April 5, 1960 H. D. MUISE 2,931,556

TRAY

Filed Jan. 13, 1958 2 Sheets-Sheet 1

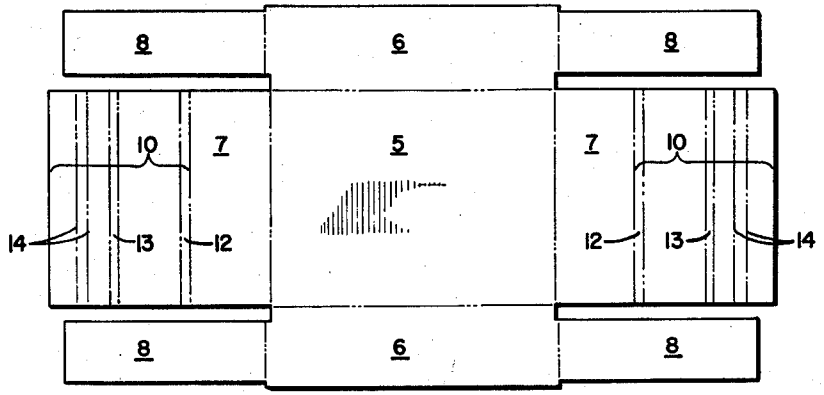


FIG. 1

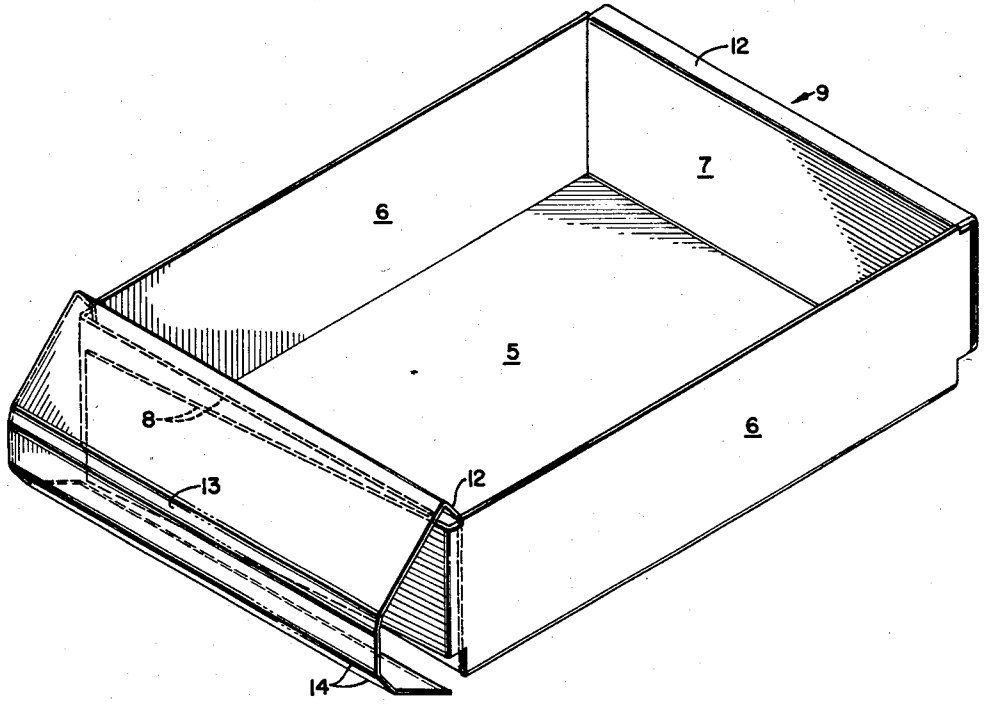


FIG. 2

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TRAY

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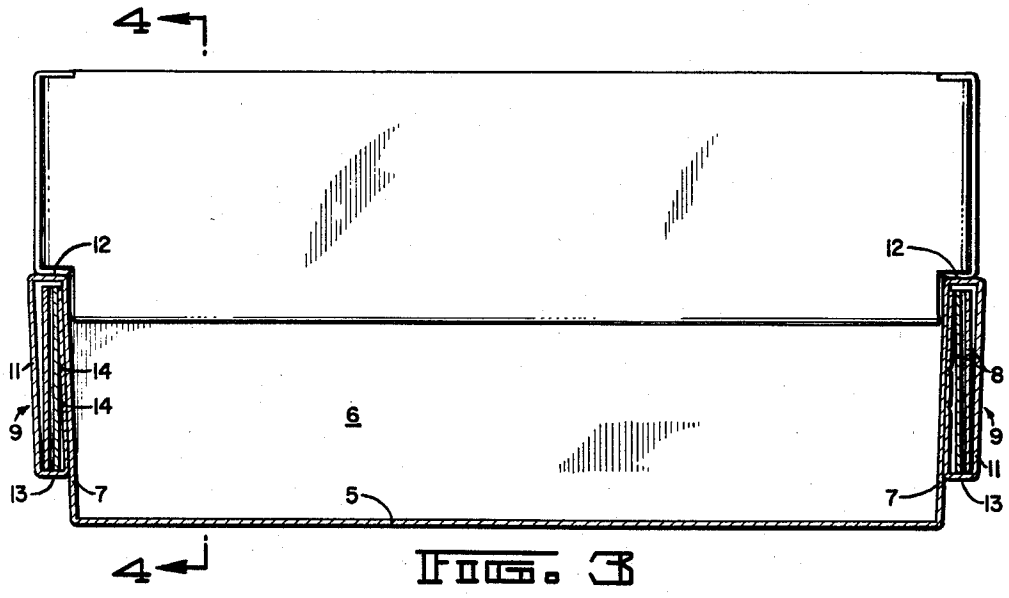


FIG. 3

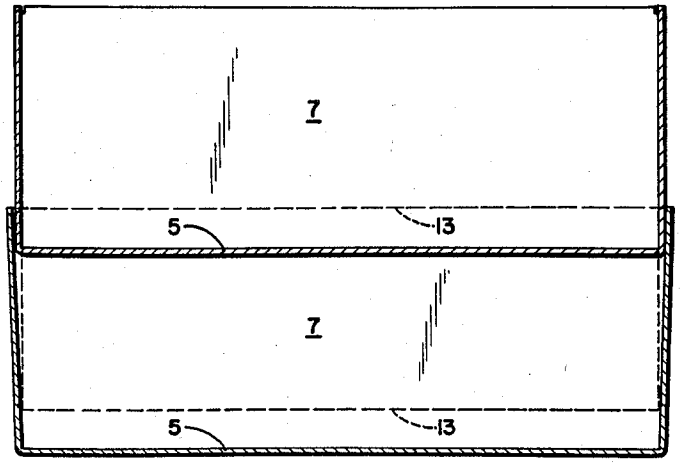


FIG. 4

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2,931,556
Patented Apr. 5, 1960

2,931,556

TRAY

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Application January 13, 1958, Serial No. 708,695

3 Claims. (Cl. 229—34)

The invention relates to a tray made from container stock such as corrugated paperboard, fibreboard and the like. More especially, it is concerned with the construction of improved stacking supports for trays such as are used, for example, as bread trays.

In the use of open top trays, it is often necessary that they be stacked one atop another. As the bottom tray must carry the load imposed by all the full trays above it, the particular means for distributing and sustaining loads becomes a matter of considerable practical significance. I have devised a particular effective stacking support which can be formed as an integral part of the end structure of the tray as erected for use. My stacking support extends across and outside the end wall of the tray and is formed by a multiple fold extension folded outwardly from the upper edge of the end wall, thence folded downwardly over end flaps folded outside the end wall, then folded inwardly and then upwardly between the end flaps and the outside of the end wall. This construction fulfills several requirements. It locks the tray erect. It forms a box enclosing the end flaps and furnishing an exceptionally strong end structure. It provides flat upper and lower bearing surfaces for sustaining and transmitting loads. By positioning the lower bearing surfaces above the bottom of the tray, the tray can be stacked with others in partially nested relation. By making the end flaps so that they will extend in overlapping relationship for substantially the width of the tray, a double thickness of the stock fills the boxes of the stacking supports and contributes to the structural strength of the tray.

Referring to the drawings I shall now describe the best mode contemplated by me for carrying out my invention.

Fig. 1 is a face view of the blank from which my improved tray is formed. The dot and dash lines represent fold lines as formed by scoring or otherwise.

Fig. 2 is a perspective view showing how the tray is set up for use.

Fig. 3 is a vertical longitudinal sectional view of the completed tray. A second tray, shown in elevation, is stacked on the first.

Fig. 4 is a vertical cross sectional view taken on the line 4—4 of Fig. 3.

My tray as erected for use comprises a bottom panel 5, side and end panels 6 and 7 extending upwardly from the edges of the bottom panel, end flaps 8 extending

from the ends of the side wall panels and folded outside the end wall panels, and stacking supports 9 extending across and outside the end wall panels. The stacking supports are formed by multiple fold extensions 10 (Fig. 1) folded outwardly from the upper edges of the end wall panels, thence folded downwardly over the end flaps, inwardly and then upwardly between the end flaps and the outside of the end wall panels, as will be understood from Figs. 2 and 3. The extensions 10 lock the erected tray and form boxes 11 (Fig. 3) enclosing the end flaps and having flat upper and lower bearing surfaces 12 and 13 for sustaining loads when the tray is stacked up with other trays of like construction.

The lower bearing surfaces 13 of the stacking support boxes 11 are positioned above the bottom of the tray as best shown in Figs. 3 and 4. The end flaps 8 extend in overlapping relationship for substantially the width of the tray. Score lines 14 of extensions 10 facilitate insertion of the ends of the extensions between the end flaps and end walls (Fig. 2).

The terms and expressions which I have employed are used in a descriptive and not in a limiting sense, and I have no intention of excluding such equivalents of the invention described, or of portions thereof, as fall within the scope of the claims.

I claim:

1. A tray made from one piece of container stock comprising, in the form in which it is erected for use, a bottom panel, side and end wall panels extending upwardly from the edges of the bottom panel, rectangular end flaps extending from the ends of the side wall panels and folded outside the end wall panels, the bottom edges of said end flaps disposed above and parallel to the bottom of the tray throughout substantially the width of the ends of the tray, and stacking supports extending across and outside the end wall panels, said stacking supports formed by multiple fold extensions folded outwardly from the upper edges of the end wall panels, thence folded downwardly over the end flaps, inwardly and then upwardly between the end flaps and the outside of the end wall panels to lock the erected tray and form boxes enclosing the end flaps and having flat upper and lower bearing surfaces for sustaining loads when said tray is stacked up with other trays of like construction.

2. A tray as defined by claim 1, in which the lower bearing surfaces of the stacking support boxes are positioned above the bottom of the tray.

3. A tray as defined by claim 1, in which the end flaps extend in overlapping relationship for substantially the width of the tray.

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