United States Patent [19]

Pilz, III

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[54] **CUSHIONED FOLDER**

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[73] Assignee: **Container Corporation of America**, Chicago, Ill.

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[52] **U.S. Cl.**..... **229/40**, 206/46 FR, 229/DIG. 2

[51] **Int. Cl.**..... **B65d 5/06**

[58] **Field of Search** ..... 229/40, DIG. 2; 206/46

[56] **References Cited**

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Attorney, Agent, or Firm—Carpenter, Ostis & Lindberg

[57] **ABSTRACT**

A cushioned folder for a book or similar flat object comprises a rectangular central panel having opposed areas where the board is crushed, with opposed major and minor flaps foldably connected to each other and to opposed margins of the central panel, the minor flaps being folded to position against opposed ends of the article and the major flaps being folded to a position overlying the article. The major flaps are provided with opposed cell forming flaps foldable against other margins of the flat article. Tuck flaps having crushed areas are foldably connected to the cell forming flaps and are folded to position beneath the article in lapping relationship with the crushed areas of the central panel whereby a planar support of the article is provided. A closing flap is foldably connected to the other opposite margins of the central panel and bears against the edges of the major flaps to provide with the cell forming flaps a pair of protective cells. A closure panel is foldably connected to at least one of the closing flaps and is in lapping relationship with the major flaps.

6 Claims, 7 Drawing Figures

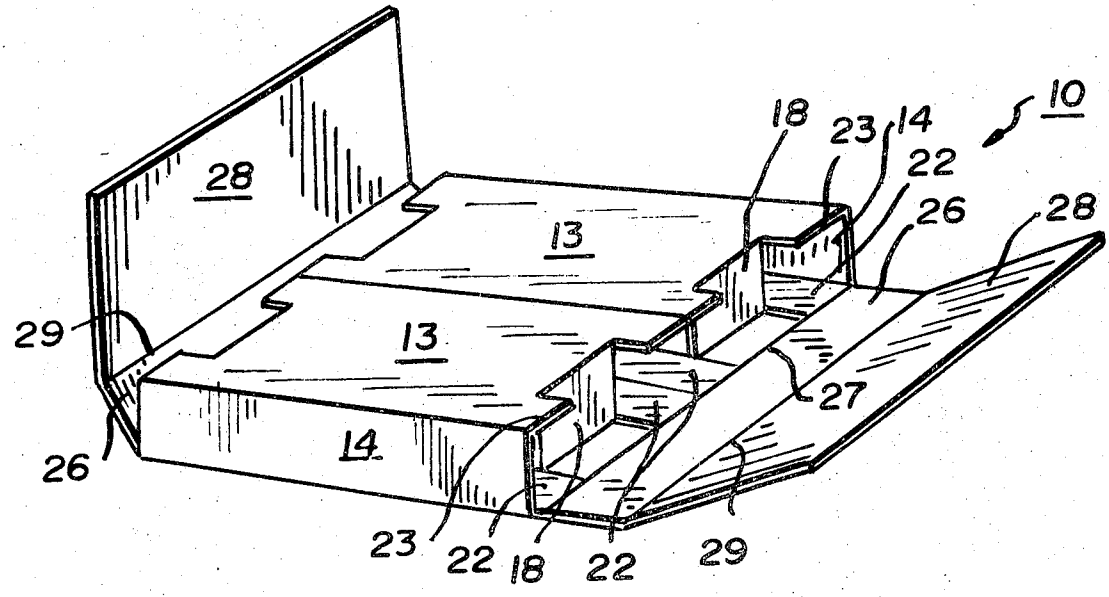


FIG.2

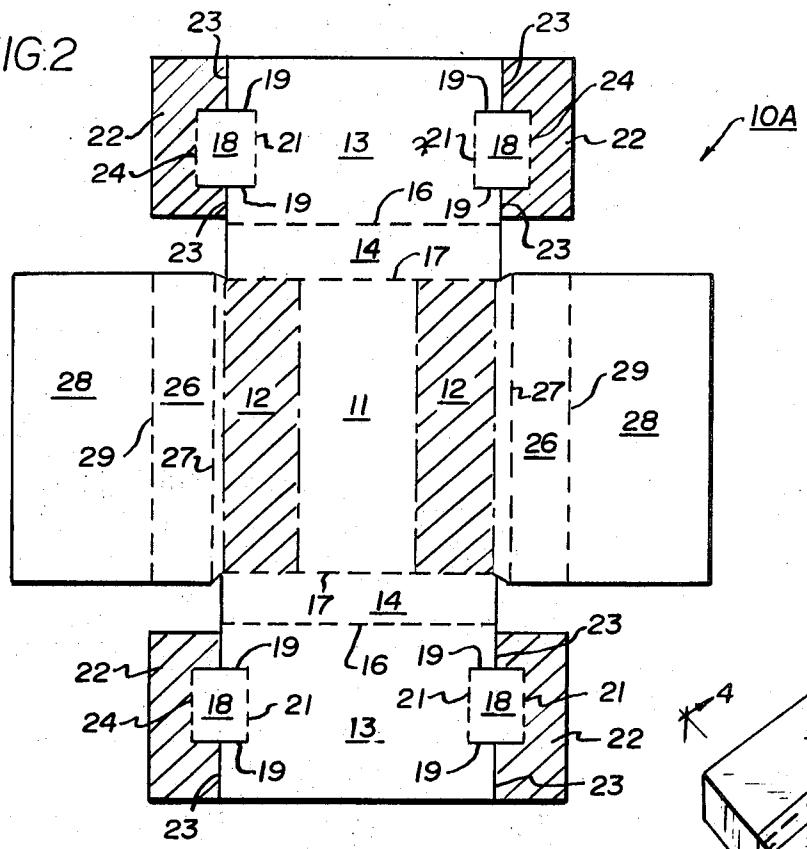


FIG.1

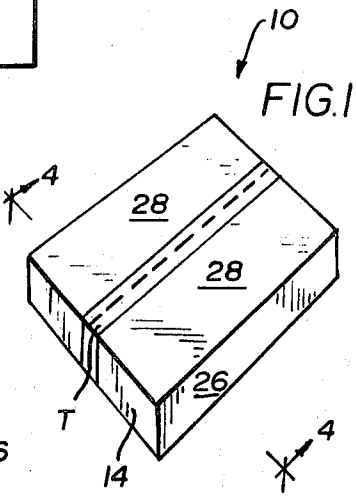


FIG.4

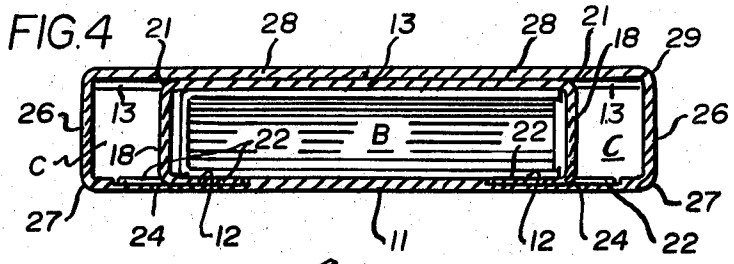


FIG.3

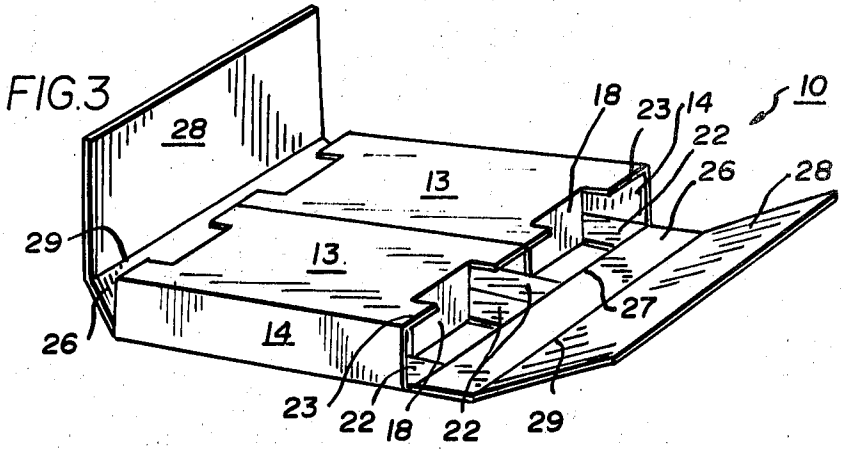


FIG.6

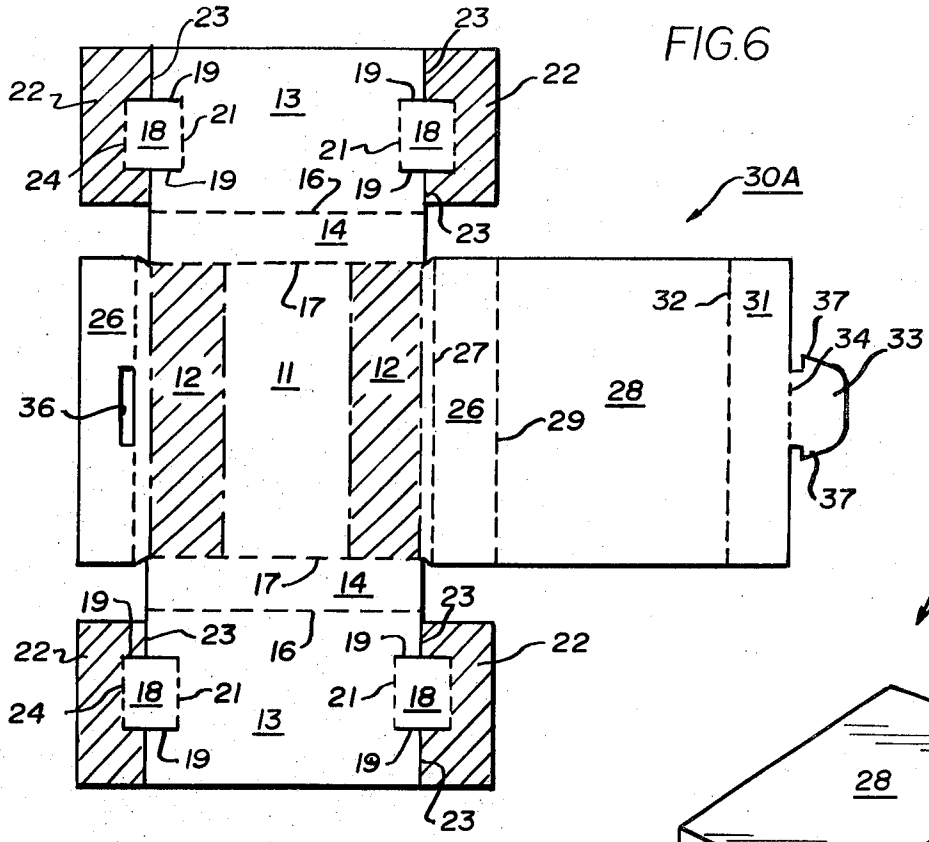


FIG.5

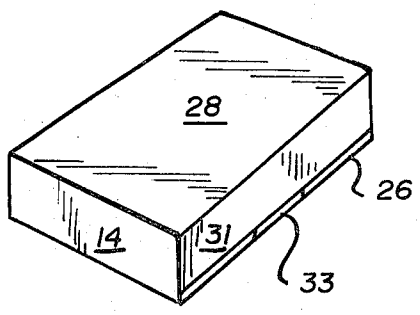
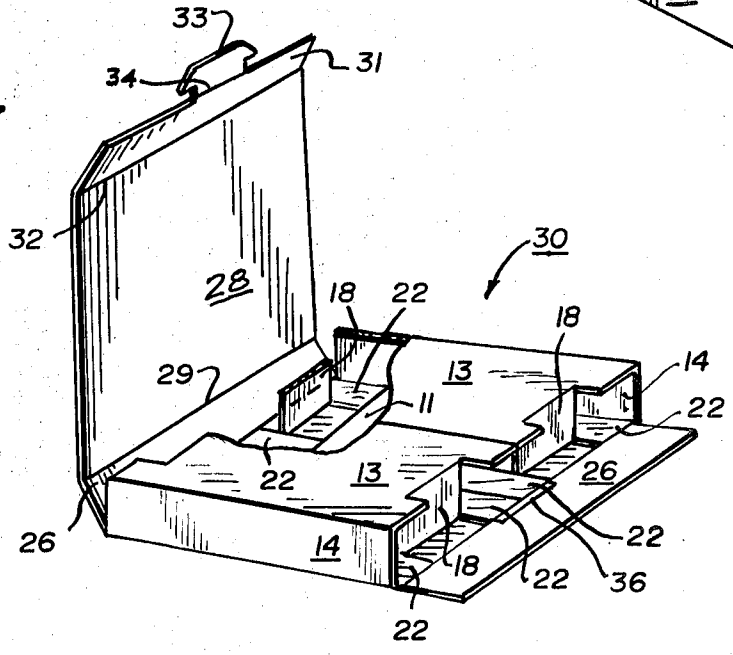


FIG.7



CUSHIONED FOLDER

BACKGROUND OF THE INVENTION

1. Field of the Invention

The structure disclosed herein is primarily adapted for the protection of the margins of a flat article such as a book, two of the margins of the article being protected by cells formed from the material of the folder.

2. The Prior Art

The most recent prior art is exemplified in the following application, over which the application herein constitutes an improvement:

Carpenter FOUR CELL CUSHIONED FOLDER Ser. No. 218,066 Filed Jan. 17, 1972;

Carpenter CUSHIONED SHIPPING FOLDER Ser. No. 228,060 Filed Feb. 22, 1972;

Carpenter and Ostler CUSHIONED SHIPPING FOLDER Ser. No. 236,434 Filed Mar. 20, 1972;

Carpenter and Ostler CUSHIONED FOLDER Ser. No. 260,913 Filed June 8, 1972

SUMMARY OF THE INVENTION

The cushioned shipping folder according to the invention herein is characterized by a central panel having crushed areas which cooperate with crushed areas on tuck-in and closing flaps and defining with major flaps protective cells for margins of a book or the like. The crushed areas of both the tuck-in flaps and the central panel provide a planar surface supporting all areas of the flat article.

THE DRAWINGS

FIG. 1 is a perspective view showing a cushioned shipping folder according to one embodiment of the invention;

FIG. 2 is a plan view of a cut and scored blank for forming the folder according to FIG. 1;

FIG. 3 is a perspective view showing the steps in folding the blank of FIG. 2 about a book;

FIG. 4 is a sectional view taken along the line 4—4 of FIG. 1 looking in the direction of the arrows;

FIG. 5 is a perspective view showing a folder according to another embodiment of the invention;

FIG. 6 is a plan view of a cut and scored blank for forming the folder seen in FIG. 5; and

FIG. 7 is an isometric view showing the manner in which the blank of FIG. 6 may be folded about a book or the like.

The improved cushioned shipping folder according to one embodiment of the invention is referred to generally by the reference numeral **10**, and it is formed from a blank **10A** of cut and scored paperboard or the like. Blank **10A** comprises a rectangular shaped central panel **11** having crushed areas **12** extending along opposite margins thereof. Opposed major flaps **13** and minor flaps **14** are foldably connected to each other along a fold line **16**, minor flap **14** being connected to an opposed margin of the central panel **11** along a score line **17**. The minor flaps **14** are folded against opposed ends of a flat article such as a book B seen in FIG. **4**, and the major flaps **13** are folded to position overlying the flat article B.

Each of the major flaps **13** is provided with opposed cell forming flaps **18**, each being defined by spaced cut lines **19** extending transversely to the edge **23** of each major flap **13** and by parallel fold lines **21** and **24**. Each

of the cell forming flaps **18** is foldably connected to a tuck-in flap **22** hingedly connected to the cell forming flap **18** by the fold line **24**. Each tuck flap **22** has a crushed area thereon as shown by the shading. Each of the cell forming flaps **18** is folded to position against other margins of the flat article B, and the tuck flaps **22** are folded to position beneath article B and in lapping relationship with the crushed areas **12** of the central panel **11** to provide a planar support for the book B on all bottom areas of such article.

It will be noted from FIG. **4** that the thickness of the crushed areas of the tuck flap **22** and the thickness of the crushed area **12** in central panel **11** are such as to give a combined thickness equal to the thickness of the uncrushed central panel **11**.

Opposite margins of the central panel **11** are provided with a closing flap **26** foldably connected to the central panel **11** along a score line **27**. Each of such closing flaps **26** is adapted to bear against the edges **23** of the major flaps **13** to thereby create opposed cells between the cell forming flaps **18** and the closing flaps **26** as seen more clearly in FIG. **3**.

Each of the closing flaps **26** has a closure panel **28** foldably connected thereto along a fold line **29**, and after the assembly seen in FIG. **3** is complete, the closure panels **28** are brought over the major flaps **13**, the closing being completed by pressure sensitive tape T or the like as seen in FIG. **1**.

Referring now to FIGS. **5** to **7** of the drawings, there is shown a second embodiment of the invention denoted generally by the reference numeral **30** and formed from a cut and scored blank **30A** of paperboard or the like. Components of the structure seen in FIG. **5** similar to those of FIG. **1** are denoted by the same reference numeral, and parts of the description relating to FIG. **1** need not be repeated for the structure of FIG. **5**. The structures of FIG. **1** and FIG. **5** differ with respect to their closure panels, and it may be noted from FIG. **6** that there is but one closure panel **28**, it being of a dimension as to correspond to the area of the major flaps **13**.

Closure panel **28** of FIG. **6** has an outer closure flap **31** foldably connected thereto along a fold line **32**. A locking tab **33** is foldably connected along a fold line **34** to the distal edge of the flap **31** and is provided with locking shoulder **37**. The locking tab **33** is adapted to enter an aperture **36** formed in the opposite closing flap **26**, the completed assembly being as seen in FIG. **5**.

I claim:

1. A cushioned shipping folder for a book or similar flat object, said folder being formed from a cut and scored blank of corrugated paperboard or the like and comprising:

a. a rectangular central panel having areas extending along opposite margins thereof where said board is crushed;

b. opposed major and minor flaps foldably connected to each other and to the other opposed margins of said central panel;

i. said minor flaps being folded into position against opposed ends of said flat article;

ii. said major flaps being folded into a position overlying said flat article;

c. opposed cell forming flaps foldably connected to each of said major flaps;

d. said cell forming flaps being folded into position against other margins of said flat article;

e. a tuck flap foldably connected to each of said cell forming flaps and having a crushed area thereon;

f. said tuck flaps being folded into position beneath said flat article and in lapping relationship with the crushed areas of said central panel whereby a planar support for all areas of said flat article is provided;

g. a closing flap each foldably connected to the other opposite margins of said central panel and bearing against the edges of said major flaps to provide with said cell forming flaps a pair of protective cells protecting margins of said flat article;

h. a closure panel foldably connected to at least one of said closing flaps in lapping relationship with said major flaps.

2. A cushioned shipping folder according to claim **1** wherein said closure panel includes locking means for locking same to the other of said closing flaps.

3. A cushioned shipping folder according to claim **2** wherein said closure panel is provided with a locking tab and said other closing flap is provided with a locking aperture receiving said locking tab.

4. A cushioned shipping folder according to claim **1** wherein each of said closing flaps is provided with a closure panel in lapping engagement with said major flaps.

5. A cushioned shipping folder according to claim **1** wherein said tuck flaps are in abutting relationship with one another in the crushed areas of said central panel.

6. A cushioned shipping folder according to claim **1** wherein said major flaps are folded into position wherein the edges thereof are in abutting relationship with one another.

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