Dec. 27, 1927. 1,653,914

A. E. KEPPLER

CARTON

Filed Nov. 9, 1926 2 Sheets-Sheet 1

Fig. 1.

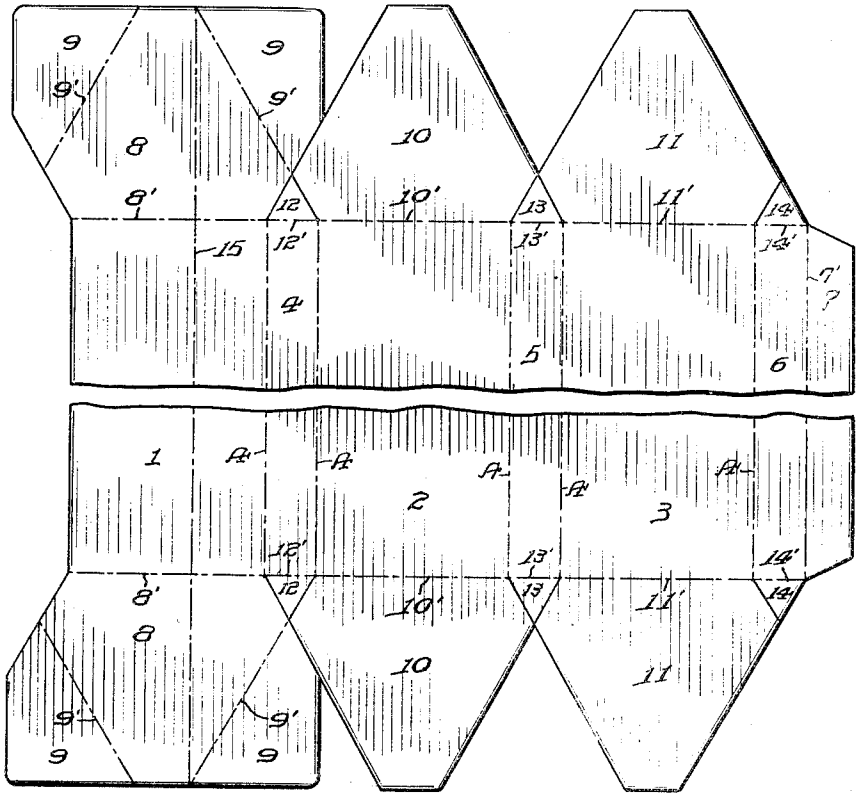
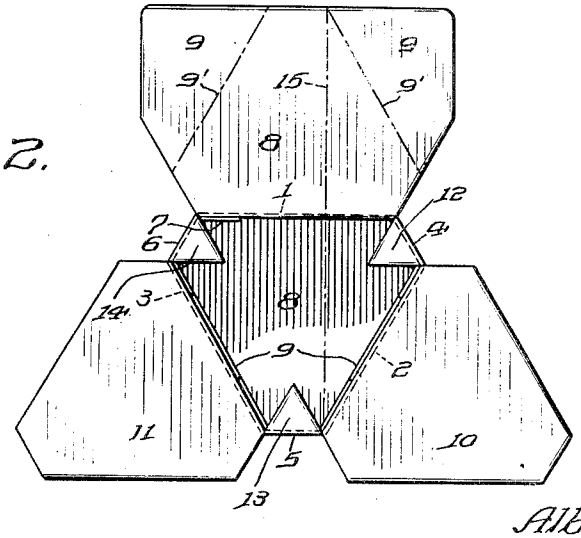


Fig. 2.



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Fig. 3.

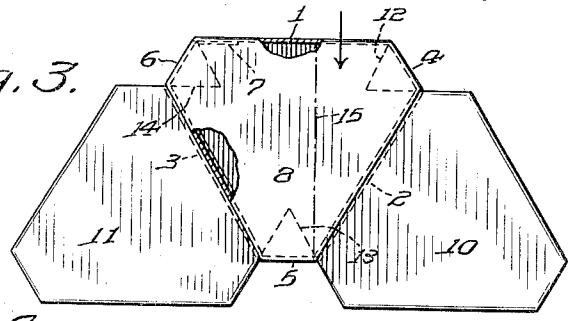


Fig. 4.

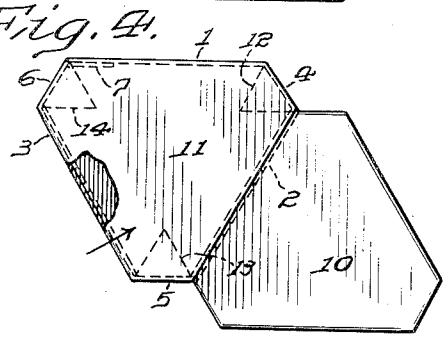


Fig. 5.

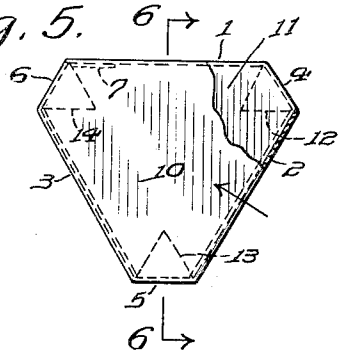


Fig. 7.

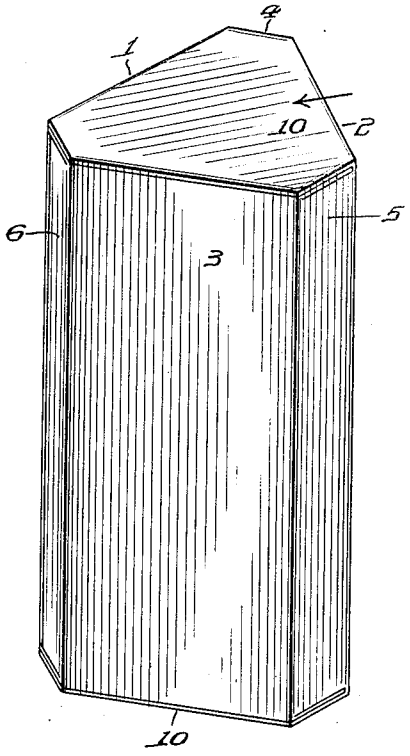
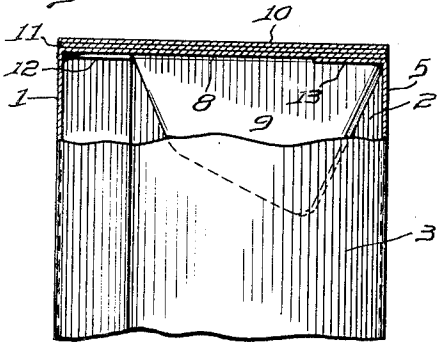


Fig. 6.



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Patented Dec. 27, 1927. 1,653,914

UNITED STATES PATENT OFFICE.

ALBERT E. KEPPLER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO BROWN & BAILEY COMPANY, A CORPORATION OF PENNSYLVANIA.

CARTON.

Application filed November 9, 1926. Serial No. 147,214.

My invention relates to cartons.

A principal object of my invention is to provide a carton which may be constructed of a unitary piece of suitable material, such as cardboard, the blank being made by a suitable die and the parts of which may be folded into proper relation to form the completed carton.

A further object is to provide a foldable carton made from cardboard or other like material polygonal in cross section and adapted to contain a bottle or other container of similar cross section.

A further object is to provide a carton, formed from a cardboard blank, hexagonal in cross section and having means for preventing the end closures from entering the carton during the sealing operation.

A further object is to provide a hexagonal carton in which one of the side panels is longitudinal scored so as to permit the carton to be shipped in a flat, knockdown condition with a consequent lessening of bulk.

A further object is to provide a hexagonal cardboard carton having reinforced end closures which contribute to its stability and rigidity.

The invention further includes all of the various objects and novel features of construction and arrangement hereinafter more definitely specified and described.

In the accompanying drawings, in which like numerals designate like parts in the different figures, Fig. 1 is a plan view of the blank forming my new carton before the same is folded; Fig. 2 is a view of an end of the carton before it is closed; Fig. 3 is a view, partly broken away, similar to Fig. 2 with one of the three end closures folded into position; Fig. 4 is a view, partly broken away, similar to Fig. 2 with two of the end closures folded into position; Fig. 5 is a view, partly broken away, similar to Fig. 2 with all three of the closures folded into position; Fig. 6 is a section on the line 6—6 of Fig. 5 and Fig. 7 is a perspective view of the completed carton. The points at which the blank is cut entirely through are indicated in full lines and those at which it is scored to facilitate the folding operation are indicated in dot and dash lines. The blank is formed from a unit of cardboard or other suitable material by a die, the shape of the blank being shown in Fig. 1.

The carton comprises major or wide side panels 1, 2 and 3 and minor or narrow side panels 4, 5 and 6. A tab 7 extends from the panel 6 and is adapted to be folded about the score 7′, when the carton is being formed, and secured to the inner surface of the panel 1 along its free edge, preferably by an adhesive. The blank is scored between the panels as shown at A, the panels being bendable or foldable about the scores A to form the completed carton. On each end of the panel 1 are end flaps 8—8 which are adapted to be folded about the scores 8′—8′ to form the inner layers of the end closures. Extending from the end flaps 8—8 are ears or tucks 9—9, 9—9 which are adapted to be folded about the scores 9′—9′, 9′—9′ and inserted into the carton as it is being formed. These ear members or tucks 9—9, by reason of their frictional engagement with the inner surfaces of the panels 2 and 3 provide means for maintaining the stability and rigidity of the completed carton. On each end of the panel 2 and on each end of the panel 3 are end flaps 10—10 and 11—11 respectively; the end flaps 11—11 are adapted to be folded about the scores 11′—11′ to rest upon the end flaps 8—8 and the end flaps 10—10 are adapted to be folded about the scores 10′—10′ to rest upon the end flaps 11—11 to which they are secured in any suitable manner, preferably by an adhesive.

On each end of the minor panels 4, 5 and 6 are triangular members 12—12, 13—13 and 14—14, respectively, which are formed by the forming of the closure flaps 8, 10 and 11 and which are adapted to be folded inwardly about the scores 12′—12′, 13′—13′ and 14′—14′ into positions substantially at right angles to the sides of the carton. These triangular members thus folded or bent provide means for preventing, primarily, the end flaps 8—8 and, secondarily, the end flaps 10—10 and 11—11 resting thereupon, from entering or being pressed inwardly within the carton during the packing and sealing or closing of the carton and its contents for shipment whereby the speed of the packing is accelerated and accidental mutilation of the carton during the packing is avoided. By my device the necessity, otherwise, is avoided for the packer to pull out the end closures, which may have entered the interior of the carton, in order to form a proper and stable closure with the three end flaps lying in parallel arrangement. These tri-

angular members thus provide stops or checks against the end closures during the sealing operation entering the interior of the carton and also maintain the end closures in their desired positions substantially at right angles to the sides of the carton.

In using the carton commercially the blanks are shipped flat by the manufacturer to the consumer, who, after folding them into a carton and closing one end, places within the carton the article of merchandise, such as a bottle of perfume or tooth wash, the bottle being of polygonal design conforming to the shape of the carton and upon sealing the other end of the carton the package is ready for shipment or sale. I have found that by scoring the panel 1 and the end flaps 8—8 along the line 15, the blanks may be conveniently and advantageously folded for shipment in a flat knockdown condition, the blank being folded about the score between the panels 3 and 5 and about the score 15 and thus shipped. Without providing the score 15, while the blank may still be folded, its bulk is greater and the end flaps are more exposed so that its frailty is considerably greater with added possibility of damage in packing and shipping.

While I have herein described with considerable particularity a preferred embodiment of my invention I do not thereby desire or intend to specifically limit myself to the precise details of construction and arrangement of parts to which I have referred as the same may be modified and varied in minor particulars from the forms shown in the drawings and herein described, without departing from the spirit and scope of the invention as defined in the appended claims.

Having thus described my invention, I claim and desire to protect by Letters Patent of the United States:

1. An integral blank of foldable material for forming a carton comprising a body portion having three wide panels and three narrow panels in alternate arrangement, scores between the panels about which they may be folded, a tab extending from one of the end panels, flaps extending from each end of said wide panels which form closures for the ends of the carton, triangular members extending from each end of said narrow panels and formed by the forming of the closure flaps and adapted to be folded to form stops whereby said flaps are prevented from entering the carton and ears extending from the flaps at each end of one of said wide panels and adapted to be folded and inserted within the carton.

2. An integral blank of foldable material for forming a carton comprising a body portion having three wide panels and three narrow panels in alternate arrangement, scores between the panels about which they may be folded, a tab extending from one of the end panels, flaps extending from each end of said wide panels which form closures for the ends of the carton, triangular members extending from each end of said narrow panels and formed by the forming of the closure flaps and adapted to be folded to form stops whereby said flaps are prevented from entering the carton, ears extending from the flaps at each end of one of said wide panels and adapted to be folded and inserted within the carton and a score extending longitudinally of one of said wide panels and the flaps extending from the ends thereof.

3. An integral blank of foldable material for forming a carton, comprising a body portion having three wide panels and three narrow panels in alternate arrangement, closure flaps extending from each end of said wide panels and forming end closures for the ends of the carton, and triangular members extending from each end of said narrow panels and formed by the forming of said closure flaps and adapted to be folded to form stops whereby said closure flaps are prevented from entering the carton.

In witness whereof I have hereunto set my hand this eighth day of November, 1926.

ALBERT E. KEPPLER.