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G. W. DAVIDSON ET AL

2,670,122

CORNER PAD

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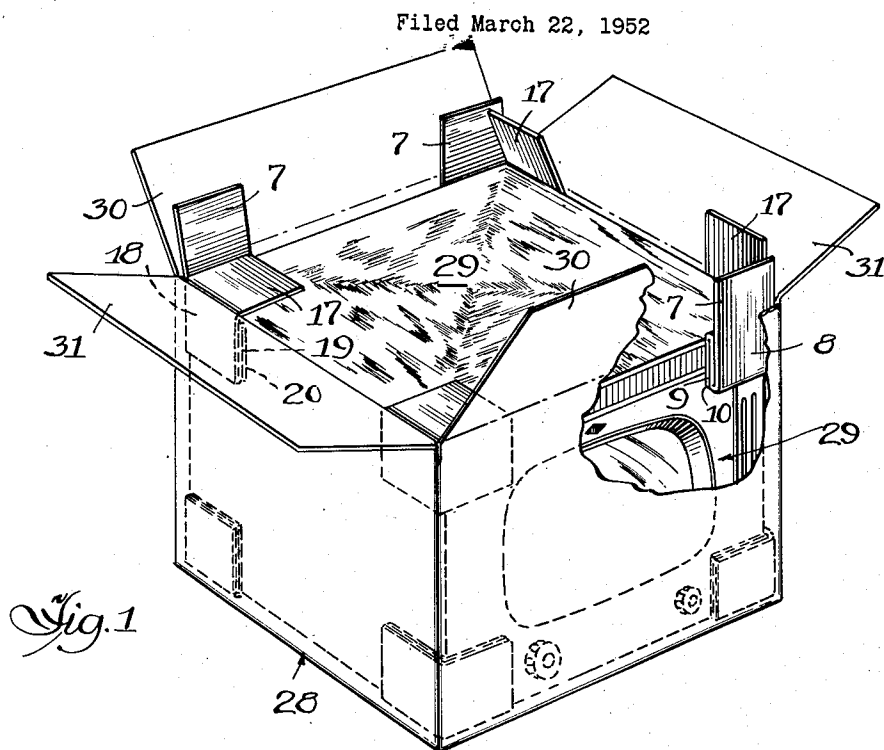


Fig. 1

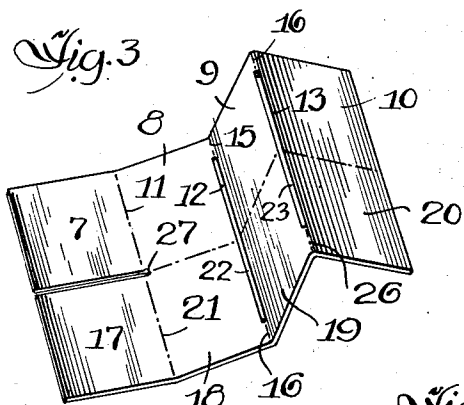


Fig. 3

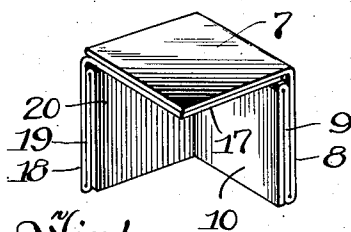


Fig. 4

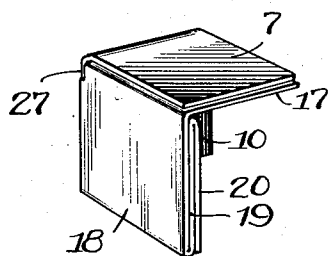


Fig. 5

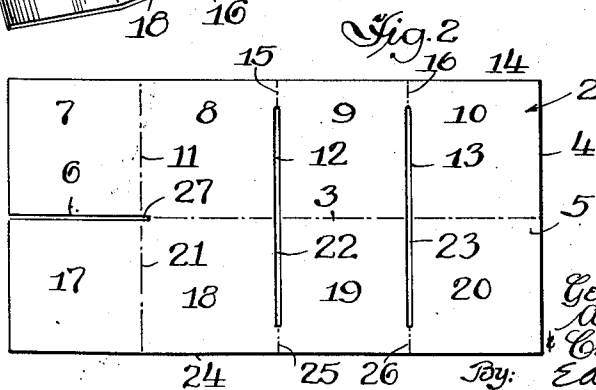


Fig. 2

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UNITED STATES PATENT OFFICE

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CORNER PAD

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2 Claims. (Cl. 229—14)

1 This invention relates to a corrugated corner pad which protects the corners of television and radio cabinets, and other similar articles that may be packed into shipping containers.

It is an object of this invention to provide an inexpensive corner pad that may be stored or shipped in flat condition and may easily set up into shape for use. It is a further object to provide a corner pad that has a minimum resistance to folding and yet has sufficient strength to hold together in use. Another object is to provide a corner pad that does not have to be completely shaped before being positioned in the shipping container in which it is to be used, but may be inserted into position for use in partially folded form and then folded into its final form without loss of time when the shipping container is being closed. Another object is to form the corner pad from a rectangular strip of paperboard so as to avoid waste of material in the manufacture of the pads.

Additional objects and advantages of the invention will become apparent upon reading the following description, taken in conjunction with the accompanying drawing showing a preferred illustrative embodiment of the invention, in which:

Figure 1 is a perspective view of a partially closed shipping container in which corner pads embodying the invention are used, with a portion broken away to illustrate the pad structure;

Figure 2 is a plan view of the blank from which the pad is formed;

Figure 3 is a perspective view of the pad partially folded into corner protecting position;

Figure 4 is a perspective view of the pad after it has been folded into its final form; and

Figure 5 is a perspective view of the folded pad, looking from a different angle.

Referring to Figure 2 of the drawing, the blank comprises a rectangular strip 2 of corrugated paperboard having a longitudinally extending score line 3 dividing the strip into two substantially equal portions 4 and 5. A slot 6 aligned with score line 3 extends from one end of strip 2 to a point slightly farther than one fourth the length of strip 2. The purpose of slot 6 will be hereinafter described. The portion 4 is subdivided transversely into four substantially equal sections 7, 8, 9 and 10 by a score line 11 and slots 12 and 13, each of which extends perpendicular to score line 3. Score line 11 extends from the slot 6 to the longitudinal edge 14 of portion 4. The slots 12 and 13 extend from the score line 3 to a point spaced inwardly a short distance from the longitudinal edge 14. Score lines 15 and 16

2 extend respectively from the ends of slots 12 and 13 to the edge 14. The portion 5 is similarly subdivided into sections 17, 18, 19 and 20 by a score line 21, aligned with score line 11, and slots 22 and 23, aligned with slots 12 and 13. The slots 22 and 23 each terminate short of the longitudinal edge 24 of portion 5, and the intervening portions are transversely by score lines 25 and 26, similar to score lines 15 and 16. The slot 6 extends a short distance beyond score lines 11 and 21, as indicated at 27.

When the corner pad is to be folded into shape for use, the rectangular strip 2 is folded in reverse directions along slots 12, 22 and 13, 23 so as to provide sections of triple thickness with sections 8, 9 and 10 in face to face relationship, and sections 18, 19 and 20 in face to face relationship. The slots 12, 13, 22 and 23 permit these sections to be folded substantially flat against each other. The unslotted portions 15, 16, 25 and 26 do not interfere with this folding operation, but provide sufficient strength to prevent the paperboard from breaking at these points. Section 17 is then folded toward section 20 along score line 21, and sections 8, 9 and 10 are folded along score line 3 towards sections 18, 19 and 20 until they are at right angles thereto. Section 7 may then be folded along fold line 11 until it is flat against section 17 and at right angles to sections 8 and 18. The extension 27 of slot 6 facilitates the folding of sections 7 and 17 at right angles to each other by providing the necessary clearance therebetween. Sections 9, 10, 19 and 20 are all of the same length, which is slightly less than the length of sections 8 and 18 so that when sections 9 and 10 are folded into face to face relationship with sections 8 and 18 respectively, the fold line defined by lines 16 and 26 is slightly below the score lines 11 and 21 to provide clearance for folding sections 7 and 17 at right angles to the other sections.

Four corner pads may be inserted in the four corners of a shipping container 28 and the television cabinet 29 or similar article may be positioned in the shipping container with each corner engaging one of the pads. Article 29 will hold the corner pads in proper position in the corners. Sections 7 and 17 may be secured together, by staples or adhesive if desired, when the corner pad is to be used at the bottom of a shipping container, but this is generally not necessary because even if the corner pad spreads out slightly, the article 29 will push the pads into proper protecting position when it is inserted into the container.

The corner pads are then placed in the con-

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tainer 28 against each upper corner of article 29. Sections 7 and 17 will naturally spring upwardly, as shown at the right hand side of Figure 1. When the shipping container is to be closed, section 7 is pressed downwardly by hand, and then flap 30 may be folded downwardly into closed position. Flap 30 will carry section 7 downwardly with it and when the flap is sealed in closed position the corner pad will be securely held in place. After both flaps 30 have been folded down, the flaps 31 are folded over and secured to the flaps 30 in any suitable manner.

Although I have illustrated the corner pad as being used with shipping containers having foldable top cover flaps, it will be obvious that the corner pads may be used in any type of shipping container, regardless of whether they are made of paperboard, wood or metal, provided with any type of cover. The pads hold the article 29 out of contact with any surface of the shipping container and effectively cushion it against bumping or jarring that might occur while the article is being handled or transported.

While the foregoing description sets forth a preferred embodiment of the invention in considerable detail, many changes may be made in the construction without departing from the spirit of the invention, and it is therefore desired that the present embodiment be considered in all respects as illustrative and not restrictive, reference being had to the appended claims rather than to the foregoing description to indicate the scope of the invention.

We claim:

1. A corner protector pad composed from a single rectangular piece of corrugated paperboard differentiated by scores and slots into eight panels arrayed in two side by side series of four panels each with each panel of each series opposite to a panel of the other series and with opposite panels of substantially equal corresponding dimensions, the opposed panels at one end of the piece being separated from one another by a slot and each of the other three panels of each series being differentiated from their correspond-

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ingly opposite panels by a crease score aligned with said slot and extending longitudinally of the piece, the opposed panels at said one end being joined to their respectively adjacent panels by transversely extending aligned scores, the other three panels within each series being separated from one another by slots extending transversely of the piece of paperboard between places adjacent to the opposite longitudinal edges of the piece, and a crease score extending in alignment with and from each end of each transversely extending slot to the adjacent longitudinal edge of the piece.

2. A corner pad as defined in claim 1 wherein the several panels have been folded along said crease scores and slots into tri-cornered form, those end panels that are at the end of the piece opposite to the slot separated end panels being folded in back to back relation to and against their respectively next adjacent panels along the intervening slot and crease score, the said next adjacent panels being folded in face to face relation to and against their respectively next adjacent panels along the intervening slot and crease score, the thus folded three panels of each series being folded at right angles to the slot separated end panels, the thus folded three panels of each series being folded into right angular relationship to one another along the longitudinally extending crease score, and the slot separated end panels being folded to lie one upon the other.

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