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FOLDABLE AND PORTABLE ENCLOSURE

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2 Sheets-Sheet 2

FIG. 5.

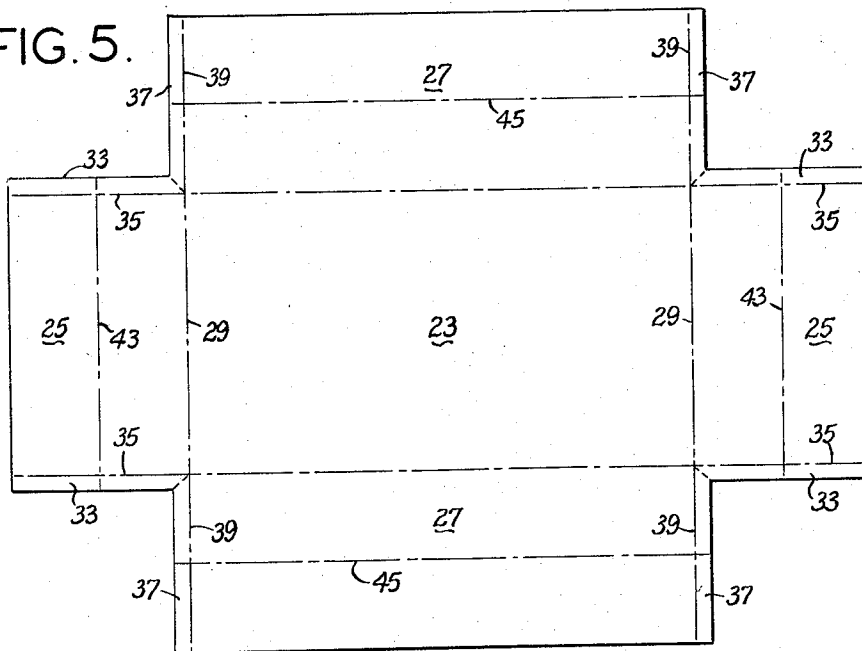


FIG. 6.

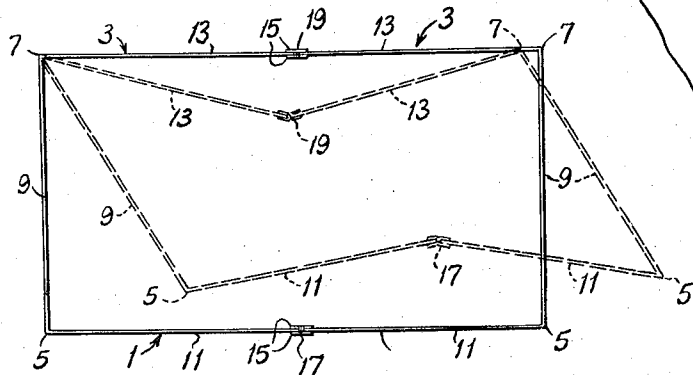
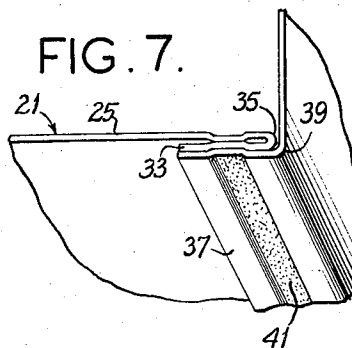


FIG. 7.



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FOLDABLE AND PORTABLE ENCLOSURE

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6 Claims. (Cl. 4-177)

This invention relates to foldable and portable enclosures, and more particularly to such an enclosure adapted for use as an infant's crib, a play pen, a bath-inette, a wading pool or the like.

Among the several objects of the invention may be noted the provision of a foldable and portable enclosure of the class described which is economical to manufacture; the provision of an enclosure of this class adapted to fold into a compact flat package so that it may be conveniently carried and stored; the provision of an enclosure of this class which comprises a foldable frame which may be made of an inexpensive material such as paper board and a basket which may be made of waterproof material such as flexible sheet plastic material, the basket having strong watertight seams; and the provision of an enclosure of this class which is easy to erect for use. Other objects and features will be in part apparent and in part pointed out hereinafter.

The invention accordingly comprises the constructions hereinafter described, the scope of the invention being indicated in the following claims.

In the accompanying drawings, in which one of various possible embodiments of the invention is illustrated,

Fig. 1 is a perspective of an enclosure of this invention as it appears when erected;

Fig. 2 is an enlarged longitudinal vertical cross section of the erected enclosure, taken on line 2-2 of Fig. 1, with parts broken away;

Fig. 3 is an enlarged transverse vertical cross section of the erected enclosure, taken on line 3-3 of Fig. 1;

Fig. 4 is a perspective of the frame per se of the enclosure as it appears when collapsed;

Fig. 5 is a plan of the blank from which the basket of the enclosure is made;

Fig. 6 is a plan of the frame per se, showing in solid lines how the frame appears when erected, and showing in dotted lines how the frame is collapsed; and,

Fig. 7 is a detail perspective showing a basket seam.

Corresponding reference characters indicate corresponding parts throughout the several views of the drawings.

Referring to the drawings, a foldable and portable enclosure of this invention is shown to comprise a foldable frame 1. This consists of two generally identical strips of stiff paper board each designated 3. Each strip is scored on two transverse lines 5 and 7 which in effect divide it into three panels, an intermediate panel 9 and outer panels 11 and 13. The outer panels 11 and 13, which are at least approximately the same length, are shorter than the intermediate panel 9. The end of panel 11 of one strip 3 is abutted against and hingedly connected to the end of panel 11 of the other strip 3 by means of paper adhesive tapes 15, and the end of panel 13 of the one strip 3 is abutted against and hingedly connected to the end of panel 13 of the other strip 3 by means of paper adhesive tapes also designated 15. This hinges panels 11 together at 17 and hinges panels 13 together at 19.

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The frame 1 constituted by the two strips 3 (scored on lines 5 and 7 and having their ends hingedly connected at 17 and 19) is adapted to be opened by folding on lines 5 and 7 and at hinge lines 17 and 19 to the open rectangular form in which it is illustrated in solid lines in Fig. 6. As the frame is so opened, panels 11 of the two strips are aligned end-to-end and constitute one side wall of the open rectangular frame, panels 13 of the two strips are aligned end-to-end and constitute the other side wall of the open rectangular frame, and panels 9 of the two strips constitute the end walls of the open rectangular frame. These frame end and side walls are hingedly connected where they meet at the corners of the open rectangular frame by reason of the score lines 5 and 7. The frame 1 is foldable from the open rectangular condition to the compact flat condition in which it is illustrated in Fig. 4 by folding panels 11 inward on score lines 5 toward panels 13 and folding panels 13 inward on score lines 7 toward panels 11, as illustrated in dotted lines in Fig. 6, in such manner that panels 11 fold flat against one another and panels 13 fold flat against one another (and against the flat-folded panels 11), with one end panel 9 collapsed flat against one panel 11 and the other end panel 9 collapsed flat against one panel 13.

The foldable and portable enclosure further comprises a basket generally designated 21. As herein illustrated, this is formed from a blank (see Fig. 5) of a heat-sealable flexible sheet plastic material, such as polyethylene, having a central rectangular portion 23, flap portions 25 projecting at the ends of the central rectangular portion, and flap portions 27 projecting at the sides of the rectangular portion, so that the blank is of cruciform shape. The width of each flap portion is generally twice the width of the strips 3 of the frame 1.

The end flap portions 25 are folded on lines 29 at the ends of the central rectangular portion 23 to lie generally at right angles to the central rectangular portion and the side flap portions 27 are folded on lines 31 at the sides of the central rectangular portion to lie generally at right angles to the central rectangular portion 25 and to bring the end edges of the flaps together. End marginal portions 33 of the end flaps 25 are doubled over on lines 35 to lie on the outside of the end flaps and provide double-thickness portions, and end marginal portions 37 of the side flaps are folded around on lines 39 and lapped on the outside of portions 33. The lapped margins 37 are then heat-sealed to the double-thickness portions throughout their lengths as indicated at 41. The double-thickness portions also become heat-sealed together.

These operations convert the blank shown in Fig. 5 to the form of a rectangular basket, the bottom of which is constituted by the central rectangular portion 23 of the blank, the ends of which are constituted by the flaps 25 and the sides of which are constituted by the flaps 27, with heat-sealed seams 41 at the four corners of the basket. These seams are reinforced seams by reason of the folding over of portions 33 of the flaps 25. The dimensions of the blank are such that the rectangular bottom portion 23 of the basket is slightly smaller than the frame 1 when in its open rectangular condition and the sides and ends of the basket are approximately twice as high as the width (or height) of the strips 3 which constitute the frame 1.

The frame 1 is opened to its open rectangular condition illustrated in solid lines in Fig. 6, and the basket 21 is placed within the frame. The bottom 23 of the basket is located in the plane of the bottom edge of the frame 1 and portions of the ends 25 and sides 27 of the basket are folded down and around the upper edges of the sides and ends of the frame on lines 43 and 45 to lie on the outside

of the frame (see Figs. 1-3). As a result, inside end panels designated 25a of the basket 21 extend on the inside of end walls 9 of the frame generally at right angles to central rectangular portion 23 and inside side panels designated 27a extend on the inside of side walls 11 and 13 of the frame generally at right angles to central rectangular portion 23. Also, outside end panels designated 25b which are integrally joined to inside end panels 25a at the upper edges of the latter extend down on the outside of end walls 9 of the frame, and outside side panels designated 27b which are integrally joined to inside side panels 27a at the upper edges of the latter extend down on the outside of side walls 11 and 13 of the frame. The resultant enclosure can be placed on a bed, for example, for use as an infant's crib. Or it may be placed on the floor for use as a play pen. With the basket made of polyethylene, for example, and with the heat-sealed seams 41 being watertight, the enclosure may also hold water and be used as a bathinette or a wading pool. With portions of the ends and sides of the basket folded around the outside of the frame, the sides of the frame are prevented from folding outward.

In view of the above, it will be seen that the several objects of the invention are achieved and other advantageous results attained.

As various changes could be made in the above constructions without departing from the scope of the invention, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

I claim:

1. A foldable and portable enclosure comprising a foldable frame adapted to be folded into a flat condition and to be opened to open rectangular form, said frame having two end walls and two side walls, said end walls and side walls being hingedly connected together where they meet at the corners of the open rectangular frame, each side wall comprising two panels positioned end-to-end and hingedly connected together in end-to-end relation, the panels of each side wall being adapted to fold inward toward the other side wall, whereby the two panels of each side wall may be folded flat against one another and the end walls may be collapsed flat against the folded side wall panels, and a basket carried by and disposed in the frame, said basket being made of a single piece of flexible sheet material and having a central rectangular portion corresponding in size and shape to the size and shape of the foldable frame when the latter is in its open rectangular form, said central rectangular portion lying generally in the plane of the bottom edges of the frame walls when the frame is open, said basket further having inside end panels integrally joined to said central rectangular portion at the end edges of the latter and extending on the inside of the end walls of the frame generally at right angles to said central rectangular portion and inside side panels integrally joined to said central rectangular portion at the side edges of the latter and extending on the inside of the side walls of the frame generally at right angles to said central rectangular portion, said basket further comprising

ing outside end panels integrally joined to said inside end panels at the upper edges of the latter and extending down on the outside of the end walls of the frame and outside side panels integrally joined to said inside side panels at the upper edges of the latter and extending down on the outside of the side walls of the frame, the end edges of the inside end panels being seamed to the end edges of the inside side panels, and the end edges of the outside end panels being seamed to the end edges of the outside side panels, whereby the basket forms a continuous enclosure extending completely around and lying flat against the inside and outside walls of the frame and is maintained in assembly with the frame when the frame is folded as well as when it is open.

2. A foldable and portable enclosure as set forth in claim 1 wherein the frame consists of stiff paper board strip material, certain of the hinge connections being formed by scores in the strip material.

3. A foldable and portable enclosure as set forth in claim 1 wherein the frame consists of two strips of stiff paper board material each scored on two transverse lines to divide it into three hingedly connected panels, with the two outer panels shorter than the intermediate panel, the end of one outer panel of one strip being hingedly connected to the end of one outer panel of the other strip, the end of the other outer panel of said one strip being hingedly connected to the end of the other outer panel of the other strip, whereby the intermediate panels of the two strips form the end walls of the frame and the outer panels of the strips form the side wall panels of the frame.

4. A foldable and portable enclosure as set forth in claim 3 wherein the ends of the strips are hingedly connected by paper adhesive tapes.

5. A foldable and portable enclosure as set forth in claim 1 wherein the basket is made of a single piece of flexible heat-sealable sheet material, and the end edges of the inside end panels and the inside side panels and the end edges of the outside end panels and outside side panels lap, the panels being heat-sealed together along their lapping end edges.

6. A foldable and portable enclosure as set forth in claim 5 wherein the end marginal portion of certain of the panels are doubled over to provide double-thickness portions lapped by the end margins of the adjacent panels and being heat-sealed through the double-thickness portion.

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