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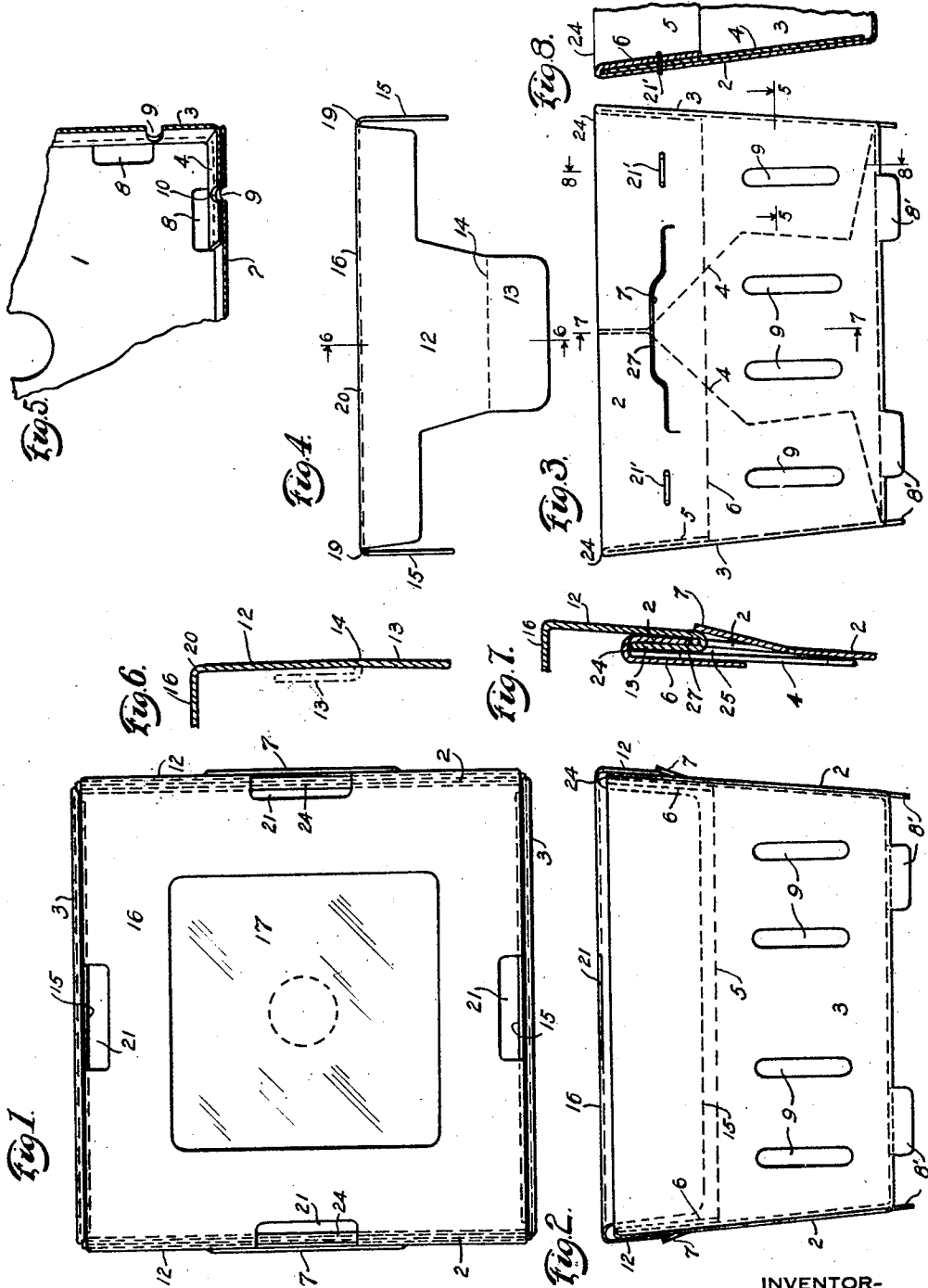
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BERRY BOX

Filed May 26, 1933

2 Sheets-Sheet 1



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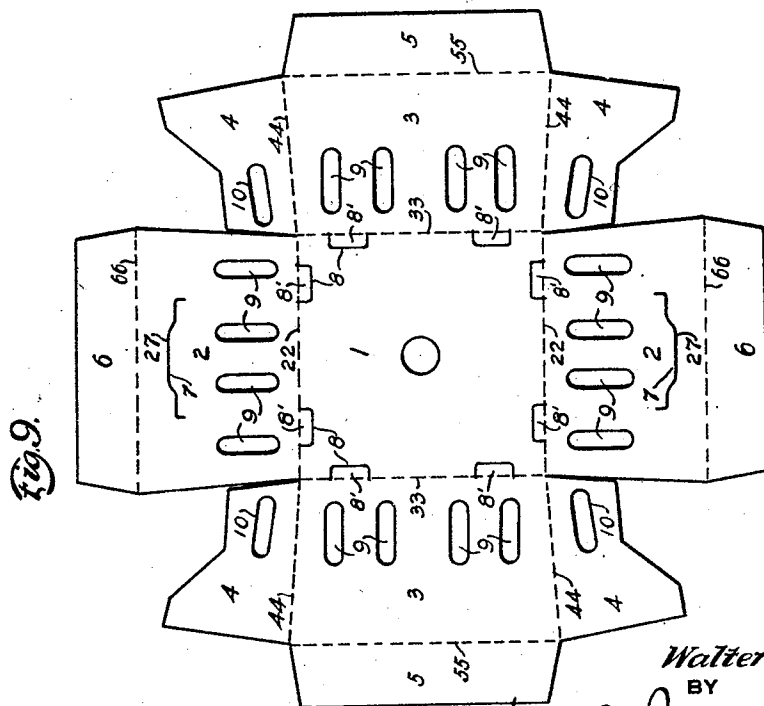
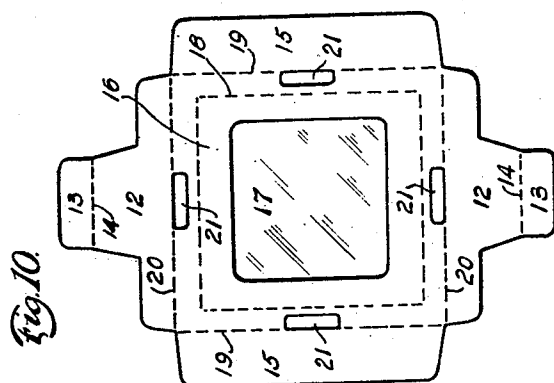
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UNITED STATES PATENT OFFICE

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BERRY BOX

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a corporation of Delaware

Application May 26, 1933, Serial No. 672,952

8 Claims. (Cl. 229—45)

The present invention relates to boxes of paper board, and more especially is directed to berry boxes, for use in shipping small fruits therein, to display the contents thereof without opening the boxes and to provide a simple means whereby the box may be covered by the shipper and the cover locked thereon, to prevent spilling of the contents and to act as a seal of the shipper and therefore, be a guarantee as to the original contents therein, if the cover is unbroken at the time of sale.

As will be ascertained in detail, as the herein description proceeds, a further object is to provide a box and an interlocking display cover therefor, the blanks of which are each made from a single piece, and after erection into a box, the boxes may be nested for economy of space in shipping to the berry grower or distributor, and the covers shipped flat, in bundles, for the same reasons and purposes.

A further advantage will be seen in the provision of means for permitting ventilation of air into, and around all berry boxes as they are packed into shipping crates, thereby to prevent spoilage of the fruit in transit, and in part, to provide for a cushioning effect at the bottom of the berry box, to absorb shocks, as well as to provide a bottom air space.

These and other features will be apprehended as the herein description proceeds, and it is obvious that modifications may be made in the structure herein disclosed without departing from the spirit hereof or the scope of the appended claims.

In the drawings,

Fig. 1 is a plan view of a berry box with its cover in locked position thereon;

Fig. 2 is a side view of Fig. 1 showing the covered box in elevation;

Fig. 3 is another view in elevation of the berry box, alone, showing one of the cover locking slots;

Fig. 4 is a side view of a cover blank with one of its lock tabs;

Fig. 5 is a fragmentary sectional view of a corner of the berry box, taken on line 5—5, Fig. 3, looking in the direction of the arrows;

Fig. 6 is an enlarged, sectional, fragmentary view of the cover lock tab, taken on line 6—6, Fig. 4, looking in the direction of the arrows;

Fig. 7 is an enlarged, fragmentary, sectional view traversing the locked cover and box to better show the interlocking of the box and cover taken on line 7—7 Fig. 3, looking in the direction of the arrows;

Fig. 8 is a sectional view taken on the line 8—8, Fig. 3, looking in the direction of the arrows;

Fig. 9 is a layout of the single piece berry box forming blank; and

Fig. 10 is a lay out of the single piece cover forming blank.

As shown in Fig. 9, the berry box blank is of a single piece, blanked out to form a bottom 1 two opposed, symmetrical side forming flaps 3—3, each having side flaps 4—4 and edge reinforcing flaps 5—5.

The other two opposed side forming lock flaps 2—2 are also symmetrical to each other and have edge reinforcing flaps 6—6 thereon which as will be later outlined in detail, form the coacting box lock for the cover. The lock flaps 2—2 are provided with slits 7—7, which provide an entrant slot for coaction with the cover lock flaps, later to be described.

The box forming blank above described is provided with ventilating openings 8—9 and 10, as shown, some of the openings, 10, on flaps 4, when the blank is erected into box form, registering with some of the openings 9, on the flaps 2—2 and 3—3, as in Fig. 5.

The bottom openings 8—8, Fig. 9, are partly cut, and are finally opened by pushing the scored partly cut tabs 8'—8', downwardly when the sides 2—2 and 3—3 are bent upwardly on score lines 22—23. As thus described, the tabs 8' form a plurality of feet 8', Figs. 2 and 3, and act as shock absorbing cushions and maintain an air space below the bottom of the erected box.

To erect the box from the blank of Fig. 9, the end flaps 5—5 on sides 3—3 are first bent over and by means, such as glue, are affixed to the inside face of sides 3—3, as indicated in Fig. 8. This leaves a finished top edge 24, Figs. 3 and 8, as well as reinforces the said edge.

After the flaps 5—5 have been arranged as above described, the sides 3—3 are then bent upwardly on score lines 33—33, and the side flaps 4 are bent inwardly on score lines 44—44. Then the lock sides 2—2 are bent upwardly on score lines 22—22, thus bringing the four sides 2—2—3—3 into a rectangular box-side forming relation, and then the lock flaps 6—6 are bent over to the inside faces of the flaps 4—4 which are now in contact with the inside faces of sides 2—2 and, as shown in Figs. 3 and 8, the sides 2—2, flaps 4—4 and the flaps 6—6 are all stapled together, by spaced apart staples 21'—21'. Between the stapled points of the flaps 6—6 and between the outside faces of the end flaps 4—4 and the inside face of sides on end wall mem-

bers 2—2 is thereby left as an open, unattached portion, this space being indicated at 25, Fig. 7, to form a hook or lock space to coact with the cover lock tabs 13—13 to lock the cover on the box, as will later be described in detail. Thus the stapling of the flaps 6—6 connects said flaps 6—6 to side flaps 4—4 on sides 3—3, and thus hold the box in erect form, with sloping sides and a bottom of smaller dimensions than the top opening therein, for nesting purposes in shipping.

The erected box, as above described, is stiff, with reinforced smooth upper edges, all round, having two edge reinforcements 5—5 glued down, and two lock edge reinforcements 6—6 stapled down, with an intervening cover tuck lock space 25 between the staples.

The cover, Fig. 10, is a single piece blank, having a top portion 16, with a panel cut-out, which is covered with a piece of "Cellophane" or similar transparent medium 17 and which is affixed by glue or cement to the under side of the portion 16 as defined by the dotted edges 18, and thus permits inspection of the contents of the box.

The top 16 has two opposed, symmetrical tuck flaps 15—15, defined by score lines 19—19, and, on its other opposite sides has tuck flaps 12—12, defined by score lines 20—20. The tuck flaps 12—12 are provided with rather narrow lock flaps 13—13, defined by score lines 14—14.

The top 16 may be also provided with ventilating openings 21.

As viewed in Fig. 10, which is a plan view of the cover, all four tuck flaps 12—12 and 15—15 are bent downwardly at right angles to the top 16, as in Fig. 4, on their respective score lines 20 and 19, and then the lock flaps 13—13 are bent upwardly as shown dotted in Fig. 6 and lie parallel to the inside face of flap 12.

When the cover flaps have been arranged as above described, the box is filled with fruit, and then the end tuck flaps 12, with their lock flaps bent fully backward and inwardly, as illustrated in Fig. 6 are introduced into the lock slits 7—7, between the inside faces of sides 2 and the outside faces of flaps 4—4, with a downward motion.

The lock flaps 13—13, being longer than the other side tuck flaps 15—15 are first entered into slots 7—7, and then guide the side tuck flaps 15—15 as they are pushed into the box, inside of the reinforcing edges 5—5 as in Fig. 2, shown dotted, and in Fig. 1, shown in full lines through openings 21—21.

When the cover has reached its box covering position as in Figs. 1 and 7, the lock flaps 13—13 spring inwardly and are engaged against the upper edges 27—27 of slot 7 and are thus hook-locked against removal, thereby holding the cover on the box in such a manner that, the cover may not be removed except by cutting one or both of the flaps 12—12 across, or otherwise destroying the cover, to remove the contents of the box.

As will be noted in Fig. 7, the top edge 27 of the slit 7 acts as a stop to the sprung out lock flap 13, and in this Fig. 7 it will be noted that the cover portion 16 is quite a distance away from the box edge 24. This vertical freedom is to permit of a variation of contents as the different fruits vary in size and volume, the cover lock therefore is made variable to this extent. However, once the cover 16 has been seated with its lock flaps 13 in operative position, the cover, or flaps, must be destroyed to permit access to the box contents.

Notwithstanding the variable position of the locked cover, the flaps 13—13 and 15—15 never

become disarranged from their berry retaining positions, once the cover is locked in on the box.

It will thus be seen that I have provided a berry box which is comparatively inexpensive to manufacture, may be moisture proofed by a paraffine coating, is strong and light, takes a minimum of space in bulk box and cover shipment, is easily closed and locked and after locking permits inspection of contents without recourse to opening the box and having a locked cover which is only removable by destruction, and when unbroken constitutes a guarantee that the contained small fruits, berries or mushrooms and the like are as originally packed by the distributor or grower, who desires to stand back of his goods.

Further, the box is well ventilated on all of its rectangular surfaces and when crated for bulk fruit shipment is provided with means whereby all sides, bottom and top are air spaced away from each other.

What I claim is:

1. A berry box of the class described comprising a walled body formed of one piece, and having four sides and a bottom, two opposite sides having glued, bent over edge flaps to reinforce the edges thereof, the other two opposing sides having bent over edge flaps which are stapled at spaced places to their respective side walls to provide a cover lock flap space therebetween and a slitted out stop in the last named sides and adjacent to the edges thereof, to form a stop for a coacting cover lock.

2. A berry box of the class described comprising a walled body formed of one piece, and having four sides and a bottom, two opposite sides having glued, bent over flaps to reinforce the edges thereof, the other two opposing sides having bent over flaps which are stapled at spaced places to their respective side walls to provide a cover lock flap space between said staples, flaps and sides and stops in the last named sides and adjacent to the edges thereof to form a stop for a coacting cover lock.

3. The combination of a paper board box comprising a body including end walls having outer and inner members, said outer members extending from top to bottom of the box and each having a slit therein; a cover including outer end flaps, and upwardly turned tabs continuous with said flaps and disposed in covered relation between said members, said tabs being passed through the slits.

4. A paper board box comprising in combination a body having end walls which include outer and inner members, said outer members having therein and below their top edges slits; a cover having end flaps, and lock flaps continuous with the first flaps and turned inwardly and upwardly therefrom, there being fold lines between the respective flaps, whereby the fold line portions may be urged into said slits and then moved downwardly so that as the terminal edges of the inner flaps move past the top boundary edges of said slits said inner flaps may spring limitedly inwardly, whereby the cover may then be moved upwardly to engage said inner flaps in locked relation between said members.

5. A paper board berry box comprising in combination a body which includes opposed side walls, and opposed end walls, each of said end walls having a slit therein, said walls having their top edges disposed on the same plane, a cover including a main portion having its outer margins co-operating in adjoining relatively movable relation

with said edges, and means for rendering said cover movable in substantial parallel relation with said plane, said means including cover flaps which are slidably disposed in said slits, so that

5 said main portion may cover berries which are disposed above the plane of said edges.

6. A paper board box comprising in combination a body which includes opposed side walls and opposed end walls each of said end walls

10 having therein a slit; a cover including a main portion, opposed flaps turned downwardly from said portion and engaging the inner faces of said side walls at the tops thereof, opposed end flap

15 also turned downwardly from said portion and engaging the outer faces of said end walls at the tops thereof, and means whereby to hold the cover on said body, said means including tabs which

20 are passed inwardly through said slits, said tabs being continuous with said end flaps, and flaps continuous with said side walls and disposed inside of said end walls, whereby to turn said tabs

25 upwardly and into locking engagement with the top boundary edges of said slits.

7. A berry box including in combination a sheet

25 of paper board which forms a body comprising opposed side walls and opposed end wall, said walls forming a practically continuous top edge of the box and said end walls having slits therein below said edge; a cover including a paper

30 board band, said band having its outer margin

disposed in adjoining relation with said edge, a transparent panel having its outer margin engaged against the inner face of the inner margin of said band, and means integral with said cover for locking the latter to said body, said means including downwardly turned flaps which are disposed externally of said end walls, and upwardly

80 turned inwardly disposed tabs continuous with said flap, said tabs being passed through said slits.

8. In combination, a berry box comprising a sheet of paper board which is cut and scored to provide a bottom, opposed side wall and opposed end walls turned upwardly from said bottom and having relatively wide top portions, so as to form

90 a tapered body, flanges turned inwardly and downwardly from the tops of said side walls and adhesively reinforcing the latter thereat, flaps extending from said side walls and having meeting ends inside of said end walls, reinforcing flanges

95 turned inwardly and downwardly from the tops of said end walls and embracing said respective flaps, and clamping staples passing through said end walls and their flanges adjacent said side

100 walls, said staples being also passed through said flaps, whereby plural numbers of the tapered bodies may be stacked for shipment in telescopic relation.

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