United States Patent [19]

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[54] **GARMENT BOX**

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[52] **U.S. Cl.** ..... **229/32,** 229/16 R, 229/34 R

[51] **Int. Cl.** **B65d 5/26**

[58] **Field of Search** ..... 229/32, 34 R, 35, 30, 16 R

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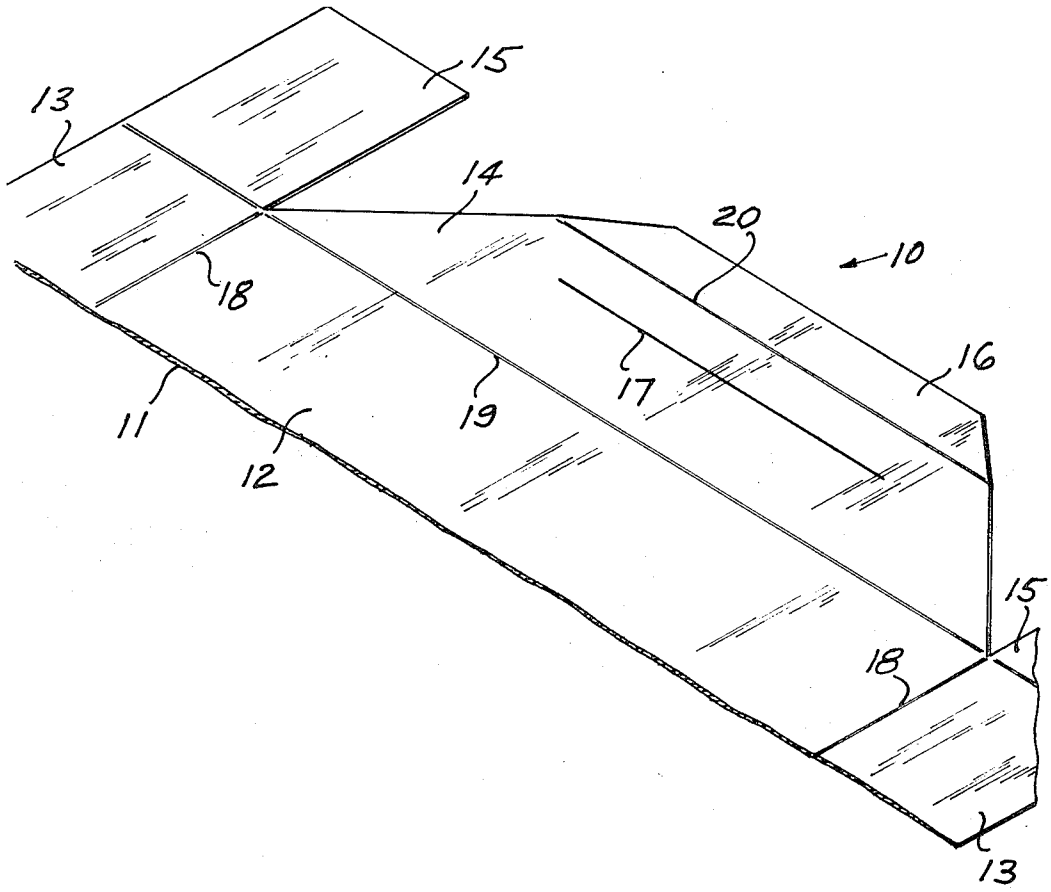
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[57] **ABSTRACT**

A fold-up box, that is stocked in flat cardboard sheets, employs one simple flap-tuck in two places for assembly.

3 Claims, 3 Drawing Figures



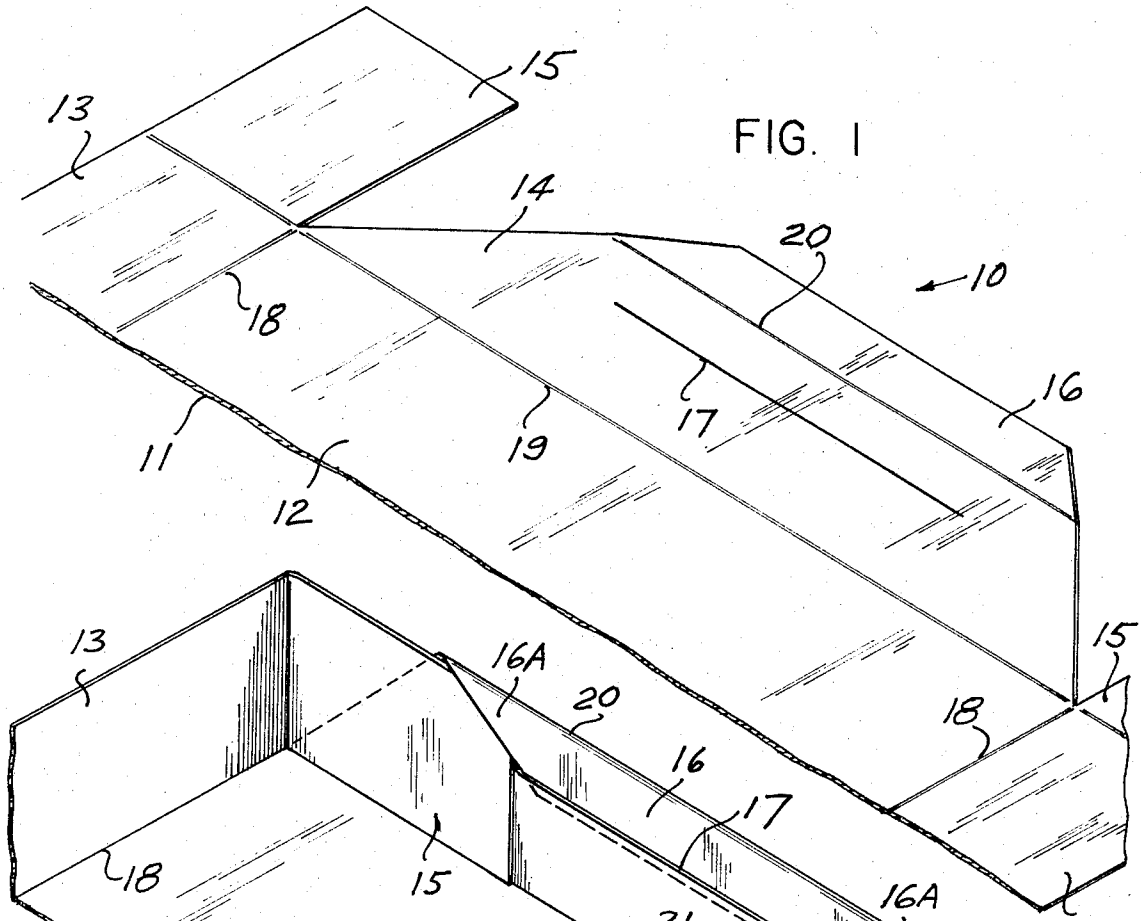


FIG. 1

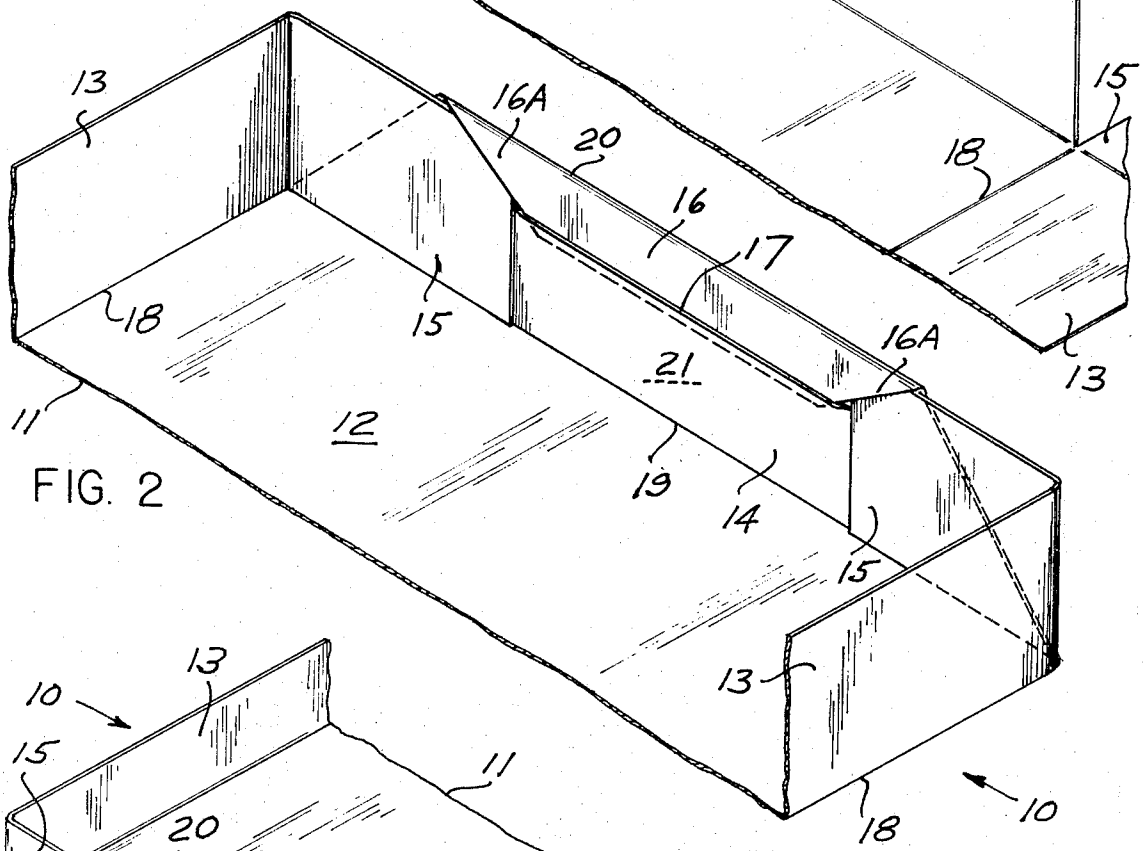


FIG. 2

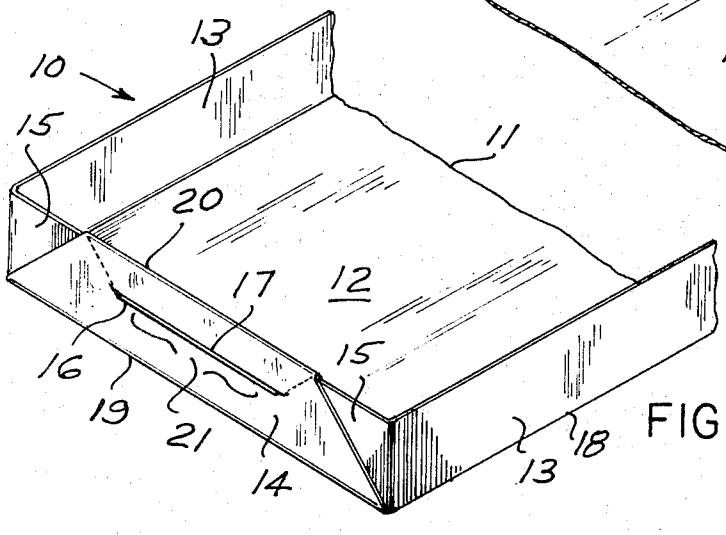


FIG. 3

GARMENT BOX

This invention relates to packaging design, more particularly to boxes that are folded up from die-cut creased flat stock.

A principal object of the present invention is to provide a fold up box for garments or the like that offers improvement in the present art. All of the boxes in use today that are folded up from flat paper stock have one or more of the following disadvantages: The die-cut and creased box unit is expensive because the cutting die and/or the creasing machine is complicated, some involving curves for tuck-in flaps, creasing running together at odd angles and the like. Some boxes are flat in stock, but are not a single thickness of cardboard. They are doubled over, or creased and folded before die-cutting and so on. Still other boxes in their areas of folding employ staples, gluing and the like. All such folded stock means fewer units per package and also lends to sagging of the pile, awkward handling and the like. Boxes have tuck-in ears or lobes that are not only awkward in assembly where time is of the essence, but creates frustration both for the packer and the customer as these ears are easily torn or simply ruptured under the application of a tightly packed garment. Boxes that have cut outs in which to insert the fingers means that there is an exposure to the interior; an undesirable feature. Therefore, such boxes simply do not have hand grips.

The present invention features a box that takes the simplest of cutting and creasing equipment and eliminates staples, glue and the like. Further, the boxes assemble very rapidly in a secure, reliable manner. The single, simple movement of tucking in one flap at each end locks the whole box into shape and automatically provides a ledge for easily lifting and moving the box by using the ends of the fingers of both hands.

These and other objects will become evident upon examination of the following specification and the accompanying drawing, wherein:

FIG. 1 is a fragmentary perspective view of the box unit as manufactured and packaged;

FIG. 2 is a view similar to FIG. 1 but showing the box folded up and the flap tucked into the slot; and

FIG. 3 is an outside view of FIG. 2.

Referring to the figures, a garment box **10** is die-cut and creased out of one piece of paper stock **11.** This produces a square or rectangular box unit having a bottom wall **12,** side walls **13,** trapezoid shaped end walls **14,** corner tabs **15,** trapezoid shaped tuck-in flaps **16** and tuck-in slots **17.**

In one creasing operation, two creases **18** provide for folding up side walls **13.** In the second creasing operation, two creases **19** are made for folding up end walls **14** and two creases **20** are made for tuck-in flaps **16.**

The previous description and inspection of the drawing will show that both die-cut and creasing operations are extremely simple, thereby bringing down the cost of the equipment needed to produce the basic box unit **10.**

Referring in particular to FIGS. **2** and **3,** in which the figures clearly show the method of assembly, it will be seen that the area **21** is somewhat recessed by virtue of the short projection of flaps **16** through slots **17.** This

recess automatically creates a handy grip for the finger tips when lifting and moving about a packaged box.

It will also become obvious that assembly is simple. The packager, with one motion brings both thumbs against both flaps **16,** bends the flaps while pressing the fingers area **21.** Since the projection of the marginal edge of flap **16** is only slightly beyond cut **17,** the flap snaps into place. Once the flaps are in place, the corner tabs **15** are locked between the end walls **14** and the corner area **16***a* of the flaps, to thereby secure the tabs against rotating into the box or about crease **18** as an access.

In manufacture, the complete box will come in separate packages, one package having a bottom wall **12** of the desired dimensions and the other package having a bottom wall **12** slightly larger in both directions serving as the cover. As is done in general practice today the outer unit or cover unit is distinguishable by its markings, decorations, coloring, addition of a built-in cord or ribbon handle and the like. It should also be understood that the scope of the invention includes a possible extension to a double unit in which the die and the scoring provides three side walls **13** and six tabs **15.** Whether a whole garment box comprises two units as described and shown in the figures or is made of one unit doubling over both as box and cover using the features of the invention, the original cardboard stock is of one thickness only, piling up evenly and economically in the package.

What I claim is:

1. An integral fold-up box for garments or the like comprising a square or rectangular bottom wall; a pair of upstanding, opposed, side walls joined to said bottom by way of fold-up creases, each of said side walls extending the full length of the bottom and carrying a tab at each end joined to the side wall by way of a fold-in crease, each tab being disposed at a right angle to the side wall and extending in the direction of the opposing side wall, each tab and its associated side wall thereby forming a corner for the box; a pair of upstanding, opposed, end walls joined to said bottom by way of fold-up creases, each of said end walls having a trapezoidal shape with long and short parallel sides, the long parallel side of the trapezoid extending the full width of the bottom and being joined thereto; a pair of tuck-in flaps joined to said short parallel sides of each of said end walls by way of fold-down creases, each of said flaps also having a trapezoidal shape with long and short parallel sides, the long parallel side of each flap coinciding with and being joined to the short parallel side of each end wall; and each of said end walls carrying a tuck-in slot disposed parallel to said parallel sides of the end wall, said slot being slightly longer than said short parallel side of the tuck-in flap whereby disposition of the marginal edge of the short parallel side of the flap within the slot locks the opposing corner tabs at each end of the box between the end wall and its associated tuck-in flap.

2. The integral fold-up box of claim **1** in which all of the creases are straight.

3. The integral fold-up box of claim **1** in which the side walls and tab are quadrilateral in shape.

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