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PAPER CONTAINER WITH INTEGRALLY FORMED PARTITION AND COVER

BACKGROUND OF THE INVENTION

The present invention relates to an improved paper container with partition, and more particularly to a paper container with integrally formed partition and cover.

Fig. 1 shows a generally available paper container with an integrally formed partition. The container includes a bottom 1a, a partition 2a, a front wall 3a, a rear wall 4a, side walls 5a, and overlapping edges 6a. The partition 2a may be so formed to be in parallel with the front and the rear walls 3a, 4a, or to slantly cross the bottom 1a. The partition 2a may have different widths and heights. The overlapping edges 6a are turned outward to be folded to the side walls 5a and be heat sealed thereto. Such paper container with integrally formed partition is widely welcomed in the market. The only drawback of this type of paper container is it is not provided with an integral cover. A separate cover is needed to protect the food or other things contained in the container from dust and other contamination. To manufacture a corresponding cover for the container, additional cost is required to cut dies for the cover. This is, of course, a confusion to the manufacturer. The conventional paper container with integral partition usually has a cuboid body. When a cover is integrally provided to the front or the rear wall, the cover shall have two quite long side edges and occupy a large space when it is in a fully opened position. On the other hand, since the two side walls 5a are heat sealed by the folded overlapping edges 6a, it is impossible to form an integral cover at the side walls 5a.

SUMMARY OF THE INVENTION

A primary object of the present invention is to provide a paper container with integrally formed partition and cover in which two cutout portions are formed on the cardboard forming the paper container at positions respectively surrounded by a left and a right side wall portions and two pairs of small triangular folding portions adjacent to two partition portions, and each left and right side wall portion on the cardboard has a part extending along the cutout portion to form an overlapping portion. The overlapping portions of the left and the right side wall portions are separated from one another along a folding line between them. A cover having a top and three flap portions extends from an outer edge of one right side wall portion. The cutout portions allow the partition portions, the small triangular folding portions, and the left and the right side wall portions to be so folded that the cutout portions are eliminated and the overlapping portions on the right side wall portions overlap the left side wall portions to cause a total width of the overlapped side wall portions equal to a width of the cover. Whereby, the cover forms an integral part of the paper container.

BRIEF DESCRIPTION OF THE DRAWINGS

The above and other objects as well as the technical means adopted by the present invention to achieve these objects can be best understood by referring to the following detailed description of the preferred embodiments and the accompanying drawings, wherein

Fig. 1 is a perspective showing a conventional paper container with integral partition;

Fig. 2 is a fully unfolded cardboard for forming a first embodiment of the paper container with integral partition and cover according to the present invention;

Fig. 3 is a paper container with integral partition and cover formed from the cardboard of Fig. 2;

Fig. 4 is another fully unfolded cardboard for forming a second embodiment of the paper container with integral partition and cover according to the present invention; and

Fig. 5 is a paper container with integral partition and cover formed from the cardboard of Fig. 4, wherein the partition slantly crosses the container.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Please refer to Fig. 2 which is an unfolded cardboard for forming a first embodiment of the present invention. The cardboard is provided at predetermined positions with folding lines a through h to divide the cardboard into a left bottom portion 11, a right bottom portion 12, two partition portions 2 located between the left and the right bottom portions 11, 12, a left end wall portion 31 adjacent to an outer end of the left bottom portion 11, a right end wall portion 32 adjacent to an outer end of the right bottom portion 12, two left side wall portions 41 adjacent to two lateral sides of the left bottom portion 11, two right side wall portions 42 adjacent to two lateral sides of the right

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bottom portion 12, four pairs of big isosceles triangles 51 contained between every two adjacent end wall and side wall portions 31, 41 and 32, 42, four pairs of small isosceles triangles 52 contained between every two adjacent side wall portion and partition portion 41, 2 and 42, 2, and a cover 7 which further includes a cover top portion 71 having one edge adjacent to one of the right side wall portions 42 along the folding line h and three cover flap portions 72 extending from the other three edges of the cover top portion 71. A cutout portion 6 is formed at each side of the bottom portions 11, 12 surrounded by the side wall portions 41, 42 and two pairs of small isosceles triangles 52. A part of each left side wall portion 41 adjacent to the small isosceles triangles 52 forms a small overlapping portion 411. A part of each right side wall portion 42 extending along the cutout portion 6 forms a big overlapping portion 421. The folding line g between the small and the big overlapping portions 411, 421 is cut through to separate the overlapping portions 411, 421. To form the paper container of the present invention, first fold the cardboard along the folding lines a through f on the bottom portions 11, 12 to form upright partition portion 2, left and right end wall portions 31, 32, and left and right side wall portions 41, 42. Then, the big and the small isosceles triangles 51, 52 are folded to press against the end wall portions 31, 32 and the side wall portions 41, 42, respectively.

With the cutout portions 6, the small and the big overlapping portions 411, 421 projected from the left and the right side wall portions 41, 42, respectively, are allowed to move toward each other. When the partition

portions 2 are erected and the small isosceles triangles 52 are overlapped and heat sealed to the side wall portions 41, 42, as shown in Fig. 3, the overlapping portions 421 are fitly attached to the left side wall portions 41 to eliminate the cutout portions 6, making a total width of the overlapped side wall portions of the paper container equal to a width of the cover top portion 71. This allows the cover 7, including the cover top portion 71 and the three flap portions 72, to form an integral cover of the paper container extending from one side wall of the container to effectively prevent external dust and contamination from entering into the paper container.

The paper container with integrally formed partition and cover as illustrated in Figs. 2 and 3 is only a preferred embodiment of the present invention. Various changes in the shape, size, and arrangements of parts or any equivalent parts used in place of the illustrated ones may be resorted to without departing from the spirit of the invention or the scope of the subjoined claims. For example, Figs. 4 and 5 illustrate another embodiment of the present invention. The paper container in this embodiment has a partition 20 slantly crossing the container to define two compartments with bottom portions 11, 12 thereof in irregular shape and different dimensions.



What is claimed is:

1. A paper container with integrally formed partition and cover, comprising a cardboard provided at predetermined positions with folding lines for dividing said cardboard into a left bottom portion, a right bottom portion, two partition portions located between said left and said right bottom portions, a left end wall portion adjacent to an outer end of said left bottom portion, a right end wall portion adjacent to an outer end of said right bottom portion, two left side wall portions adjacent to two lateral sides of said left bottom portion, two right side wall portions adjacent to two lateral sides of said right bottom portion, four pairs of big isosceles triangles contained between said end wall portions and said side wall portions, four pairs of small isosceles triangles contained between said side wall portions and said partition portions, and a cover which further includes a cover top portion having one edge adjacent to one of said right side wall portions and three cover flap portions extending from the other three edges of the cover top portion; said cardboard for forming said paper container being characterized by that a cutout portion is formed at each side of said bottom portions surrounded by said left and said right side wall portions and two pairs of said small isosceles triangles, and that a part of each said left side wall portion adjacent to said small isosceles triangles forms a small overlapping portion and a part of each said right side wall portion extending along said cutout portion forms a big overlapping portion while said big and said small overlapping portions are cut open along a folding line between them; whereby when said partition portions are erected and said small isosceles

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triangles are overlapped and heat sealed to said left side wall portions on said small overlapping portions by folding said cardboard along corresponding folding lines, said big overlapping portions are fitly attached to said left side wall portions to eliminate said cutout portions, making a total width of said left and said right side wall portions of said paper container after above folding procedures equal to a width of said cover top portion and allowing said cover, including said cover top portion and said three flap portions, to form an integral cover of said paper container extending from one side wall of said container.

2. A paper container with integrally formed partition and cover as claimed in claim 1, wherein said partition portion crosses said paper container in parallel with said left and said right end wall portions.

3. A paper container with integrally formed partition and cover as claimed in claim 1, wherein said partition portion slantly crosses said paper container to define two compartments in irregular shape and different dimensions.

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PAPER CONTAINER WITH INTEGRALLY FORMED PARTITION AND COVER

ABSTRACT OF THE DISCLOSURE

Disclosed is a paper container with integrally formed partition and cover. Two cutout portions are formed on the cardboard forming the paper container at positions respectively surrounded by a left and a right side wall portions and two pairs of small triangular folding portions adjacent to two partition portions, and each left and right side wall portion on the cardboard has a part extending along the cutout portion to form an overlapping portion. The overlapping portions of the left and the right side wall portions are separated from one another along a folding line between them. A cover having a top and three flap portions extends from an outer edge of one right side wall portion. The cutout portions allow the partition portions, the small triangular folding portions, and the left and the right side wall portions to be so folded that the cutout portions are eliminated and the overlapping portions on the right side wall portions overlap the left side wall portions to cause a total width of the overlapped side wall portions equal to a width of the cover.

FIGURE 2

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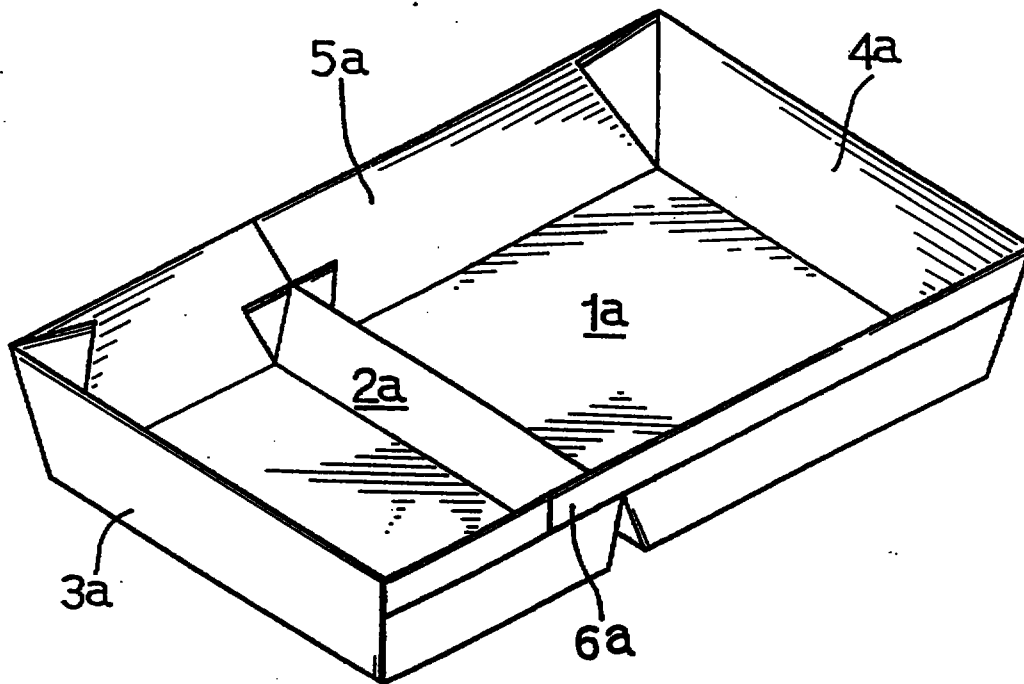


FIG. 1

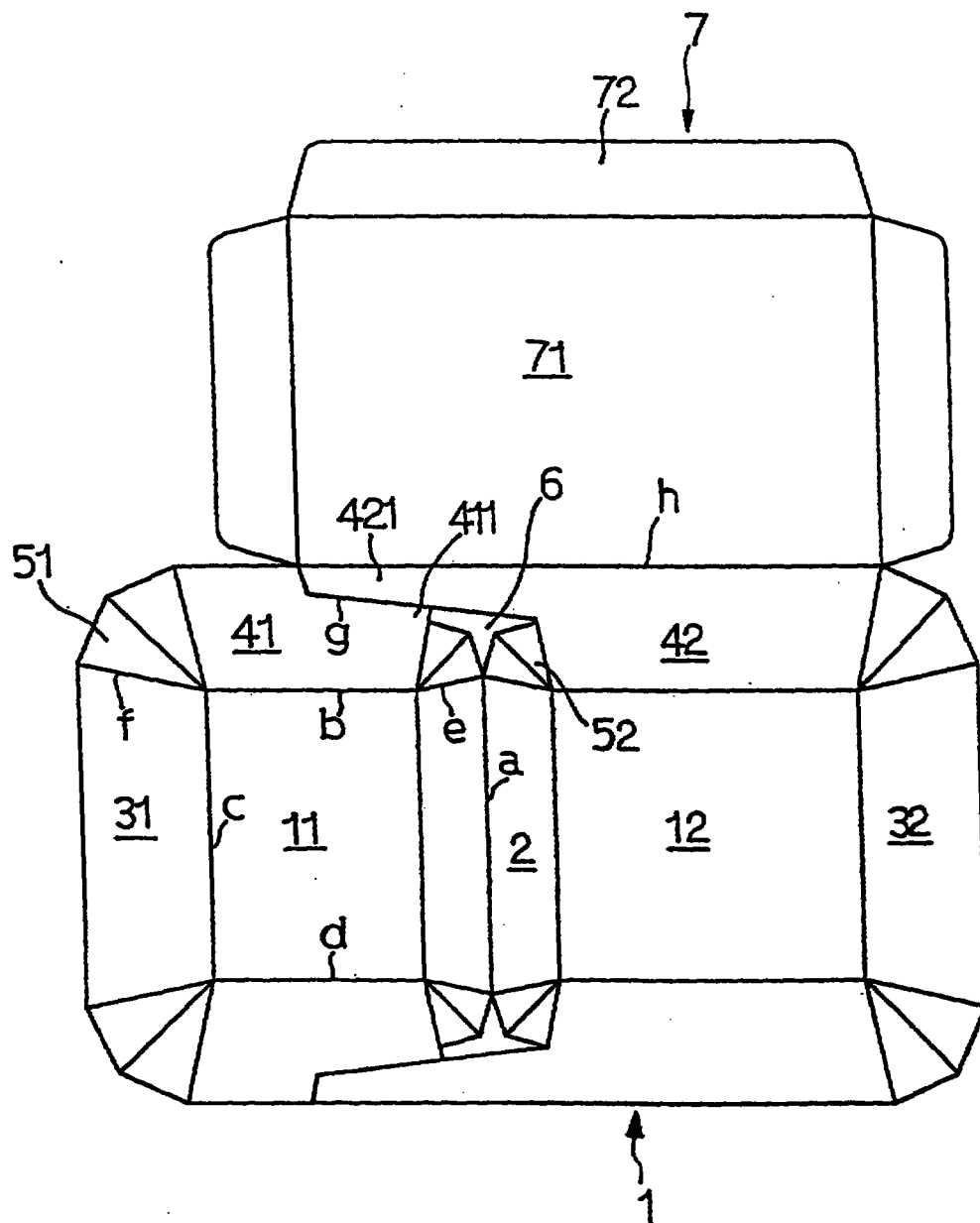


FIG. 2

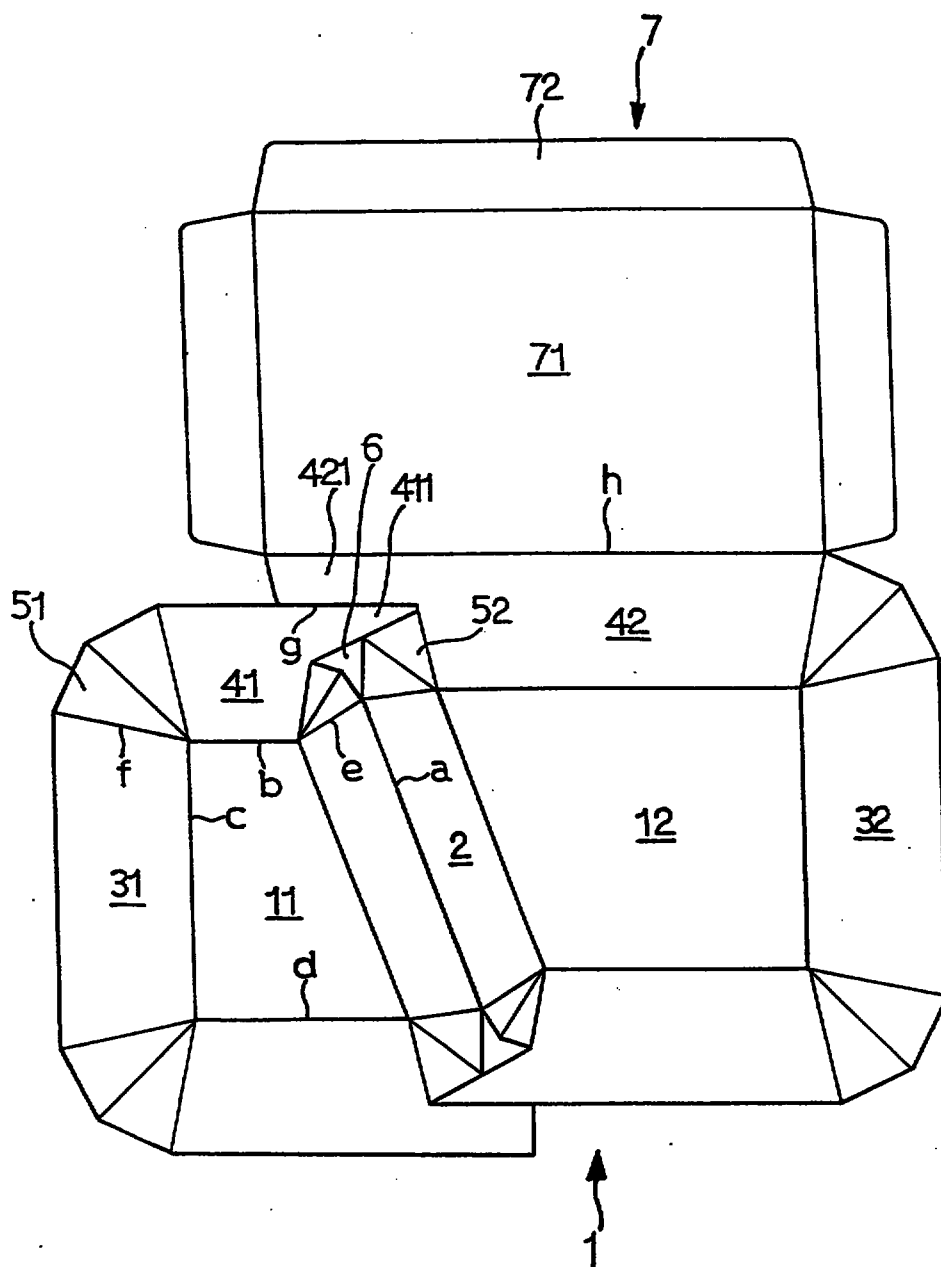


FIG. 4

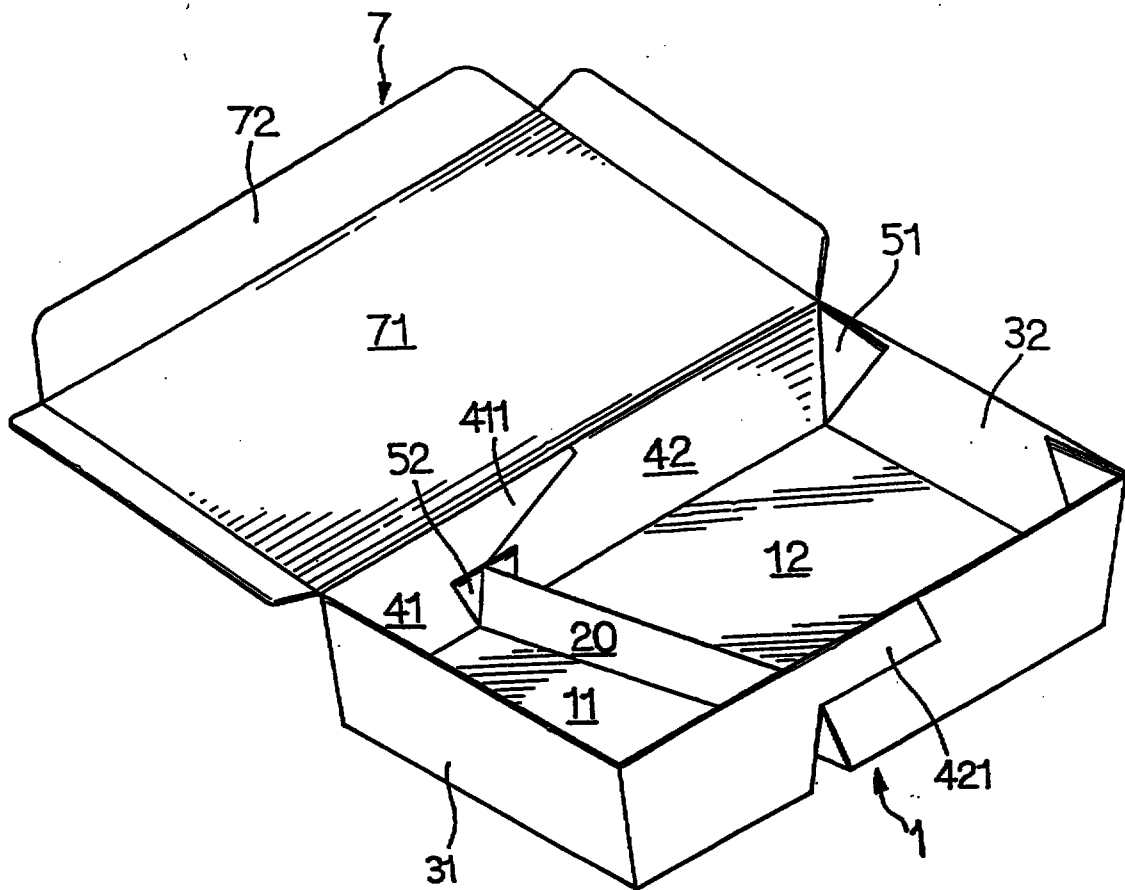


FIG. 5

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TEXT OF THE ABSTRACT

PAPER CONTAINER WITH INTEGRALLY FORMED PARTITION AND COVER

Disclosed is a paper container with integrally formed partition and cover. Two cutout portions (6) are formed on the cardboard forming the paper container at positions respectively surrounded by a left (41) and a right (42) side wall portions and two pairs of small triangular folding portions (52) adjacent to two partition portions, and each left and right side wall portion on the cardboard has a part extending along the cutout portion to form an overlapping portion. The overlapping portions (411,421) of the left and the right side wall portions are separated from one another along a unit-through line (g) between them. A cover having a top (71) and three flap portions extends from an outer edge of one right side wall portion. The cutout portions allow the partition portions, the small triangular folding portions, and the left and the right side wall portions to be so folded that the cutout portions are eliminated and the overlapping portions (421) on the right side wall portions overlap the left side wall portions (411) to cause a total width of the overlapped side wall portions equal to a width of the cover.

Figure 2.

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Fig. 1 is a perspective showing a conventional paper container with integral partition;

Fig. 2 is a fully unfolded cardboard for forming a first embodiment of the paper container with integral partition and cover according to the present invention;

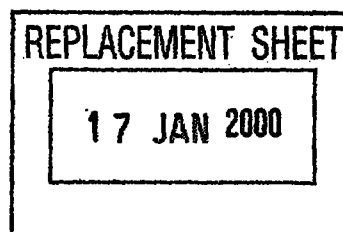
Fig. 3 is a paper container with integral partition and cover formed from the cardboard of Fig. 2;

Fig. 4 is another fully unfolded cardboard for forming a second embodiment of the paper container with integral partition and cover according to the present invention; and

Fig. 5 is a paper container with integral partition and cover formed from the cardboard of Fig. 4, wherein the partition slantly crosses the container.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Please refer to Fig. 2 which is an unfolded cardboard for forming a first embodiment of the present invention. The cardboard is provided at predetermined positions with folding lines a through f and h, and cut-through line g to divide the cardboard into a left bottom portion 11, a right bottom portion 12, two partition portions 2 located between the left and the right bottom portions 11, 12, a left end wall portion 31 adjacent to an outer end of the left bottom portion 11, a right end wall portion 32 adjacent to an outer end of the right bottom portion 12, two left side wall portions 41 adjacent to two lateral sides of the left bottom portion 11, two right side wall portions 42 adjacent to two lateral sides of the right



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What is claimed is:

1. A paper container with integrally formed partition and cover, comprising a cardboard provided at predetermined positions with folding lines for dividing said cardboard into a left bottom portion, a right bottom portion, two partition portions located between said left and said right bottom portions, a left end wall portion adjacent to an outer end of said left bottom portion, a right end wall portion adjacent to an outer end of said right bottom portion, two left side wall portions adjacent to two lateral sides of said left bottom portion, two right side wall portions adjacent to two lateral sides of said right bottom portion, four pairs of big isosceles triangles contained between said end wall portions and said side wall portions, four pairs of small isosceles triangles contained between said side wall portions and said partition portions, and a cover which further includes a cover top portion having one edge adjacent to one of said right side wall portions and three cover flap portions extending from the other three edges of the cover top portion; said cardboard for forming said paper container being characterized by that a cutout portion is formed at each side of said bottom portions surrounded by said left and said right side wall portions and two pairs of said small isosceles triangles, and that a part of each said left side wall portion adjacent to said small isosceles triangles forms a small overlapping portion and a part of each said right side wall portion extending along said cutout portion forms a big overlapping portion while said big and said small overlapping portions are cut open along a folding line between them; whereby when said partition portions are erected and said small isosceles

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triangles are overlapped and heat sealed to said left side wall portions on said small overlapping portions by folding said cardboard along corresponding folding lines, said big overlapping portions are attached to said left side wall portions to eliminate said cutout portions, making a total width of said left and said right side wall portions of said paper container after above folding procedures equal to a width of said cover top portion and allowing said cover, including said cover top portion and said three flap portions, to form an integral cover of said paper container extending from one side wall of said container.

2. A paper container with integrally formed partition and cover as claimed in claim 1, wherein said partition portion crosses said paper container in parallel with said left and said right end wall portions.

3. A paper container with integrally formed partition and cover as claimed in claim 1, wherein said partition portion slantly crosses said paper container to define two compartments in irregular shape and different dimensions.

