

E. O. NORDSTROM.

BERRY BOX.

APPLICATION FILED DEC. 23, 1920.

Patented Dec. 27, 1921.

2 SHEETS—SHEET 1.

1,401,549.

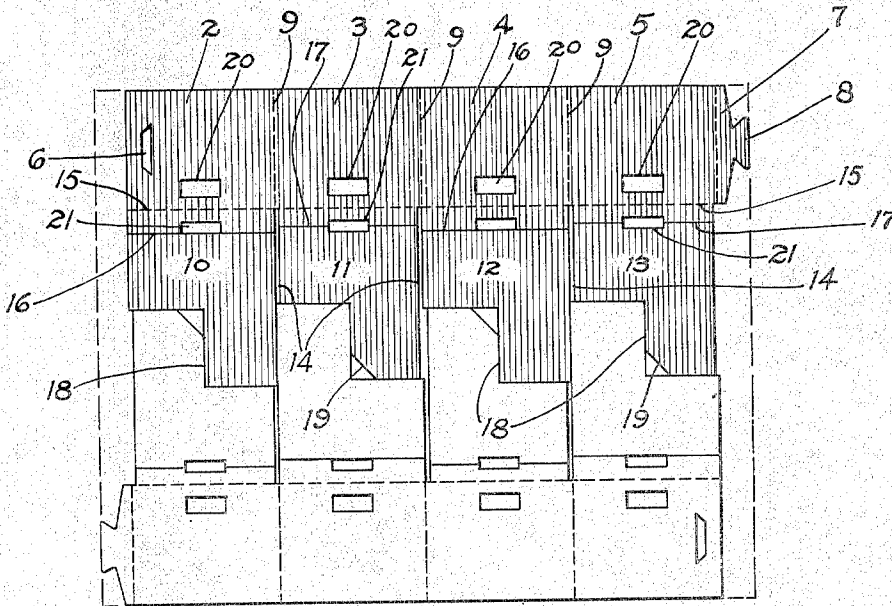


Fig. 1

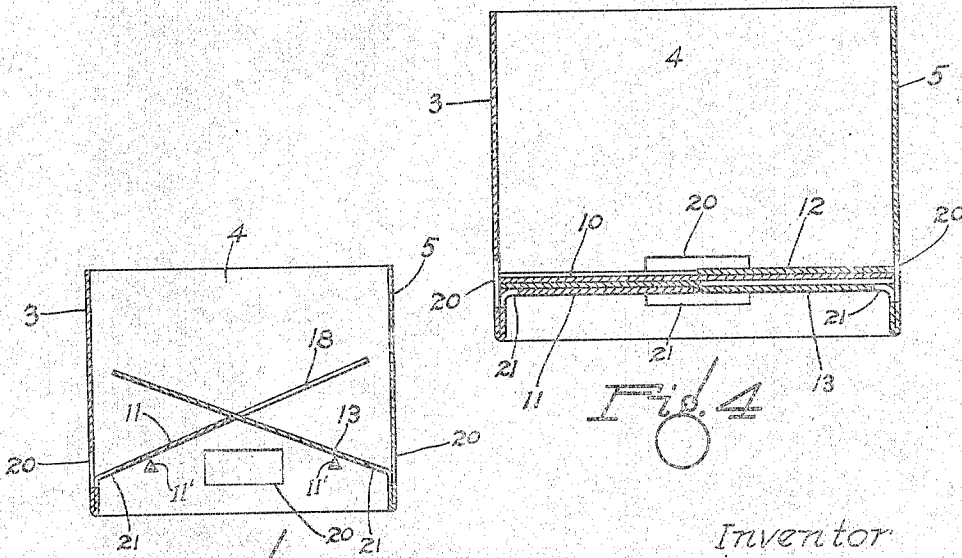


Fig. 4

Fig. 5

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BERRY BOX.

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2 SHEETS—SHEET 2.

Fig. 2

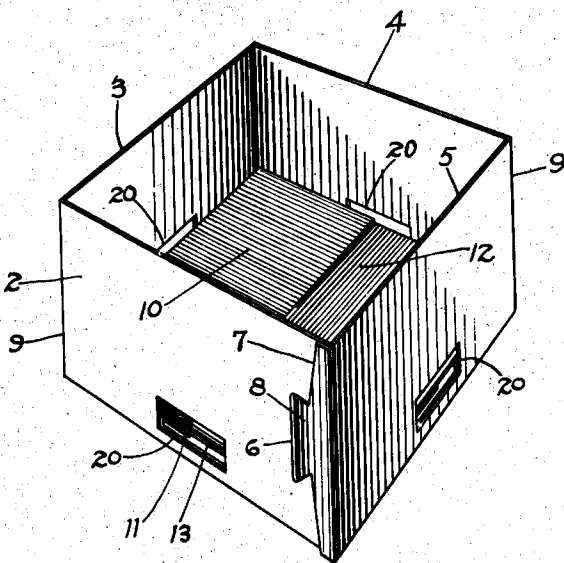


Fig. 3

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UNITED STATES PATENT OFFICE.

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BERRY-BOX.

1,401,549.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, EDWARD O. NORDSTROM, a citizen of the United States, resident of Minneapolis, county of Hennepin, State of Minnesota, have invented certain new and useful Improvements in Berry-Boxes, of which the following is a specification.

The object of my invention is to provide a berry box which can be cut from a blank with a minimum of waste of material.

A further object is to provide a box wherein provision is made for triple strength in the bottom, thereby insuring unusual rigidity and resistance against crushing or collapsing.

A further object is to provide a box wherein the bottom is so constructed that the sections thereof will interlock and brace and support each other and the side walls of the box.

A further object is to provide a box which can be easily and quickly folded and one which will allow the circulation of air and prevent entrance of moisture.

The invention consists generally in various constructions and combinations, all as hereinafter described and particularly pointed out in the claims.

In the accompanying drawings forming part of this specification,

Figure 1 is a plan view, showing the manner of cutting the blanks from the stock with practically no waste in the operation,

Fig. 2 is a perspective view of the partially folded box,

Fig. 3 is a similar view of the box folded,

Fig. 4 is a vertical sectional view of the folded box,

Fig. 5 is a sectional view of a modified construction.

In the drawing, 2, 3, 4 and 5 represent the panels which form the upright or side walls of the box. A slot 6 is provided in the panel 2 and the panel 5 has a flap 7 thereon with a dovetailed tongue 8 that is adapted to enter the slot 6 and lock the panels together. The stock is scored at 9 between the panels so that they can be readily folded when the box is set up. On one side the box panels are provided with flaps 10, 11, 12 and 13. Each of these flaps is separated from the adjacent one by slots 14 formed in the stock, so that each flap may be moved independently of all the other flaps. At the inner ends of the slots 14 the stock is scored at 15, the line

extending across the blank from a point near one end of the flap 7 to the opposite parallel edge of the panel 2 and on this score line the flaps 10, 11, 12 and 13 are folded when the box is set up. In addition to the score line 15, the flaps 10, 11, 12 and 13 are transversely scored on lines 16 and 17, the lines 16 of the flaps 10 and 12 being in alinement with each other and offset with respect to the score lines 17 of the flaps 11 and 13, this offset being for the purpose of compensating for the thickness of the flaps when they are folded to form the bottom. All of the flaps have recesses 18 in one corner and the flaps 11 and 13 have corners clipped, as indicated at 19, as a guide to the person folding the blank and indicating that the flaps 11 and 13 are to be folded first.

Referring to Fig. 2 of the drawing, it will be noted that the panels are folded and the ends interlocked and the flaps 11 and 13 are partially folded down to a horizontal position, one flap folding past the other and interlocking so that the end of one flap rests upon the other flap when they are in a horizontal position and thereby brace and support each other and the wall panels. That portion of the blank between the score lines 15, 16 and 17 lies against the lower edges of the panels when the flaps are folded and forms a rest to prevent the flaps from being pressed down too far, either in the operation of setting up the box or by the weight of the contents. When the flaps 11 and 13 have been moved down to a horizontal position, the flaps 10 and 12 will be swung down upon them and interlocked with each other in the same manner as described. The box will then assume the appearance shown in Fig. 3, with the bottom panels interlocking and pressing each other and one pair of panels lying crosswise of the other pair and thereby a triple thickness is provided for the bottom of the box.

The panels 2, 3, 4 and 5 have openings 20 therein and similar openings 21 are provided in the flaps adjacent the openings 20. When the blank is folded, these openings will appear in the side walls, partially below and partially above the bottom flaps and allow the free circulation of air through the berries in the box and between the bottom of the box and the berries in the box next below.

The box may, of course, be made of any suitable weight or grade of paper or straw-board, or any suitable flexible material, and

may be treated with paraffin or other moisture-proof substance.

In Fig. 5 I have shown a modification in the construction of the box, which consists in omitting two of the flaps on the bottom and interlocking the remaining two in the manner described with reference to the other figures, and preferably punching out small ears or teats from the side walls, as indicated in Fig. 5. When the box is folded, the flaps 11 and 13 are moved down to a horizontal position below these ears, which I will indicate in the drawing by reference numeral 11'. The ears then project into the box above the flaps and prevent the flaps from being accidentally pressed up, as when a person grasps the box at the bottom. In other respects the box is substantially the same as the one described but will not, however, have the strength and rigidity of the one shown in Fig. 4. Usually where the construction shown in Fig. 5 is employed, a heavier stock will be used. This, however, will be optional with the manufacturer of the box.

In various ways the details of construction herein shown and described may be modified and still be within the scope of my invention.

I claim as my invention:

1. A folding box comprising a blank of flexible material having parallel transverse score lines thereon at intervals to form a series of panels constituting the side walls of the box, each panel having a corner cut away to form lateral extensions on one side and scored transversely with respect to the score lines of the panels and arranged to fold in pairs, one pair upon the other, and each flap of a pair interlocking and lapping over the other flap of the same pair.

2. A folding box comprising a blank of flexible material having parallel transverse score lines thereon at intervals to form a series of panels constituting the side walls of the box, said panels having lateral extensions on one side scored transversely with respect to the score lines of the panels and arranged to fold in pairs, one pair upon the other, each flap of a pair having a notched end forming a projecting tongue to enter the notch of the other flap of the same pair.

3. A folding box comprising a blank of flexible material having parallel transverse score lines thereon at intervals to form a series of panels constituting the side walls of the box, said panels having lateral extensions on one side formed to fold independently of each other, the blank being scored at the base of said flaps transversely of the score lines of the panels and the alternate flaps having score lines in alinement with each other and offset with respect to the score lines of adjacent flaps, the alternate

flaps being folded in pairs upon each other to form the bottom of the box, and the sections of the flaps between the score lines therein and the score lines separating the flaps from said panels being folded against the panels when the box is set up and forming stops for the ends of the flaps when folded to a horizontal position.

4. A folding box comprising wall panels and flaps formed thereon by cutting away a corner of each flap, said flaps being arranged in pairs alternating in position on the panels, the ends of the flaps when folded to a horizontal position interlocking with and resting upon the opposite flaps of the same pair, thereby bracing the side walls and strengthening the bottom of the box.

5. A folding box comprising a blank of flexible material having parallel transverse score lines thereon at intervals to form a series of panels constituting the side walls of the box, each panel being cut away to form a lateral extension on one side and all the panels being substantially similarly shaped and scored transversely with respect to the score lines of the panels and arranged to fold inwardly one upon the other with the end of one flap interlocking and resting upon the end of the other flap.

6. A folding box comprising a blank of flexible material having parallel transverse score lines thereon at intervals to form a series of panels, constituting the side walls of the box, said panels having lateral extensions on one side scored transversely with respect to the score lines of the panels, one group of said flap score lines being in alinement with each other and another group in parallel relation with the first named group being offset in the adjacent flaps, said flaps being folded along said score lines and the sections of the flaps between the groups of score lines lying against the walls of the box when set up and supporting said flaps, and the alternate flaps being folded inwardly one upon the other to brace the walls of the box, the offset in the second group of score lines compensating for the thickness of the material in folding the flaps.

7. A blank for making duplicate boxes comprising a sheet of material having parallel score lines at intervals on which the sides of both boxes are bent, transverse score lines on which the bottoms are bent, said blanks having cuts extending from one transverse score line to another and a transverse cut laterally bent to sever the bottom box folds and to form interlocking bottom folds in both boxes whereby practically all the material of the blank is utilized in making the two boxes.

In witness whereof, I have hereunto set my hand this 16th day of December, 1920.

EDWARD O. NORDSTROM.