

G. F. RAYNAUD.
 CARTON.
 APPLICATION FILED APR. 1, 1914.

1,151,821.

Patented Aug. 31, 1915.
 2 SHEETS—SHEET 1.

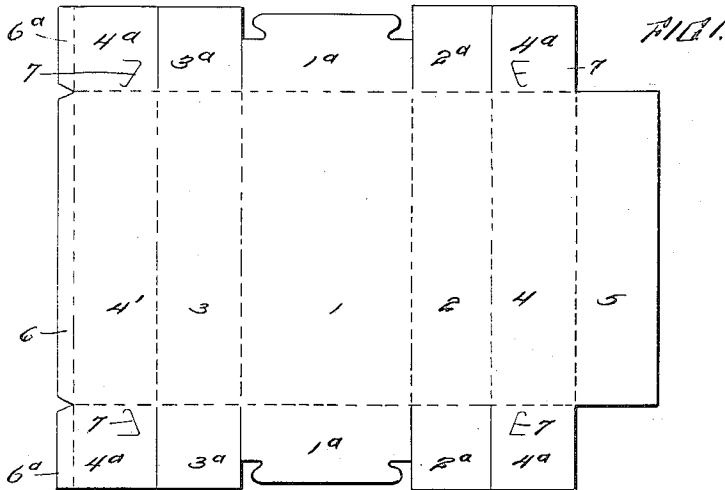
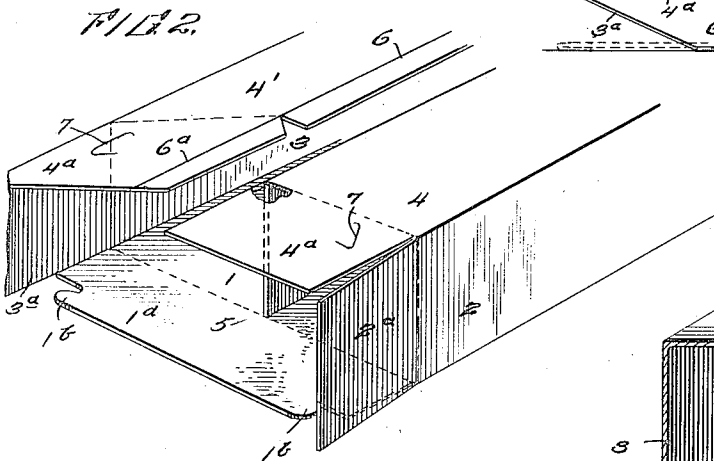
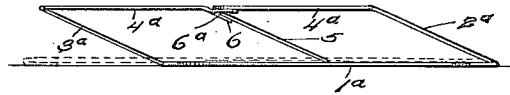


FIG. 4.

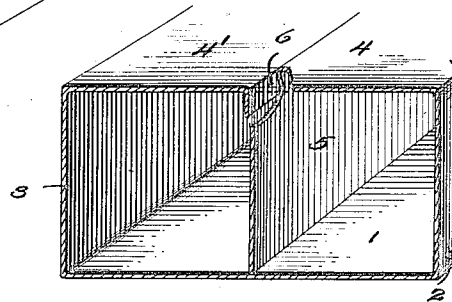
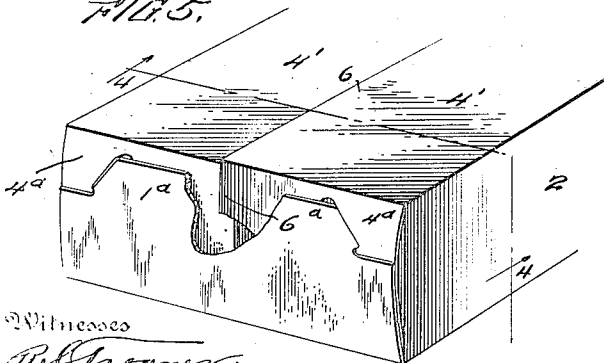


FIG. 5.



Witnesses

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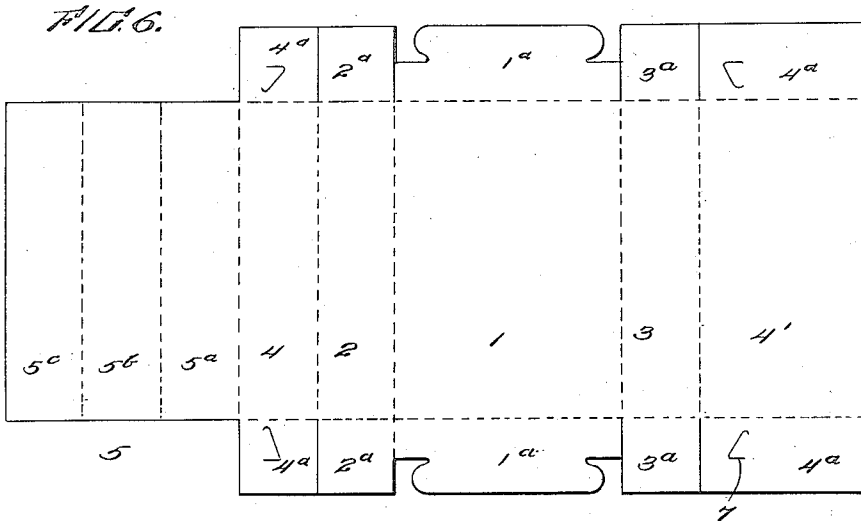
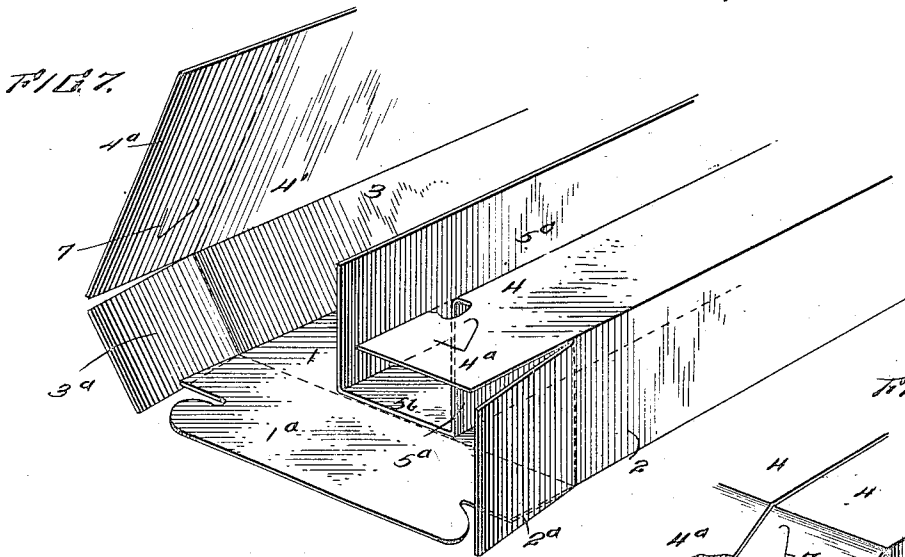


FIG. 8.

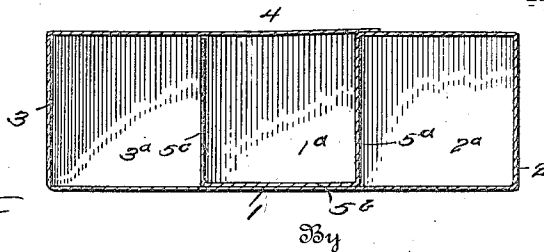
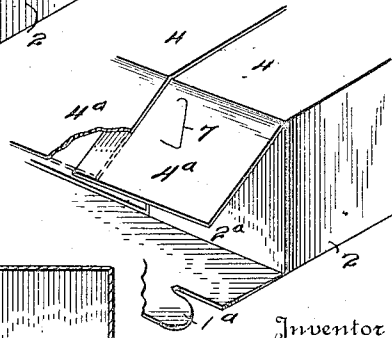


FIG. 9.



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CARTON.

1,151,821.

Specification of Letters Patent.

Patented Aug. 31, 1915.

Application filed April 1, 1914. Serial No. 323,336.

To all whom it may concern:

Be it known that I, CHARLES F. RAYNAUD, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented certain new and useful Improvements in Cartons, of which the following is a specification.

My invention relates to an improvement in cartons, or cardboard boxes used for packing and transporting merchandise, and is especially adapted to hold bottles.

One of the objects of my invention is to provide a carton or case which is divided into a plurality of cells or compartments and in which the walls and partitions are cut from a single sheet and folded to form the carton.

Another object is to arrange the parts so that the sides and partitions are formed by a series of parallel folds or creases in a single rectangular sheet, thereby reducing the waste or loss of material to a minimum.

A further purpose of my invention is to provide a cellular carton which may be completely formed at the factory and then shipped in compact substantially flat condition, thereby economizing space in transportation and storage.

In the accompanying drawings which illustrate an embodiment of my invention, Figure 1 is a plan of a blank cut and creased to form a two-cell carton; Fig. 2 is a perspective view of the same folded but before the parts are united at the seam or joint; Fig. 3 is a partially collapsed end view of the completed carton showing the manner of folding for storage or shipment; Fig. 4 is a cross section, partly broken away, on the line 4-4 of Fig. 5; Fig. 5 is a partial perspective view of the completed carton with the end or closure flaps in locked position; Fig. 6 shows in plan the blank for a three-cell carton; Fig. 7 is a perspective view of the same showing the manner of folding the sides and partitions; Fig. 8 is a transverse sectional view; and Fig. 9 is a partial perspective view of the same showing the manner of forming the seam or joint.

The blank shown in Fig. 1, is cut from a sheet of cardboard or similar material and is substantially rectangular in outline, there being no waste, save for the notched corners at one end. The top, bottom, sides and partition are formed from a single rectangular

shape by means of a series of parallel creases, indicated by dotted lines, forming bending joints. The bottom 1, is the intermediate member flanked upon either side by the sides 2, 3, the top being formed of two portions, 4, 4', lying upon the outside of the respective side members, the seam flap 6, being glued or otherwise secured to bring the outer edges of the top members together into an integral structure. The partition member 5, forms a continuation or extension of one of the top members 4', being united thereto by a bending joint or crease at the seam line.

After the blank has been cut as indicated to form the walls of the carton and the end flaps 1^a, 2^a, 3^a, etc., provided with slits 7, the parts are bent up, as indicated in Fig. 2, upon the creases or bending joints at the intersecting edges, the partition 5, being bent downwardly to separate the carton into its compartments or cells, and the seam flap 6 is then glued or pasted to the outer side or margin of the partition member, the two top parts 4, 4' being made flush. To further strengthen and increase the rigidity of the glued joint the flap members 4^a upon one side of the joint are provided with seam flaps 6^a which overlap the end flaps 4^a upon the other side of the seam and are glued or pasted thereto, the interlocked flaps forming a unitary end closure for the carton. This seam in the end flaps makes the top end flap an integral structure and relieves the seam or joint along the seam flap 6 of strains to which it would otherwise be subjected. It will be observed that this intermediate pasted seam or joint extending longitudinally through the intermediate portion of the top of the carton constitutes, in fact, a reinforcement or stiffening rib and adds materially to the rigidity of the structure. The partition member 5 extends inwardly along the entire line of the joint and constitutes a strut or brace for the joint, relieving the joint of the strains and stresses which would tend to rupture the joint.

After the parts have been folded and glued as above described, the end flaps 2^a, 3^a, are bent inwardly, the flaps 4^a and 1^a being turned down thereover and locked in position by passing the ears 1^b, through the slits 7, as indicated in Fig. 5.

After the carton has been formed in the manner above described, it may be collapsed into flat form, as indicated in Fig. 3, in

order that the cartons may be compactly arranged for storing or shipping in knock-down condition. Inasmuch as the partition member 5 is free at its outer edge, it may be laid out parallel with the top member and be flattened out against it. It is a decided advantage to be able to thus flatten the completed carton and yet have it at all times in condition to be instantly shifted into the position shown in Fig. 4, ready to receive the bottles or other merchandise which is to be packed therein. This is accomplished the more readily by reason of the fact that the partition member 5 is secured only along one longitudinal edge and is, therefore, free to be swung or bent toward the top member when the carton is to be collapsed and downwardly into the intermediate position shown in Figs. 2 and 4 when the carton is to be opened into operative position.

In Figs. 6 to 9, inclusive, I have illustrated my invention applied to a carton having three cells or compartments. The construction is substantially the same as that above described and differs therefrom mainly in having the partition member 5, which forms an extension of the top member 4, creased longitudinally, as indicated by dotted lines in Fig. 6, to form the partition members 5^a and 5^b connected by the portion 5^c. When the parts are folded or bent along the creases, in the manner shown in Fig. 7, to form the finished carton, the portions of the partition member 5 are bent into a channel or U-shape. The outside of the intermediate connecting member 5^b may be glued to the inside of the top member 1 to hold it in position, if desired, but this is not a necessity as the bottles or other articles of merchandise which are packed therein will maintain the partitions in position if there is any tendency to shift.

In Figs. 8 and 9 I have shown the intermediate glued seam or joint formed by overlapping the top member 4 over the inner edge of the top member 4' instead of having a margin of the member 4 bent downward to form a seam flap corresponding to the flap 6 in Figs. 1 and 2. It will be understood, however, that either form of intermediate seam or joint may be used. In this form, shown in Fig. 9, the inner margins of the end flaps 4^a overlap and are glued to form a seam or joint and reinforce the seam extending along the top in the manner previously described. It will be seen that the three-cell carton may be collapsed in the same manner as the two-cell form and may therefore be stored and transported in compact form.

I have described in detail the construction disclosed in the accompanying drawings for the purpose of illustrating an embodiment of my invention, but it will be understood

that changes may be made therein without departing from the spirit of my invention.

Again, while I have illustrated my invention as applied to two and three-cell cartons, it is evident that the number of cells may be increased as desired and such changes or modifications are intended to be included within the scope of my claims.

While I have referred to the top, bottom and side members, as referring to certain designated portions in the drawings, it is to be understood that this is merely for convenience in setting forth the construction and that in use the carton may be supported upon any one of these members, any one becoming the top, bottom or side.

I claim:—

1. A multicellular carton for bottles and other articles of merchandise, comprising a blank of sheet material having a rectangular body portion provided with parallel creases to form a series of rectangular portions forming the top, bottom, sides and partition of a receptacle, the top being formed of two of said rectangular portions separated in the blank by the bottom and side members and said partition forming an extension of one of said top portions, and end closure flaps connected at opposite ends of each of said top portions, bottom and side members, the end flaps on each of the top sections being united together to form a unitary end closure for the carton.

2. A multicellular carton for articles of merchandise, comprising a blank of sheet material having a rectangular body creased to form a continuous series of parallel rectangular portions bent to form a closed box or receptacle, the top member being formed by joining the edges of two of said rectangular portions, thereby forming a top member of a single thickness, and having an extension projecting from one of said top portions and dividing the receptacle into a plurality of cells or compartments, and end flaps projecting from the ends of the sides, top and bottom members of the box, the flaps on the ends of the top member being composed of two parts united to the portions forming said top member.

3. A multicellular carton for articles of merchandise, comprising a blank of sheet material having a rectangular body creased to form a continuous series of parallel rectangular portions bent to form a closed box or receptacle, the top member being formed by permanently uniting the edges of two of said rectangular portions, and end flaps projecting from opposite ends of said rectangular portions, the flaps on the ends of the top member being composed of two parts united together and projecting from the respective portions forming the top member.

4. A multicellular carton, comprising a blank of sheet material having a rectangular

lar body portion provided with parallel
creases to form a series of rectangular por-
tions forming top sections, bottom, sides and
a partition member, said top sections being
5 united in a joint to form the closed carton,
said partition member constituting one end
of said blank sheet and extending inwardly
from said joint in the finished carton and
forming a brace or strut for the joint, and

end flaps on each of the top sections united 10
to form a unitary end closure for the carton.

In testimony whereof I affix my signature
in presence of two witnesses.

CHARLES F. RAYNAUD.

Witnesses:

MINNIE WHERSTEDT,
M. A. BRETON.