Jan. 19, 1954 W. G. ANDERSON, JR 2,666,531

COLLAPSIBLE FLOOR DISPLAY STAND

Filed July 24, 1950 3 Sheets-Sheet 1

FIG. 1.

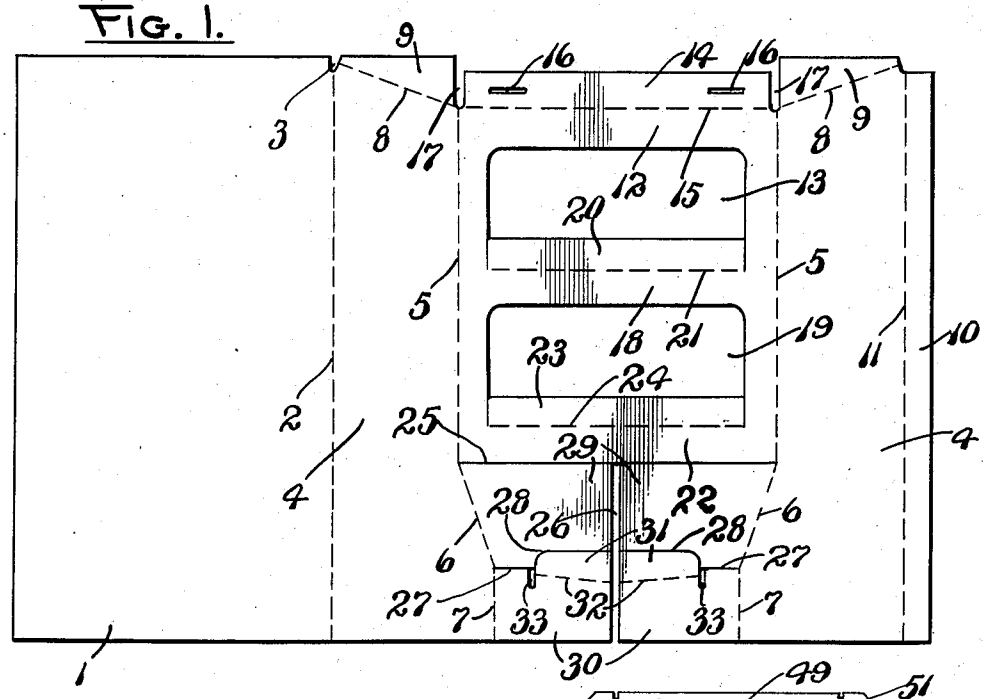


FIG. 2.

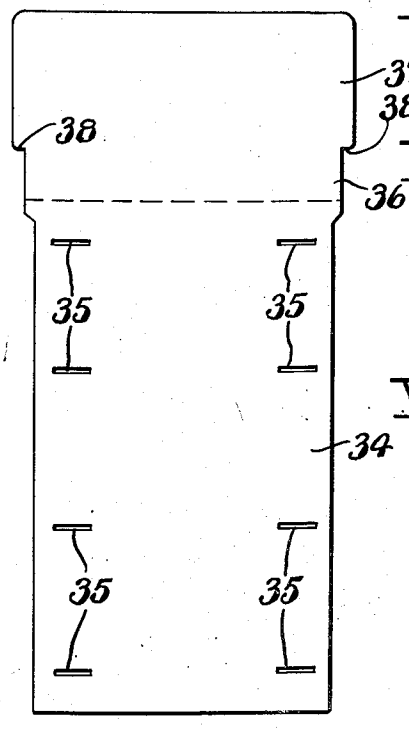


FIG. 3.

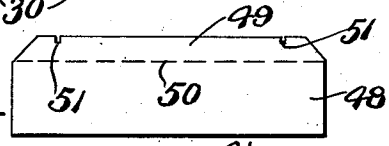


FIG. 4.

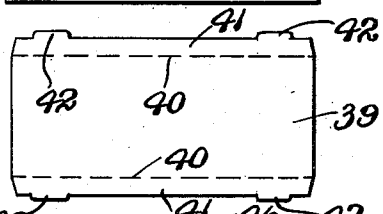
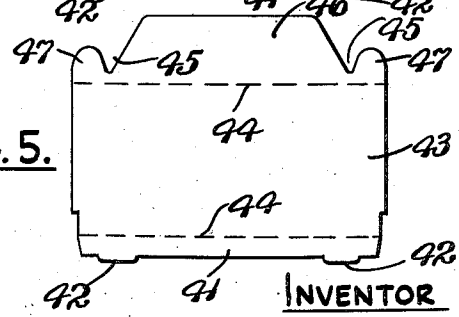


FIG. 5.



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FIG. 6.

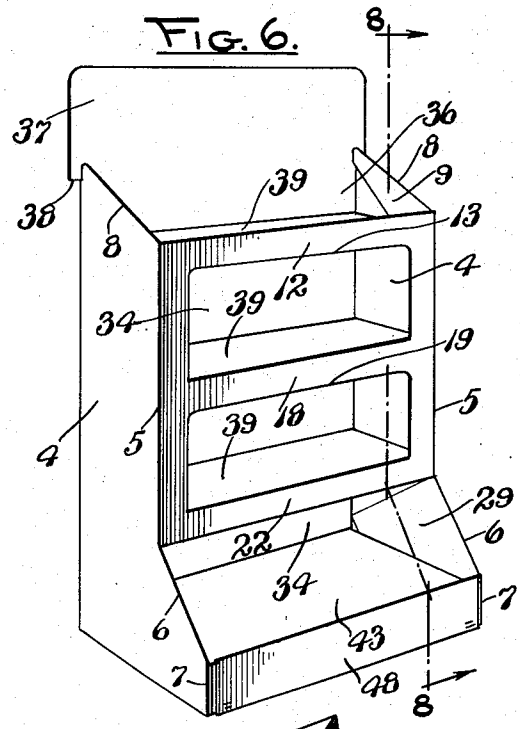
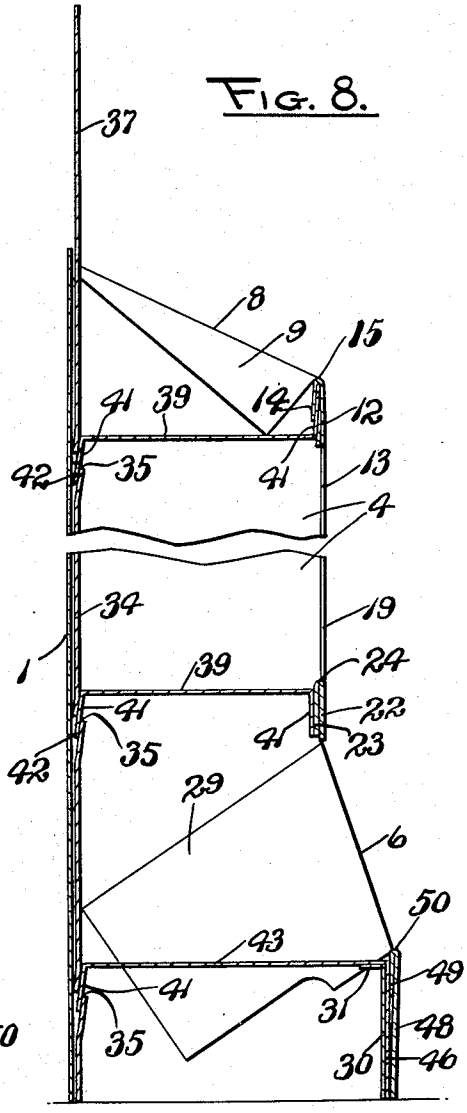


FIG. 8.



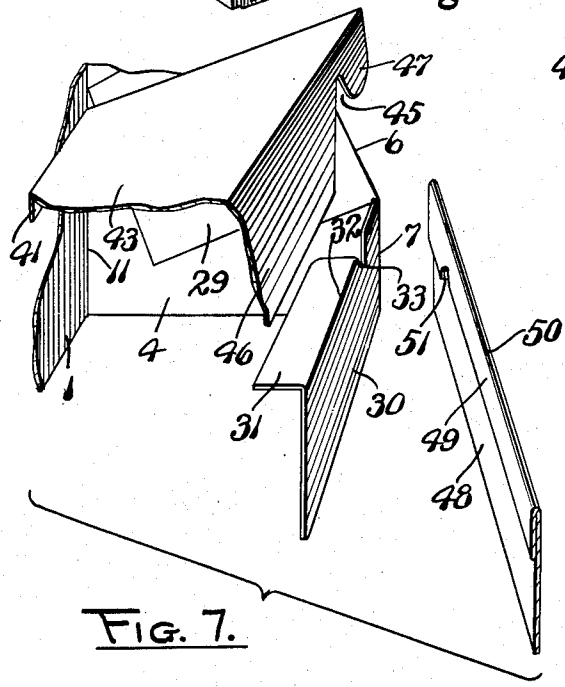


FIG. 7.

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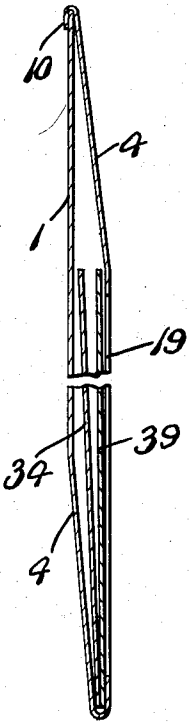


FIG. 12.

FIG. 11.

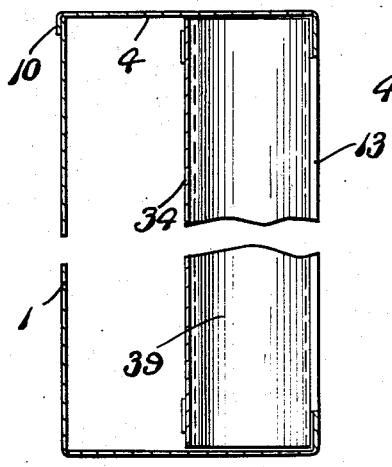


FIG. 10.

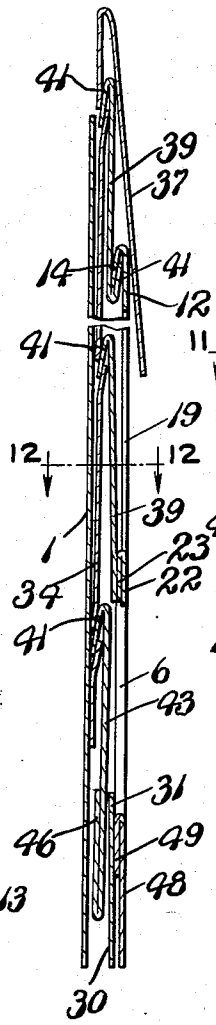
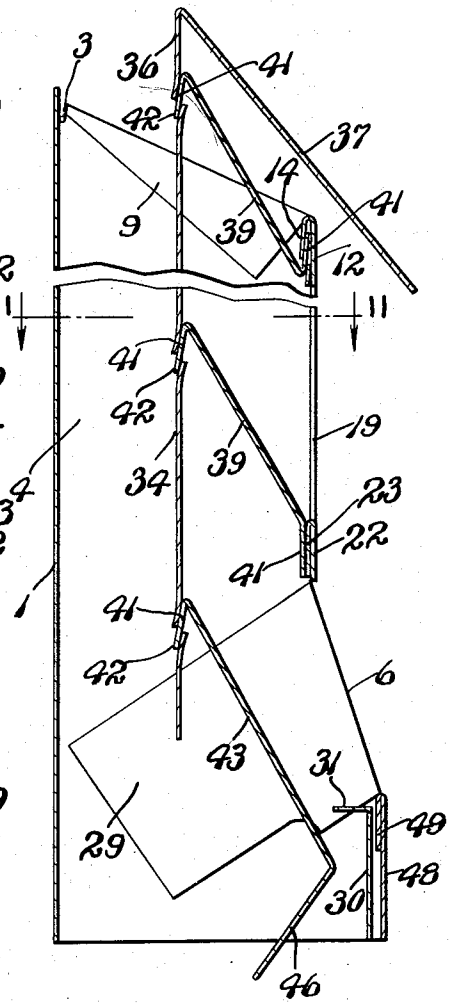


FIG. 9.



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UNITED STATES PATENT OFFICE

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COLLAPSIBLE FLOOR DISPLAY STAND

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Application July 24, 1950, Serial No. 175,615

2 Claims. (Cl. 211—135)

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This invention relates to a collapsible floor display stand or case of a novel structure and economically produced, preferably, solely from paper board material.

It is an object and purpose of the present invention to provide a display stand or case which has the usual back and ends, spaced parallel shelves and openings in the front above the shelves for access to articles held on the shelves, which may be erected and will provide a sturdy dependable case for holding displaying and dispensing merchandise, and which may be shipped from the factory in a substantially flat, collapsed condition. When it reaches its destination, where it is to be used, it is very quickly and readily put into its operative form, the case or stand being produced at a very low cost. In the production of such display stand or case, novel structure is used by means of which the collapsing or erection from collapsed position is attained almost instantly.

An understanding of the invention may be had from the following description, taken in connection with the accompanying drawings, in which,

Fig. 1 is a plan of a blank of paper board material from which the back, front and the two ends of the case are made.

Fig. 2 is a similar plan view of a blank of paper board material of an operating member located in the back of the case, to which the rear edges of the shelves are connected, and which is used in collapsing the case or in erecting it to its operating position.

Fig. 3 is a plan view of a blank of paper board material used at the front lower portion of the case.

Fig. 4 is a blank of paper board material of a shelf, a plurality of which are used above the bottom shelf.

Fig. 5 is a plan view of the blank of the bottom shelf.

Fig. 6 is a perspective view of the display case or stand in its erected position.

Fig. 7 is a fragmentary perspective view of the lower front portion of the display case or stand, illustrating the lower shelf and parts associated therewith at its front, showing them separated.

Fig. 8 is a vertical section, from front to rear, somewhat enlarged, taken substantially on the plane of line 8—8 of Fig. 6.

Fig. 9 is a vertical section, similar to Fig. 8, showing the case in the process of collapsing from the position in Fig. 8 to a flat position.

Fig. 10 is a like section with the case or stand collapsed to a substantially flat condition.

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Fig. 11 is a horizontal section substantially on the plane of line 11—11 of Fig. 9, and

Fig. 12 is a like section substantially on the plane of line 12—12 of Fig. 10.

Like reference characters refer to like parts in the different figures of the drawings.

In the construction of the display stand or case a number of members or parts are provided each, preferably, of a paper board material. The main body of the case is made from a blank of such material as shown in Fig. 1. The blank is substantially rectangular in shape and has a back rectangular section 1, between which and one of the ends of the case body a line, indicated at 2, is scored or otherwise provided for folding or bending along such line. At the upper end of the folding or bending line 2 a shallow notch 3 is made as shown.

An end 4 of the case is integrally connected with the back 1 and extends from the folding line 2 to a folding line 5 which is parallel to the line 2 at its upper portion, thence extends downwardly and away at an angle, as indicated at 6 for a distance, and then downwardly in a vertical direction as at 7. At the upper end of the end 4 a folding line 8 reaching from the slot or recess 3 downwardly to the upper end of the line 5 is made, providing a flap 9 which, in the completed structure, is folded inwardly against the upper end portion of the side 4 and securely cemented or otherwise fastened thereto.

At the opposite end of the blank is a short flap 10, which is defined in its width by the distance from its outer free edge to a scored line 11, like the line 2. The other end 4 of the body of the structure is similar in all respects to the end 4 first described, with folding lines 5, 6 and 7 between it and the front of the body, and also the folding line 8 for the inturned section 9 at the upper end.

The front of the main body member of the structure is provided with a series of openings, cuts, slots and lines of folding. At the upper end portion of the front is a horizontal section 12 which is above an opening 13 made in the front. Integral with said section 12 is an upwardly extending projection, nearly the full length of the width of the front, as indicated at 14, with a horizontal line for folding thereof at 15. Such part 14 adjacent each end is provided with a horizontal slot 16 and at each end of the part 14 are vertical slots 17, open at their upper ends, separating the part 14 from the sections 9. At the lower side of the opening 13 is a second horizontal section 18 above a second opening 19 in the front

of the case, which has an integral upward extension 20, the length of which is equal to the length of the opening 13, and which may be bent or folded to the rear on a scored line for folding, indicated at 21.

At the lower side of the opening 19 is a third member 22 similar to the parts 12 and 18, which like the part 18 has an upward extension 23 bendable to the rear about a scored line 24. The lower side of the part or section 22 is separated from the part of the front below it by horizontal cut or slit 25 which extends from one scored line 5 to the other, that is, across the entire front.

The lower portion of the front is vertically divided into two parts by a vertical slot 26 midway between the side edges of the front. From the upper ends of the scored lines 7 other slits or cuts 27 extend horizontally toward each other for a distance, and then join with a horizontal cut 28 located above the cuts 27 and connected therewith by downwardly extending end cuts as shown. This provides two sections 29 which may be folded against the inner sides of the ends 4, on the lines 6, and permanently secured thereto by cementing or other permanent connection. There is also provided below the sections 29 two sections 30 which may be bent or folded about the vertical scored line 7 so as to lie at right angles to the ends 4. The upper portions of the sections 30 are provided with scored lines 32, extending from short vertical slots 33 made in the upper edges of the sections 30 at the inner ends of the cuts 27, and the sections 31 above said scored lines 32 are bendable to the rear.

The blank shown in Fig. 1 is bent and folded on the scored lines 2, 5, 6, 7 and 11 to provide a body open at both its upper and lower ends, the narrow section or flap 10 (Fig. 11) being bent over the free edge of the back 1 and stapled thereto. The sections 9 are folded downwardly on the lines 8 and cemented in place. Likewise the parts or sections 29 are folded to the rear and against the inner sides of the ends 4 and permanently secured thereto. The parts 14, 20 and 23 are turned to the rear about their lines of folding 15, 21 and 24 and have the front edges of shelves connected therewith as hereafter described. The parts or sections 31 are also turned to the rear and lie substantially in a horizontal plane as shown in Fig. 9, serving as supports for the front portion of the lower shelf.

The blank sheet of material shown in Fig. 2 has an elongated portion 34 in which horizontal slots 35 are cut near their side edges in horizontal pairs as shown. At the upper end of the lower portion 34 is a shorter, somewhat wider, portion 36 across which a horizontal scored line is made for folding, and at the upper end of the member is a still wider section 37 between which and the section 36 are narrow shoulders 38.

A bottom shelf and a series of shelves above the bottom are used. The shelves above the bottom, shown in Fig. 4, each comprise a rectangular intermediate section 39 longitudinally scored for bending at 40 a short distance from each longitudinal edge, providing narrow strips 41, from each of which, adjacent each end, a short tongue 42 projects. The bottom shelf shown in Fig. 5 has a similar rectangular intermediate portion 43, with a line 44 scored for bending at what will be its rear portion to leave a like narrow portion 41 at such rear edge, from which like tongues 42 project. Near the opposite or front edge portion of the shelf is a scored line 44 for bending and folding and a wider section extending therefrom which inwardly from each end a short distance, is notched as at 45, to leave end fingers 47 and a wider and longer intermediate section 46 between such fingers as shown in Fig. 5.

The remaining member, shown in Fig. 3 is to be used at the front of the case at its lower end. It comprises a section 48 of paper board material, from which an integral strip 49 extends to one side with a scored line 50 lengthwise of the material for folding and bending, the ends of the strip 49 being cut diagonally as shown, and at a short distance from each end a shallow slot or notch 51 is made.

The lower shelf 43 and the shelves 39 above the lower shelf, in the construction illustrated shown as three in number, at their rear edges have the projections 42 inserted into the slots 35 of the member 34, are bent upon the lines 40 and 44 so that the narrow portions 41 bear against the front or outer sides of the member 34, and are stapled thereto making a permanent connection. At the front of the uppermost shelf 39 the front narrow strip 41 is preferably turned upwardly and its projections or tabs 42 inserted through the slots 16 of the rearwardly bent portion 14, and the overlapping parts are stapled together. The shelves 39 below the uppermost shelf have their front narrow sections or strips 41 turned downwardly back of the downwardly turned parts 29 and 23 to which they are stapled.

At the front lower portion of the body of the case, the two sections 33 are aligned with each other and the parts 31 turned to the rear, the sections 29 having been turned inwardly against the inner sides of the ends 4 and cemented thereto. The member 48, with its upper narrow portion 49 folded downwardly at its inner side is staple connected, adjacent its ends and bottom, to the parts 30. The front portion of the bottom shelf 43 has the intermediate longer projection 46 inserted downwardly between the parts 30 and the front member 48. The fingers 47 located beyond the ends of the parts 31 pass through the notches or slots 51 and interlock therewith, being between the end portions of members 48 and 49.

In the operative and useful position of the display stand or case thus made, shown in Figs. 6 and 8, the shelves 43 and 39 are disposed horizontally back of and a short distance below the lower sides of the openings 13 and 19, the lower shelf being below the opening which is made by inwardly folding the sections 29. The uppermost shelf is disposed below the upper portion of the front member 12. The widened upper part of the member 34 extends above the upper open end of the body, and the shoulder portions 38 are received one in the slot 3 and the other in the recess made by slightly shortening the section 10 at its upper end, thereby locking the parts against disconnection and with the lower end of the member 34 resting upon the floor (Fig. 8). The upper section 37 forms not only a back against which articles carried by the upper shelf may be placed but, thereupon, advertising or other indicia may be printed if desired. Articles on the shelves below the uppermost shelf are held from accidental displacement therefrom at the front by the upwardly projecting portions of the parts 18 and 20 and 22 and 23.

By pulling upwardly on the member 37, it and its integrally connected member 36 are lifted vertically and automatically moved toward the front of the stand or case. This will occur as soon as

disengagement from the slot at 3 takes place. In Fig. 9 the intermediate step of collapsing the stand or case is shown, the section 37 having been lifted high enough that it may be bent forwardly on the scored line across the narrow section 36. Prior to lifting the member 34 the bottom shelf at its front has been disengaged by lifting the tab 46 at its front out of the space between the parts 30 and 48 and turning it to the rear as shown in Fig. 9.

A continuation of the movement will bring the shelves 39 and 43 against the inner or rear side of the front of the case, whereupon the main body of the case may be collapsed, as shown in Figs. 10 and 12, by moving the back toward the front with a lateral swinging of the ends 4 to the position shown in Fig. 12.

To erect the collapsed structure into its operable form the body, from the position shown in Fig. 12, is moved to bring the ends 4 at right angles to the back and space the back 1 from the front. The upper section 37 of the member 34 is turned to vertical position and moved downwardly which automatically will also move it to the rear until the shoulders 38 enter the slots 3. The bottom shelf is then connected at the front and the display case or stand is ready to receive merchandise for sale or display.

The structure described is very economical to produce. Its weight is at a minimum. The case is of ample strength and rigidity. The several parts shown in Figs. 1 to 5 inclusive for producing the novel display case or stand are readily produced in large quantity by cutting dies.

The invention is defined in the appended claims and is to be considered comprehensive of all forms of structure coming within their scope.

I claim:

1. A case body made from a single generally rectangular sheet of paper board material having, a vertical back, a vertical end integrally and foldably connected with the back to fold on a vertical axis, a front spaced from and generally parallel to the back integral with said end at one vertical edge of the front, there being vertical lines for folding between one edge of the front and the other edge of said end, a second end at the opposite side of the front integral therewith, there being a generally vertical line of folding between said second end and the adjacent edge of the front, and a narrow vertical flap at the outer edge of said last mentioned end, there being a vertical line of folding at its connection with said last end, said flap overlapping the free edge of the back end having a permanent connection thereto, said front in its upper portion having spaced horizontal openings therethrough, the uppermost below the upper end of said front, said front below the lowermost of said openings having a horizontal cut therethrough for the full width of the front, and a vertical slot from the lower end of the front to said horizontal cut midway between the sides of the front, and the front below said horizontal cut having an additional horizontal cut to divide the lower portion of the front into four sections, each at its outer end integrally connected with a front edge portion of a side of the body.

2. A structure as defined in claim 9, the upper portion of said front above the uppermost opening therethrough having a scored line horizontally thereacross between said opening and the upper end of the front, there being slots having closed lower ends in substantial alignment with said folding lines at the vertical edges of the front extending upwardly to the upper edge of the blank from which the case is made, and open at their upper ends, said blank at the vertical lines of folding between the back and its adjacent end and between said flap and the adjacent end of the body having recessed portions, and said front at the lower side of each of said uppermost openings therein having horizontal folding lines in length equal to the length in said openings, said front having vertical cuts therein upwardly from the ends of said horizontal lines of folding to the ends of said openings.

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