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R. B. EULLER

2,226,601

PROTECTOR

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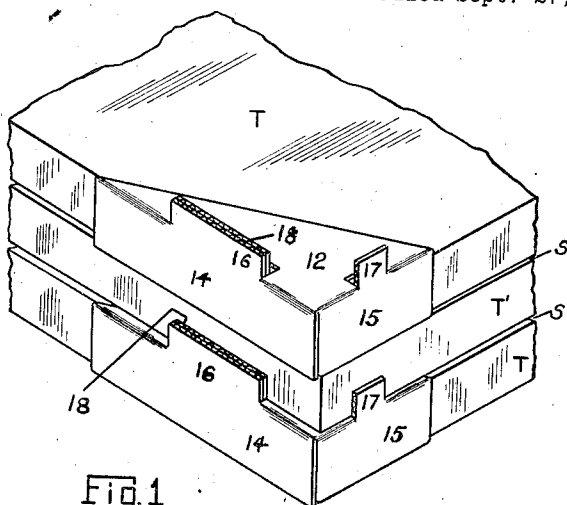


Fig. 1

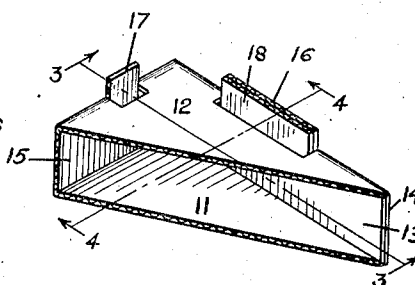


Fig. 2

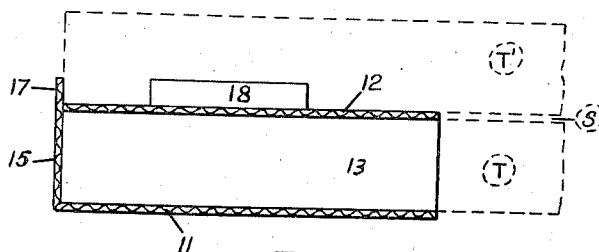


Fig. 3

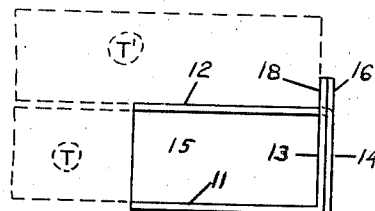


Fig. 4

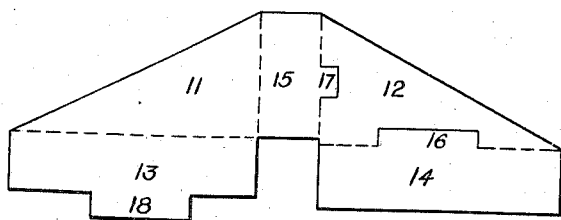


Fig. 5

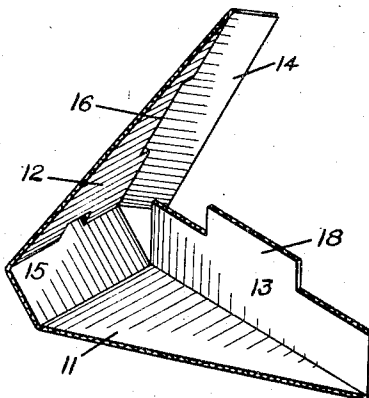


Fig. 6

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PROTECTOR

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5 Claims. (Cl. 206—60)

This invention relates to a protector for the corner of merchandise to be packed in stacks or layers, particularly flat articles, and aims to provide a protector for that purpose which is made from a single piece of corrugated board material, which can be readily folded into shape for application and which will hold such shape without any fastening means except interfitting of its own elements. This invention also includes features which align the protected items in the stack.

A preferred embodiment of the protector is shown in the accompanying drawing and described in the following specification, it being understood that such disclosure is illustrative rather than limiting, but may be modified in detail within the scope of the appended claims.

In the accompanying drawing:

Fig. 1 is a perspective showing two of my protectors applied to articles piled in a stack, so that two protectors protect three articles;

Fig. 2 is a perspective of a protector set up, looking toward the inside;

Fig. 3 is a vertical section on the plane 3—3 of Fig. 2;

Fig. 4 is a vertical section on the plane 4—4 of Fig. 2;

Fig. 5 is a plan view of the blank from which the protector is made; and

Fig. 6 is a view of the protector partially folded, so as to show the method of assembly.

The protector comprises two right triangular portions 11 and 12, forming the bottom and top respectively, having individual sides 13 and 14 hinged to them, and connected by a common side 15. The hinge line of 14 is preferably offset outwardly from the projection of the hinge line of 13, the extent of the offset being equal to the thickness of the material. Sides 14 and 15 each include tabs, 16 and 17 respectively, formed by notching the top 12 along the respective hinging lines, and side 13 includes a tab 18 on its free outer edge, 18 being no longer than the notch from which 16 is cut, so as to pass through that notch when the protector is set up, but preferably higher than 16 to an extent equal to the thickness of the material. Thus, when the protector is turned about its hinge line for setting up, the tabs are upstanding and of the same height as the wall to which they pertain, although such equality of height is important only for neat appearance.

To set up the protector, the panels 13 and 14 are turned up at a right angle to panels 11 and 12 respectively, and then 11 and 12 are folded

about the hinge lines of side 15 and thus brought parallel, as shown in Figs. 6 and 2, with side 13 inwardly against side 14, all tabs upstanding, and tab 18 projecting through the slot left by 16, thus locking the protector into the set-up position of Fig. 2. It is then ready to be slipped on the corner of the merchandise to be protected.

The illustration in Figs. 1, 3 and 4 represents a pile of enamelled table tops, which need protection only at their corners. By putting a protector on each corner of the bottom table top T of the pile, the next one in the pile T', needs no protector, since the top 12 below and the bottom 11 above protect the intermediate top T', and the tabs 17 and 16—18 of the lower protector keep the top T' from slipping. Furthermore, since tab 17 is the same thickness as side 16, and since tabs 18 and 16 combined are the same thickness as walls 13 and 14 combined, the entire pile is kept in vertical edge alignment in both directions. At the same time the protectors, although applied only to every other top, spaces every top from its neighbors as shown at S in Fig. 3, where the tops T and T' are shown dotted only. The sides 13 and 15 space the edges of T and T' inwardly from any outside container in which the pile may be packed. In Fig. 1 it is assumed that more tops T' and T will be added to the pile. If relative thickness of merchandise and height of tabs allows, any protectors above the bottom can be inverted, and the top one will naturally be inverted or have its tabs cut off or flattened down.

The protectors need be large enough to cover and fit firmly upon the corners only, and do not have to overlap much of any surface of the merchandise being protected. Obviously the protectors can be made, as shown in Fig. 5, of a single thickness of corrugated board by a single die stroke, and when set up are interlocked without additional fastenings; neither adhesive nor staples being necessary. Thus the protectors can readily be stored and shipped flat in very compact packages, but are very readily and quickly set up by unskilled help either at the time of applying to the merchandise, or a number may be made ready by one operator and supplied to a packer already set up.

Although I have described a preferred embodiment in detail, variations therefrom may be resorted to, within the scope of the appended claims. In the claims the word "top" is used referring to the position of the protector as shown in Fig. 1, but this terminology is merely a matter of convenience.

I claim:

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1. A protector comprising in combination a top, bottom and two side walls, one of said side walls being of two plies, one ply hinged upwardly from the bottom and the other hinged downwardly 5 from the top, and the other side being hinged to both top and bottom, each ply of said two-ply wall having a tab prolongation, one of said tabs being cut from the top and the other tab being adapted to project through the opening left by 10 said first tab.
2. A protector comprising in combination a top, bottom and two side walls, one of said side walls being of two plies, one ply hinged upwardly from the bottom and the other hinged downwardly 15 from the top, and a tab upstanding on the inner ply, and a slot in the top adjacent the outer ply through which said tab is adapted to project.
3. A protector comprising in combination, a 20 top, bottom and two side walls, one of said side walls being of two plies, one ply hinged upwardly from the bottom and the other hinged downwardly from the top, and a tab upstanding on the inner ply, and a slot in the top adjacent the outer ply through which said tab is adapted to project, said slot being of substantially the same length as said tab.
4. A protector comprising in combination top 5 and bottom panels and an intermediate panel hingedly connecting same, side walls hinged to said top and bottom panels respectively, the hinge line between said bottom panel and its side wall being offset inwardly an amount equal to the 10 thickness of the material from the hinge line connecting the top panel and its side wall.
5. A blank for a corner protector comprising in combination two principal panels hinged to oppo- 15 site sides of a connecting panel, and a wall panel hinged to each of said first-named panels on a line at right angles to said connecting panel, a tab rigid with said connecting panel, and a tab rigid with one of said wall panels, each of said 20 tabs being severed from the material of the same principal panel.

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