

F. C. STEGMAN.
BOX OR PACKAGE.

APPLICATION FILED NOV. 1, 1910.

Patented Aug. 13, 1912.

3 SHEETS-SHEET 1.

1,035,258.

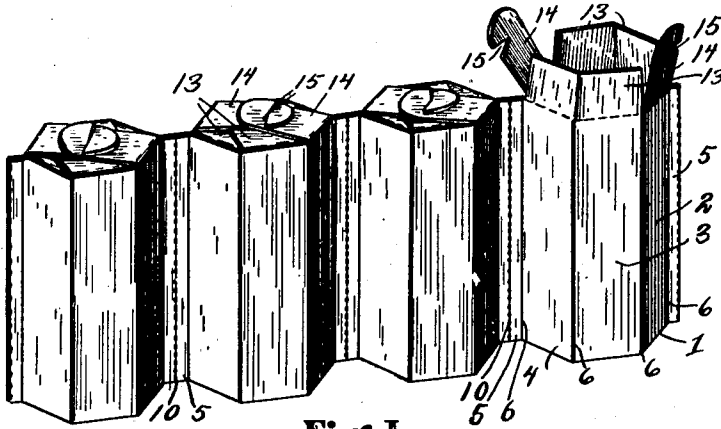


Fig. I.

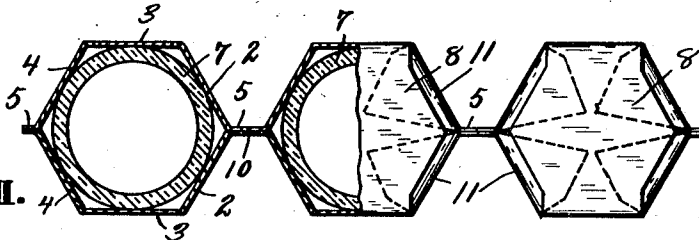


Fig. II.

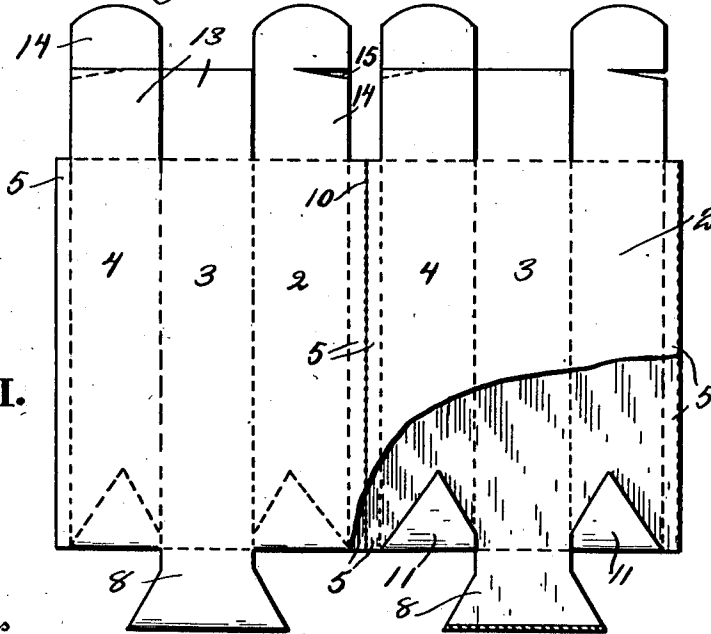


Fig. III.

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Witnesses

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Fig. V.

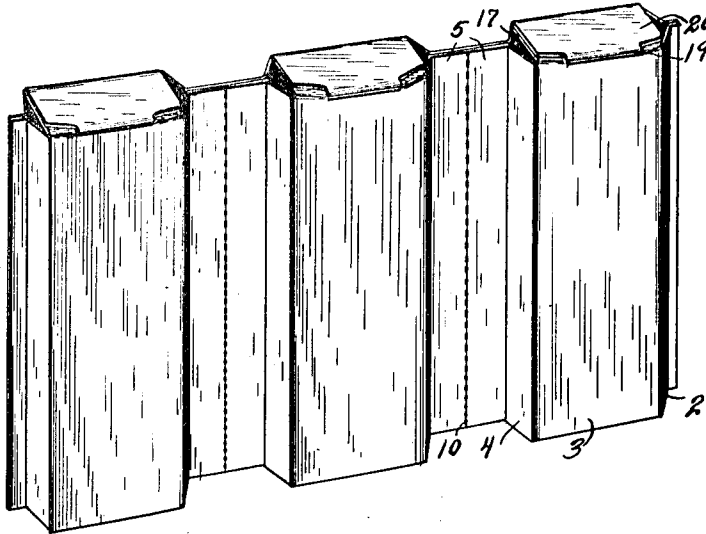
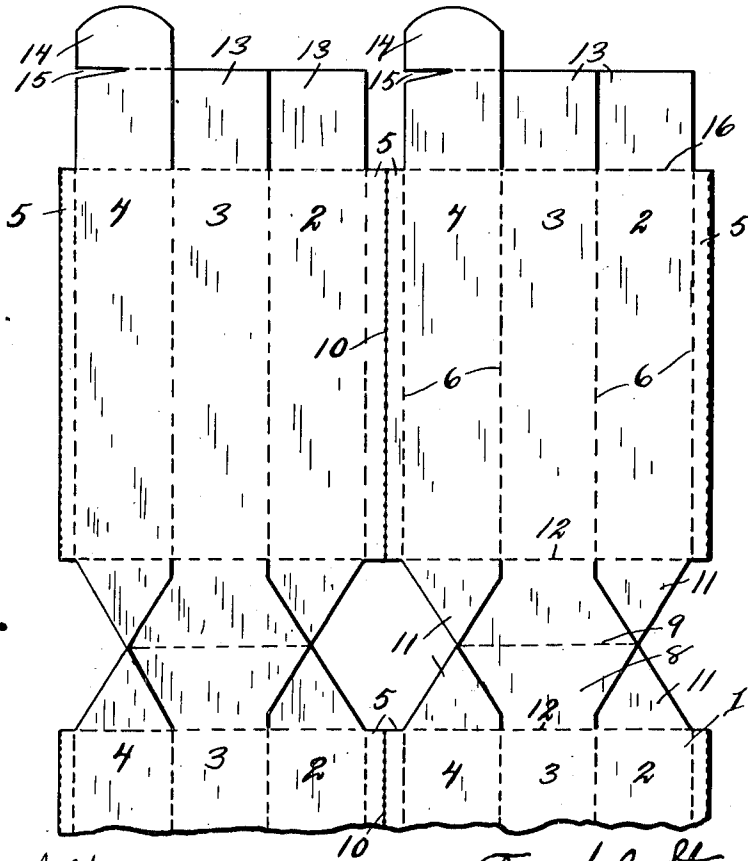


Fig. IV.



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3 SHEETS-SHEET 3

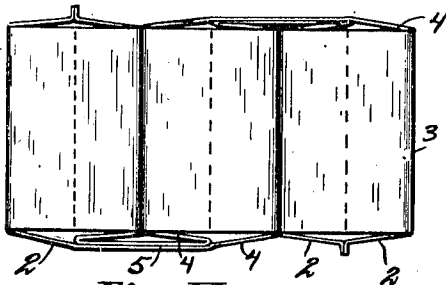


Fig. VI.

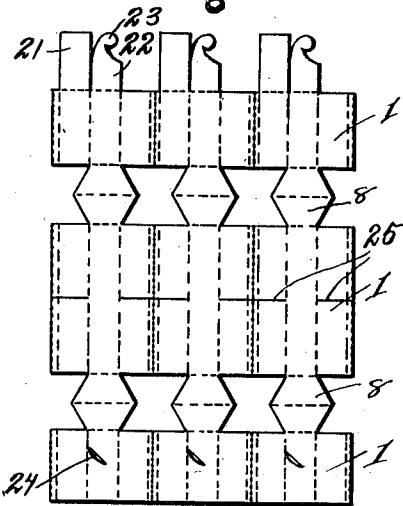


Fig. X.

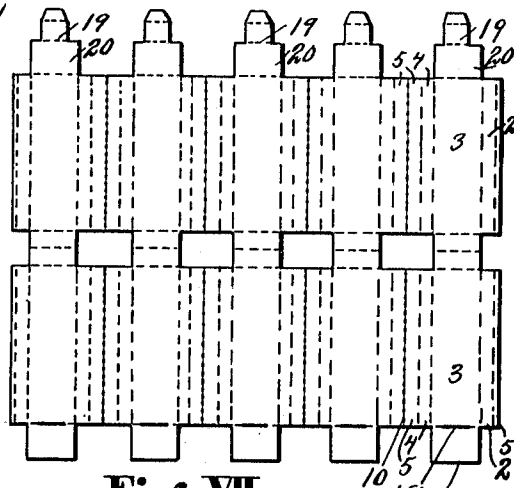


Fig. VII.

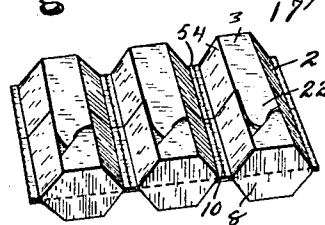


Fig. VIII.

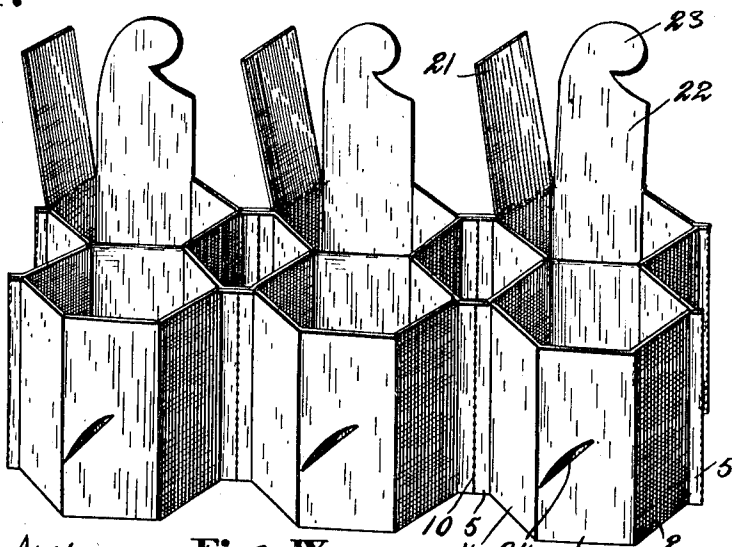


Fig. IX.

Witnesses

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UNITED STATES PATENT OFFICE.

FRANK C. STEGMAN, OF KALAMAZOO, MICHIGAN.

BOX OR PACKAGE.

1,035,258.

Specification of Letters Patent.

Patented Aug. 13, 1912.

Application filed November 1, 1910. Serial No. 590,113.

To all whom it may concern:

Be it known that I, FRANK C. STEGMAN, a citizen of the United States, residing at Kalamazoo, Michigan, have invented certain new and useful Improvements in Boxes or Packages, of which the following is a specification.

This invention relates to improvements in boxes or packages.

The main objects of this invention are: First, to provide a plurality or series of boxes or packages formed integrally of a single blank. Second, to provide a plurality or series of connected boxes or packages which are adapted to be readily separated. Third, to provide a plurality or series of connected boxes which are very economical in the matter of material and labor. Fourth, to provide a plurality or series of collapsible boxes which can be quickly extended. Fifth, to provide a plurality of boxes which may be folded or rolled into a compact form for storage or transportation.

Further objects, and objects relating to structural details, will definitely appear from the detailed description to follow.

I accomplish the objects of my invention by the devices and means described in the following specification.

The invention is clearly defined and pointed out in the claims.

A structure, which is a preferred embodiment of my invention, is clearly illustrated in the accompanying drawing, forming a part of this specification, in which:

Figure 1 is a perspective view of a series of four of my improved boxes, the closing flaps of one of the boxes being shown open. Fig. 2 is an inverted view, partially in horizontal section of the embodiment of my invention shown in Fig. 1, the sectioned boxes being shown with bottles therein. Fig. 3 is a side elevation of the embodiment of my invention shown in Figs. 1 and 2, collapsed portions of the side walls being broken away to better show the structural details. Fig. 4 is a detail plan of a blank for the boxes shown in Figs. 1, 2 and 3. Fig. 5 is a perspective view of a slightly modified construction, the boxes there shown being adapted to receive rectangular bottles or articles. Fig. 6 is a bottom view of the three boxes shown in Fig. 5, illustrating how a plurality of the boxes may be folded together. Fig. 7 is a detail plan view of the blank for the type of boxes shown in Figs.

5 and 6. Fig. 8 is a perspective view of another modification of my invention, the boxes or packages there shown being especially adapted as an egg receptacle or package. Fig. 9 is a perspective view of the packages shown in Fig. 8, extended or erected to receive the eggs or other articles. Fig. 10 is a plan view of a blank from which the packages or boxes shown in Figs. 8 and 9 are formed.

In the drawings, similar reference numerals refer to similar parts throughout the several views.

Referring to the drawing, I form a series or plurality of boxes or packages integrally from a blank comprising a plurality of side portions designated generally by the numerals 1—1. These side portions are scored to form the side walls, as 2, 3 and 4, and the connecting webs 5, the scoring being indicated by the dotted lines 6.

In the embodiment of my invention shown in Figs. 1 to 4, the boxes are hexagonal, being particularly adapted for articles, such as the bottles 7. (See Fig. 2.) The central side walls 3 are connected by the bottoms 8, which are hexagonal, as shown. These bottoms are scored centrally, as at 9. The side wall portions 1 are folded upon each other, the fold being at the score 9, and secured together by uniting the webs, preferably by gluing them together. These connecting webs are provided with lines of perforations 10, which facilitate the separating of the packages, enabling their being separated without the use of a knife or shears. The side walls 2 and 4 are provided with bottom flaps 11, which are triangular in shape and adapted to fold downwardly upon the bottoms when the packages are erected, as is indicated by dotted lines in Fig. 2. When the boxes are collapsed, as shown in Fig. 3, these bottom flaps are folded upwardly. To facilitate the folding of the bottoms and the bottom flaps, the blank is scored at 12 at the lower edge of the side walls. The side walls, in the embodiment of my invention shown in Figs. 1 to 4, are provided with closing flaps 13 and 14, the flaps 14 being on opposed side walls and provided with interlocking notches 15. In closing the boxes, the flaps 13 are first folded down and the flaps 14 then closed and engaged, as shown in Fig. 1. I have shown in Fig. 1 a series of four packages, but I desire to remark that any convenient number can

be formed of the same blank. To assist in closing the folding flaps, the blank is scored at 16, to form a joint connection for the flaps to the side walls.

In the modification shown in Figs. 5, 6 and 7, the packages are adapted for a rectangular bottle or article. The web portions 5 are somewhat wider than in the structure shown in Figs. 1 to 4, the central side walls 3 being wider than the side walls 2 and 4, so that the packages may be folded up as shown in Fig. 6. In this modification, the bottoms are the same width as the side walls 3 and the bottom flaps 11 are omitted. The closing flap 17 is provided with a slot at 18 to receive the tongue 19 on the closing flap 20.

In the modification shown in Figs. 8, 9 and 10, the blank is provided with three side wall portions, the central portion having bottom portions 8 at each end. The central side wall portion is the same width as the two outer side wall portions, which are folded thereon and secured along the connecting webs, as described. One of the outer side wall portions of this modification is provided with a partition and bracing flaps 21, and with securing flaps 22, having an engaging tongue 23 adapted to engage in slots 24 formed in the side walls of the other outer side wall portions, as is clearly shown in the drawing. The flaps 21 are of such length as to extend across the boxes and engage the opposite wall. This form of box or package is especially designed as an egg receptacle, each box being adapted to receive two eggs, the flaps 21 forming a partition between the eggs and serving to support the box. These boxes can be separated in the same way as the other forms. The central wall portion is cut at 25 to form the walls 2 of the pair, the inner walls 3 of each pair being continuous.

I have illustrated these three forms or modifications of my invention in order to show its adaptability to various purposes or uses. I am aware, however, that there are various other modifications of my invention possible, but I believe that with these modifications presented, other modifications will be understood by those skilled in the art to which my invention relates.

As before stated, my improved box is particularly adapted for use in the retail or merchandise trade, where one or more packages or boxes are ordinarily purchased. It is obvious that any number can be erected, as required, and several may be rolled up in a comparatively compact wrapping. While I indicate bottles in the packages in Fig. 2, my improved box or package is, as will be obvious, adapted for various articles, such as soap and the various articles handled in groceries, bakeries and the like. In practice, the blanks are formed from rolls or long

sheets of suitable material cut, scored, folded and glued on a machine as a substantially continuous process, so that substantially no hand work is required in the manufacture of the boxes. The boxes may, if desired, be run onto rolls in their collapsed form and the articles placed therein by the retailers, as they are sold, one or more boxes being torn off the roll as desired, or the boxes can be used by the manufacturer and sold to the dealer in connected groups to be separated as required. A group or series is capable of being folded into a package as compactly as if the boxes were separated.

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

1. A plurality of connected collapsible and separable boxes formed integrally of a blank comprising side wall portions, each side wall portion being transversely scored to form a plurality of side walls for each box; and connecting webs for the boxes, said connecting webs being provided with lines of separating perforations, said side wall portions being folded upon each other with the connecting webs face to face and secured together on both sides of their said severing perforations, the central opposed walls of each box being connected by hexagonal bottoms, each of the other side walls being provided with triangular bottom flaps adapted to lap on to said bottom when the blank is erected, there being hexagonal openings between the web portions, said bottom portions being longitudinally scored and the said bottom flaps being folded between the side walls when the boxes are collapsed, said side walls being also provided with top flaps, both side wall portions being provided with at least one top flap for each box having engaging members adapted to engage one of the top flaps of the other side wall portion.

2. A plurality of connected collapsible and separable boxes formed integrally of a blank comprising side wall portions, each side wall portion being transversely scored to form a plurality of side walls for each box; and connecting webs for the boxes, said connecting webs being provided with lines of separating perforations, said side wall portions being folded upon each other with the connecting webs face to face and secured together on both sides of their said severing perforations, the central opposed walls of each box being connected by bottoms, each of the other side walls being provided with bottom flaps adapted to lap on to said bottom when the blank is erected, there being openings between the web portions, said bottom portions being longitudinally scored and the said bottom flaps being folded between the side walls when the boxes are collapsed, said side walls being also

provided with top flaps, both side wall portions being provided with at least one top flap for each box having engaging members adapted to engage one of the top flaps of the other side wall portion.

3. A plurality of connected collapsible and separable boxes formed integrally of a blank comprising side wall portions, each side wall portion being transversely scored to form a plurality of side walls for each box; and connecting webs for the boxes, said connecting webs being provided with lines of separating perforations, said side wall portions being folded upon each other with the connecting webs face to face and secured together on both sides of their said

severing perforations, the central opposed walls of each box being connected by bottoms, there being openings between the web portions, said bottom portions being longitudinally scored, both side wall portions being provided with at least one top flap for each box having engaging members adapted to engage one of the top flaps of the other side wall portion.

In witness whereof, I have hereunto set my hand and seal in the presence of two witnesses.

FRANK C. STEGMAN. [L. s.]

Witnesses:

L. G. GREENFIELD,
M. L. GLASGOW.