners, are free to be swung horizontally in either direction to change the cross section of the compartments from a rectangular shape to that of a parallelogram. The sides 13 of the compartments may be carried forwardly until in contact with the front section of the device at which time the device will be collapsed into a substantially flat member.

Reassembly of the device may be had by performing in retrogressive order the steps above delineated.

The figures in the drawings numbered from 6 to 11, inclusive, illustrate a modified form of the device. In Figure 6 is shown a blank for the front section 60 with a base section 61 separated therefrom by a fold line 62. Within the section 60 is a window 63 which has projecting into it parts of the stock material in the form of human hands. Near the lower edge of section 60 is an elongated aperture 64 having an enlarged section at either end. Slit-like apertures 65 and 66 are within the section 61.

A section 67 shown in Figure 7 is for forming a back of a compartment. Projecting downwardly from the lower edge of the section 67 is a tongue 68 with a protuberance 69 upon its extended end. The parts 68 and 69 are cut from the body of the compartment bottom section 70, the latter depending from the back section 67 at fold lines 71. At the extended end of the bottom section 70 is a section 72 with a tongue 73.

The lateral edges of the back section 67 are determined by fold lines 74 which separate said section from the outer and inner compartment sides 75 and 76 respectively. Extension 77 projects upwardly from the section 75 while a similar extension 78 extends likewise from the section 76. Enjoining the outer edge of section 75 is a complementary section 79 separated therefrom by fold line 80. An aperture 81 is co-contained within the sections 75 and 79 in a manner to be equally divided by the fold line 80. To the right of section 76, Figure 7, is a section 82 which is separated from the section 76 by a fold line 83. A circular aperture 84 similar to aperture 81 is cut from the material of sections 76 and 82.

A second compartment for the device is formed by the sections within the material shown in Figure 8. This material is divided by the fold lines 85, 86 and 87 into an inner side section 88, a back section 89, an outer section 90, and a complementary section 91.

There is cut from the body of section 88 adjacent the fold line 85 material to leave an extension 92 with a curved edge congruent to the curved edge upon either of the sections 77 or 73. Near the bottom of the section 88 there is cut within the outer edge thereof a notch 92 identical in shape with the edge of the aperture 84.

In assembling the device the sections illustrated in Figure 7 are first attached to the rear face of the front section. Section 79 enjoins the front section along its left edge at its back side, Figure 10. Usually the section 79 is secured to the front section by means of an adhesive covering its entire contiguous face. The aperture 81 coincides with the enlargement at the end of the aperture 64 near said left edge. Section 75 is then articulated normally to the section 79 and to the rear while section 74 is articulated in the opposite direction from the section 75 as is the section 79 to place the back of the compartment in place. Section 76 or the inner side of the compartment is then bent normally and forwardly of the section 67 to position the section 82, which has been bent at right angles to the section 76, against the back side of the front section near its central part.

This having been done, the bottom of the compartment formed by section 70 is bent forwardly along the fold line 71 to present the fold line 72*a* adjacent to the back of the front section. Section 72 is first bent downwardly in order that the edge of the section 70 may be brought against the front section.

The other compartment of the device is now formed from the sections comprising the sheet of material shown in Figure 8. In the compartment formed therefrom, articles of merchandise may be stored but there is no way provided for removing these articles from this compartment except by a top opening. The outer edge of section 88 is disposed at the fold line 83 and normal to the section 82 with the section 88 contiguous to the section 76. When in this position the extension 92 coincides exactly with the extension 78 projecting above the section 76. Likewise, the notch 92 within the section 88 is in registry with the part of the aperture 84 lying within the section 76. The back section 89 of the compartment is then bent to the right, as shown in Figure 10, to lie in a plane common to the back section 67 of the previously described compartment. The outer side section 90 of this compartment is then articulated normally and forwardly of the back section 89 while the section 91 is articulated to the left of the section 90 as seen in Figure 10. Any suitable adhesive material may be used for securing the sections 91 and 88 to the back of the front forming section and the innermost wall of the previously described compartment respectively.

With the sides of the compartments so formed, the section 61 depending from the lower edge of the front section 60 is carried backwardly to receive the tongues 73 and 69 into the apertures 65 and 66. It is in this manner that the bottom compartment, section 70, is locked into its assembled position. A bottom for the compartment communicating to the front of the device through the window 63 is formed by the section 61. The lower edges of sections 75 and 76 as well as sections 88 and 90 are cut on a bias so that when the bottom section 61 of the device is bent backwardly, said latter section will form an angle with the front section of the device slightly acute. Then when the device is resting upon the bottom section, the front section will be inclined slightly backwardly to provide a neat appearance for the device.

Articles of merchandise are placed in either compartment by way of the opening at the top. The compartment comprising the sections shown in Figure 7, and communicating to the front of the device through the aperture 64 presents the apertures 81 and 84, cut from the sections 79 and 82, to the enlarged portions forming the ends of the section 64. The enlarged portions at the ends of the apertures 64 cooperate with the parts of the apertures 81 and 84 within the sections 75 and 76 and the notch 92 within the section 88 for providing a means for inserting a thumb and forefinger to the ends of a package

within the compartment at the back of the aperture 64.

When it is desired to disassemble this form of the invention, the bottom section 61 is first let down thereby extricating the tongues 69 and 73 from the apertures in that section and permitting the withdrawal of the section 70 from its compartment. Sections 70 and 72 are then extended into a common plane with the section 67. At this time, the back sections of the compartments are displaced to the left, Figure 10, to deform the horizontal sections of those compartments from that of a rectangle to a parallelogram and until the back sections are brought adjacent to the back face of the front section. Thus the second form of the invention is collapsible into a compact flat shape making it suitable for shipment.

Although both of the illustrated forms of the device disclose enlargements at the extremities of the aperture for the extracting of articles from the compartments, it is to be understood that the extremities of these apertures are for the accommodation of the ends of the fingers or other means for engaging an article within the compartment, and that in certain instances where the main part of the aperture is to provide for the passing of an article the main part of the aperture may have a cross section as large or larger than the cross section of the extremities.

In Figure 12 is shown a carton in which articles may be packaged in contemplation of being used in connection with the invention. The carton comprises a cartridge 100 which is not unlike an ordinary cardboard box. Within a side 101 of the box or cartridge 100 adjacent an end 102 thereof is an aperture 103. The aperture 103 may extend into adjoining side walls 104 as illustrated in the drawings. One of the sides, or the end of the cartridges within the slip cover 105, may be loose at one edge to form a flap which may be lifted to assist in filling the cartridge.

After the cartridge is filled it is inserted into the cover 105 at which time the flap 106 can be placed over the end of the cover and the tongue 107 can be tucked in place intermediate the cartridge wall 101 and the adjacent wall of the cover for holding said flap in place.

The user of the present dispensing device when receiving articles packaged in this manner removes the flap 106 from its covering position at the end of the carton and starts the apertured end of the cartridge 100 into the top of a compartment of the dispensing device. The cover 105 is slipped from the cartridge as the latter is shoved home within the compartment. When the cartridge is so placed within the compartment the aperture 103 registers with the aperture within the front wall of the dispensing device so that articles may be removed from the cartridge in the same manner as if they were being removed directly from the compartment in the manner before described.

Considerable time and effort of the merchandiser is conserved by such a restocking arrangement. After a cartridge has been emptied it is extracted from the compartment to be replaced by a different one containing articles.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A display device comprising a blank of material provided with fold lines to define a front section having an aperture suitable for the passage of articles of merchandise and a window, sections bordering opposite edges of said front section to form outer sides for a storage compartment and including apertures enjoining said first mentioned aperture at an edge, sections adjoining the extended lateral edges of said side forming sections to form the back of said storage compartments, a section attached to the extended lateral edge of said back side to form inner sides for said compartment, sections enjoining the extended lateral edges of said inner side forming sections and containing an aperture for registering with a portion of the first named aperture adjacent to the opposite edge when the device is assembled, and a section depending from the lower edge of one of said side forming sections to provide a bottom for said compartment, in combination with a second blank including a section adapted to cover said compartment, a section adjoining an edge of said cover section and having a cut away portion congruent to the edge of said window, and a section adjoining the opposite edge of said cover section.

2. A display device comprising a blank of material provided with fold lines to define a front section having a window and an aperture suitable for the passage of articles of merchandise, sections bordering opposite edges of said front section to form outer sides of a storage compartment and including a continuation of said front section aperture, sections adjoining the extended lateral edges of said side forming sections to form a back for said compartment and having an opening therein and an extension thereabove, sections depending from the lower edges of said back forming sections to form a bottom for said compartment, a section projecting from an edge of said bottom section for the support of said bottom section in a selected position, a section enjoining the extended lateral edges of said back forming sections to form inner sides of said storage compartment, tongues projecting from the upper edge of said inner side forming sections, in combination with a second blank including a section adapted to cover said compartment and having slits for the reception of said tongues, a section bordering an edge of said cover section and having a cut away portion congruent to the edge of said window, and a section bordering the opposite edge of said cover section adapted to be bent normal to said cover section for engaging the extensions from said back forming sections when said device is assembled.

HARRY V. MARSH.