Sept. 20, 1971 W. H. ENGLE 3,606,134

FOLDED WASTE PAPER CONTAINER

Filed Jan. 15, 1969 2 Sheets-Sheet 1

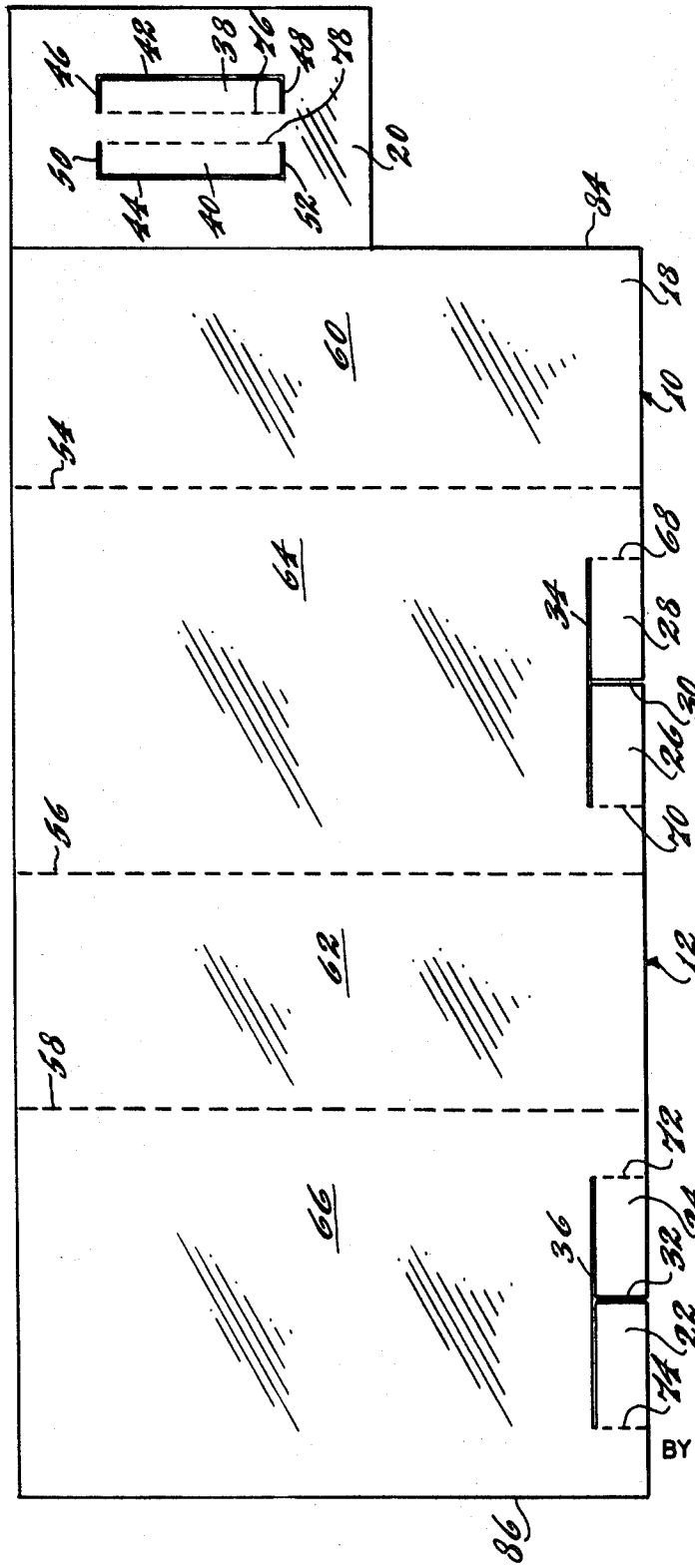


Fig. 1.

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Fig. 2.

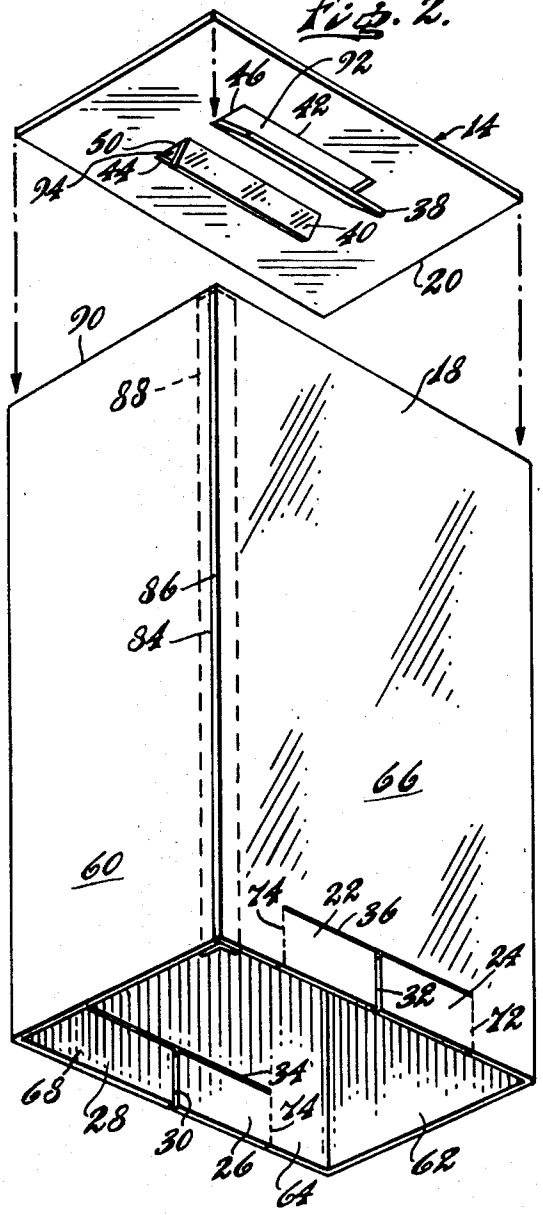


Fig. 3.

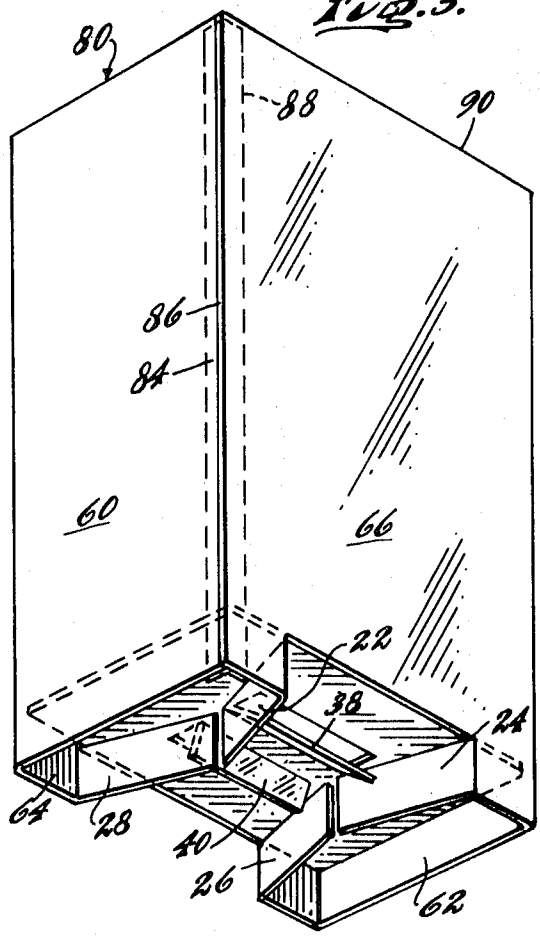


Fig. 4.

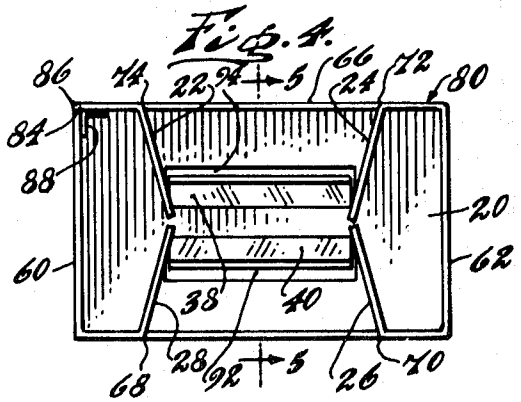
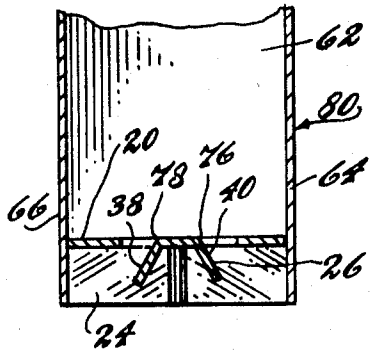


Fig. 5.



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FOLDED WASTE PAPER CONTAINER

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U.S. Cl. 229—23 1 Claim

ABSTRACT OF THE DISCLOSURE

A folded waste paper container which is stamped in two sections from a single blank of corrugated material and so die cut and so scored as to be readily foldable into a rectangular cross-sectional configuration and interlocked to thereby provide a receptacle for waste paper and the like.

This invention relates to the general field of corrugated paper containers, and more particularly is directed to a factory die cut and scored blank which is so designed as to be capable of being easily folded into a container of rectangular cross-sectional configuration.

At the present time, the usual waste paper containers are fabricated of metal, wood, fiber and other materials that may be readily formed to a container configuration for use within business and residential occupancies. The prior art materials may be decorated or undecorated as desired and range in price from a few cents to many dollars depending upon the type of material employed, and the craftsmanship utilized, design considerations and other factors tending to affect the cost of the finished article. Such containers are usually formed in the final configuration thereby causing shipping, storage, handling and related problems due to the bulk of the articles.

The present invention is directed to a low-cost, foldable waste paper container having particular utility in the kitchen of dwellings and apartments. At the present time, most housewives usually employ conventional trash containers or such inexpensive items as the common paper shopping bag for disposal of rubbish and other waste in kitchen areas. Such shopping bags are utilized for this service in view of their availability, easy disposal, and ready replacement. It is common practice to shop for groceries one or more times a week and such groceries are packed for carrying to the home in simple, heavy brown paper bags. It is because these bags are so readily available that they find wide acceptance in the kitchen as a waste disposal bag after the groceries have been unloaded.

The common grocery delivery bag is usually constructed of heavy brown paper of conventional configuration and low manufacturing cost. Such brown paper bags are quite adequate for the service and hold up well when carrying the groceries from the store to the home. Inasmuch as the bags are usually in excellent condition after unpacking inasmuch as they have been used but a single time, further use is then found for them by the housewife in that they then can be employed as waste bags for carrying waste papers and other items to be disposed from the kitchen to the trash disposal area.

The present invention seeks to provide a decorative, inexpensive and strong storage receptacle and one that is capable of containing the usual heavy paper grocery bag in the kitchen when it is desired to use the grocery bag as a waste containing bag.

The present folded waste paper container can be manufactured at extremely low cost and can be so readily and easily assembled in the home that the average householder can easily perform the necessary folding operations to thereby transform a previously factory die cut and scored blank into a sturdy grocery bag receptacle. It is

contemplated that the extremely low cost of manufacture will make such a receptacle suitable for use as a "give-away" item in conjunction with various promotional campaigns. In view of the simplicity of the design, the container blank may be shipped and stored in flat, unfolded position, thereby permitting great economies both in shipping and storing costs which thereby further reduce the final cost of the waste paper container.

It is therefore an object of the present invention to provide an improved folded waste paper container of the type set forth.

It is another object of the present invention to provide a novel folded waste paper container that may be readily manufactured from a single blank sheet of material.

It is a further object of the present invention to provide a novel folded waste paper container that is previously die cut and scored at the factory for ready assembly at the final place of use.

It is another object of the present invention to provide a novel folded waste paper container that is formed from a previously die cut and scored blank which may be readily shipped and stored in flat unfolded condition.

It is another object of the present invention to provide a novel folded waste paper container that is sturdy in construction and lightweight in nature.

It is a further object of the present invention to provide a folded waste paper container that adapts itself to easy home assembly after being die cut and scored at the place of manufacture.

It is another object of the present invention to provide a novel folded waste paper container that is inexpensive in manufacture, simple in construction and trouble-free when in use.

Other objects and a fuller understanding of the invention will be had by referring to the following description and claim of a preferred embodiment thereof, taken in conjunction with the accompanying drawings wherein like reference characters refer to similar parts throughout the several views and in which:

FIG. 1 is a top plan view of the blank sheet in lay-out position.

FIG. 2 is an exploded, perspective view showing the container in the process of being assembled.

FIG. 3 is a bottom perspective view of the assembled container.

FIG. 4 is a bottom plan view of the assembled container of FIG. 3.

FIG. 5 is a partial cross-sectional view taken along line 5—5 of FIG. 4, looking in the direction of the arrows.

Although specific terms are used in the following description for the sake of clarity, these terms are intended to refer only to the particular structure of my invention selected for illustration in the drawings and are not intended to define or limit the scope of the invention.

Referring now to the drawings, I show in FIG. 1 a single blank **10** of heavy, foldable material suitable for die cutting and scoring to permit the bending and folding operations as hereinafter more particularly set forth. Sheet corrugated cardboard of the usual construction weight has been found suitable for this purpose. As shown, the blank **10** is cut into two rectangular sections **12**, **14** in any well-known manner, such as by die cutting to respectively form the vertical sidewall section **18** and the horizontal bottom section **20** of the container **80**. At the same time, the respective bottom supports **22**, **24**, **26** and **28** are provided by die cutting along the lines **30**, **32** and the respectively perpendicularly cut lines **34**, **36**.

Similarly, the bottom locks **38**, **40** of the bottom section **20** are die cut at the same time along the lines **42**, **44** and the respective perpendicular end cuts **46**, **48** and **50**, **52**. As seen in FIG. 1, the vertical sidewall section **18** is scored along the vertical lines **54**, **56**, **58** to define front

panel **66**, rear panel **64** and side panels **62** and **60** thereby define an enclosure when folded as hereinafter more fully set forth. Similarly, the sidewall section **18** is scored along lines **68**, **70** and **72**, **74** to permit ready folding of the bottom supports **22**, **24**, **26**, **28** during the assembly operation. The bottom section **20**, is scored along the lines **76**, **78** for ready folding of the bottom locks **38**, **40** during the assembly operation as hereinafter more fully described.

In the interest of reducing manufacturing costs to the lowest point possible, it is contemplated that all of the die cut lines and all of the scored fold lines hereinbefore described will be accomplished at a single impression of the scoring and cutting apparatus in accordance with well-known manufacturing principles in the industry. Further, it is contemplated that the previously die cut and scored sections **12**, **14** will be shipped and stored in the layout position of FIG. 1 to thereby reduce storing and transportation costs to the minimum. The ultimate user then would receive the two rectangular blank sections **18**, **20** for home assembly as hereinafter described.

In order to assemble the container **80**, the vertical sidewall section **18** is first folded along lines **54**, **56**, **58** to a rectangular configuration **82** with the lateral die cut edges **84**, **86** in vertical, juxtaposed position. A piece of usual paper or cloth tape **88** vertically adheres inwardly to the inside surfaces of the edges of the panels **60**, **66** to thereby close the open edge of the folded sidewall section. The bottom supports **22**, **24**, **26**, **28** fold inwardly along the respective scored lines **68**, **70**, **72**, **74** to receive the bottom section **20** as best seen in FIGS. 3 and 4 and to support the same in horizontal position.

The bottom section **20** slides vertically downwardly through the open top **90** of the container **80** and horizontally bottoms against the folded supports **22**, **24**, **26**, **28** which cooperate to horizontally carry the bottom section **20** thereon to form the floor of the container **80**. The bottom locks **38**, **40** bend downwardly along the previously scored respective fold lines **76**, **78** and thereby serve to lock the bottom supports in folded position as best seen in FIGS. 3 and 4. Thus it is seen that the bottom supports **22**, **24**, **26**, **28** cannot be folded out of contact with the bottom section **20** until the bottom locks **38**, **40** are first horizontally positioned in the same horizontal plane as the bottom section **20**. It should be observed that the locks **38**, **40** bend downwardly with respect to the bottom section **20** to thereby expose a pair of spaced hand holds **92**, **94** which may be readily grasped by the assembler (not shown) as a convenient holding area to urge the bottom section **20** downwardly within the folded vertical sidewall section **18**.

Thus, I have demonstrated an apparatus and method of easily and conveniently providing an extremely inexpensive folded waste paper container that may be readily manufactured in conventional manner from a single blank of heavy corrugated cardboard. It should be noted that the dimensions of the bottom section **20** are precisely formed to coincide with the width and depth of the container **80** when the container rectangular section **12** is folded to its final rectangular configuration **82**.

It is contemplated that the container **80** will find utility in the average kitchen as a waste paper container itself or as a receptacle for the usual heavy brown paper bags presently in common use in most supermarkets and grocery stores. By inserting the paper bag (not shown) within the container **80**, a solid, permanent and free-standing container may thereby be provided as a receptacle for the usual household waste materials. If desired, it is

further contemplated that the exterior surfaces of the container **80** may be inprinted or otherwise covered with a decorative material to thereby provide a pleasant appearing, easily assembled, extremely inexpensive trash receptacle.

Although I have described my invention with a certain degree of particularity, it is understood that the present disclosure has been made only by way of example and that numerous changes in the details of construction and the combination and arrangement of parts may be resorted to without departing from the spirit and scope of the invention as hereinafter claimed.

What is claimed is:

1. In a folded waste paper container of the type capable of being die cut and scored simultaneously from corrugated paper stock, the combination of:

(A) a first rectangular section,

(1) said first section being scored with three spaced fold lines,

(a) said fold lines defining a front panel, a rear panel and two side panels,

(b) said first section being bent about the fold lines to form a container of rectangular configuration,

(.1) a strip of adhesive material affixing said front panel to one of said side panels,

(c) each of said front and rear panels being die cut and scored near the bottoms thereof to define cooperating pairs of supports,

(.1) said supports folding inwardly from the respective front and rear panels to provide four horizontal surfaces angularly positioned within the container; and

(B) a second rectangular section of dimensions to correspond to the cross-sectional dimensions of the said rectangular configuration and forming the floor of the container,

(1) said second section interfitting within the first section and horizontally resting upon the horizontal support surfaces,

(2) said second section being die cut and scored to define a pair of spaced locks, said locks being defined by opposed U-shaped cuts and parallel score lines connecting the ends of the cuts,

(a) said locks bending downwardly from the plane of the second section,

(b) said locks terminating laterally in spaced ends,

(.1) each said end respectively contacting one of said supports,

(.2) the said ends respectively locking the supports in the said angular position to thereby affix the second section in position within the folded first section.

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