

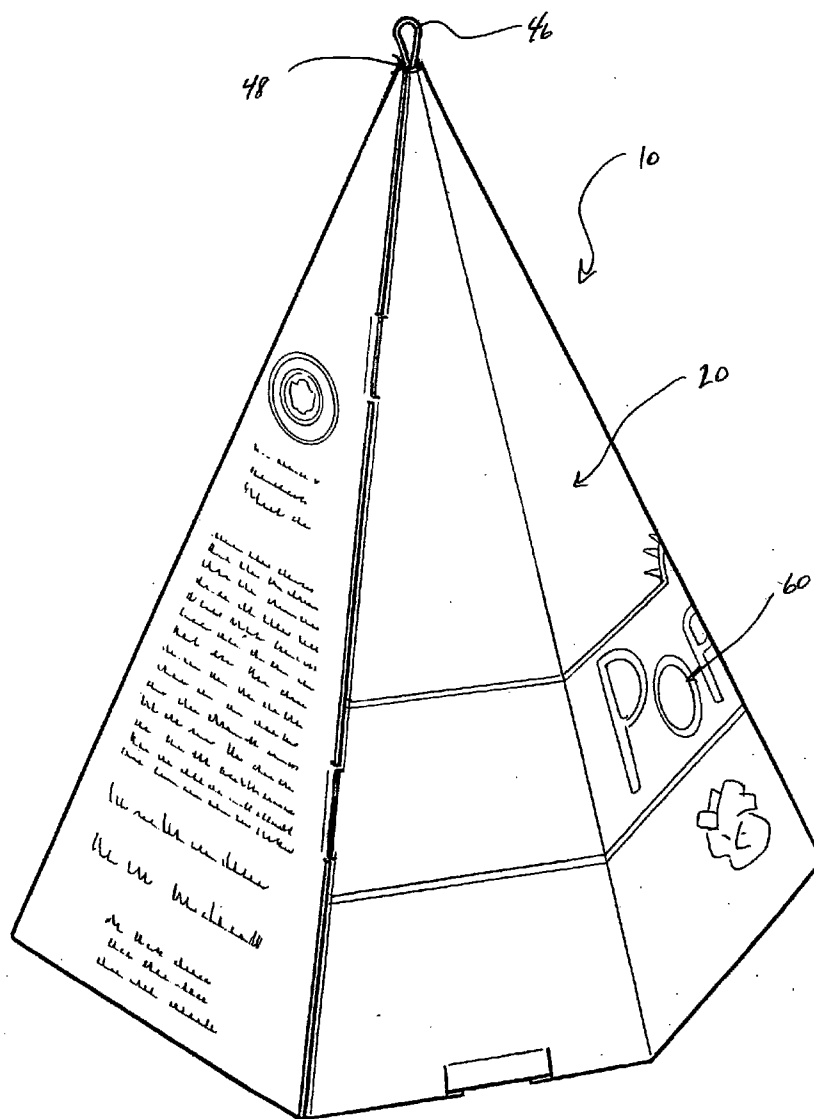


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(19) **United States**(12) **Patent Application Publication****Heiss**(10) **Pub. No.: US 2006/0219763 A1**(43) **Pub. Date:****Oct. 5, 2006**(54) **GENERALLY PYRAMIDAL PACKAGING BOX**(52) **U.S. Cl. 229/116**(76) **Inventor: Shain Heiss, Omaha, NE (US)**(57) **ABSTRACT**

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A generally pyramidal packaging box for items includes a base wall having at least five sides and a generally pyramidal upper box section having an interior volume, a base opening, an upper point, and at least five upper wall plates, each of the upper wall plates being generally triangular in shape with a wider base edge and an upper point with the number of upper wall plates being equal to the number of sides of the base wall. The base wall is pivotably connected to at least one of the upper wall plates along one side of the base wall at the base edge thereof and is pivotable to releasably engage at least one of the upper wall plates to cover the base opening and releasably enclose the interior volume of the upper box section whereby items enclosed within the upper box section are releasably retained therein.

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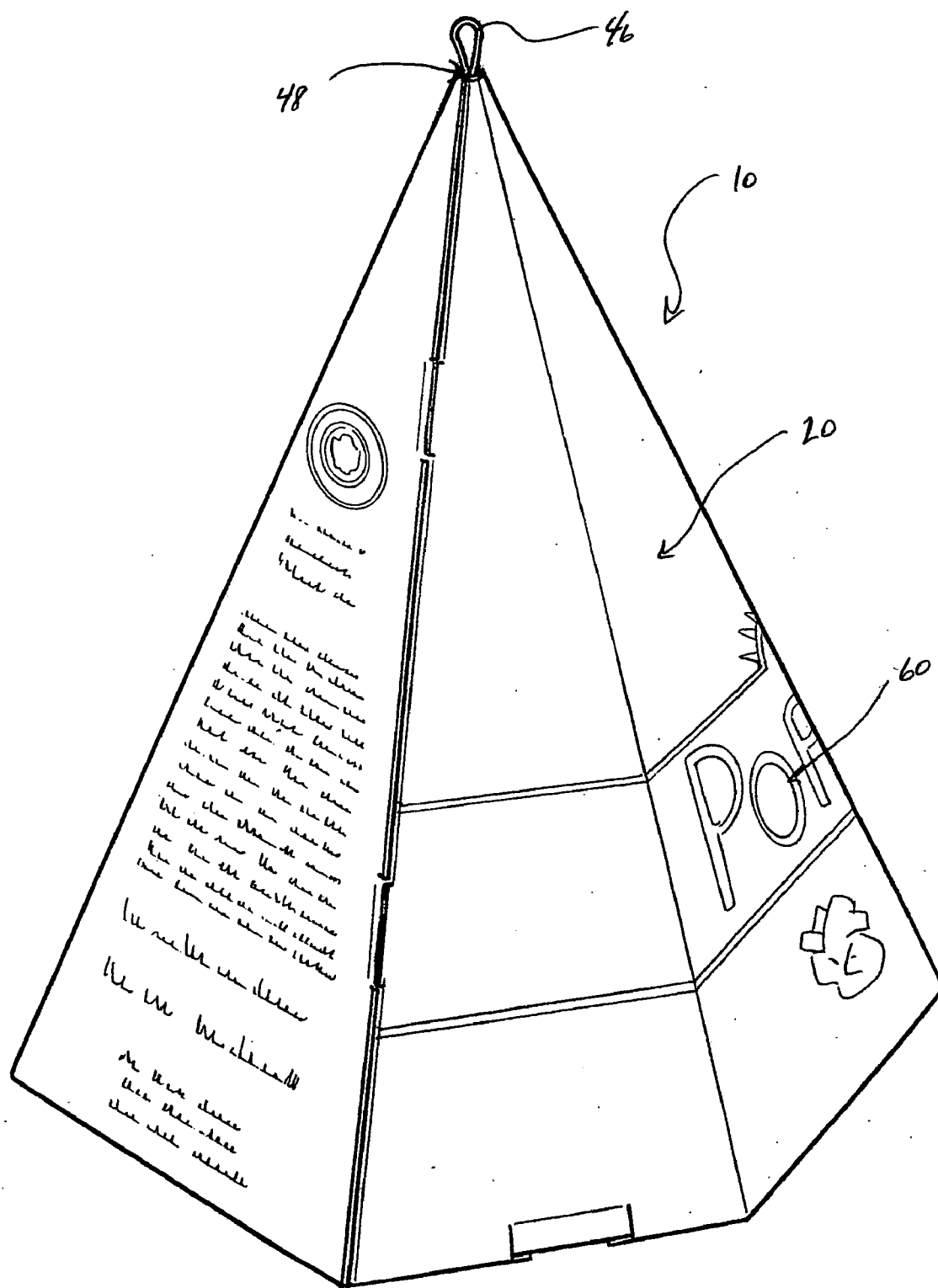


FIG. 1

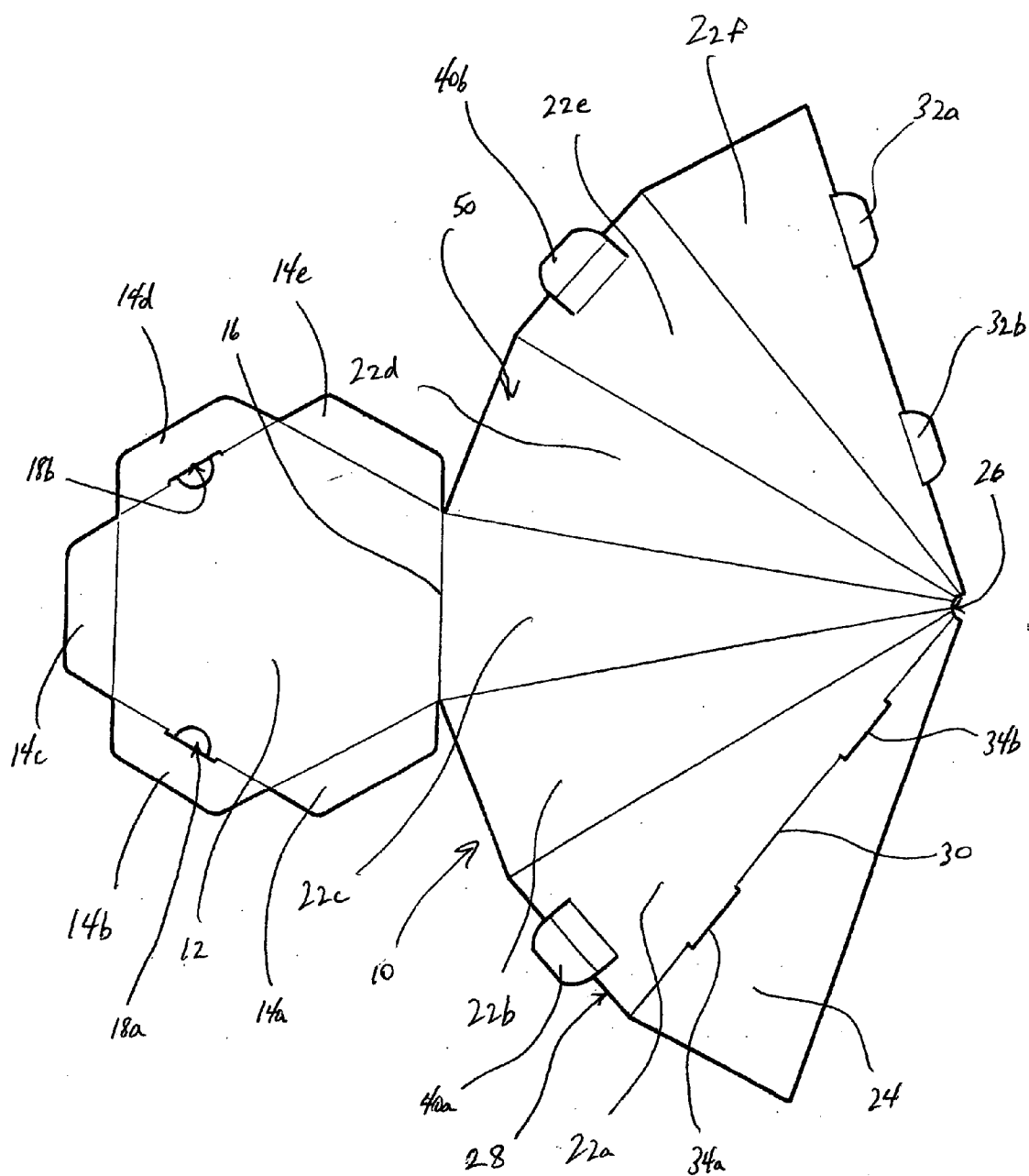
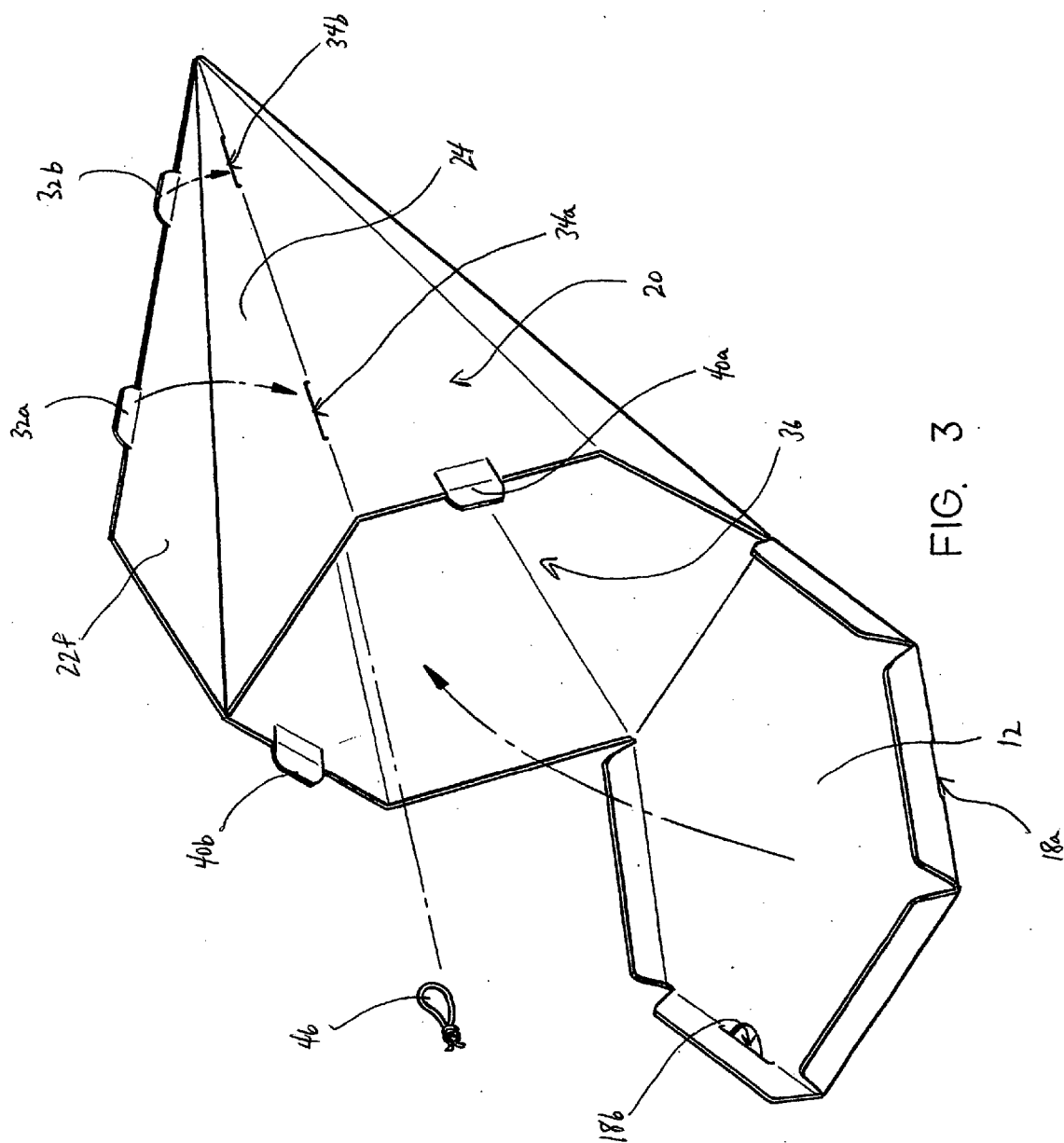


FIG. 2



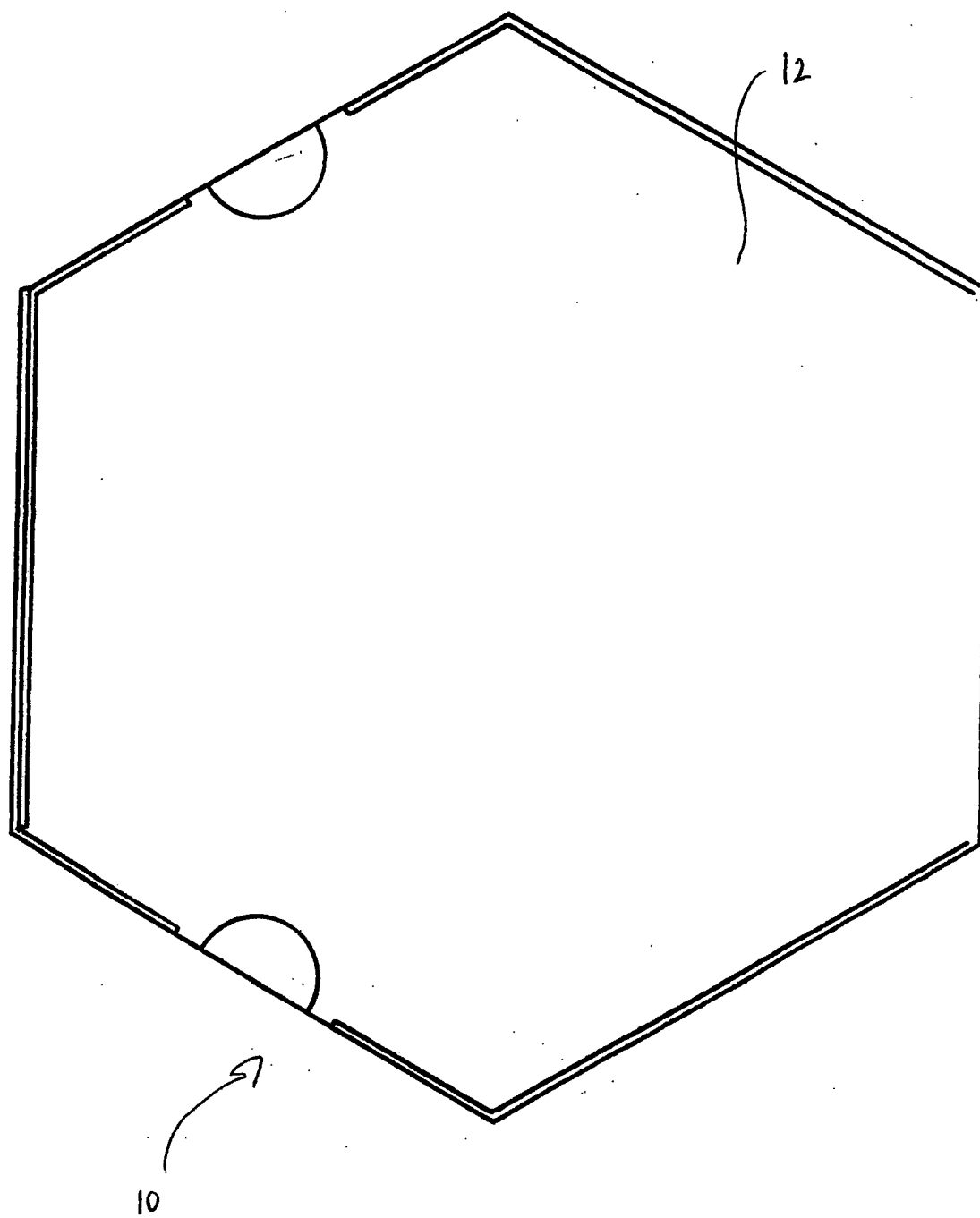


FIG. 4

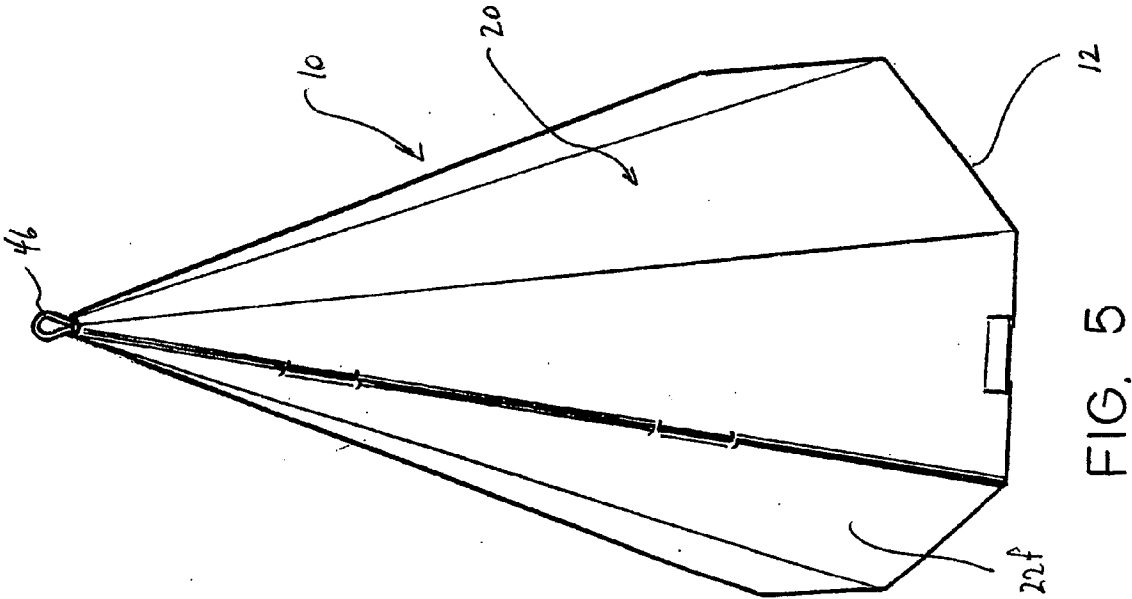


FIG. 5

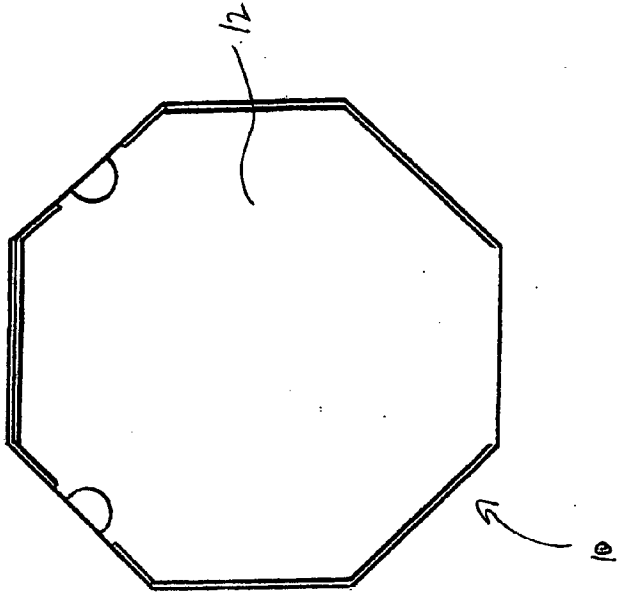


FIG. 6

GENERALLY PYRAMIDAL PACKAGING BOX

BACKGROUND OF THE INVENTION

[0001] 1. Technical Field

[0002] The present invention relates to container boxes and, more particularly, to a decorative packaging box which is shaped generally like a teepee or pyramid, the box including a base wall having at least five sides, an upper box section including at least five upper wall plates, the upper wall plates being generally triangular in shape with a wider base edge and an upper point, the number of upper wall plates being equal to the number of sides of the base wall, the base wall being pivotally connected to at least one of the base edges of an upper wall plate to permit the base wall to be pivoted to cover and close the base opening of the upper box section to enclose product therewithin.

[0003] 2. Description of the Prior Art

[0004] In the field of paper box design and construction, there have been a virtually limitless number of box designs which have been proposed to accommodate various types of materials to be sold to the purchasing public. The sizes, shapes, and construction designs used in connection with these boxes are so varied and great in number that a full discussion of the number of variations found in the prior art is well-nigh impossible. Suffice it to say, however, boxes have been designed to accommodate all types of products and to enhance the appearance of those products for sale to the general consumer.

[0005] One of the common methods by which sales of products to consumers may be enhanced is to manufacture a unique and/or distinctive packaging box for use with the product. A specific example of such a box design would be the heart-shaped boxes used in connection with candies sold during the Valentine's Day season, and there are numerous other examples similar to this. However, one of the disadvantages of such distinctive packaging is that it is often difficult to construct the packaging which substantially raises the cost of producing the packaging and hence the cost of the product, which can be detrimental to sales of the product. By the same token, simplification of the construction process for the packaging often reduces the distinctiveness of the package, which can also be detrimental to sales of the product. There is therefore a need for a distinctive type of packaging which is relatively simple to manufacture and also is easy to assemble from the manufactured box blank.

[0006] Therefore, an object of the present invention is to provide an improved generally pyramidal packaging box.

[0007] Another object of the present invention is to provide an improved generally pyramidal packaging box which is formed from a single blank, can lay flat for storage and transport and which may be quickly and easily assembled into the completed box.

[0008] Another object of the present invention is to provide a generally pyramidal packaging box which includes at least five sides on the base wall and at least five upper wall plates on the upper box section to distinguish the box from other types of pyramidal packaging which are available, as the present invention is intended to replicate a teepee, a traditional form of Native American shelter.

[0009] Another object of the present invention is to provide an improved generally pyramidal packaging box in which the base wall is pivotally connected to at least one of the upper wall plates along the base of the upper wall plate to permit the base wall to be pivoted to cover the base opening of the upper box section, thus closing the box.

[0010] Finally, an object of the present invention is to provide an improved generally pyramidal packaging box which is relatively simple to construct and assemble and is safe, efficient, and durable in use.

SUMMARY OF THE INVENTION

[0011] The present invention provides a generally pyramidal packaging box for items which includes a base wall having at least five sides and a generally pyramidal upper box section having an interior volume, a base opening and an upper point, the upper box section including at least five upper wall plates, each of the upper wall plates being generally triangular in shape with a wider base edge and an upper point. The number of upper wall plates is equal to the number of sides of the base wall, and the base wall is pivotally connected to at least one of the upper wall plates along one side of the base wall at the base edge of the upper wall plate. Finally, the base wall is pivotable relative to the upper box section to releasably engage at least one of the upper wall plates to cover the base opening and releasably enclose the interior volume of the upper box section whereby items enclosed within the upper box section are releasably retained therein.

[0012] The present invention as thus described provides many advantages over those packaging boxes found in the prior art. For example, because the present box is transportable in a lay-flat position, the shipping of the box blanks is much more cost-efficient than the shipping of many boxes found in the prior art. Also, because the generally pyramidal packaging box of the present invention is a single unit in that the base and upper box section are connected to one another, there is little if any chance that the two sections will become separated prior to assembly, thus preventing proper assembly of the unit, a problem found with several boxes found in the prior art. Furthermore, as the box of the present invention when assembled forms an aesthetically pleasing and evocative form, namely a teepee, it is expressly usable for sale of Native American goods and products, and by adding corresponding design elements to the exterior of the present invention, the box may represent the culture of the persons marketing the goods to enhance market identification. Finally, and perhaps most importantly, the packaging box of the present invention is relatively easy to construct and assemble, yet is durable when assembled. It is therefore seen that the present invention provides a substantial improvement over those boxes found in the prior art.

BRIEF DESCRIPTION OF THE DRAWINGS

[0013] FIG. 1 is a perspective view of the generally pyramidal packaging box of the present invention;

[0014] FIG. 2 is a top plan view of the box blank of the present invention;

[0015] FIG. 3 is a perspective view showing the assembly of the packaging box of the present invention from the box blank;

[0016] FIG. 4 is a bottom plan view of the packaging box;

[0017] FIG. 5 is a perspective view of the present invention without decoration thereon; and

[0018] FIG. 6 is a detailed bottom plan view of the present invention showing the base plate closing the interior volume of the packaging box.

DESCRIPTION OF THE PREFERRED EMBODIMENT

[0019] The generally pyramidal packaging box 10 of the present invention is shown best in FIGS. 1-4 as including a base wall 12 and a generally pyramidal upper box section 20 which extends upwards from the base wall 12. In the preferred embodiment, base wall 12 would preferably be a six-sided hexagon and would further include a plurality of outwardly extending engagement flaps 14a, 14b, 14c, 14d, and 14e which would be connected to the base wall 12 along a fold line 15 or crease line formed in the standard manner of construction of box fold lines. The remaining side of the base wall 12 is referred to as the connection side 16 for it is at this point that the upper box section 20 is pivotally connected, thus making the box blank 50 an integrally formed unit which can lay flat until it is to be assembled. It is preferred that the generally pyramidal packaging box 10 be constructed of any appropriate paper material, such as cardstock, corrugated, or any other paper material. Also, it is to be noted that the present invention could actually be constructed of virtually any plate material, such as plastic, metal or another such material, but as the primary function of the present invention is intended to be for packaging, it has been found that paper products work best for use as construction materials for the generally pyramidal packaging box 10.

[0020] The box blank of the upper box section 20 would preferably consist of a pie wedge-shaped plate of the construction material which includes six upper wall plates, 22a, 22b, 22c, 22d, 22e, and 22f and a wall support plate 24 which contributes to the stability of upper box section 20 when it is assembled. In the preferred embodiment, each of the upper wall plates 22a-f and wall support plate 24 would be constructed as having generally the same dimensions and generally the same shape, specifically that each of the upper wall plates 22a-f and wall support plate 24 are generally triangular in shape having an upper point 26 and a lower base edge 28, as shown best in FIGS. 1-3. It is preferred that the upper wall plates 22a-f and wall support plate 24 be formed out of upper box section 20 by creating a series of radial fold lines 30 which extend from the upper point 26 of each upper wall plate 22a-f and wall support plate 24 to the base edge 28, the fold lines 30 permitting the wall support plate 24 and upper wall plates 22a-f to be angled relative to one another to form the generally pyramidal shape of the upper box section 20 as shown in FIGS. 1 and 3. It is preferred that the fold lines 30 be formed into upper box section 20 by any appropriate stamping means as would commonly be done in the construction of packaging boxes, and such stamping methods and devices are known in the prior art.

[0021] The generally pyramidal packaging box 10 of the present invention would be assembled from the box blank as shown best in FIGS. 2 and 3 by first assembling the upper box section 20 to form the generally pyramidal shape

thereof. To complete the upper box section 20, each of the fold lines 30 would be bent there along to create an approximate one hundred and twenty degree (120°) angle between adjacent ones of the upper wall plates 22a-f, as shown best in FIG. 3. Likewise, the fold line 30 between upper wall plate 22a and wall support plate 24 would also be bent at approximately a one hundred and twenty degree (120°) angle and the upper wall plate 22f would be folded over wall support plate 24, as shown in FIG. 3. To releasably secure the upper wall plate 22f to wall support plate 24, a pair of securement tabs 32a and 32b would be extended into slots 34a and 34b formed on fold line 30 in between wall support plate 24 and upper wall plate 22a. Of course, many other types of securement methods and devices may be used to secure the upper box section 20 in its preferred arrangement, such as gluing the wall support plate to upper wall plate 22a, but it has been found that the use of such securement tabs and slots provides a simple and quick way to secure the upper box section 20 in its preferred arrangement.

[0022] Once the securement tabs 32a and 32b have been secured within tab slots 34a and 34b, the base wall 12 may be swung into position to close the interior volume 36 of the upper box section 20. Each of the engagement flaps 14a-e would be bent upwards and inwards to fit into the interior volume 36 of the upper box section 20, thus strengthening and enhancing the enclosure function of the base wall 12, and once the base wall 12 is swung into closed position on upper box section 20, a pair of securement tabs 40a and 40b would be extended into the tab slots 18a and 18b formed in engagement flaps 14b and 14d on base wall 12, as shown best in FIG. 4. The inserting of the securement tabs 40a and 40b into the tab slots 18a and 18b releasably secures the base wall 12 in the closed position adjacent upper box section 20, thus enclosing interior volume 36 of upper box section 20. Any items or materials held within the interior volume 36 of upper box section 20 may then be removed by merely releasing the securement tabs 40a and 40b from the tab slots 18a and 18b to release the base wall 12 from engagement with the upper box section 20 and the base wall 12 would fold downwards on connection side 16 to release the contents of the upper box section 20.

[0023] It may also be preferable to include various designs 60 on the exterior of upper box section 20 to enhance the appearance of the generally pyramidal packaging box 10 particularly to replicate a teepee or the like as is one of the main features of the present invention. Finally, it may be preferable to include a hanging string 46 which would be mounted within and extend upwards through the top hole 48 in upper box section 20 when upper box section 20 is assembled, although the inclusion of such a hanging string 46 is not necessary nor critical to the present invention. In practice, however, the hanging string 46 would be used to support the generally pyramidal packaging box 10 in a display location and for ease of carrying of the generally pyramidal packaging box 10.

[0024] It is to be understood that numerous additions, modifications, and substitutions may be made to the generally pyramidal packaging box 10 of the present invention which fall within the intended broad scope of the appended claims. For example, the precise number of sides of the base wall 12 and upper box section 20 may be modified or changed so long as there are more than five sides on the generally pyramidal packaging box 10 in order to preferably

replicate a teepee design for sale of Native American-produced goods. Furthermore, the precise way by which the various engagement flaps and tab slots connect to one another may be modified or changed, so long as the intended function of releasably securing the upper box section 20 in its intended arrangement and releasably securing base wall 12 to upper box section 20 is maintained. Also, although it is preferable to construct the present invention out of a single box blank 50, there may be situations where it is desirable to separate the base wall 12 from the upper box section 20, and such a modification would be understood by one skilled in the art and should be understood to be a part of this disclosure. Finally, the precise designs 60 to be used on the surface of the upper box section 20 may be modified or changed to enhance the appearance of the generally pyramidal packaging box 10 of the present invention, and such modifications would generally be selected by users of the present invention.

[0025] There has therefore been shown and described a generally pyramidal packaging box 10 which accomplishes at least all of its intended objectives.

I claim:

1. A generally pyramidal packaging box for items comprising:

a base wall having at least five sides;

a generally pyramidal upper box section having an interior volume, a base opening and an upper point, said upper box section including at least five upper wall plates, each of said at least five upper wall plates being generally triangular in shape with a wider base edge and an upper point;

the number of upper wall plates being equal to the number of sides of said base wall;

said base wall pivotably connected to at least one of said upper wall plates along one connection side of said base wall at said base edge of said upper wall plate; and

said base wall pivotable to releasably engage at least one of said upper wall plates to cover said base opening and releasably enclose said interior volume of said upper box section whereby items enclosed within said upper box section are releasably retained therein.

2. The packaging box of claim 1 further comprising an upper wall support plate connected to and extending adjacent to an outer one of said at least five upper wall plates, said wall support plate operative to fit under, connect to and support the opposite outer one of said at least five upper wall plates when said upper box section is assembled such that said upper box section has increased structural strength.

3. The packaging box of claim 1 wherein said base wall further comprises at least four outwardly extending engagement flaps, the number of engagement flaps equal to one less than the number of sides of said base wall, each of said at least four outwardly extending engagement flaps extending along a selected one of said sides of said base wall except said connection wall, said at least four outwardly extending engagement flaps operative to fit within said base opening of said upper box section when said base wall is pivoted to cover said base opening and frictionally engage some of said at least five upper wall plates thereby providing enhanced covering and enclosing of said base opening of said upper box section.

4. The packaging box of claim 1 further comprising at least one securement tab mounted on at least one of said at least five upper wall plates generally adjacent said base edge thereof and at least one tab slot formed in said base wall adapted to receive and releasably retain said at least one securement tab therein thereby releasably securing said base wall in the closed position adjacent said upper box section thus enclosing said interior volume of said upper box section.

5. The packaging box of claim 2 further comprising releasable connection means for connecting said upper wall support plate to said outer one of said at least five upper wall plates when said upper box section is assembled.

6. The packaging box of claim 1 wherein said releasable connection means comprises at least one securement tab mounted on and extending outwards from said outer one of said at least five upper wall plates and at least one slot formed on said fold line in between said wall support plate and the adjacent one of said at least five upper wall plates, said at least one securement tab and at least one slot cooperating to releasably secure said upper wall support plate to said outer one of said at least five upper wall plates when said upper box section is assembled.

7. The packaging box of claim 1 further comprising a hanging string mounted within and extending upwards through a top hole in said upper box section when said upper box section is assembled, said hanging string operative to support said packaging box in a display location and to facilitate carrying of said packaging box.

8. A generally pyramidal packaging box for items comprising:

a base wall having at least five sides;

a generally pyramidal upper box section having an interior volume, a base opening and an upper point, said upper box section including at least five upper wall plates, each of said at least five upper wall plates being generally triangular in shape with a wider base edge and an upper point;

the number of upper wall plates being equal to the number of sides of said base wall;

said base wall pivotably connected to at least one of said upper wall plates along one side of said base wall at said base edge of said upper wall plate; and

said base wall pivotable relative to said upper box section, said base wall and at least one of said upper wall plates further including one of at least one engagement flap and at least one flap slot cooperatively operative to releasably connect said base wall to at least one of said upper wall plates to cover said base opening and releasably enclose said interior volume of said upper box section whereby items enclosed within said upper box section are releasably retained therein.

9. A generally pyramidal packaging box for items comprising:

a box blank including a base wall having at least five sides and a generally pie wedge-shaped plate including at least five upper wall plates and a wall support plate, each of said at least five upper wall plates and said wall support plate being generally triangular in shape with a wider base edge and an upper point, said box blank further including a plurality of radial fold lines formed

in said box blank each of which extend from the upper point of each of said at least five upper wall plates and said wall support plate to the base edges thereof between each of said at least five upper wall plates and said wall support plate;

said base wall pivotably connected to at least one of said upper wall plates along one side of said base wall at said base edge of said upper wall plate;

said at least five upper wall plates and said wall support plate being bent towards adjacent ones thereof along each of said plurality of fold lines to form obtuse angles between adjacent ones of said at least five upper wall plates and said wall support plate thereby forming said upper box section;

releasable connection means for connecting said upper wall support plate to said outer one of said at least five

upper wall plates when said upper box section is assembled to retain said upper box section in assembled position;

the number of upper wall plates being equal to the number of sides of said base wall; and

said base wall pivotable relative to said upper box section, said base wall and at least one of said upper wall plates further including one of at least one engagement flap and at least one flap slot cooperatively operative to releasably connect said base wall to at least one of said upper wall plates to cover said base opening and releasably enclose said interior volume of said upper box section whereby items enclosed within said upper box section are releasably retained therein.

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