April 12, 1966 W. D. BOVARD 3,245,602

INTERIOR PACKAGING MEMBER

Filed July 22, 1964

Fig. 1

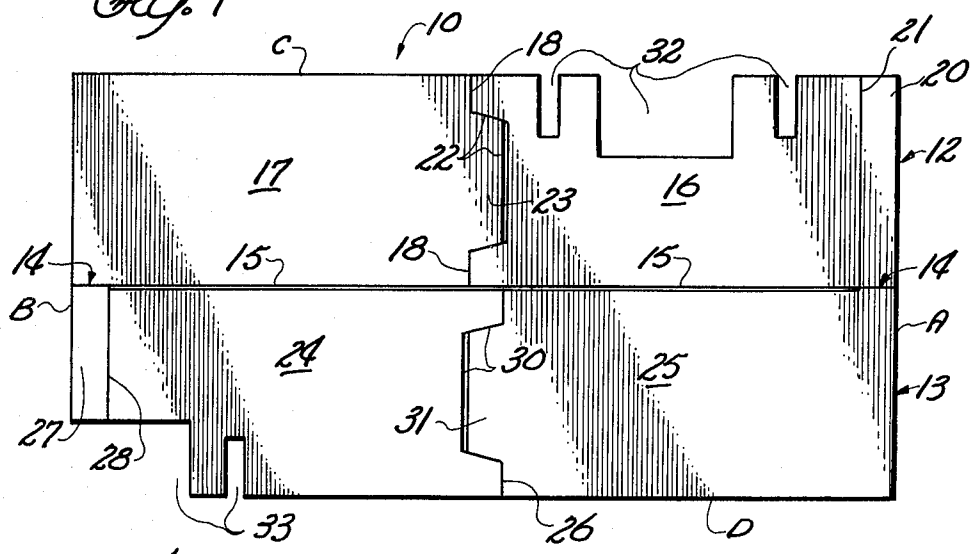


Fig. 2

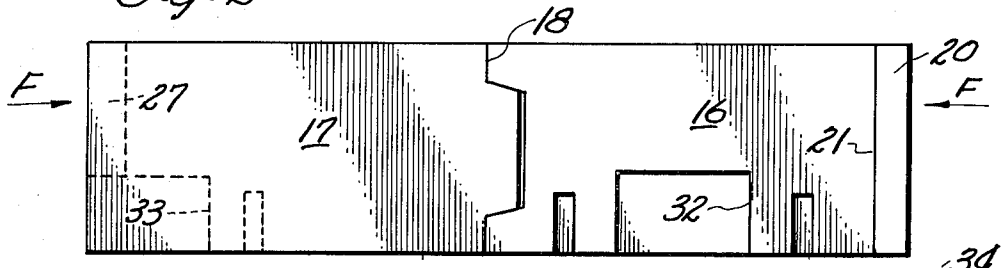


Fig. 4

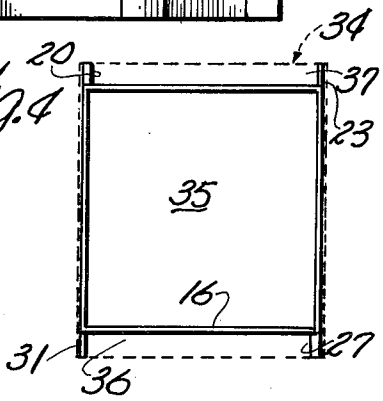
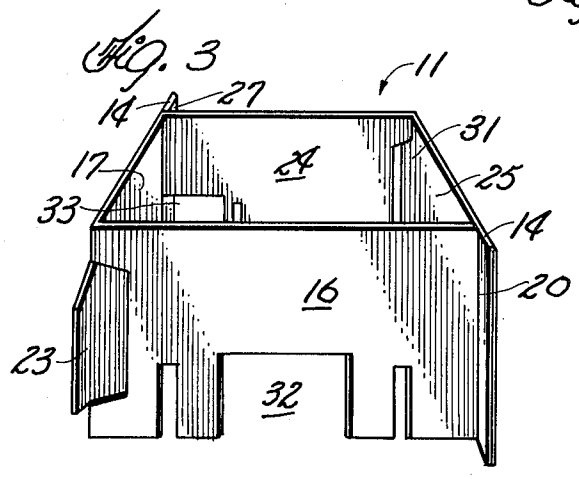


Fig. 3



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United States Patent Office 3,245,602 Patented Apr. 12, 1966

3,245,602

INTERIOR PACKAGING MEMBER

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Filed July 22, 1964, Ser. No. 384,398
1 Claim. (Cl. 229—14)

This invention relates to a packaging member and method of forming same for either bracing a product within the interior of a shipping container, or dividing the interior space of a container or similar type receptacle into a plurality of product accommodating contigous compartments.

In the packaging of a single item or product in a container for shipping or storage, it is frequently necessary to utilize some type of bracing means for the product so as to restrain movement thereof within the container when the latter is being handled. The amount and extent of the bracing required will depend in large measure upon the size, weight, and shape of the product involved and the type of container to be used.

In instances, where a variety of products are to be packaged or stored in a single container or receptacle, it is oftentimes desirable for such products to remain separated from one another. This can be readily accomplished in many instances by utilizing an insert piece in combination with a conventional rectangular or square shaped container which will effect dividing of the interior thereof into numerous contiguous compartments.

Various members have heretofore been provided which are capable of functioning in the manner above-noted. These prior members, however, have been beset with one or more shortcomings which have in certain instances curtailed their utilization in the packaging industry. For example, many of the prior members were of such design as to require staples, adhesives, adhesive-coated tapes, or the like to facilitate the setting up of such members. Also, these prior members were frequently formed from blanks or parts of complex design which made the setting up thereof a time-consuming and awkward operation. In other instances, such members were not readily capable of being collapsed into a compact unit for storage. Furthermore, because of the shape of the blanks from which these prior members were formed, a considerable amount of material waste resulted.

Thus, it is one of the objects of this invention to provide an interior packaging member which readily overcomes the shortcomings aforenoted.

It is a further object of this invention to provide an interior packaging member which may be readily formed in a matter of seconds without the need for staples, adhesive, adhesive-coated tapes or the like.

It is a still further object of this invention to provide a simple, yet sturdy member which may readily function as either a bracing element or as an interior divider for a container or the like.

Further and additional objects will appear from the description, accompanying drawings, and appended claims.

In accordance with one embodiment of this invention, an interior packaging member is provided which is formed from a blank sheet material, such as corrugated boxboard. The member includes a pair of foldably connected sections, each section having an upright wall panel, an upright end panel foldably connected to one side of said wall panel, and an upright end flap foldably connected to the opposite side of said wall panel. The end panel and end flap are angularly disposed in opposite directions with respect to the wall panel. The lines of fold between the end panel, wall panel, and end flap of each section are in

substantially spaced parallel relation. The end flap of each section is connected to a portion of the end panel of the other section by a foldline which is disposed substantially normal to the other foldlines of the sections. The end panels and wall panels of the sections cooperate to delimit a predetermined area. The end flap of one section and the portion of the end panel of the other section to which it is connected are disposed outside the predetermined area.

For a more complete understanding of this invention reference should be made to the drawing wherein:

FIG. 1 is a top plan view of one form of blank from which the improved interior packaging member is formed;

FIG. 2 is similar to FIG. 1, but shows the blank after its initial fold;

FIG. 3 is a perspective view of the improved interior packaging member after it has been formed; and

FIG. 4 is a top plan view, on a reduced scale, of the improved interior packaging member showing the same formed and disposed within a container, the latter being indicated in dotted lines.

Referring now to the drawing and more particularly to FIG. 1 a blank **10** is shown which is adapted to be folded so as to form an improved interior packaging member **11**, shown in FIG. 3. The blank is of a suitable sheet material, such as double-faced corrugated boxboard, and is divided into two sections **12** and **13** by an elongated, substantially centrally disposed foldine **14** which extends from one side A of the blank to the opposite side B thereof, see FIG. 1.

It is to be noted that a substantial portion of foldline **14**, intermediate its ends, is interrupted by an elongated cut or slit **15**.

Section **12**, in the illustrated embodiment, comprises a wall panel **16**, an end panel **17** connected to one side thereof by a foldline **18**, and an end flap **20** connected to the opposite side of panel **16** by a foldline **21**. Foldlines **18** and **21**, or the axes of fold thereof, are substantially parallel to one another and extend from side C of the blank **10** to the axis of foldline **14**. Foldline **18**, intermediate its ends, is interrupted by a cut or slit **22** which forms a tongue-like segment **23** in end panel **17**, see FIG. 1.

Section **13**, in a similar manner, comprises a wall panel **24**, an end panel **25** which is connected to one side thereof by a foldline **26**, and an end flap **27** which is connected to the opposite side of panel **24** by foldline **28**. Foldlines **26** and **28**, or the axes thereof, are substantially parallel to each other as well as to the axes of foldlines **18** and **21**. Foldlines **26** and **28** extend from blank side D to the axis of foldline **15**. As in the case of foldline **18** of section **12**, foldline **26** is interrupted intermediate its ends by cut or slit **30**. Cut **30** forms a tongue-like segment **31** at one end of end panel **25**. If desired, cuts **22** and **30** may be omitted entirely, or only one thereof utilized. Likewise the shape, size and the direction of projection of each segment may be varied from that shown in the drawing.

It will be noted in FIG. 1 that edges C and D of the blank **10** are provided with a plurality of recesses **32** and **33**. These recesses permit portions of the product being packaged to extend beyond the panels of the member. Obviously, the size and shape and location of such recesses may be varied from that shown.

As seen in FIG. 4, tongue-segments **23** and **31** and end flaps **20** and **27** project outwardly substantially the same amount and engage the interior wall surfaces of the shipping container or receptacle **34**. If desired, the extent of projection of both the tongue segments and end flaps may be varied from that shown so as to vary the size of the compartments **35**, **36**, and **37** formed by

member **11** within the interior of container **34**, see FIG. 4.

If cuts **22** and **30** were varied from that shown (FIG. 1) so that a portion thereof was disposed in panels **16** and **24**, respectively, and a second portion thereof was disposed in panels **17** and **25**, respectively, two tongue sections, not shown, would be formed by each cut, which would extend at right angles to one another, whereupon all of the interior wall surfaces of the container would be contacted by the tongue segments and end flaps.

As seen in FIG. 1, panels **16** and **24**, and **17** and **25** of the sections are in staggered relation so that when the member **11** is formed, the panels **16**, **17**, **24** and **25** will cooperate with one another to delimit the predetermined area **35**.

In forming, or setting up, the member **11**, the blank **10** is initially folded about the axis of foldline **14**, so that sections **12** and **13** are in overlying face to face contact, see FIG. 2. Compressive force F, FIG. 2, is then applied in a direction axially of foldline **14**, whereupon the panels and flaps of the sections will fold relative to one another about the remaining foldlines into the member shown in FIG. 3. The member **11** may be stored either in blank (FIG. 1) or in a collapsed state (FIG. 2) depending upon the size of the storage area.

If desired, the size and shape of the panels and flap of each section may vary from that shown without departing from the invention.

Thus, it will be seen that a simple, yet sturdy, and inexpensive interior packaging member has been provided which does not require staples, adhesive, adhesive-coated tapes, or the like to be utilized in order to effect such formation. Furthermore the improved member may readily function as either a bracing member or as a divider of the container interior.

While several embodiments of this invention are shown above, it will be understood of course that the invention is not to be limited thereto, since many modifications may be made and it is contemplated, therefore, by the appended claim to cover any such modifications as fall within the true spirit and scope of this invention.

I claim:

A foldable blank of sheet material for forming an interior packaging member, said blank comprising a pair of elongated sections; each section including a wall panel, an end panel connected by a first foldline to one side of said wall panel, and an end flap connected by a second foldline to the opposite side of said wall panel, said foldlines being in substantially parallel relation; the end panel and end flap of one section and the end flap and end panel, respectively, of the other section being connected to one another by third and fourth foldlines, the latter foldlines being angularly disposed with respect to said first and second foldlines, said third and fourth foldlines being longitudinally spaced from one another and separated by an elongated slit, said two sections being foldable into overlying face to face relation; said end panels and said wall panels cooperating with one another to delimit a predetermined area when said sections are in overlying relation and a compressive force is exerted on the opposite edges of said blank in a direction substantially transverse to said first and second foldlines; the first foldline between the end panel and wall panel of one section being interrupted by a slit forming a tongue segment on one of said panels, said tongue segment being disposed outside the formed predetermined area.

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