

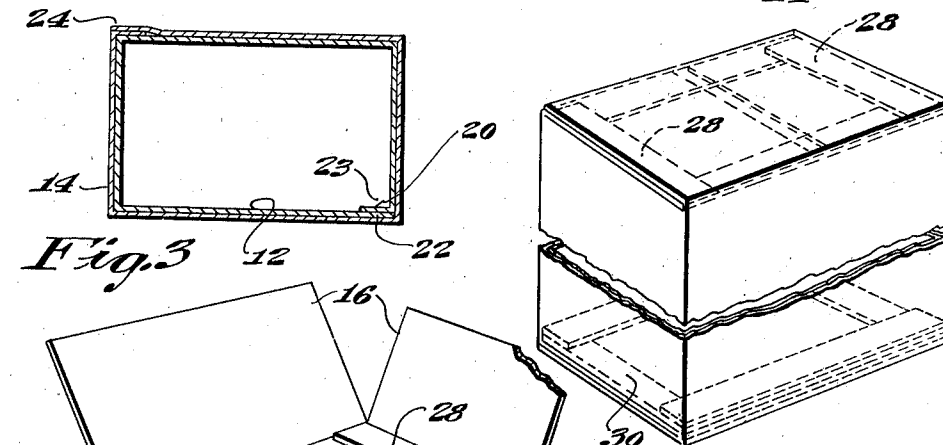
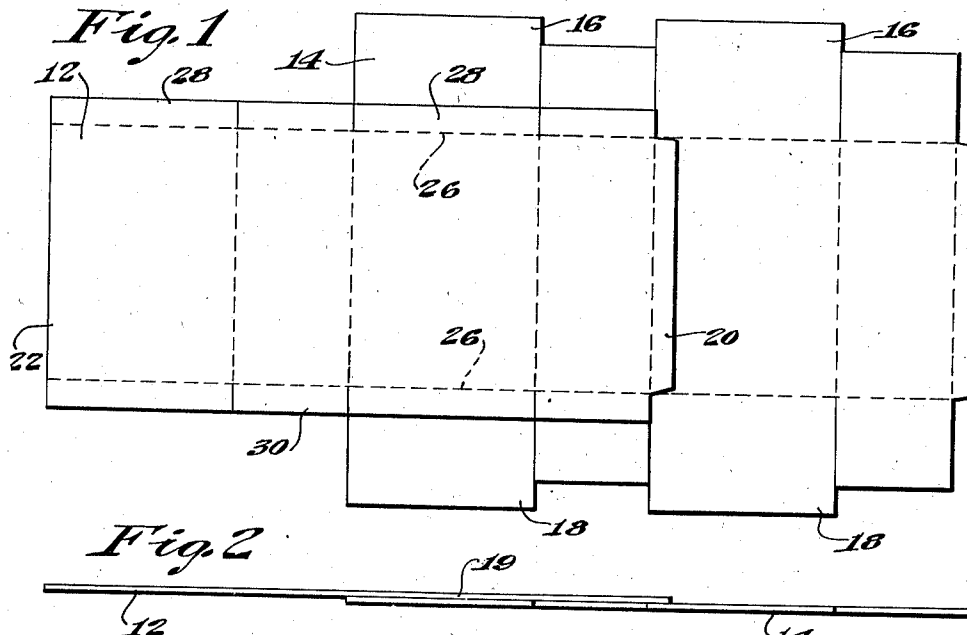
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CARTON

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CARTON

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This invention relates to a carton.

One object of the invention is to provide a novel and improved carton construction by which a carton possessing the requisite strength for the packaging of different commodities may be produced utilizing a minimum amount of carton forming material, whereby a commercially satisfactory carton may be produced at minimum cost.

A further object of the invention is to provide a novel and improved construction of carton in which provision is made for supporting the top flaps of the carton in a manner such as to facilitate the closing and sealing of the top flaps of the carton.

With these general objects in view and such others as may hereinafter appear, the invention consists in the carton hereinafter described and particularly defined in the claims at the end of this specification.

In the drawing illustrating the preferred embodiments of the invention, Fig. 1 is a plan of a carton blank for producing the present carton; Fig. 2 is a side elevation of the same; Fig. 3 is a cross-sectional view through the body of a carton embodying the present invention; Fig. 4 is a perspective illustrating the present carton with the top flaps open preparatory to being closed and sealed; and Fig. 5 is a perspective illustrating a completely closed and sealed carton produced from the blank shown in Fig. 1.

In the packaging industry cartons have been generally used for packaging various commodities, and various thicknesses of board have been used in the construction of cartons of the requisite strength, depending upon the density of the different commodities and the size of the package, and experience has shown that for the different classes of commodities various minimums exist as to the required board thickness.

I have discovered, however, that a commercially satisfactory carton and package may be produced by laminating the carton forming material in such manner that the body portion of the carton or package is made up of at least two laminations of the carton forming material while the flap forming portions of the carton at one or both ends thereof may be composed of at least one less number of laminations of material, thereby enabling substantial economies to be effected in the amount of board used in producing a carton and package of required minimum strength. Viewed from a different point of view, the commercial practice has heretofore been to construct a carton of an un laminated and single

thickness of carton forming material usually referred to as board, and to regulate the thickness thereof to provide a body portion having a certain minimum required strength. When such a carton is closed and sealed, both at its top and bottom, the overlapping flaps provide a sealed top and bottom of much greater thickness and strength than that of the body portion. In addition, the usual films of glue utilized in sealing the top and bottom flaps further increase the strength of these portions of the sealed package.

Referring now to the drawing, I have illustrated in Fig. 1 a composite laminated carton blank made up of a plurality, and, as herein shown, of two laminations 12, 14, which in practice are adhesively secured together by glue or other suitable adhesive. One of the laminations 14 is provided with top flaps 16 and bottom flaps 18 which may be of any usual or preferred form designed when folded and sealed to close the top and bottom of the carton or package, respectively, and the second lamination 12 is arranged to form with that portion of the first lamination to which it is adhesively secured, a composite body portion 19 of increased strength and thickness as compared to the thickness of the individual top and bottom flaps 16, 18.

In practice, I also prefer to provide the lamination 12 with a side sealing flap 20 which is adapted to overlap upon and to be adhesively secured to the opposite panel 22 of the lamination 12 when the carton is made up, and I also prefer to adhesively secure the two laminations 12, 14 so as to cause the overlapping side seams 23, 24 of the laminations 12, 14 to be located at different corners of the carton. As illustrated in Fig. 3 such overlapping portions 23, 24 are arranged at diagonally opposed corners of the carton.

In order to provide a support upon which the top flaps of the carton may be folded down during the closing and sealing of the top flaps of the carton to insure the proper adhesive contact between the successively folded down top flaps 16, as herein shown, the lamination 12 is arranged to extend a short distance above the score lines 26 on which the top flaps are to be folded, to thereby form individual foldable portions 28. The portions 28 are not adhesively secured to the flaps and, as a result, after the carton has been made up and the bottom closed in the usual manner by the folding and sealing of the bottom flaps 18, then the supporting flaps 28 are folded into the position illustrated in Fig. 5 in which the sup-

porting flaps 28 cooperate to form in effect a shelf or marginal supporting member for facilitating the folding of the successive top flaps 16, as above described.

5 Prior to the present invention, it has oftentimes been the experience that the end top flaps oftentimes become bent and distorted during the formation and handling of the carton blanks and of the cartons formed from the blanks and, as a
10 result, after having been folded down in the usual top sealing machine, these end top flaps have oftentimes assumed a position below the plane of the top of the body portion of the carton so that when the remaining top flaps were fold-
15 ed down and attempt was made to adhesively secure the folded top flaps, the position of the end top flaps, as above described, prevents the adherence of the flaps irrespective of the amount of pressure that might be commercially applied to
20 the flaps. As a result, defectively sealed cartons and packages have been oftentimes produced. By the provision of the supporting shelf formed by the supporting flaps 28, as illustrated in Fig. 5, it will be observed that when the first two top
25 flaps are folded down, they are supported upon the supporting flaps 28 and prevented from extending down into the body of the carton below the plane of the top of the body portion, and when the remaining top flaps are subsequently
30 folded and pressed against the previously folded top flaps to adhesively secure the flaps together, the supporting shelf formed by the supporting flaps 28 affords a substantial support against which the flaps may be pressed, thus contribut-
35 ing to the efficient and successful sealing of the top flaps of the carton.

In some instances I may prefer to laminate the carton blank with a lamination 12 of a size such as to extend a short distance below the score
40 lines between the bottom flaps and the body of the carton, such as is illustrated in Fig. 1, to form a series of bottom flap supporting members 30. When the bottom flaps of the carton blank are folded and sealed forming a carton
45 such as is illustrated in Fig. 5, the bottom flap supporting members 30 provide additional reinforcement for the bottom score lines of the carton, and particularly when cartons of large capacity and size are made this bottom flap reinforcement contributes materially to the strength
50 of the carton while permitting the laminations to be composed of minimum board thickness.

While the preferred embodiments of the invention have been herein illustrated and described, it will be understood that the invention
55 may be embodied in other forms within the scope of the following claims.

Having thus described the invention, what is claimed is:—

60 1. As a new article of manufacture, a carton provided with a body portion having top flaps for closing the top of the body portion, and supporting members forming a part of said body portion and folded to form a marginal supporting member
65 within and adjacent to said top flaps to thereby form a support for the top flaps when the latter are folded down to close the top of the carton.

70 2. As a new article of manufacture, a carton having a body portion composed of two imperforate sheets adhesively secured together and forming laminations, the outer lamination having flaps integral therewith for closing the ends
75 of the carton, the inner lamination being provided with foldable members at the top thereof

extending a short distance above the top of the body portion to form foldable flap supporting members for the purpose specified.

3. As a new article of manufacture, a carton having a body portion composed of two imperforate sheets adhesively secured together and forming laminations, the outer lamination having flaps integral therewith for closing the top of the carton, the inner lamination being provided with foldable members at the top thereof extending a short distance above the top of the body portion to form foldable flap supporting members for the purpose specified.

4. As a new article of manufacture, a carton having a body portion provided with top flaps for closing the top of the body portion and bottom flaps for closing the bottom of the body portion, and supporting members forming a part of said body portion and adapted to be folded inwardly to form reinforcements for the bottom score lines and bottom flaps of the carton.

5. As a new article of manufacture, a carton having a body portion composed of two imperforate sheets adhesively secured together and forming laminations, the outer lamination having top and bottom flaps integral therewith, the inner lamination being provided with foldable members at the top and bottom thereof extending a short distance above and below the top and bottom of the body portion to form foldable flap supporting members for the purpose specified.

6. As a new article of manufacture, a carton having a body portion composed of two imperforate sheets adhesively secured together and forming laminations, the outer lamination having top and bottom flaps integral therewith, the inner lamination being provided with foldable members at the bottom thereof extending a short distance below the bottom score lines of the carton to form foldable flap supporting members for the purpose specified.

7. As a new article of manufacture, a carton blank composed of two imperforate sheets adhesively secured together and forming laminations, the outer lamination being provided with top and bottom flaps, the inner lamination being of a height corresponding to the body portion of the carton and provided with foldable portions adapted to form flap supporting members for the purpose specified.

8. As a new article of manufacture, a carton blank composed of two imperforate sheets adhesively secured together and forming laminations, the outer lamination being provided with top and bottom flaps, the inner lamination being of a height corresponding to the body portion of the carton and provided at its upper and lower portions with foldable flap supporting members for the purpose specified.

9. A carton blank comprising an outer lamination having top and bottom flaps and a plurality of side wall panels, an inner lamination having a similar number of side wall panels secured to said outer lamination but laterally offset therefrom to provide both laminations with overlapping portions and free portions, each of said portions having an equal number of panels, and side sealing flaps carried by a vertical edge of each of said laminations, said side sealing flaps extending in the same lateral direction, whereby, when the blank is folded, the side sealing flaps are disposed at diagonally opposed corners of the carton.

10. A carton blank comprising an outer lamination having top and bottom flaps and a plu-

5 reality of side wall panels, an inner lamination having a similar number of side wall panels secured to said outer lamination but laterally offset therefrom to provide both laminations with overlapping portions and free portions, a side sealing flap carried by the overlapping portion of the inner lamination, and a side sealing flap carried by the free portion of the outer lamination, the said side sealing flaps being arranged with respect to one another and with respect to the side wall panels of the outer lamination so that when the blank is folded, the side sealing flaps are disposed at diagonally opposed corners 5 of the carton.

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