Dec. 18, 1951 S. P. BELSINGER 2,578,774

HEAVY-DUTY FIBER CONTAINER

Filed Aug. 10, 1948 2 SHEETS—SHEET 1

FIG. 1

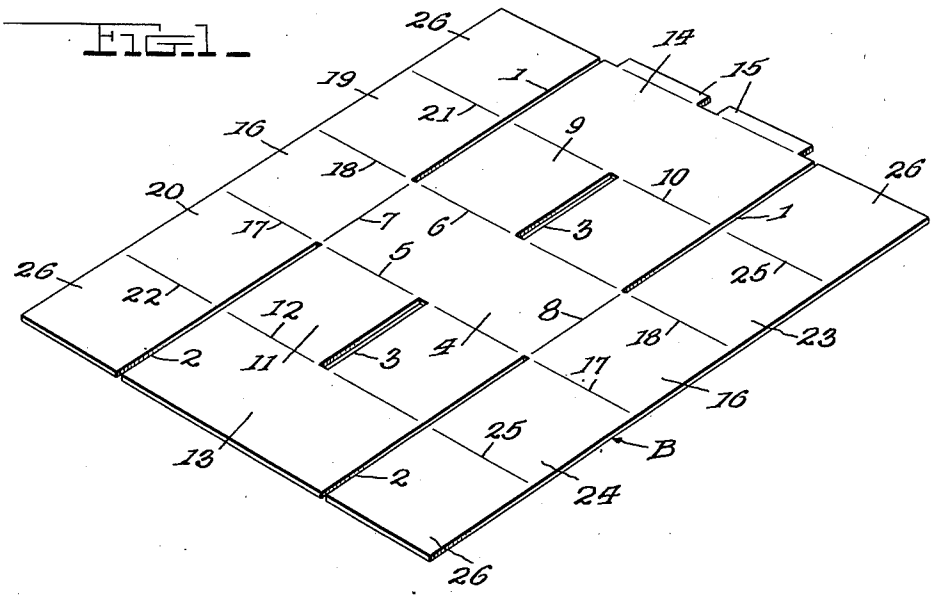
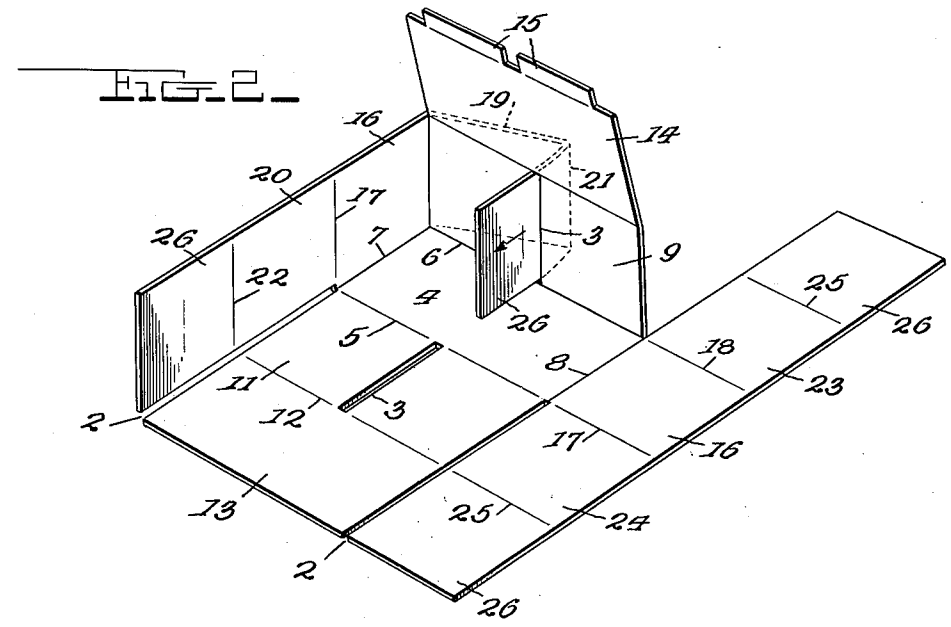


FIG. 2



INVENTOR.
Samuel P. Belsinger,
BY
Mason, Porter, Diller & Stewart
Attys.

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FIG. 3

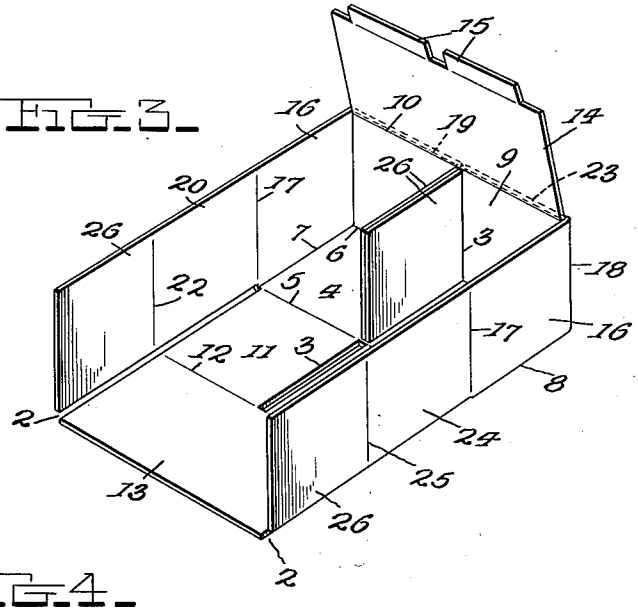


FIG. 4

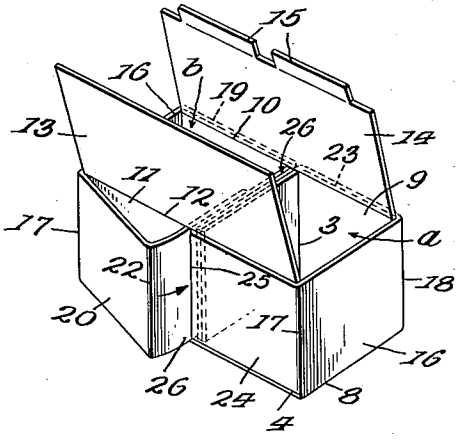


FIG. 6

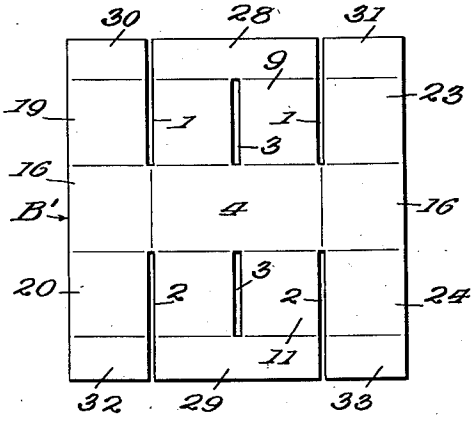
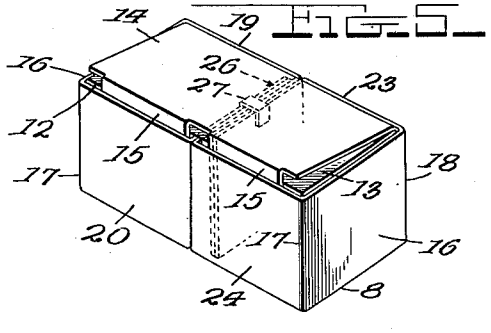


FIG. 5



INVENTOR.
Samuel P. Belsinger,
BY
Mason, Porter, Diller & Stewart
attys.

Patented Dec. 18, 1951 2,578,774

UNITED STATES PATENT OFFICE

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HEAVY-DUTY FIBER CONTAINER

Samuel P. Belsinger, Atlanta, Ga., assignor to Belsinger, Inc., Atlanta, Ga., a corporation of Georgia

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1 Claim. (Cl. 229—27)

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The invention relates to new and useful improvements in a foldable fiber container which is especially adapted for heavy duty work such as crating eggs, oranges and the like.

The object of the invention is to provide a heavy duty container which may be made from a single rectangular blank by slitting as distinguished from die cutting and shaping.

A further object of the invention is to provide a heavy duty container of the above type wherein the body is divided into cells by a partition disposed intermediate the ends thereof and wherein the walls of the partition are formed integral with side wall sections and extend from the bottom to the top of the container.

A still further object of the invention is to provide a container of the above type wherein the side walls are provided with slits extending from the bottom to the top and wherein the partition walls are inserted through the slits and assembled into a single partition unit.

These and other objects will in part be obvious and will in part be hereinafter more fully disclosed.

In the drawings:

Figure 1 is a perspective view of a body blank which has been slit so that a container may be formed therefrom by the folding and assembling of the members produced by the slitting of the blank;

Figure 2 is a perspective view showing the blank folded so as to form one side and one end and also showing the partition wall inserted part way through a slot formed by slitting the side wall;

Figure 3 is a perspective view showing the other end wall as folded to position and the second partition wall inserted through the same slot in the side wall;

Figure 4 is a view showing in perspective the side sections folded to position with one of the partition walls fully placed and the other partly placed;

Figure 5 is a perspective view of the completed fiber container;

Figure 6 is a plan view of a body blank showing a slightly modified form of blank which when folded results in partition sections extending half way across the body and cover sections likewise extending half way across the body.

The invention has to do with a heavy duty fiber container which is made from a single blank, preferably of corrugated board. The blank is slit along parallel lines so as to provide side walls which are integral with the bottom of the container, and top sections which are integral with

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the side walls. These slits also provide end walls which are integral with the bottom, side sections projecting laterally from the end sections and there are partition sections which are integral with the side sections. The side walls are also slit intermediate their ends so as to provide slots extending the full height of the side walls. The blank thus formed may be shipped to the user and may be quickly assembled into a heavy duty container by merely folding the blank so as to position the side walls, the end walls, the side wall sections and the inserting of the partition walls through the slots in the side walls.

Referring more in detail to the drawings, the blank from which the heavy duty container is formed is indicated at B. Said blank is rectangular in shape. The blank is slit at one end thereof along lines 1—1, which are parallel to each other. It is also slit at the other end thereof along the lines 2—2, which are likewise parallel with each other and in alignment with the lines 1—1.

The blank is further slit along lines 3—3 which are in alignment, and which in the final assembly of the blank are disposed intermediate the ends of the side wall members and extend from the top to the bottom thereof. This provides a bottom section 4 which extends laterally from the fold line 5 to the fold line 6 and longitudinally from the fold line 7 to the fold line 8. It is understood that these fold lines may be pressed into the blank to facilitate folding. This slitting of the blank also provides a side wall 9 which extends from the fold line 6 to the fold line 10. The slot 3 formed by slitting the side wall 9 extends the full height of the side wall and from the fold line 6 to the fold line 10.

At the other side of the bottom section 4 is a side wall section 11 which extends from the fold line 5 to the fold line 12. The slot 3 formed by the slitting in this section 11 extends from the fold line 5 to the fold line 12. This slitting of the body blank also forms a top section 13 which extends from the fold line 12 to the end of the blank and also a top section 14 which extends from the fold line 10 to the end of the blank. Along the outer edge of this top section 14 are short holding sections 15—15, which will be referred to later.

The forming of the slits 1—1 and 2—2 also provide end sections 16, 16 at each end of the bottom section 4. These end sections are integral with the bottom section and extend outwardly from the fold lines 7 and 8 respectively. The end sections extend laterally from fold lines 17 at one

side thereof to the fold lines 18 at the other side thereof. This slitting of the blank along the lines 1 and 2 also provide half side sections 19 and 20 respectively.

The section 19 extends from the fold line 18 to the fold line 21 and lies between the extreme side of the blank and the slit 1. The half side section 20 extends from the fold line 17 to the fold line 22, and it is bounded on the sides by the slit 2 on the one hand and the side of the blank on the other. There are similar half side wall sections 23 and 24 formed integral with the end section 16 at the opposite ends of the bottom. These half side sections extend from the fold lines 17 and 18 respectively to the fold lines 25—25. These half side sections are bounded on one side by the slits 1 and 2 respectively and on the other side by the side of the body blank. Each half side wall section is provided with an integral partition wall 26.

In Figure 2 of the drawing the body blank is shown as being folded so as to place the side wall 9 in proper position and the end wall 16 in proper position. The half side wall section 19 is folded onto the outer face of the side wall section 9, and the partition wall 26 carried thereby shown as partially inserted through the slot 3 in the side wall 9. It will be noted that this partition 26 extends from the bottom 4 to the top of the side wall 9 so that when the cover section 14 is folded down to close the container it will contact with the upper edge of the partition 26.

In Figure 3 the other end 16 has been folded to position, the half side wall 23 has been folded along the outside of the side wall 9 and the partition wall 26 carried thereby is inserted through the slot 3, two partition walls 26—26 are placed side by side, as shown in this figure, and extend all the way across the bottom 4.

In Figure 4, the main side wall 11 has been folded to position, the half side section has also been folded to position, and the section of the partition wall 26 carried thereby is inserted through the slot 3 in the side wall 11 and placed alongside the partition walls 26—26 which were inserted through the slot in the opposite side wall of the container. Half side section 20 has also been folded along the outside of the wall 11 and the partition wall section 26 carried thereby has been inserted part way into the slot 3.

In Figure 5 the container is shown as completed with one of the top sections of the cover folded down into position and the other partially positioned with the sections 15—15 disposed so that they may be forced between the half side wall sections 20, 24 and the full wall section 11. This will aid in holding the cover sections in place and give additional strength to the container. The four walls of the partition as shown in Figure 5 extend all the way across the body and divide it into two cells, one of which is indicated at *a* and the other at *b*. These cells are separated by the four wall partition which extends all the way from the bottom of the container to the top thereof. When the cover sections 13 and 14 are folded down they will rest on the partition walls and thus be supported. These cover sections are also formed integral with the main side sections 9 and 11, and together with the partitions the cover sections are supported so that one heavy duty container, after it is packed, can be stored by placing it on top of another.

The partitions, after they are placed, may be held together by a section of adhesive tape indicated at 27, or any other suitable means can be employed.

In the container shown in Figures 1 to 5, the sides thereof are of double thickness and the covers of double thickness. A liner may be inserted, if desired, which extends along the bottom of the container and upwardly along the end walls, thus producing double end walls and a double bottom. This makes a very durable and heavy duty container which is simple in construction, and is made from a rectangular blank merely by slitting the blank as distinguished from die shaping. The container may be readily assembled by the user by merely folding the blank along the fold lines impressed therein, and, when the parts are in proper position, there is no stitching necessary in order to complete the structure ready for use.

In Figure 6 the body blank B' is shown as rectangular in shape. It is provided with the similar slits 1—1 and 2—2, as described in connection with the body blank shown in Figure 1. The blank is also provided with the slits 3—3. The bottom, end sections and half side sections are all similar to the ones described above in connection with Figure 1, and like numerals have been placed thereon.

In this figure, the cover section 28 formed integral with the side wall section 9 and also the cover section 29 formed integral with the side wall section 11 are cut from a blank so that these cover sections are only half the width of the container, and, when folded down onto the partition walls, the free edges of the cover sections will abut. The partition section 30 carried by the half side section 19 is only half the width of the container, and when inserted through the slot 3 will extend only half way across the body of the container. The partition sections 31, 32 and 33 are likewise of a length so as to extend only half way across the body of the container. The two partition sections 30 and 31 lie alongside of each other and likewise the partition sections 32 and 33 will lie alongside of each other, and these partition sections thus assembled have their edges abutted and meeting in the center of the body. Preferably taping is applied to hold the sections in alignment. Other means may be used. In this form of container the partitions are of two thicknesses but extend all the way from the bottom to the top of the side walls, and thus the cover sections when turned to closed position will rest on the partition and be supported thereby.

From the above it will be noted that a very simple form of heavy duty container is provided which may be formed from a flat rectangular blank simply by slitting the blank as distinguished from die shaping. The blank may be shipped in the flat and the user can readily fold the blank along the fold lines impressed therein, the partition walls inserted through the slots in the side walls and thus the container assembled ready for use.

It is obvious that minor changes in the details of construction may be made without departing from the spirit of the invention set forth in the appended claim.

I claim:

A foldable heavy duty fiber container formed from a substantially rectangular blank, said blank being scored and slit so as to provide, when assembled for use, a bottom wall, side walls integral therewith and extending upwardly at right angles thereto, a cover member having the length and width of the container integral with each side wall

and adapted to fold one on the other when closed, said side walls having slots located midway between the ends of the container and extending from the bottom wall upwardly to the top of the side walls, end walls formed integral with the bottom wall and extending upwardly therefrom at right angles to the bottom wall, said end walls being of substantially the same width as the bottom wall, half side walls formed integral with the sides of each end wall and extending along the side walls in close parallel relation therewith to the longitudinal center of the container, and partition members formed integral with each half side wall and adapted to extend through the slots of the side walls, said partition members being dimensioned so as to extend from one side member to the other and from top to bottom of the container, means for securing said partition members together in face contact relation for locking the half side walls in fixed position relative to the side walls of the container and for forming a rigid four ply central partition extending from side to side and from bottom to top of the container for forming two substantially identical cells of equal capacity and for supporting said cover.

SAMUEL P. BELSINGER

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,221,804	Kitt	Apr. 3, 1917
1,630,862	Parks	May 31, 1927
1,815,565	Hill et al.	July 21, 1931
2,235,800	Daly	Mar. 18, 1941
2,237,927	Creek	Apr. 8, 1941
2,284,815	Grimm	June 2, 1942
2,457,291	Wenzel	Dec. 28, 1948

FOREIGN PATENTS

Number	Country	Date
108,330	Australia	Aug. 18, 1939