

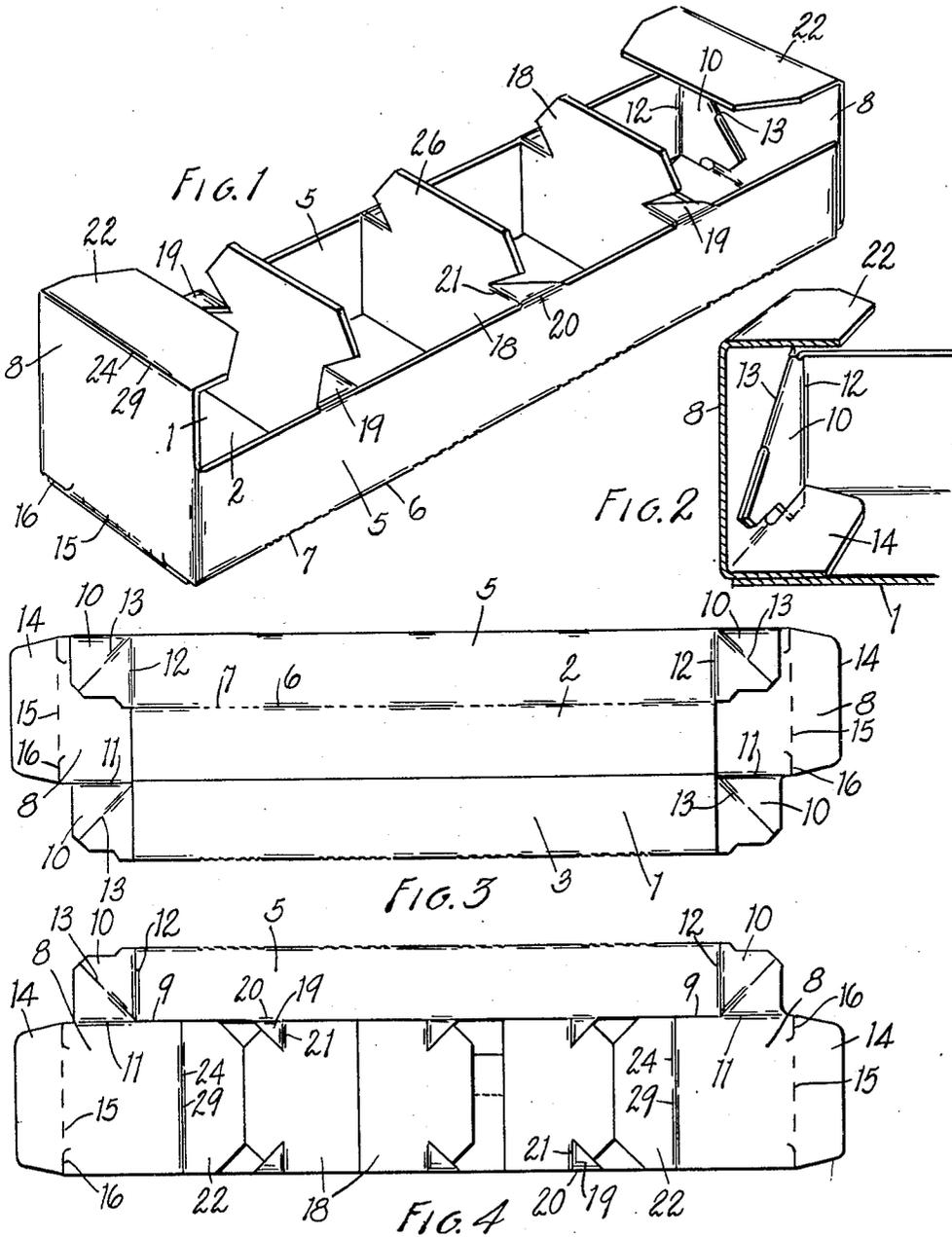
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K. T. BUTTERY
CELLULAR CARTON

2,527,701

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2 Sheets-Sheet 1



INVENTOR.
Kenneth T. Buttery
BY *O. A. Earl*
Attorney.

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2 Sheets-Sheet 2

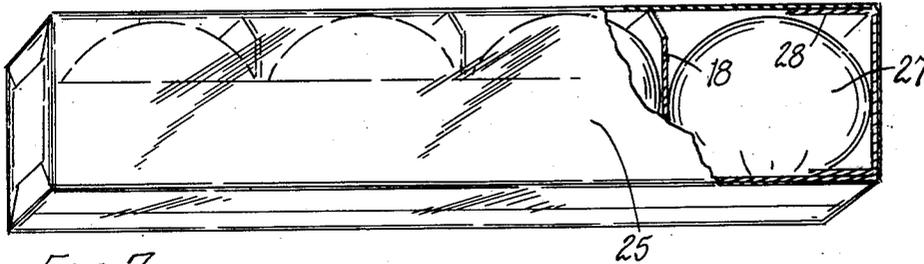


FIG. 7

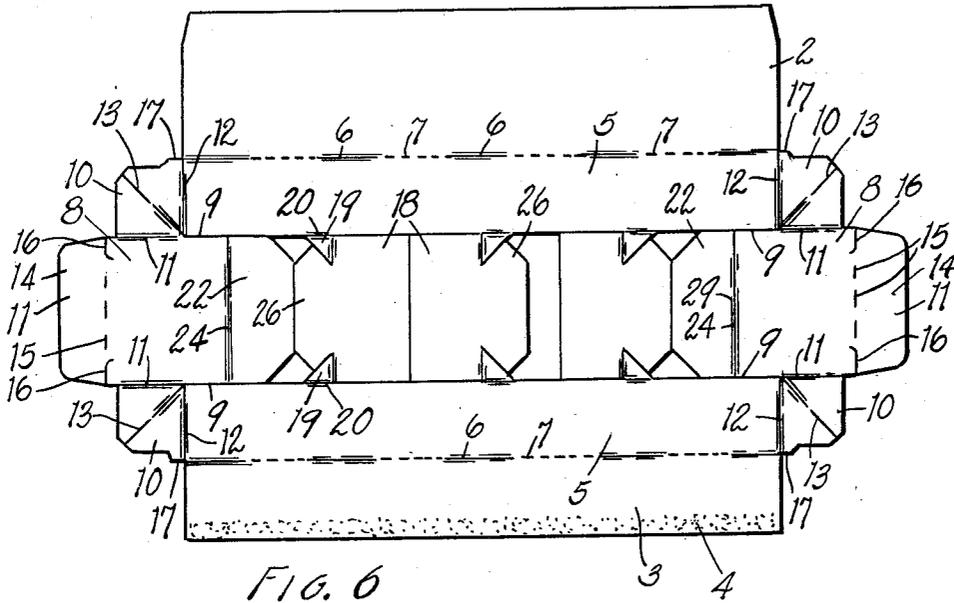


FIG. 6

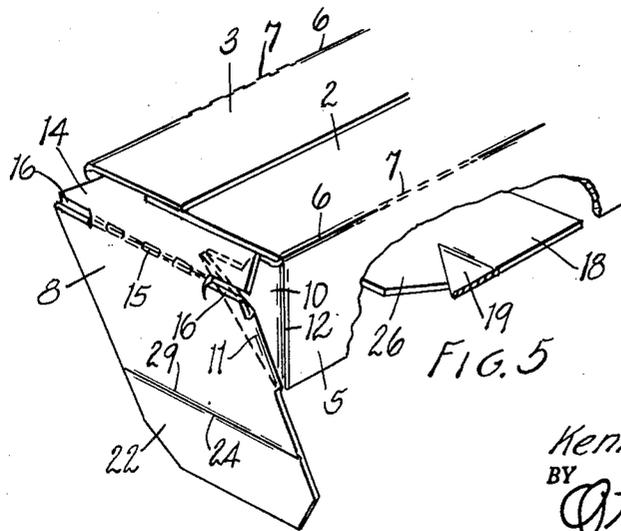


FIG. 5

INVENTOR.
Kenneth T. Buttery
BY
Otto Carl
Attorney.

UNITED STATES PATENT OFFICE

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CELLULAR CARTON

Kenneth T. Buttery, Kalamazoo, Mich., assignor
to Sutherland Paper Company, Kalamazoo,
Mich.

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6 Claims. (Cl. 229—28)

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This invention relates to improvements in cellular cartons.

The main objects of this invention are:

First, to provide a cellular carton or box which may be formed of a single blank, one in which the parts are associated so that the carton may be quickly set up or erected and one in which the parts are effectively retained in erected position.

Second, to provide a box or carton having these advantages which is well adapted for the display of merchandise; for example, fruit and various bakery products.

Third, to provide a carton or box having these advantages which may be very economically produced from comparatively light stock and at the same time is quite strong and rigid when set up.

Further objects relating to details and economies of the invention will appear from the description to follow. The invention is defined in the claims.

An embodiment of the invention is illustrated in the accompanying drawings in which:

Fig. 1 is a perspective view of a carton embodying the features of my invention fully set up.

Fig. 2 is a fragmentary perspective view in longitudinal section.

Fig. 3 is a bottom view of the collapsed carton.

Fig. 4 is a top view of the collapsed carton.

Fig. 5 is a fragmentary perspective view illustrating steps or stages in the erection of the carton by the preferred method.

Fig. 6 is a plan view of the blank.

Fig. 7 is a perspective view of the carton with articles conventionally illustrated therein and with a transparent wrapper thereon, parts being shown in section and broken away to show structural details.

The embodiment of my invention illustrated is formed of a single blank and comprises a bottom designated generally by the numeral 1 and made up of bottom members or sections 2 and 3. These bottom members or sections are disposed at the end of the blank. The blank is folded upon itself to bring the sections 2 and 3 into overlapping relation. They are secured together in that relation desirably by adhesive as indicated at 4.

The side walls 5 are hingedly joined to the inner edges of the bottom members 2 and 3 as they lie in the blank by the scores and slits 6 and 7, the slits 7 being provided to render the hinge connection more flexible and to minimize the tendency of the side walls to bulge or swing outwardly when the carton is erected.

The end walls 8 are disposed within the inner

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edges of the side walls as viewed in the blank and separated from their inner edges by the slits 9. The ends of the end walls and the ends of the side walls are connected by corner members 10 hingedly secured to the end walls at 11 and to the side walls at 12. These corner members are diagonally scored at 13 to permit folding the corner members on the inner sides of the end walls as is further shown in Figs. 1 and 2. The end walls are provided with tucking flaps 14 at their outer edges as viewed in the blank or at their bottom edges viewed from the standpoint of the erected box and the functioning relation of the parts. These flaps are hingedly connected to the end walls desirably by a hinge resulting from a series of slits 15 and end slits 16. Flaps 14 are adapted to be tucked under the folded corner members or between the folded corner members and the bottom. To accomplish this most expeditiously, the carton is grasped and the side walls swung into erected position with the carton inverted. The end walls are then swung upwardly and the flaps tucked into position as shown in Fig. 5 and the end walls are completely erected, which operation may be done simultaneously at both ends of the carton.

The slits 16 are designed to receive the lugs 17 provided on the bottom edges of the corner members. The blank is further slit to provide a plurality of transverse partitions 18 lying between the inner edges of the side walls as viewed in the blank and connected thereto by the hinge members 19 which are hingedly connected at 20 to the side walls and at 21 to the partition members.

After the box has been erected, that is, the end members erected and the tucking flaps fully inserted, the box is swung to an upright position and the partition members may be swung down to erected position on the hinges 21. The end walls 8 are preferably of a height substantially exceeding the height of the side walls and are provided with wrapper supporting flaps 22 hinged thereto at 24 so that the flaps may be swung inwardly to support a wrapper 25. The wrapper is further supported by the tab-like projections 26 on the upper edges of the transverse partitions. The ends of the transverse partitions engage the side walls and in addition to providing cells, serve as braces and supports for the side walls.

In Fig. 7 the packaged objects are conventionally indicated at 27, a transparent wrapper is commonly used. This is effectively supported by the end flaps 28 on the upper edges of the end

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walls, these flaps being hinged to the end walls by the scores 29 and the transverse partitions. These supports facilitate the wrapping as well as supporting the wrapper after the article has been wrapped.

The particular carton illustrated is designed for the packaging of tomatoes which are relatively heavy. They are, however, effectively protected even when the carton is formed of quite light stock. The carton may be grasped by its side walls without bruising the tomatoes as the inward collapsing of the side walls is effectively prevented by the transverse partitions.

I have not attempted to illustrate or describe other embodiments or adaptations of my invention as it is believed that this disclosure will enable those skilled in the art to adapt or embody my invention as may be desired.

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

1. A collapsible cellular carton formed of a single blank cut and scored to provide hingedly connected bottom, side and end walls, the bottom comprising bottom members disposed at the ends of the blank and overlapped and secured together, the side walls being hingedly connected in the blank to the inner edges of the bottom members, the end walls being in the blank between the inner edges of the side walls, the ends of the side and end walls being connected by foldable corner members, said corner members being foldable upon inner sides of the end walls, the end walls in the blank extending between the inner edges of the side walls and being entirely severed from said inner edges to provide end walls in the erected carton each of greater height than the side walls, said end walls having tucking flaps at their outer edges in the blank adapted to be inserted between the bottom and the folded corner members, the end walls having wrapper supporting flaps on their inner edges in the blank, and transverse partition members hingedly connected to the upper edges of the side walls, said partition members having portions thereof projecting above the side walls with the upper edges when erected in approximately the plane of said supporting flaps of the end walls to coact therewith in supporting a wrapper, the said end walls and their said tucking and wrapper supporting flaps and said partitions being in the blank between lines coinciding with the adjacent edges of the side walls.

2. A collapsible cellular carton formed of a single blank cut and scored to provide hingedly connected bottom, side and end walls, the bottom comprising bottom members disposed at the ends of the blank and overlapped and secured together, the side walls being hingedly connected in the blank to the inner edges of the bottom members, the end walls being in the blank between the inner edges of the side walls, the ends of the side and end walls being connected by foldable corner members, said corner members being foldable upon inner sides of the end walls, the end walls having tucking flaps at their outer edges in the blank adapted to be inserted between the bottom and the folded corner members, the end walls having wrapper supporting flaps hingedly connected to their inner edges in the blank, said wrapper supporting flaps in the erected carton projecting towards each other, and transverse partition members hingedly connected to the upper edges of the side walls, the said end walls and their said tucking and wrapper sup-

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porting flaps and said partitions being in the blank between lines coinciding with the adjacent edges of the side walls.

3. A collapsible cellular carton formed of a single blank cut and scored to provide hingedly connected bottom, side and end walls, the bottom comprising bottom members disposed at the ends of the blank and overlapped and secured together, the side walls being hingedly connected in the blank to the inner edges of the bottom members, the end walls being in the blank between lines coinciding with the inner edges of the side walls, the ends of the side and end walls being connected by corner members hingedly secured thereto and diagonally foldable upon inner sides of the end walls, the diagonal folding lines of said corner members in the blank extending outwardly from the intersection of the end edges of the side walls with the end edges of the end walls, said diagonal lines in the erected carton extending downwardly from the ends of the upper edges of the side walls, the end walls having tucking flaps on their bottom edges adapted to be inserted between the bottom and the folded corner members, end walls having wrapper supporting flaps on their top edges, and transverse partition members hingedly connected to the upper edges of the side walls.

4. A collapsible box formed of a single blank cut and scored to provide hingedly connected bottom and side and end walls, the bottom comprising bottom members overlapped and adhesively secured together, the side and end walls being connected at their adjacent ends by foldable corner members foldable upon the inner sides of the end walls, the end walls in the blank extending between the inner edges of the side walls and being entirely severed from said inner edges to provide end walls in the erected carton each of greater height than the side walls, said end walls having tucking flaps at their outer edges adapted to be inserted between the bottom and the folded corner members when the box is erected, end walls having wrapper supporting flaps on their inner edges, and transverse partition members hingedly connected to the upper edges of the side walls, said partition members having portions thereof projecting above the side walls when erected with their upper edges in approximately the plane of said wrapper supporting flaps to coact therewith in supporting a wrapper.

5. A collapsible box formed of a single blank cut and scored to provide hingedly connected bottom and side and end walls, the bottom comprising bottom members overlapped and adhesively secured together, the side and end walls being connected at their adjacent ends by diagonally foldable corner members foldable upon the inner sides of the end walls, the diagonal folding lines of said corner members extending downwardly from the ends of the upper edges of the side walls, the end walls being of a greater height than the side walls and having tucking flaps at their lower edges adapted to be inserted between the bottom and the folded corner members when the box is erected, and transverse partition members hingedly connected to the upper edges of the side walls.

6. A collapsible box comprising hingedly connected bottom, side and end walls, the bottom comprising complementary bottom members secured together, the side walls being hingedly connected to the outer edges of the bottom members, the ends of the side and end walls being

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connected by diagonally foldable corner members, said corner members being foldable upon inner sides of the end walls when the box is erected, the diagonal folding lines of said corner members extending downwardly from the ends of the upper edges of the side walls, the end walls having tucking flaps at their bottom edges adapted to be inserted between the bottom and the folded corner members, and transverse partition members hingedly connected at their ends to the upper edges of the side walls.

KENNETH T. BUTTERY.

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