No. 893,616. PATENTED JULY 21, 1908.

J. T. FERRES.

PACKING BOX OR CARTON.

APPLICATION FILED JAN. 23, 1905.

3 SHEETS—SHEET 1.

Fig 1.

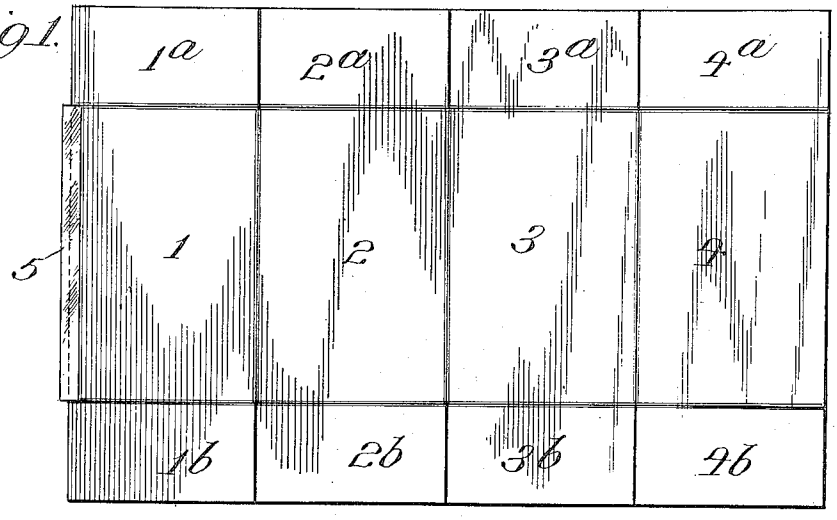
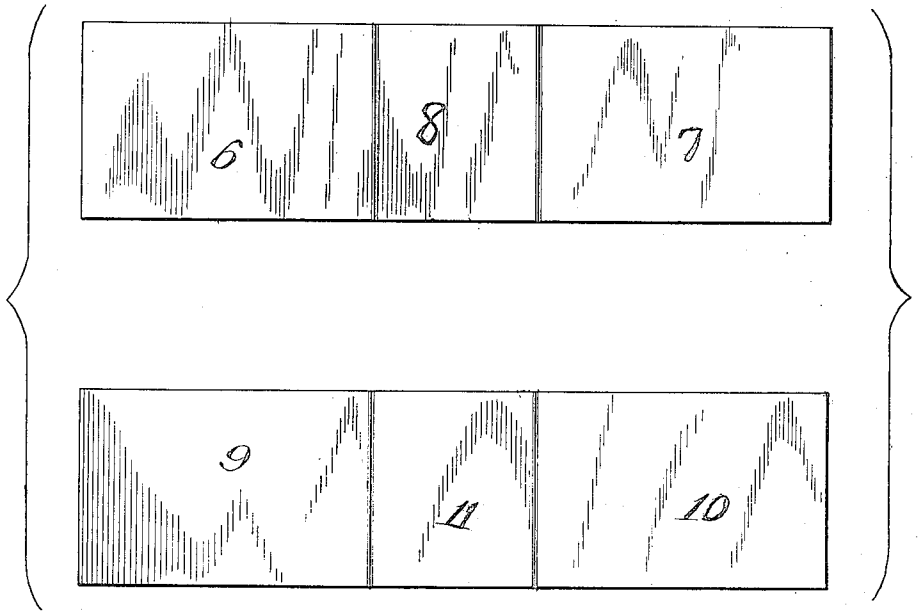


Fig 2



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3 SHEETS—SHEET 2.

Fig 3.

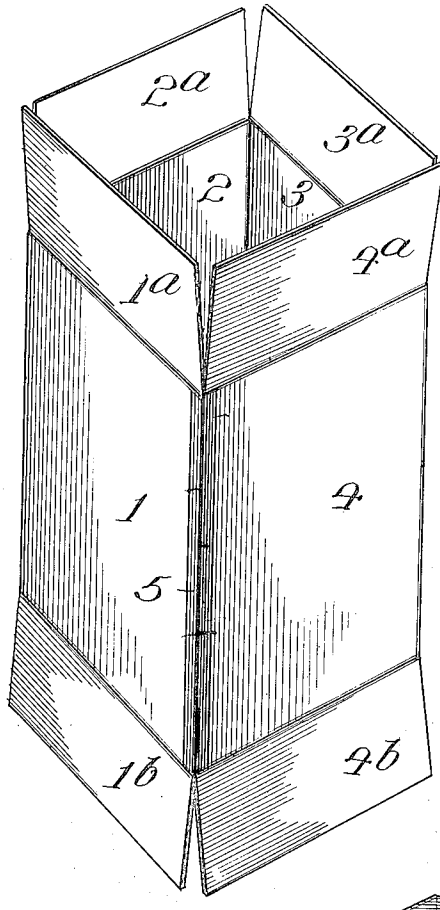


Fig 4.

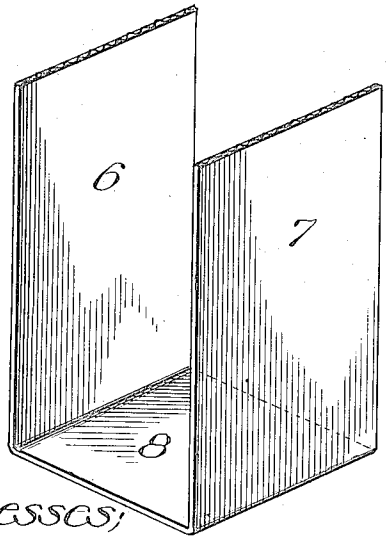
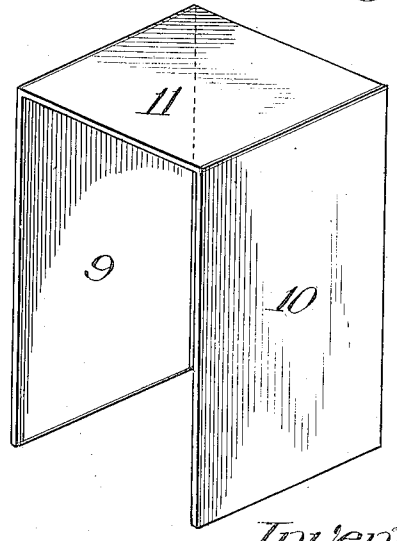


Fig 5.



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3 SHEETS—SHEET 3.

Fig. 6.

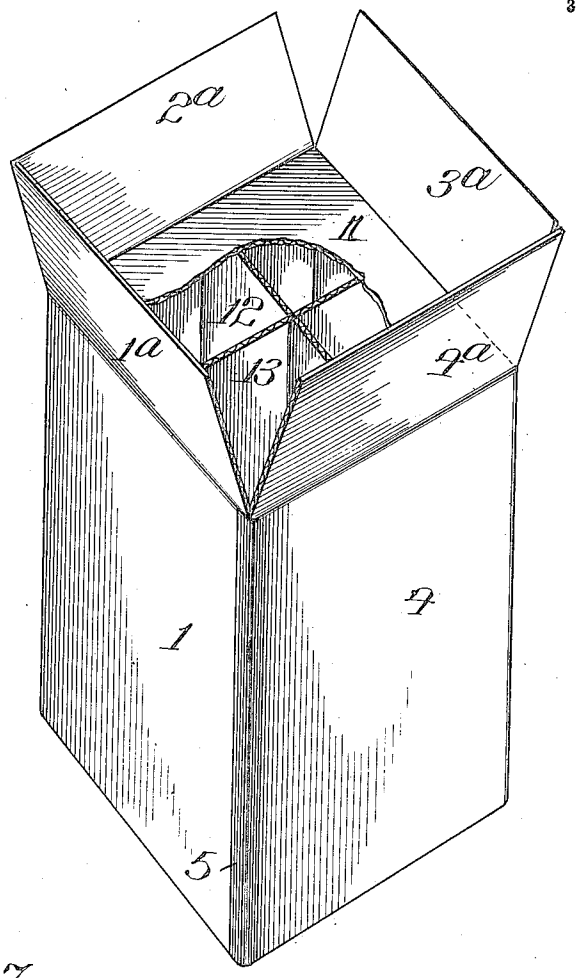
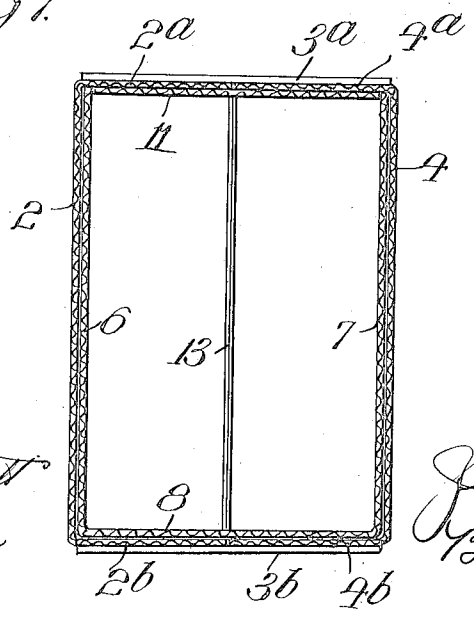


Fig 7.



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UNITED STATES PATENT OFFICE.

JEFFREY T. FERRES, OF ANDERSON, INDIANA, ASSIGNOR TO J. W. SEFTON MANUFACTURING COMPANY, OF ANDERSON, INDIANA, A CORPORATION OF INDIANA.

PACKING BOX OR CARTON.

No. 893,616. Specification of Letters Patent. Patented July 21, 1908.

Application filed January 23, 1905. Serial No. 242,398.

To all whom it may concern:

Be it known that I, JEFFREY T. FERRES, residing at Anderson, Madison county, Indiana, have invented certain new and useful Improvements in Packing Boxes or Cartons, of which the following is a specification.

My invention relates to packing boxes or cartons, made from paper board, or the like, and of the collapsible type, whereby such boxes or parts thereof may be shipped in the flat, and set up for use by the consumer as need requires.

The object of my invention is to produce a box or carton of this character which shall possess great strength and rigidity for the purpose of assuring absolute safety to the contents, and prevent breakage of fragile articles more particularly, such as bottles and the like.

In the drawings, Figure 1 is a plan view of the blank forming the outer portion or shell of my box or carton; Fig. 2 a similar view illustrating the two similar sections of the inner shell forming a part of my box or carton; Fig. 3 a perspective view of the outer section or shell in extended form ready for use; Figs. 4 and 5 similar views of the two sections of the inner shell; Fig. 6 a perspective of the box or carton in complete assembled form with the exception of the extensions or flaps of the outer shell which are left open to expose the top of the inner shell, which is itself broken away to expose the cross strips forming the compartments of the interior of the box; Fig. 7 a cross section of the box or carton in completed or assembled form.

My box or carton, which is rectangular and which may be of any desired dimensions and proportions, is composed in the present instance of three separate portions, towit: the outer shell, as illustrated in Fig. 3, the two sections forming the inner shell, as illustrated in Figs. 4 and 5, and the cross-strips forming the compartments, as illustrated in Figs. 7 and 8. It will be understood that for the purpose of obtaining the desired or required strength, I employ what is commonly known as double-faced or corrugated paper board.

Referring first to the outer shell or portion of my box or carton, the same comprises the four rectangular sides, 1, 2, 3 and 4, hinged together, the outermost sides, 1 and 4, being brought together and hinged by means of a strip or tape 5, as illustrated in Figs. 1, 3, and 6. These sections are provided respectively with the top extensions, 1^a, 2^a, 3^a, 4^a, and with the bottom extensions 1^b, 2^b, 3^b, 4^b, which extensions are hinged to their respective sides. It will be understood that the extensions of two at least of the opposite sides are, by preference, of such size as to form a complete top or bottom (as the case may be) when folded down in the manner hereinafter described.

The inner shell or portion of the box or carton is composed of the two similar sections as illustrated in Figs. 4 and 5, each being composed of two opposite sides corresponding in size with two of the sides of the outer shell and also of a top or bottom, as the case may be. Referring to the section illustrated in Fig. 4, the two similar rectangular sides 6 and 7 are hinged at their lower ends to a rectangular portion 8, which in this instance is the bottom of the inner shell, such bottom equaling in area the cross section of the outer shell and being adapted to fit snugly therein. The other section of the inner shell, as illustrated in Fig. 5, is composed of the two similar rectangular sides 9 and 10, (equaling in area the other and the remaining sides of the outer shell,) and a rectangular portion 11, forming the top of the inner shell and equaling in area the bottom 8, it being understood that when the two sections, as illustrated in Figs. 4 and 5, are set together in the proper manner, a complete closed shell is formed.

The third portion of the completed box or carton comprises the cross strips 12 and 13, which are arranged at right angles and interlock with each other in the usual and well known manner, so as to form compartments, the number and size of which are dependent upon the number and arrangement of the cross strips, as well as of the dimensions or proportions of the box or carton itself, it being understood that the capacity of the carton may be made as desired. It will be understood that these cross strips are inserted within the inner shell and are of such dimensions as to fit snugly therein, and thereby brace and support not only the sides, but also the top and bottom of the carton.

It will be understood that the different parts forming the complete box or carton are so made as to be collapsible, to the end that the same may be shipped to the consumer in

flat form and set up and used by him as need requires.

In setting up or assembling the box or carton, the outer shell is first extended as seen in Fig. 3 and the extensions of two opposite sides are folded inwardly to a horizontal position to form the innermost bottom belonging to the outer shell, after which the remaining two extensions are similarly folded and brought to bear upon the first extensions. The outer shell is thus by preference formed with a double thickness of bottom, although some measure of my invention may be obtained by omitting one set or pair of extensions at top or bottom or both. The top extensions are left upwardly extending or flaring, as illustrated in Fig. 3, whereupon the section of the inner shell as illustrated in Fig. 4, is inserted in the open top of the outer shell and pressed downwardly in place until its bottom rests upon the bottom of the outer shell. The box or carton is now inverted or placed over a mandrel and the bottom opened up to permit the first set of extensions of the outer box portion to be glued to the bottom 8 of the inner box portion and the second or outer set thereof to be glued to the inner set. The cross strips 12 and 13, forming the bottle compartments, are then inserted in place within the first section of the inner shell. After the bottles or other articles are inserted in the compartments the other section of the inner shell, as illustrated in Fig. 5, is thereupon inserted within the outer shell and pressed in place, the two sides 9 and 10 closing the open sides between the sides 6 and 7, and the top 11 closing the open top of the section first inserted in the outer shell, with the result that after the section illustrated in Fig. 5 is inserted in place the package or inner shell is completely closed and sealed, as illustrated in Fig. 6. The remaining operation relates to the closing and sealing of the extensions of the outer shell, such extensions being folded and glued or pasted together and to the top 11 in the same manner as the extensions constituting the bottom, after which, by preference, a band or tape is passed around the box, over the division line between the outermost extensions forming the top and bottom of the box.

When the box or carton is square in cross section, it is immaterial which pair of extensions is first folded down, as they would all be of equal area, but in the event that such box was oblong in cross section, then the pair of extensions of the lesser area should be folded in first.

A box or carton constructed and arranged as above described possesses the necessary strength and rigidity for the safe transportation of fragile articles, such as bottles, for instance, the sides as well as the top and bottom of the box or carton being securely and effectually braced and supported in such manner as to resist all strains and pressure brought to bear upon them. Moreover, the box or carton has double thickness of sides and in the present instance has a triple thickness of top and bottom. Furthermore, for some uses or purposes the compartments may be dispensed with, without departing from the spirit and scope of my invention in its broader aspect.

I claim:

1. A packing box or receptacle comprising an inner box portion and an outer box portion fitting over the inner box portion, such inner box consisting of two pieces, one of which comprises a bottom and two opposite sides hinged thereto and the other of which comprises the top and the other two opposite sides hinged thereto, said two pieces cooperating to form a complete and closed inner box, and the outer box comprising side walls corresponding in size to the sides of the inner box and receiving such inner box, and also comprising end extensions or flaps hinged to the side walls and foldable inwardly in pairs from opposite sides to form top and bottom respectively; substantially as described.

2. A packing box or receptacle comprising an inner box portion and an outer box portion fitting over the inner box portion, such inner box consisting of two pieces, one of which comprises a bottom and two opposite sides hinged thereto and the other of which comprises the top and the other two opposite sides hinged thereto, said two pieces cooperating to form a complete and closed inner box, and the outer box comprising side walls corresponding in size to the sides of the inner box and receiving such inner box, and collapsible cross strips insertible in the inner box and forming compartments for bottles or the like; substantially as described.

3. A packing box of receptacle comprising an inner box portion of corrugated paper and an outer box portion of the same material fitting over the inner box portion, such inner box consisting of two pieces, one of which comprises a bottom 8 and opposite sides 6 and 7 hinged thereto, and the other of which comprises a top 11 and sides 9 and 10 hinged thereto, said two pieces coöperating to form in the assembled structure a complete and closed inner box, and the outer box comprising side walls 1, 2, 3, and 4 corresponding in size to the sides of the inner box and receiving such inner box, and also comprising end extensions 1^a, 2^a, 3^a, and 4^a, foldable inwardly in pairs from opposite sides to form a top, and end extensions 1^b, 2^b, 3^b, and 4^b foldable inwardly in pairs from opposite sides to form a bottom for said outer box, and collapsible cross strips 12 and 13 arranged to form compartments for bottles or the like in the com-

plete assembled box; substantially as described.

4. A packing box comprising an outer box portion having side walls 1, 2, 3, and 4 and end extensions $1^a, 2^a, 3^a 4^a$ foldable inwardly in pairs from opposite sides to form a top and 1^b, 2^b, 3^b and 4^b foldable inwardly in pairs from opposite sides to form a bottom, a two-piece inner box consisting of two pieces one comprising a bottom 8 and opposite sides 6 and 7 hinged thereto, the other comprising a top 11 and sides 9 and 10 hinged thereto, and cross strip 12 and 13 arranged to hold the sides 6 and 7 snugly against the outer box portion, and also forming compartments for bottles and the like, the portion of the two part inner box comprising the top 11 and sides 9 and 10 being adapted to be slid into place between the sides 6 and 7 to completely inclose the cross strips.

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Witnesses:
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