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Clark, Jr.

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[54] **CORNER PAD**

[76] Inventor: **Alexander B. Clark, Jr.**, Box 2012, Hendersonville, N.C. 28739

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[52] **U.S. Cl.**..... **229/14 C**; 229/DIG. 1; 248/345.1

[51] **Int. Cl.**[2]..... **B65D 25/12**

[58] **Field of Search**.... 248/345.1; 229/14 C, DIG. 1

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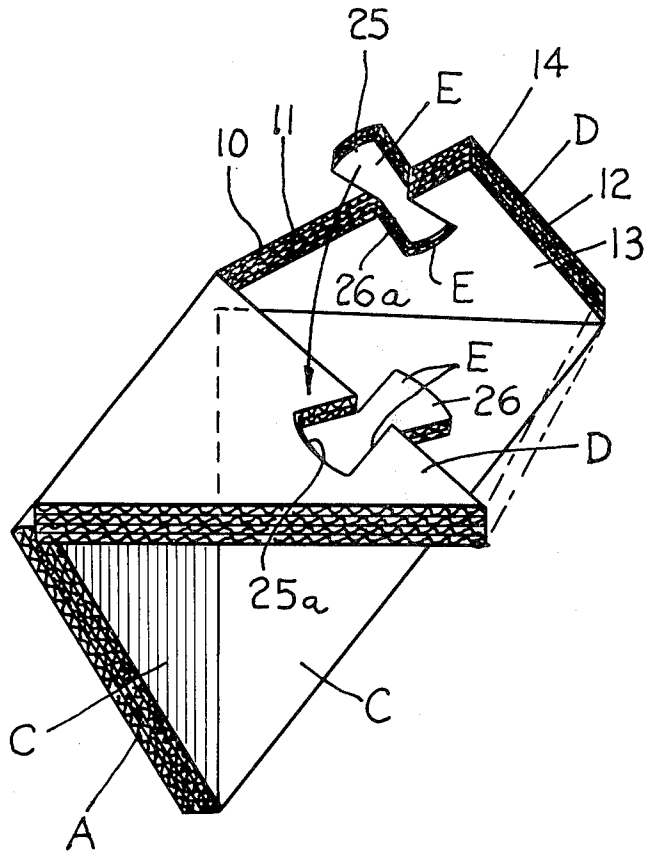
Primary Examiner—Davis T. Moorhead

Attorney, Agent, or Firm—Bailey & Dority

[57] **ABSTRACT**

A corner pad or protective shield for use on the corners of articles during shipment is illustrated substantially in the form of a pyramid having an open base for accommodating the corner and being constructed from a flat blank of fluted cardboard provided with slit scores to facilitate shipment of the corner pads in flat, stacked relation to be folded by the user into the aforesaid pyramid.

5 Claims, 7 Drawing Figures



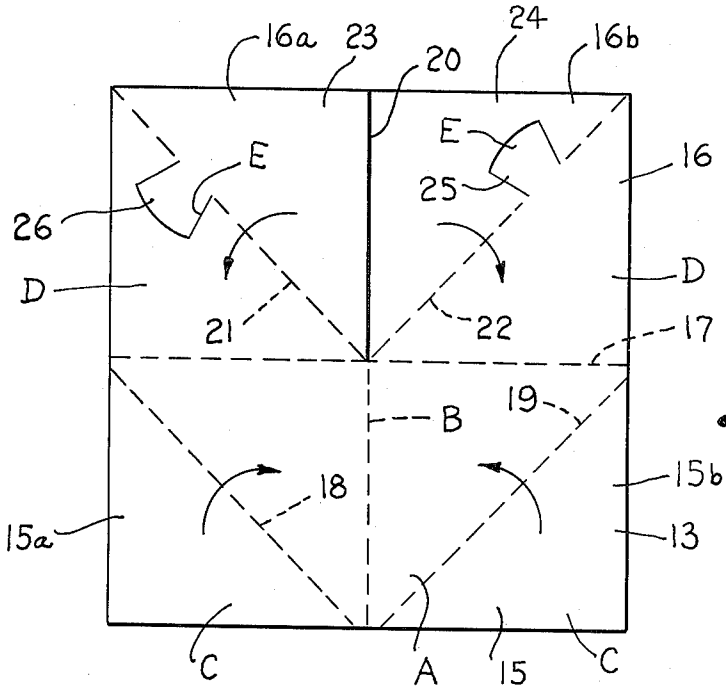


Fig. 1.

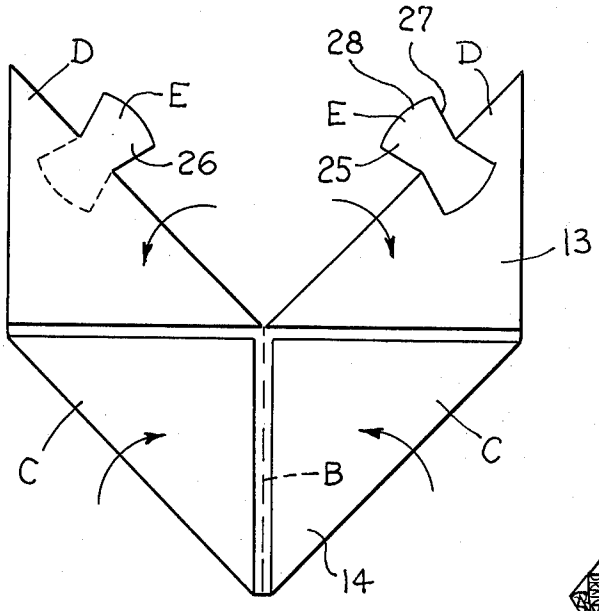


Fig. 2.

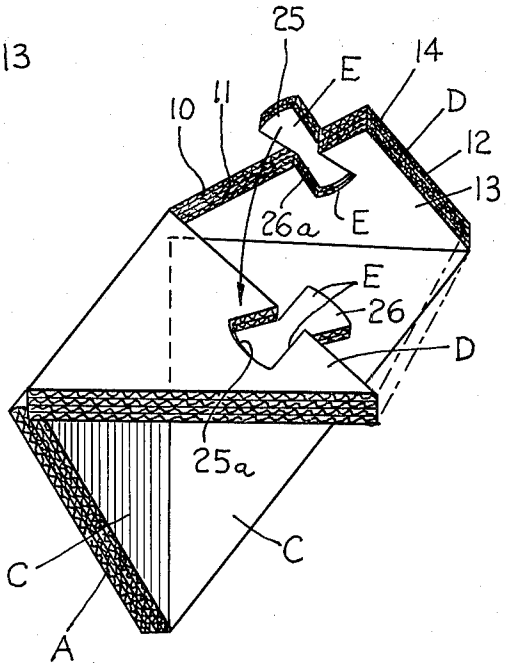
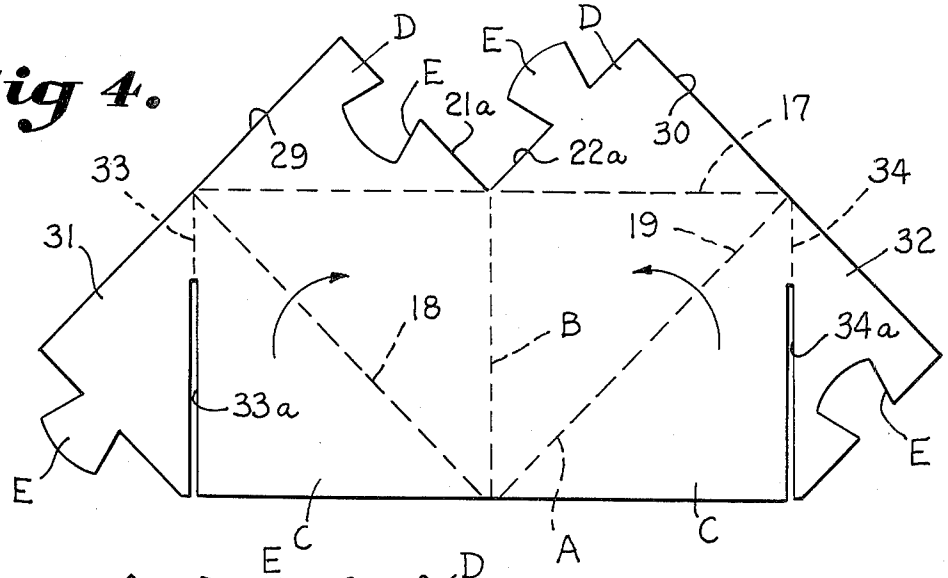


Fig. 3.

Fig 4.



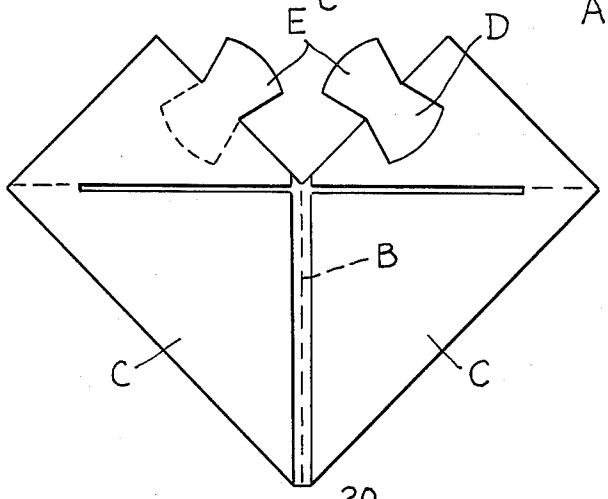


Fig. 5.

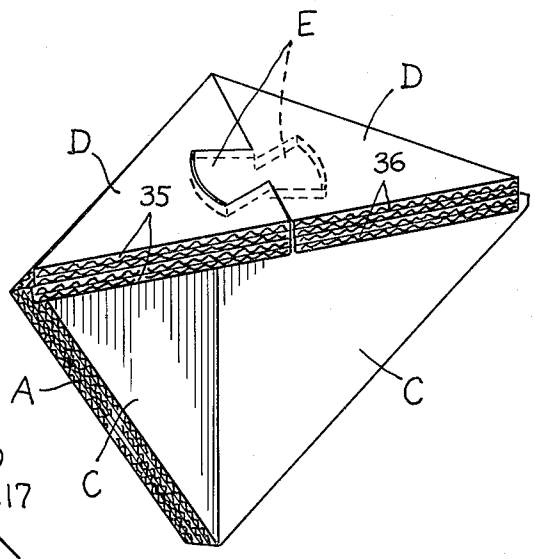


Fig. 7.

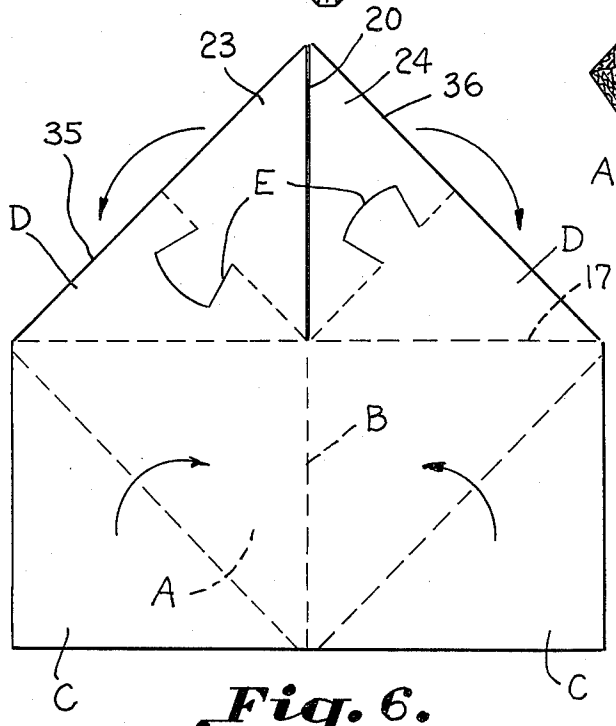


Fig. 6.

CORNER PAD

BACKGROUND OF THE INVENTION

It has been found desirable to use corner pads constructed of fluted cardboard usually encompassing three thicknesses of single wall, fluted carboard. Such corner pads are shipped in stacked, nested relation to each other. Normally, the board maker or manufacturer of the fluted carboard ships the cardboard in sheet form to a manufacturer of corner pads who, in turn, constructs from single sheets triangular members in the form of a pyramid which are glued together in nested relation to provide a corner pad of several thicknesses of cardboard. Each of these corner pads is then shipped to the furniture maker in stacked, nested arrangement.

It is desirable, therefore, to provide corner pads which may be shipped in the form of flat blanks directly from the board maker to the user. It is necessary that the blanks be in such a configuration that the user may readily fold them into a pyramid shape of multi-layered fluted cardboard for application to the corners of desks, tables, chests or other articles being shipped. This procedure saves a separate shipment to a manufacturer of corner pads, permitting the blanks hereof to be shipped directly from the board maker to the user.

BRIEF DESCRIPTION OF THE INVENTION

It has been found that blanks may be cut and slit by the board maker in such configuration as to permit shipment in flat form directly to the user by utilizing slit scoring on the underside of the blank to form an intermediate substantially triangular portion which is, in turn, slit scored from the apex to a mid-portion of the base and providing triangular flaps along each slit score permitting a first pair of triangular flaps to be folded in overlying position in relation to the intermediate portion and an additional pair of triangular flaps which may be folded upwardly and joined to form a third side of the pyramid with means to join the last mentioned flaps together.

BRIEF DESCRIPTION OF THE DRAWINGS

The construction designed to carry out the invention will be hereinafter described, together with other features thereof.

The invention will be more readily understood from a reading of the following specification and by reference to the accompanying drawings forming a part thereof, wherein an example of the invention is shown and wherein:

FIG. 1 is a plan view illustrating a flat, fluted double wall cardboard blank cut in accordance with an embodiment of the present invention.

FIG. 2 is a plan view illustrating the blank shown in FIG. 1 with a pair of flaps folded in overlying relation with respect to an intermediate triangular portion.

FIG. 3 is a perspective view further illustrating the blank of FIGS. 1 and 2 and illustrates the joining of a second pair of flaps to form a third side of the pyramid, the other two sides being formed by a respective first flap and a portion of the intermediate triangular portion.

FIG. 4 is a plan view of a blank constructed in accordance with a modified form of the invention wherein a third pair of flaps are carried by a first pair of flaps.

FIG. 5 is a plan view further illustrating the blank of FIG. 4 wherein a second pair of flaps is folded in such a manner that the pair of third flaps overlays a pair of second flaps.

FIG. 6 is a plan view of a blank constructed in accordance with the modified form of the invention wherein a third pair of flaps are carried by a second pair of flaps, and

FIG. 7 is a perspective view illustrating the blank in FIG. 6 folded into position for use as a corner pad.

DESCRIPTION OF A PREFERRED EMBODIMENT

The drawings illustrate a protective shield for use on corners of articles during shipment including a flat, fluted double wall cardboard blank. An intermediate substantially triangular portion A of the blank is bounded on each side and the base on the underside thereof by slit scores. An intermediate slit score B on the underside of the intermediate portion extends from adjacent the apex to substantially the mid-point of the base of the intermediate portion. A first pair of triangular flaps C is each carried by a first mentioned slit score at each side of said intermediate portion. A pair of triangular flaps D is each carried by the other first mentioned slit score at said base each extending substantially to the mid-point thereof, each flap presenting a free side extending from the base. Means E join the free sides when the first pair of flaps are folded inwardly to overlay the intermediate portion and the second triangular flaps folded upwardly into engagement along the free sides.

Referring particularly to FIGS. **1, 2** and **3,** it will be noted that a substantially square blank of double wall cardboard having two layers of fluting **10** and **11** are utilized. The layers of fluting **10** and **11** are carried by an intermediate flat portion **12** and confined on each side between double walls. The upper double wall is illustrated at **13** and the lower wall at **14.** The rectangular blank is divided into upper and lower rectangular portions **15** and **16** by a longitudinal slit score **17** in the lower wall **14** forming the base of the intermediate substantially triangular portion A. An intermediate slit score B is placed on the under side of the intermediate portion extending from adjacent the apex to substantially the mid-point of the slit score **17** dividing the lower rectangular portion **15** into squares **15***a* and **15***b*. Each of the squares is cut diagonally from said apex on the underside by slit scores **18** and **19** defining a first pair of triangular flaps C.

A slit **20,** which is an extension of the slit score B, extends entirely through the blank dividing the upper rectangular portion into a pair of squares **16***a* and **16***b*. Diagonal slits **21** and **22** extend from the said mid-point defining a second pair of triangular flaps D and forming a free side extending from the base formed by the slit score **17** as well as a third pair of flaps **23** and **24.**

The means E joining the said free sides include a tab **25** which is cut out of the adjacent third triangular flap **24** together with a tab **25** which is cut out of an adjacent second flap D. The notches are formed by the cut-out. Tabs are illustrated at **25***a* and **26***a*, respectively, and receive respective tabs **25** and **26** for joining said free sides. The various arrows show the manner in which the various flaps are folded and in FIG. **3,** the arrow illustrates the manner of positioning the tab **25** within the notch **25***a* and the tab **26** within its respective notch **26***a*. It will be noted that each of the tabs

preferably have outwardly diverging sides **27** being joined at the top as by the arcuate end portion **28.**

Referring now to FIGS. **4** and **5** which illustrate a modified form of the invention wherein like reference characters are used to designate like parts, it will be noted that the second pair of flaps D are carried by a slit score **17** and that instead of slit scores **21** and **22,** that the blank is cut entirely therethrough as at **21***a* and **22***a*. Means E extend from free opposite side portions **29** and **30.** A third pair of flaps are illustrated at **31** and **32** and are carried by a first pair of flaps C. The flaps **31** and **32** are joined at opposite side portions of the flaps C as by respective slit scores **33** and **34** in the under side of the blank.

Elongated cutout portions, corresponding to about the thickness of the blank, are illustrated at **33***a* and **34***a* respectively to permit the third flaps to turn inwardly freely when the blank is formed into its folded configuration for use as a protective shield. In this regard, it should be noted at this point that certain of the score lines are slightly offset as in the case of slit scores **18** and **19** in FIG. **4** which do not quite extend to the said apex of the intermediate substantially triangular portion. This is to accommodate the various thicknesses of the cardboard during folding.

Referring now more particularly to FIGS. **6** and **7** wherein another modified form of the invention is illustrated, like reference characters are also used to designate like parts. As in the embodiment illustrated in FIGS. **1, 2** and **3,** second flaps D are carried by a slit score **17.** Third flaps **23** and **24** are formed as by a cut **20** extending entirely through the blank. It will be noted, however, that the second and third flaps have aligned free edges defined by cuts **35** and **36.** The final configuration of the open based pyramid formed therefrom as illustrated in FIG. **7** is very similar to that of the embodiment shown in FIGS. **4** and **5** in that each of the sides of the pyramid are substantially equal. Thus, the embodiments shown in FIGS. **4** and **5** and **6** and **7** have the advantage of utilizing less cardboard but the embodiment shown in FIGS. **1, 2** and **3** affords the advantage of affording a greater amount of cardboard in the form of a square side which may be placed across the top of the article being shipped to afford greater protection in that area during shipment. In this connection, it will be noted that while it has been convenient to describe the various parts and components hereof in the form of geometrical shapes, it is not intended that, in practice, they be limited or utilized in accordance with a precise geometrical construction of the term utilized. FIG. **3,** for example, shows the generally pyramidal shape of the pad but one side is extended so that the extended side is in substantially the form of a square.

It is, thus, observed that the corner pads constructed in accordance with the present invention possess the important advantage of being readily shippable directly from the board maker to the user without an intermediate manufacturing and shipping step. While it is a disadvantage in that the user must fold the blanks to assemble the pads, there is, on the whole, less labor thus involved than in making and shipping preassembled corner pads. The net result is a less expensive, more efficient operation. The ultimate product may be used less expensively by a furniture manufacturer, for example, in providing the desired cushioning and shielding for furniture in shipment.

While a preferred embodiment of the invention has been described using specific terms, such description is for illustrative purposes only, and it is to be understood that changes and variations may be made without departing from the spirit or scope of the following claims.

What is claimed is:

1. A protective shield for use on corners of articles during shipment comprising:

a flat, fluted cardboard blank;

an intermediate substantially triangular portion of said blank bounded on each side and the base on the underside thereof by slit scores;

an intermediate slit score on the underside of said intermediate portion extending from adjacent the apex to substantially the mid point of the base of said intermediate triangular portion;

a first pair of triangular flaps, each carried by a first mentioned slit score at each side of said intermediate portion;

a second pair of triangular flaps, each carried by the other first mentioned slit score at said base each extending substantially to the mid-point thereof, each flap presenting a free side extending from said base;

a third pair of triangular flaps, each carried by a slit score and foldable in superposed relation to an adjacent one of said second pair of flaps;

a first tab projecting outward from one of said free sides and a first notch carried by the other of said free sides complimentary to said first tab for receiving same; and

a second tab projecting outward from one of said third pair of flaps and a second notch carried by the other of said third pair of flaps complimentary to said second tab for receiving same;

whereby said tabs join said free sides when said first pair of flaps are folded inwardly to overlay said intermediate portion and said second and third pairs of triangular flaps folded into engagement.

2. The structure set forth in claim **1** wherein said blank is double wall cardboard.

3. The structure set forth in claim **1** wherein said third pair of flaps is carried by said free sides by means of a slit score along each free side.

4. The structure set forth in claim **1** wherein said third pair of flaps is carried by said first pair of flaps.

5. The structure set forth in claim **1** wherein said second pair of flaps has a slit score extending from adjacent said mid-point of the base of said equilateral triangle to a mid-point of the base of each of said second flaps forming said third pair of flaps, whereby a pyramid having an open base is formed and each side thereof has a double thickness of fluted cardboard.

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