

Jan. 8, 1929.

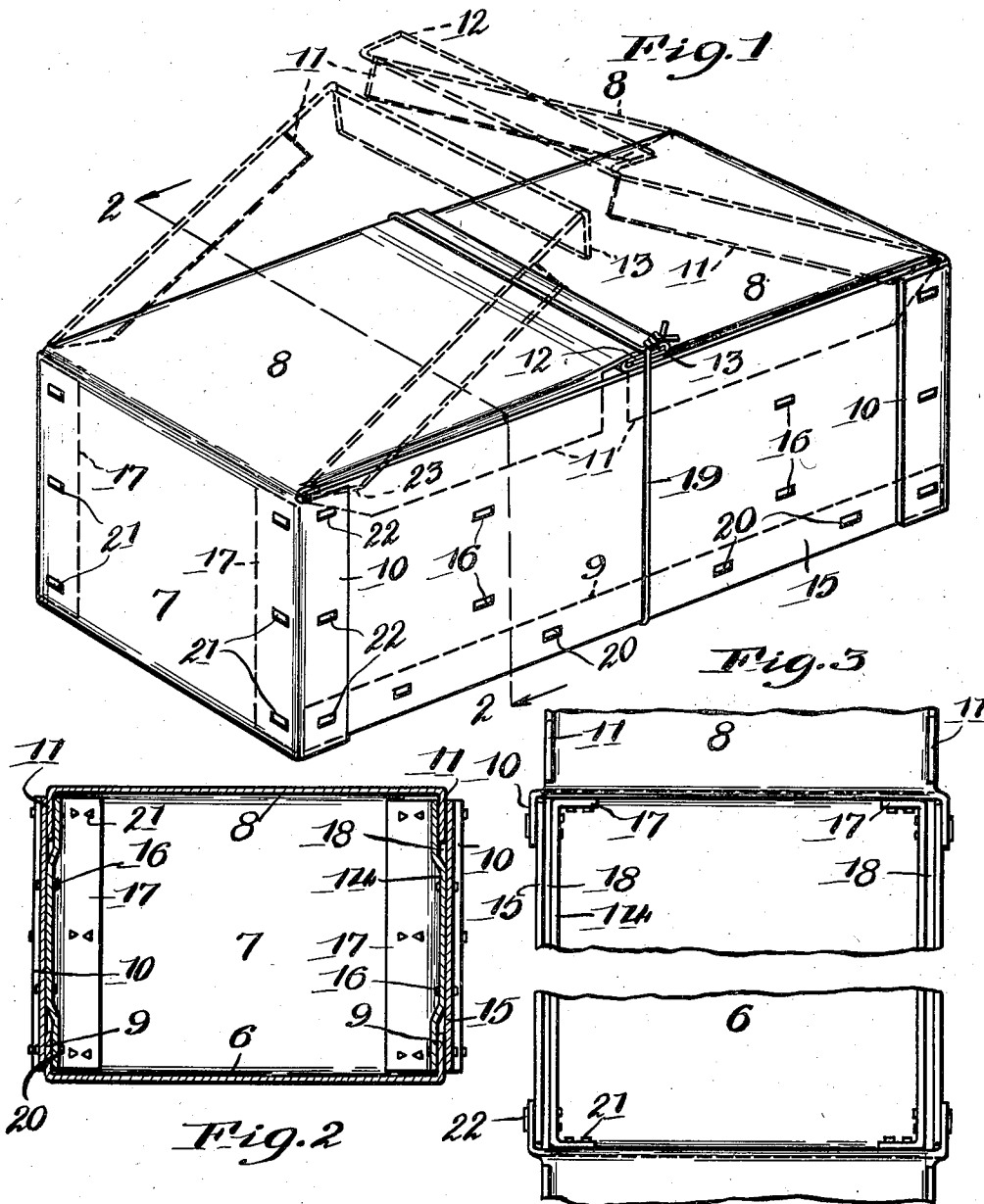
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P. F. BOEYE

SHIPPING CASE

Filed July 21, 1926

2 Sheets-Sheet 1



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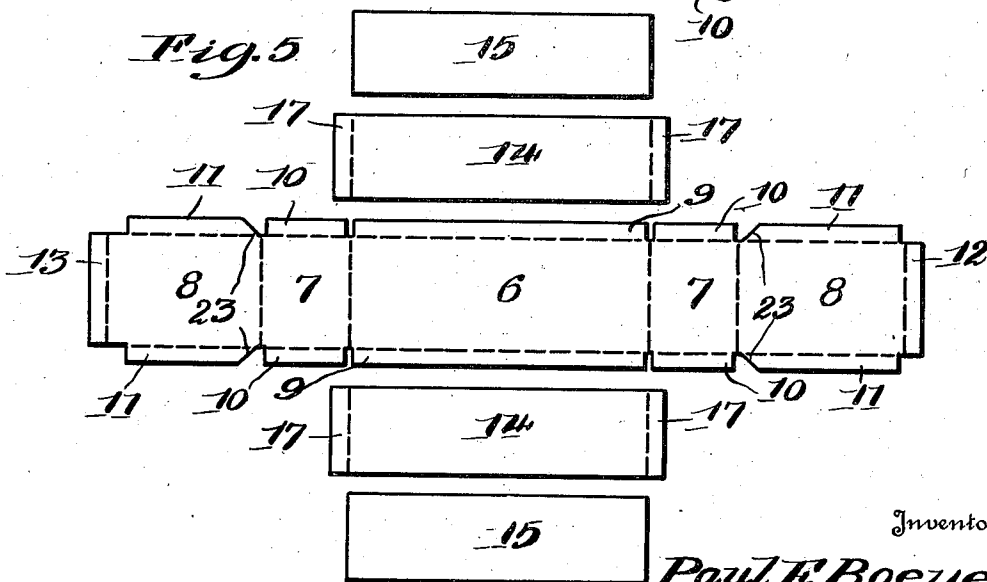
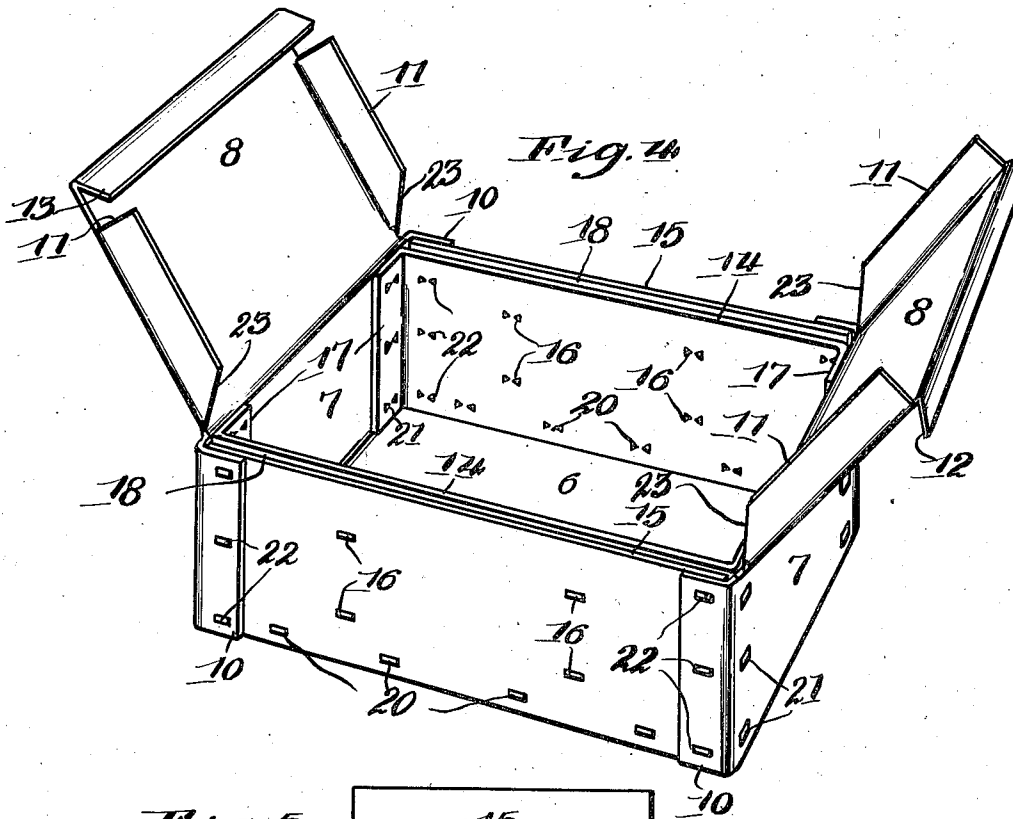
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UNITED STATES PATENT OFFICE.

PAUL F. BOEYE, OF ST. PAUL, MINNESOTA, ASSIGNOR TO WALDORF PAPER PRODUCTS COMPANY, A CORPORATION OF MINNESOTA.

SHIPPING CASE.

Application filed July 21, 1926. Serial No. 123,935.

This invention relates to shipping cases constructed from solid fiber or corrugated sheet material.

It is my object to provide an unusually durable, and at the same time, inexpensive shipping case, particularly, although not exclusively, adapted to carry meat and other heavy, irregularly shaped goods.

As the cost of such a container is approximately proportional to its weight, the manufacturer must employ in its construction a minimum of board consistent with the required strength. Therefore, wherever possible, walls of a single thickness are provided. However, the boxes must be strong enough to withstand the strains occasioned by rough handling during shipping and also the severe crushing forces applied when a large number of boxes are stacked one upon another. In the box of the present invention, I have greatly strengthened the corners, which are apt to be broken by rough handling, by providing double side walls and flanges on the other walls at the corners extending between the inner and outer side walls and securely fastened thereto. The double side walls also give the box great stacking strength and support the cover along its otherwise free margins.

The invention will be best understood by reference to the accompanying drawings in which Figure 1 is a perspective view of my improved shipping case with the cover secured in closed position; Fig. 2 is a section taken on the line 2—2 of Fig. 1; Fig. 3 is a fragmentary plan view of the box with the cover open; Fig. 4 is a perspective view looking into the top of the box with the cover flaps open and Fig. 5 is a plan view of the several blanks forming the box.

As clearly shown in Fig. 5, my improved shipping case is constructed from five separate blanks. A main body blank is scored and slotted to form a bottom 6, two ends 7 and two cover flaps 8. Marginal flanges 9, 10 and 11 formed respectively on the sides 6, 7 and 8, are adapted to be folded at right angles to their attached sides for securing to certain other blanks of the case, as hereinafter described. At one end of the main blank, a locking flap 12 is arranged to fold outward upon the cover flap 8, and at the other end of the main blank a companion locking flap 13 is adapted to fold inward, so as to lie between the inner surface of the flange 12 and the outer

surface of the flap 8 attached to the flap 12. The longitudinal side walls of the case are each formed from two blanks 14 and 15, which are laid face to face and secured together in the completed box by wire staples or stitches 16. The inner panel 14 has at each end a flange 17, adapted to be folded in engagement with the inner surface of the ends 7 of the main blank.

In assembling the blanks I prefer to attach the several panels 14 and 15 to the base flanges 9 and then to ship the cases in flat form to the packer of the goods. Thus a main blank may be laid upon a flat surface, outer side uppermost, while a blank 14 is placed beneath each of the flanges 9 and a blank 15 is placed to overlap the outer surface of each of said flanges. Rows of wire stitches 20 are now driven through the outer and inner panels 14 and 15 and through the flanges 9. The blank cases may then be shipped to the packer who finally assembles the cases as follows: By folding the flanges 9 the side panels 14 and 15 attached thereto are raised to their positions perpendicular to the bottom 6. Now the flanges 17 are folded inward, the ends 7 may be folded to abut against the flanges 17 and the flanges 10 folded to engage the outer surfaces of the panels 15. Normally vertical rows 21 and 22 of wire stitches are finally driven, the stitches 21 connecting the flanges 17 to the ends 7 and the stitches 22 being driven through the panels 14 and 15 and flanges 10. The stitches 16, connecting the outer and inner side panels may be driven either before or after driving the stitches 21 and 22, but it is important to space them sufficiently distant from the upper edges of the panels to permit separation of the panels by a space 18. Space is thus left along the upper margins of the panels 14 and 15 to permit insertion of the pendant flanges 11 on the cover flaps 8.

After the case has been filled with the goods to be shipped the cover flaps 8 may be closed by inserting the flanges 11 in the space 18 between the outer and inner panels 14 and 15 at each side of the case.

It will be noted that each of the flanges 11 is cut away along an oblique line 23 in order to clear the uppermost stitch 22 at each corner of the case. Insertion of the flanges 11 in the spaces 18 is also facilitated by the oblique form of ends. Before completely closing the case, the locking flange 13 is fold-

ed inward into engagement with the inner surface of the outwardly folding flange 12 on the companion flap. Final sealing of the case is effected by passing a wire 19 entirely
 5 around the case and across the overlapping portions of the cover flaps 8, and then drawing said wire tight about the box by twisting the ends of the wire 19 together.

It will be noted that the corners of my improved box are of peculiarly strong construction, and at the same time four of the walls of the case are formed from single thicknesses of board. At each vertical corner there is a double fold of material, formed by
 15 a flange 10, secured to the outer surface of a side panel 15, and a flange 17 secured to the inner surface of an end 7. Further, the longitudinal corners of the box are rendered unusually strong by reason of my arrangement of the flanges 9 and 11 which extend
 20 between the side walls 14 and 15 and are gripped thereby on both their outer and inner surfaces. Both the top and bottom of the case are rigidly supported against collapsing inward by the inner walls 14, the upper and lower edges of which abut against the inner surfaces of the top and bottom of the case. The wire fastener 19 is peculiarly
 25 adapted for use with the box of the present invention, because it holds the outer side walls inward and increases the gripping force applied to the flanges on the top and bottom of the case. The wire 19 further prevents upward springing of the cover flaps 8 and
 30 retains the locking flanges 12 and 13 in engagement with each other.

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

40 1. In a shipping case, a main blank forming the bottom, two ends and two cover flaps each of a single thickness of sheet material, opposite side walls on the case, each formed from an inner and an outer panel of sheet
 45 material, flanges formed on said bottom and extending at each side between the outer and inner side panels, said flanges being secured in place and the outer and inner panels being secured together by wire stitches and
 50 means for securing the ends of said outer and inner side panels to the ends of the main blank.

2. In a shipping case, a main blank forming the bottom, two ends and two cover flaps,
 55 adapted to meet at the top of the case, opposite side walls on the case, each formed from an inner and an outer panel of sheet mate-

rial, flanges formed on said bottom and extending upward at each side between the outer and inner side panels, a flange on each
 60 end of said inner side panels, secured to the inner surfaces of the ends of the case and a flange on each side edge of the ends of the case secured to the outer surface of an outer
 65 side panel.

3. In a shipping case, a main blank forming the bottom, two ends and two cover flaps adapted to meet at the top of the case, pendant flanges on each side of each of said
 70 cover flaps, side walls of the case each formed from two separate blanks of sheet material overlapping and extending to the top of the case, said blanks being secured at their ends to the ends of the main blank and
 75 spaced apart at their upper edges to receive the pendant flanges on the cover flaps between them, means for securing the meeting edges of said cover flaps together with the pendant flanges inserted in the space between
 80 the inner and outer side walls and a wire fastener encircling the case and adapted to be drawn tight to press said outer side panels into engagement with said pendant flanges
 85 when the cover is closed.

4. In a shipping case a main blank forming
 85 the bottom, two ends and a cover, opposite side walls on the case each formed from two separate blanks constituting inner and outer panels, flanges formed on said bottom and
 90 extending upward on each side between the outer and inner side panels, flanges on the ends of said inner side panels secured to said main blank, means securing the ends of said
 95 outer panels to said main blank, and pendant flanges on said cover inserted between said outer and inner panels at each side of the case when the cover is closed.

5. In a shipping case a main blank forming the bottom and two walls each of single thickness of material, two other walls of double
 100 thickness each formed from outer and inner separate blanks overlapping each other and disposed on opposite sides of the case, flanges on the side edges of said bottom extending upward between said outer and inner blanks,
 105 and means for securing the ends of said blanks constituting the walls of double thickness to the main blank and means for securing said flanges upon the bottom between the outer and inner blanks of the side walls.

In testimony whereof, I have hereunto signed my name to this specification.

PAUL F. BOEYE.