June 14, 1960 P. W. MIESSLER, SR 2,940,653

CONTAINER FOR LAMP BULBS OR THE LIKE

Filed Sept. 16, 1957 2 Sheets-Sheet 1

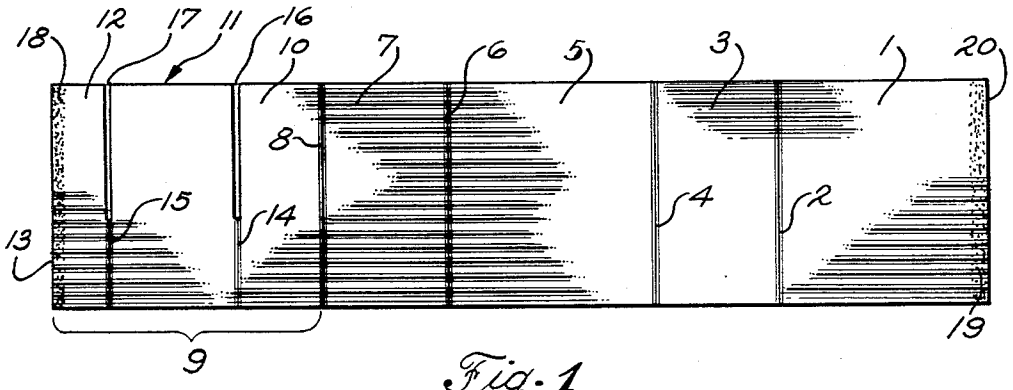

Fig. 1

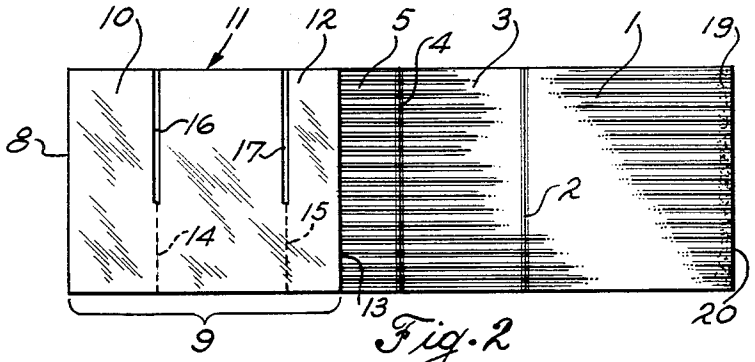

Fig. 2

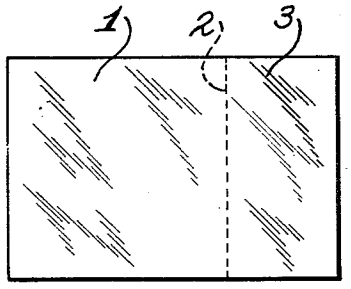

Fig. 3

INVENTOR.
PAUL W. MIESSLER, SR.

BY
Bosworth, Sessions
Herrstrom + Knowles
ATTORNEYS

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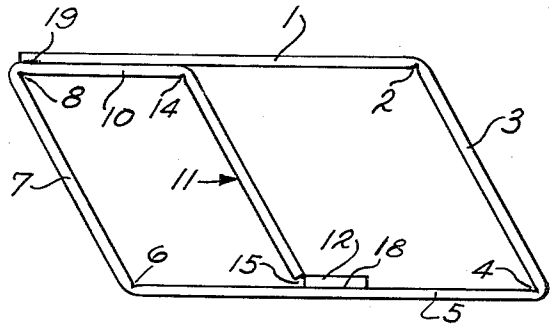

Fig. 4

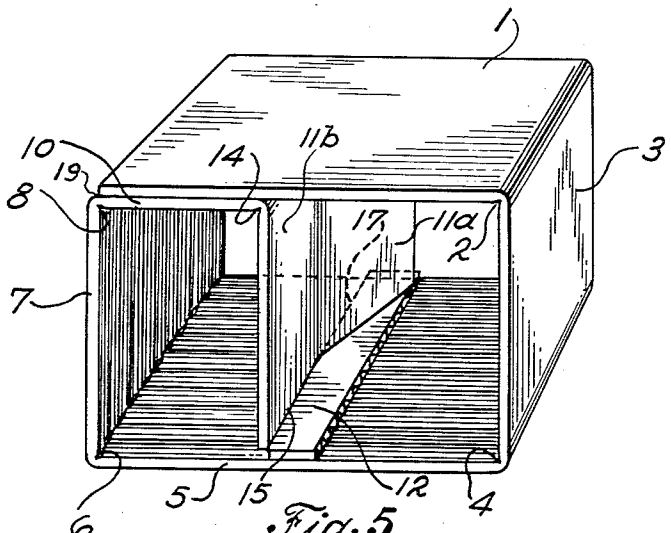

Fig. 5

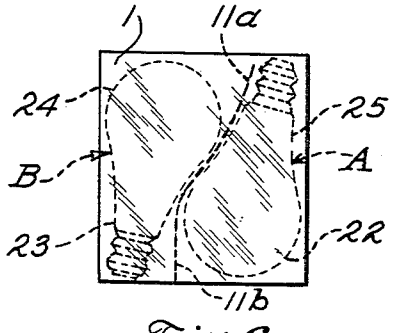

Fig. 6

INVENTOR.
PAUL W. MIESSLER, SR.

BY Bosworth, Sessions, Herstrom & Knowles
ATTORNEYS

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2,940,653

CONTAINER FOR LAMP BULBS OR THE LIKE

Paul W. Miessler, Sr., Berea, Ohio, assignor to The Hankins Container Company, Cleveland, Ohio, a corporation of Ohio

Filed Sept. 16, 1957, Ser. No. 684,084

4 Claims. (Cl. 229—39)

This invention relates to lamp bulb packages and more particularly to an improved collapsible container for holding a pair of incandescent lamp bulbs or the like during storage, shipment, etc.

In my co-pending United States patent application Serial No. 562,772, filed February 1, 1956, now Patent No. 2,825,496, granted March 4, 1958, I have disclosed and claimed an improved collapsible lamp bulb package. Insofar as this present application contains subject matter which may be deemed common to that of my said co-pending application, this application may be considered to be a continuation-in-part of said co-pending application. Furthermore, the lamp bulb container or package of the present application constitutes an improvement of the container disclosed in said co-pending application.

In the merchandising of electric lamp bulbs it has been found to be desirable to provide packages which will hold two bulbs of the same size. It is also desirable that such packages be collapsible so that they may be shipped from the package manufacturer to the lamp bulb manufacturer in flat or knocked-down form. It is further important that the containers be adapted readily to be erected for rapid loading with lamp bulbs by the bulb manufacturer.

Accordingly, it is among the objects of my present invention to provide an improved collapsible container for lamp bulbs or the like which will securely hold a pair of bulbs in overlapped relation while preventing harmful contact therebetween. Other objects of my invention include: the provision of a collapsible lamp bulb container which may be made from a rectangular blank of single faced corrugated board or the like, the blank requiring a minimum of material and being adapted to be cut from sheet material with no waste whatever; the provision of a collapsible lamp bulb package which is readily adaptable to manufacture on automatic machinery and which will effectively hold a pair of bulbs in the package during shipment and normal handling; and the provision of a collapsible lamp bulb package which, when set up into erected form for receiving a pair of bulbs, will stay in said erected form without tendency to collapse.

The above and other objects of my invention will appear from the following detailed description of one embodiment thereof, reference being had to the accompanying drawings in which:

Figure 1 is a plan view of the blank from which my improved container is formed, looking at the inner or corrugated side thereof and showing the various score lines, slit or cut lines, etc.

Figure 2 is a view similar to that of Figure 1 but illustrating the blank after the separator panel has been folded over into superimposed relation with the adjacent sections of the blank.

Figure 3 is a plan view of the completed collapsed container after the final fold has been made and the parts are secured together where required.

Figure 4 is an end view of one of my improved containers in partially set-up or erected condition.

Figure 5 is a perspective end view of my improved container in fully set-up condition with the severed or detached part of the divider wall portion of the separator panel swung angularly relative to the side walls and disposed to maintain the container in erected condition and receive a pair of lamp bulbs.

Figure 6 is an illustrative plan view of one of my containers with a pair of lamp bulbs inserted therein.

My container is preferably and advantageously made of single faced corrugated paper, and the blank for the finished and erected container of Figure 5 is shown in Figure 1. This is a plan view of the blank at is comes from the slitting and scoring machine and after adhesive has been applied at the proper locations but prior to the folding operations. At the righthand end (Figure 1) of the blank is the top wall **1**, it being understood that the inner face of the blank is corrugated while the outer face is the smooth cover sheet of the single faced corrugated paper material. Top wall **1** is separated from the adjacent side wall **3** by a crease type score line **2**, and another crease type score line **4** separates the side wall **3** from the bottom wall **5**. The fourth side of the container, which is in general an open-ended tubular sheath when completed and erected, is the side wall **7** which adjoins the bottom wall **5** at the crease score line **6**.

A separator panel, generally indicated at **9**, is hingedly and integrally connected to one edge of the side wall **7** by the crease score line **8**. This separator panel **9** is divided into an attaching portion **10** immediately adjacent the score line **8**, a divider wall portion **11** adjacent the attaching portion **10**, and another attaching portion **12** adjacent the opposite side of divider wall portion **11** and extending to the end **13** of the blank.

It will be noted that the divider wall portion **11** is of the same length as the top, bottom and side wall portions **1**, **3**, **5** and **7** ("length" being used to describe the dimension between the opposite open ends of the sheath-like container seen in Figure 5). Furthermore, divider wall portion **11** is hingedly connected to the attaching portion **10** for a portion of its length by a crease score line **14** and is connected to the attaching portion **12** by a similar and equal length score line **15**. The thus attached or connected part of the divider wall is indicated at **11b**. It will be noted from inspection of Figures 1 and 2 that the score lines **14** and **15** extend inwardly from the edge of the divider wall portion **11** a distance somewhat less than one-half the length of the divider wall portion. The remaining part of the divider wall portion, indicated at **11a** in the drawings, is severed from the adjacent attaching portions by slits or cut lines **16** and **17** which are straight line extensions of score lines **14** and **15** respectively. Glue or other suitable adhesive **18** is applied along the inner surface of the end **13** of the blank, and another application of glue or other adhesive **19** is made at the opposite end **20** of the blank.

After the blank has been completed and is in the form illustrated in Figure 1, the separator panel **9** is folded on the score line **8** until it overlies the side wall **7** and a part of the bottom wall **5** as seen in Figure 2. The attaching portion **12** of the separator panel **9** is secured to the inner face of the bottom wall **5** between the score lines **4** and **6** which separate the bottom wall **5** from the side walls **3** and **7** respectively. Although glue **18** has been illustrated as the means for securing the attaching portion **12** to the inner face of the bottom wall **5**, it will be understood that staples or other means may be employed to fasten the attaching portion **12** of the blank to the bottom wall portion **5**.

The container in collapsed form is completed by folding the portion of the blank which comprises the side wall **3** and the top wall **1** at the score line **4** until said side wall **3** and top wall **1** overlie the remaining parts of

the container as seen in Figure 3. The outer non-corrugated surface of attaching portion **10** of the separator panel **9** engages and is secured to the inner face of the top wall **1** by the glue line **19** or other suitable securing means. It will be noted that in the completed collapsed container the glue line **19** engages and adheres to the attaching portion **10** adjacent the hinged connection **8** between the separator panel **9** and the side wall **7**.

The collapsed container of Figure 3 may be erected by exerting pressure on the opposite ends thereof, i.e., at the corners that are defined by the score lines **4** and **8**. Figure 4 illustrates the container in partially erected condition, it being noted that at this time the entire divider wall portion **11** (composed of parts **11a** and **11b**) is disposed between and parallel to the side walls **3** and **7**.

After the container has been opened until a rectangular open-ended sheath is formed, the severed part **11a** of the divider wall portion **11** is swung into oblique angular relation (see Figure 5) to the side walls **3** and **7**. When in this condition, the container will not collapse because of the engagement of the top and bottom edges of the severed portion **11a** with the adjacent inner faces of the attaching portion **12** and the top wall **1**. As illustrated, the height of the severed part **11a** of the divider wall portion is substantially equal to the inside height of the opened or erected container and, when set up as described, the container provides a pair of similarly shaped opposed compartments or sections, each of which is adapted to receive a lamp bulb. This is clearly seen in Figure 6 in which the connected part **11b** of the divider wall **11** separates the enlarged end **22** of a bulb A from the neck portion **23** of the other bulb B while the detached but hingedly connected severed part **11a** of the divider wall separates and prevents injurious contact between the enlarged portion **24** of bulb B and the neck portion **25** of bulb A.

It will also be observed that the connected part **11b** of divider wall portion **11** is disposed closer to side wall **7** than it is to side wall **3**. This arrangement minimizes the overall length of the blank and provides a bulb receiving chamber, when the severed part **11a** of the divider wall is swung into oblique angular relation away from side wall **7**, which generally fits a conventional lamp bulb with sufficient frictional engagement between the surfaces of the bulb and the inner walls of the container to retain the bulb therein during normal handling.

My improved lamp bulb container, as illustrated and described herein, is formed from a blank which requires a minimum of material (being less than that required by the container of my above said co-pending application) and may be formed at high speed by a simple scoring and cutting roll on the usual continuous box blank forming machine. The fact that the container will remain in erected condition when the severed part **11a** of the divider wall is swung into position to receive the lamp bulbs facilitates the loading operation and enables the blanks to be erected by one operator prior to being loaded by another.

Although I have described and illustrated one embodiment of my invention in considerable detail, it will be understood that variations and modifications may be made in the specific form, arrangement and proportions of the parts without departing from the spirit of my invention. Accordingly, I do not wish to be limited to the exact device herein shown and described, but claim as my invention all embodiments coming within the scope of the appended claims.

I claim:

1. A collapsible container for lamp bulbs comprising top, bottom and side walls and a separator panel hingedly connected throughout its length to one edge of one of said side walls, said separator panel including one attaching portion secured to said top wall adjacent said hinged connection between said separator panel and said one

of said side walls and another attaching portion spaced from said one attaching portion and secured to said bottom wall, the portion of said separator panel between said spaced attaching portions forming a single divider wall portion, said divider wall portion being connected only for a part of its length to the adjacent attaching portions of said panel and being severed from said adjacent attaching portions for the remainder of its length, the part of said divider wall portion which is connected to said attaching portions being entirely but unequally spaced from and parallel to said side walls when the container is erected and the severed part of said divider wall being adapted to be moved into oblique angular spaced relation to said side walls.

2. A collapsible container for a pair of lamp bulbs comprising an open ended sheath having top, bottom and side walls and a separator panel integrally and hingedly connected throughout its length to one edge of one of said side walls, said separator panel having one attaching portion engaging and secured to the inner face of said top wall adjacent said hinged connection between said separator panel and said one of said side walls and another attaching portion engaging and secured to the inner face of said bottom wall between said side walls, the portion of said separator panel between said attaching portions forming a single divider wall portion having a length equal to the length of said top, bottom and side walls, said divider wall portion being severed from said adjacent attaching portions for more than one half of its length, the part of said divider wall portion which is not severed from said attaching portions being entirely but unequally spaced from and parallel to said side walls when the container is erected and the severed part of said divider wall being adapted to be moved into oblique angular spaced relation to said side walls.

3. A collapsible container for a pair of lamp bulbs comprising an open ended sheath of single faced corrugated paper having top, bottom and side walls and a separator panel integrally and hingedly connected throughout its length to one edge of one of said side walls, the corrugated surface of said single faced corrugated paper forming the inner surface of said walls, said separator panel having one attaching portion engaging and secured to the inner face of said top wall adjacent said hinged connection between said separator panel and said one of said side walls and another attaching portion spaced from said one attaching portion and engaging and secured to the inner face of said bottom wall between and in spaced relation to said side walls, the portion of said separator panel between said attaching portions forming a single divider wall portion, said divider wall portion being connected from one end inwardly for less than one-half its length to the adjacent attaching portions of said panel and being severed from said adjacent attaching portions for the remainder of its length, the part of said divider wall portion which is connected to said attaching portions being entirely spaced from and parallel to said side walls and closer to said one of said side walls than to the other of said side walls when the container is erected, and the severed part of said divider wall being adapted to be moved toward said other of said side walls into oblique angular spaced relation thereto, the height of said severed portion being substantially equal to the inside height of the opened container whereby said severed part of said divider wall portion, when in said angular relation to said other side wall, will maintain the container in erected condition.

4. A collapsible container for a pair of lamp bulbs comprising an open ended sheath having top, bottom and side walls and a separator panel integrally and hingedly connected throughout its length to one edge of one of said side walls, said panel having one attaching portion engaging and secured to the inner face of said top wall adjacent said hinged connection between said panel and said one of said side walls and another attaching portion

engaging and secured to the inner face of said bottom wall between said side walls, said panel also having a divider wall portion between said attaching portions and extending between said top and bottom walls in spaced relation to said side walls, one longitudinal part of said divider wall portion being disposed parallel and closer to one of said side walls than is the remaining longitudinal part of said divider wall portion when said container is erected to receive said lamp bulbs and said remaining longitudinal part of said divider wall portion being angularly inclined toward the other of said side walls whereby a pair of open ended oppositely disposed bulb receiving chambers, having a common continuous dividing wall and being larger at one end than at the other, are provided.

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