

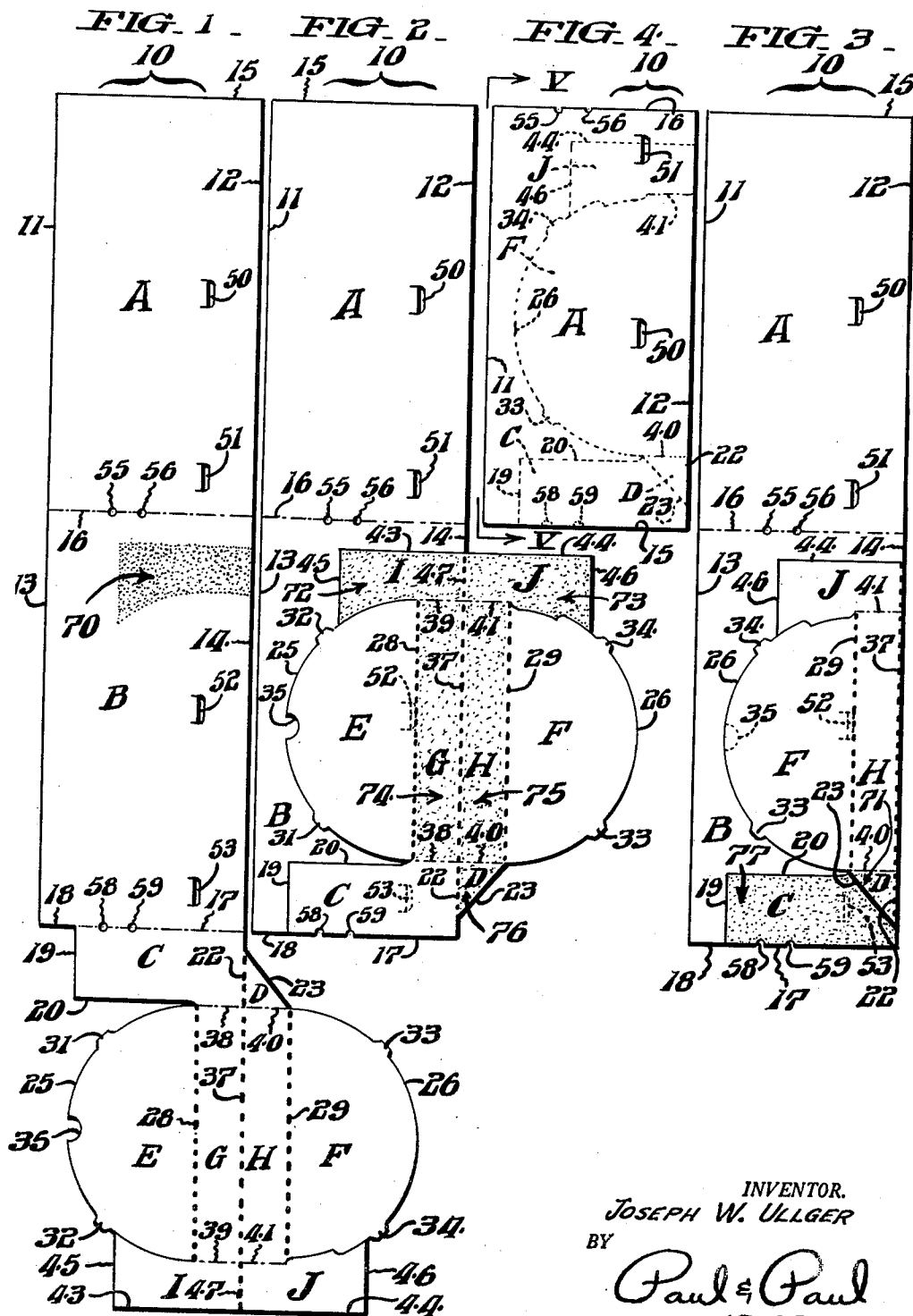
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ARTICLE CONTAINER

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2 Sheets-Sheet 1

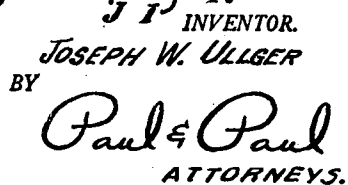


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ARTICLE CONTAINER

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This invention relates to article containers and to blanks therefor. More particularly, this invention relates to article containers and blanks therefor which containers are adapted to storage in a flat collapsed form and to erection for use when needed.

It is an object of this invention to provide an article container and a blank therefor having a convenient round shape which yet may be easily formed from a paper board blank and maintained in the collapsed state prior to use.

It is another object of this invention to provide a container which may be indefinitely stored in a conveniently minimal volume of storage space.

It is another object of this invention to provide a container which may be easily and quickly erected from the collapsed state thereof for use as a container without the use of additional fasteners such as snaps, glue, staples or the like.

It is another object of this invention to provide an article container and blank therefor which incorporates reinforcing means at the bottom thereof whereby both strength and dependability are imparted thereto.

Other objects and attendant advantages of the invention will appear hereinafter and from the drawings wherein:

FIG. 1 is a plan view of a foldable blank for a hat box as provided in accordance with this invention;

FIG. 2 is a view of the hat box blank having been partially folded;

FIG. 3 is a view of the hat box blank after a second folding;

FIG. 4 is a view of the hat box blank after a third and final folding;

FIG. 5 is a view of the folded blank taken as indicated by the lines and arrows V—V in FIG. 4;

FIG. 6 is a top plan view of a hat box erected from the collapsed blank of FIGS. 4 and 5;

FIG. 7 is a view in side elevation of the erected hat box;

FIG. 8 is a view of the erected hat box taken as indicated by the lines and arrows VIII—VIII of FIG. 7;

FIG. 9 is a view in perspective of the erected hat box with a top cover placed thereon, said top cover being partly broken away to show the interior of the box;

FIG. 10 is a second view in perspective of the hat box and top cover thereof, as provided in accordance with this invention.

The following description is directed to the specific form and embodiment of the invention illustrated in the drawings and is not intended to limit the scope of the invention itself which may be practiced in a wide variety of forms and arrangements.

Adverting herewith to the specific form of the invention illustrated in the drawings, a blank 10, of which the inner face is shown in FIG. 1, is formed of an elongated paperboard body which comprises a side wall area including side wall portions A and B, a fold portion C including fold portions C and D, a bottom area including bottom portions E and F and reinforcing strip portions G and H and an end tab area including end tab portions I and J. Side wall portions A and B are bounded laterally by edges 11, 12 and 13, 14 respectively. Longi-

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tudinally, the side wall portion A is bounded by a terminal edge 15 which is also the terminal longitudinal edge of the blank 10 and, on the other longitudinal side thereof, by a transverse score or crease line 16 which is also a longitudinal boundary of side wall portion B. At the opposite end thereof, side wall portion B is bounded by fold portion C which is divided from the aforesaid side wall portion by a transverse score or crease line 17. Side wall portion B is further bounded longitudinally by an edge 18 which is on a line extended from score line 17. Fold portion C is also further bounded by a terminal edge 19 laterally thereof and a terminal edge 20 longitudinally thereof. As may be seen in FIG. 1, fold portion D is of generally triangular shape and disposed laterally of fold portion C, being divided therefrom by a longitudinal perforated score line 22 and having an oblique terminal edge 23. Bottom portions E and F are laterally bounded by semicircular edges 25 and 26, respectively, and are also respectively divided from reinforcing strip portions G and H by longitudinal perforated score lines 28 and 29. Respectively formed in the semicircular boundary edges 25 and 26 are projecting tab portions 31 and 32 and 33 and 34. In addition, a hemispherical indentation 35 is formed in the semicircular boundary edge 25 of the bottom portion E. Reinforcing strip portions G and H are separated by a longitudinal perforated score line 37 and are bounded longitudinally by transverse score lines 38 and 39 and 40 and 41, respectively. The score line 38 divides fold portion C from reinforcing strip portion G and the score line 40 divides fold portion D from the reinforcing strip portion H. At the extreme longitudinal end of the blank 10, end tab portions I and J are respectively bounded by terminal edges 43 and 44. End tab portions I and J are further bounded laterally by edges 45 and 46 and are divided by a longitudinal perforated score line 47.

Formed in the body of side wall portion A are generally rectangular spaces 50 and 51 for the reception of locking tabs, the function of which is to be explained more fully hereinafter. Likewise, rectangular spaces 52 and 53 are formed in the body of side wall portion B.

Relatively small circular openings 55 and 56 are formed at the boundary of side wall portions A and B, having their centers on the score line 16. Similarly, circular openings 58 and 59 are formed at the boundary of side wall portion B and fold portion C having their centers on score line 17. The purpose and function of the aforesaid circular openings will be explained more fully hereinafter.

As may be seen in FIGS. 6, 7, 8, 9 and 10, the side wall portions A and B comprise the circular wall of the container in its erect state and the bottom portions E and F form the bottom thereof. As may best be seen in FIGS. 7, 8 and 10, reinforcing strips G and H form a reinforcing ridge 61 across the center of the bottom of the container.

Ordinarily, a hat box as provided in accordance with this invention is provided with a top cover or lid 62 having a circular top surface 63 and a circular side surface 64 which fits over the top of the box so that the side surface 64 of the lid lies adjacent to the side walls A and B and overlaps the top edges 11 and 13 thereof.

As may be seen in FIGS. 9 and 10, a cord 65 is provided for the retention of the top cover 62 to the side walls A and B.

The shaded areas 70 and 71 on the inner face of the blank 10 as seen in FIGS. 1 and 3 and the shaded areas 72, 73, 74, 75, 76 and 77 on the outer face of the blank 10 as seen in FIGS. 2 and 3 are provided for the application of adhesive to the blank in a manner and for a purpose which will become more fully apparent hereinafter.

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A collapsed flat container for hats and the like is formed from the blank 10 in successive stages as follows:

Firstly, adhesive is applied to the area 70 on the inner face of the blank 10 and subsequently, the blank 10 is folded along the score line 17 so that fold areas C and D, reinforcing strip portions G and H, bottom portions E and F and end tab portions I and J are brought above the score line 17 as seen in FIG. 2. When the blank 10 has been folded as aforescribed, the perforated score line 37 becomes coincident with a part of the length of the edge 14 of the side wall portion B and the inner faces of fold portion C, end tab portion I, reinforcing strip portion G and bottom portion E are adjacent and abut the inner face of side wall area B. Adhesive is now applied to the shaded areas 72, 73, 74, 75 and 76 of the outer face of the blank as shown in FIG. 2.

Secondly, the blank 10 is again folded along the perforated longitudinal score line 37 so that the terminal edges 44 and 46 of end tab portion J become coincident respectively with the terminal edges 43 and 45 of end tab portion I, so that the score line 29 becomes coincident with the score line 28, so that the semicircular boundary edge 26 becomes coincident with the semi-circular boundary edge 25 and so the projecting tab portions 33 and 34 are respectively superposed upon projecting tab portions 31 and 32. When the blank 10 has been so folded, the outer face of end tab portion J is adjacent and abuts the outer face of end tab portion I, the outer face of bottom portion F is adjacent and abuts the outer face of bottom portion E and the outer face of reinforcing strip portion H is adjacent and abuts the outer face of reinforcing strip portion G. It will be seen from FIG. 3 that the outer face of fold portion D likewise is adjacent and abuts a portion of the outer face of fold portion C. Adhesive is now again applied to the blank 10 on the shaded areas 71 and 77 which are respectively the inner and outer faces of fold portions D and C.

Thirdly, the blank is again folded along the score line 16 so that the terminal edges 11, 12 and 15 of side wall area A become respectively coincident with the terminal edges 13 and 14 and the bounding score line 17 of side wall area B. When the blank 10 has been thus folded, the inner faces of fold portion D, of end tab portion J, of reinforcing strip portion H and bottom portion F are adjacent and abut the inner face of side wall area A. Likewise, the outer face of fold portion C is adjacent and abuts the inner face of side wall area A. It will be evident that the aforesaid opposing faces are caused to adhere by reason of the adhesive applied to the areas 71 and 77. As may be seen in FIG. 4, the circular openings 55 and 56 and the circular openings 58 and 59 are disposed at opposite longitudinal ends of the folded blank.

The blank as thus folded and glued forms a collapsed, flat container which may be stored in that state and is ready for final erection at any time it is desired to use the container. When the adhesive used to secure the various parts of the folded blank has thoroughly dried, the flat, collapsed container formed thereby may be erected as follows:

Firstly, the collapsed container is grasped at the opposite longitudinal edges 15 and 16 thereof, as seen in FIG. 4, so that edges 11 and 13 of the side walls A and B respectively are upward and so that the edges 12 and 14 of side walls A and B respectively are downward. When viewed in this position, the container appears as shown in FIG. 5. Pressure is applied manually to the opposite longitudinal edges 15 and 16 of the container to force the walls A and B outward until a generally circular configuration is formed by the walls A and B.

Secondly, bottom portion E is folded along the score line 28 so that the semicircular boundary edge 25 abuts the semicircular wall B and, likewise, the bottom portion F is folded along the score line 29 so that the semi-

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circular boundary edge 26 abuts the semicircular wall A. The edges 25 and 26 of bottom portions E and F are forced downward until both bottom portions E and F lie in the same plane and so that projecting tabs 31 and 32 of bottom portion E enter the rectangular slots 53 and 52 respectively, in the wall B and so that the projecting tabs 33 and 34 of bottom portion F respectively enter the rectangular slots 51 and 50 of wall A. In the position described, the bottom portions E and F lie in a plane which is perpendicular to the walls A and B of the container. As may best be seen in FIG. 10, when the container has been erected as aforescribed, the bottom portions E and F lie above the lower edges 12 and 14 of the walls A and B respectively, thereby providing a space at the base of the container, across which there extends the reinforcing strip 61 which comprises a double thickness of paperboard, or the like, formed by the adjacent glued reinforcing strip portions G and H of the blank. Should it be desired to collapse the container again, the semicircular indentation 35 in the boundary edge 25 of the bottom portion E may be conveniently used as a finger hold.

As may be seen in FIG. 9 and FIG. 10, the top cover 62 is secured to the erected box by means of a cord 65 which is threaded through the circular openings 58 and 59 of the one side of the container and through openings 55 and 56 of the opposite side thereof, and may be conveniently tied or fastened above the top surface 63 of the lid 62.

Although this invention has been described with reference to specific forms and embodiments thereof, it will be evident that a great number of variations may be made without departing from the spirit and the scope of this invention. For example, parts may be reversed, equivalent elements may be substituted for those specifically disclosed, and certain features of the invention may be used independently of other features, all without departing from the spirit and scope of this invention as defined in the appended claims.

Having thus described my invention, I claim:

1. A blank for an article container comprising a generally elongated paperboard body having a side wall area, a fold portion area, a bottom area and an end tab area, said areas being integrally connected and disposed successively along said blank longitudinally thereof, said areas being divided by transverse score lines disposed serially across said blank, said side wall areas including a pair of side wall portions separated by a score line, each of said side wall portions having a plurality of longitudinally spaced slots disposed therein, said bottom area including a pair of bottom portions and a pair of reinforcing strip portions, said bottom and reinforcing strip portions being divided by at least three score lines extending longitudinally of said bottom area, said bottom areas having arcuate lateral bounds, said bounds having a plurality of projecting tabs extending outwardly therefrom, said projecting tabs having a diameter approximately equal to or less than the longitudinal diameter of said slots of said side wall portions.

2. The blank defined in claim 1 wherein said fold portion area includes a pair of fold portions divided by a longitudinally extending score line, one of said fold portions having a generally rectangular shape and the other of said fold portions having a generally triangular shape.

3. The blank defined in claim 2 wherein said reinforcing strip area includes a pair of fold portions divided by a longitudinally extending score line, said reinforcing strip portions each being bounded laterally by a bottom portion.

4. The blank defined in claim 3 wherein said end tab area includes a pair of irregularly shaped end tab portions divided by a longitudinally extending score line, each of said end tab portions being integrally connected to a reinforcing strip portion.

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5. The blank defined in claim 4 wherein each of said longitudinally extending score lines is a perforated score line.

6. The blank defined in claim 5 wherein a plurality of circular holes are formed at the boundary between said side wall portions and wherein a plurality of circular openings are formed at the boundary between one of said side wall portions and said fold portion area.

7. An article container comprising a circular wall, a discrete circular bottom contained within said wall, reinforcing means disposed beneath said bottom and integrally connected thereto, an end tab area integral with said reinforcing means at one end thereof, a fold area integral with said reinforcing means at an opposite end thereof, said reinforcing means extending between opposing parts of said wall and being integrally connected to said wall at one end thereof by said fold area and a fold line, said reinforcing means being connected to said wall at the opposite end thereof by said tab area, and means on the periphery of said bottom for securing said bottom to said wall at spaced intervals.

8. The container defined in claim 7 wherein said means for securing said bottom to said wall comprises circumferentially extending slots formed in said wall and projecting tabs adapted to fit into said slots formed on the periphery of said bottom.

9. The container defined in claim 8 wherein said fold area and said end tab are adhesively secured to said wall.

10. The container defined in claim 7 wherein said bottom is spaced away from the base of said container and wherein said reinforcing means comprises a relatively rigid strip of paperboard material having about twice the thickness of said wall and extending from said bottom to the base of said wall.

11. The container defined in claim 10 wherein said reinforcing strip comprises two strips of paperboard ma-

terial adhesively secured together and extending in a plane perpendicular to the plane of said bottom.

12. The container defined in claim 11 wherein said container further comprises a lid adapted to fit the top of said container and wherein means are provided for securing said lid thereto.

13. The container defined in claim 12 wherein a plurality of openings are provided in opposite parts of said wall adapted to receive said lid securing means.

14. The claim defined in claim 11 wherein said lid securing means comprises a cord threaded through said openings in said wall.

15. An article container comprising a circular wall, a discrete bottom disposed within said wall and spaced from a bottom edge of said wall, reinforcing means disposed beneath said bottom and integrally connected thereto, a fold area, said reinforcing means being integrally connected to one end of said fold area, the other end of said fold area being integrally connected to said wall at a fold line, means for releasably interconnecting a periphery of said bottom to said wall at spaced intervals, and said wall, fold area and reinforcing means being an integral one piece member.

16. A container in accordance with claim 15 wherein said bottom includes two semi-circular portions, each semi-circular portion being interconnected with said reinforcing means by a fold line enabling said semi-circular portions to be folded to a disposition so that they may lie in substantially parallel planes.

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