

[54] CARRYING CASE

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[57] ABSTRACT

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- [58] Field of Search 190/48, 49, 53, 54; 229/DIG. 4, 23

A carrying case including a pair of spaced side walls, a bottom, and top flaps, all integrally formed from a single sheet or strip of plastic material which is provided with spaced grooves formed therein so that the strip may be folded to form the bottom, spaced sides and the top closure flaps, said carrying case including a pair of spaced end walls, each of which is integrally formed of plastic material and provided with spaced grooves to form side and bottom flanges for each end wall which are secured adjacent the outer edges of the side walls and bottom wall of the case by means of an edge molding frame generally U-shaped in plan and generally U-shaped in transverse section, which frame also provides a decorative as well as protective edging for the case and for reinforcing or strengthening same.

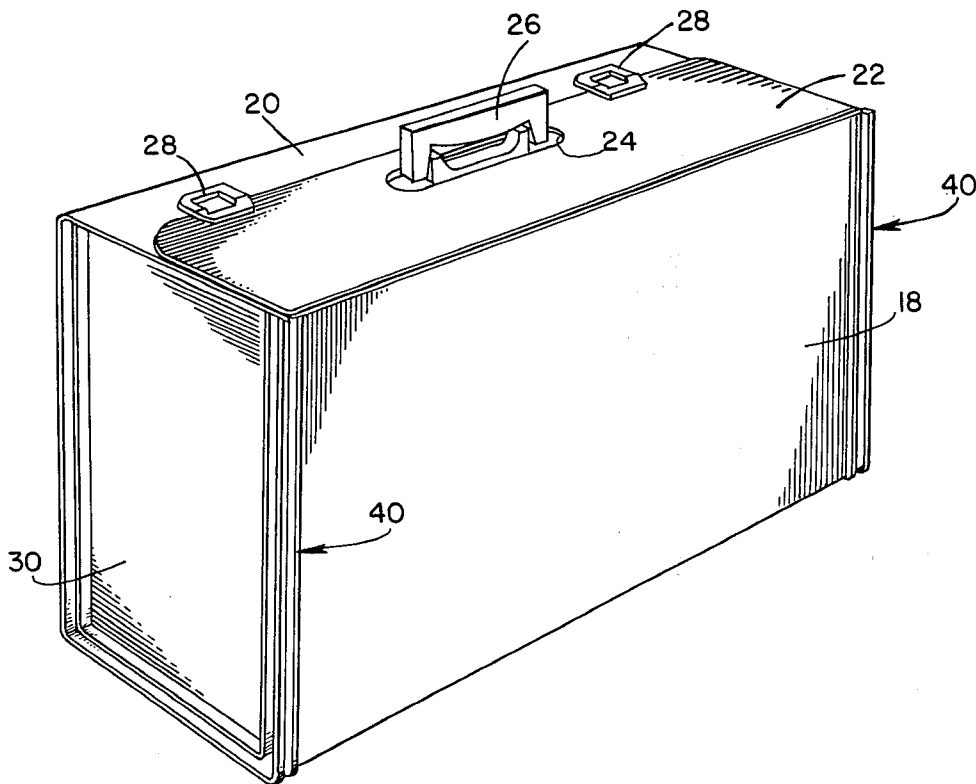
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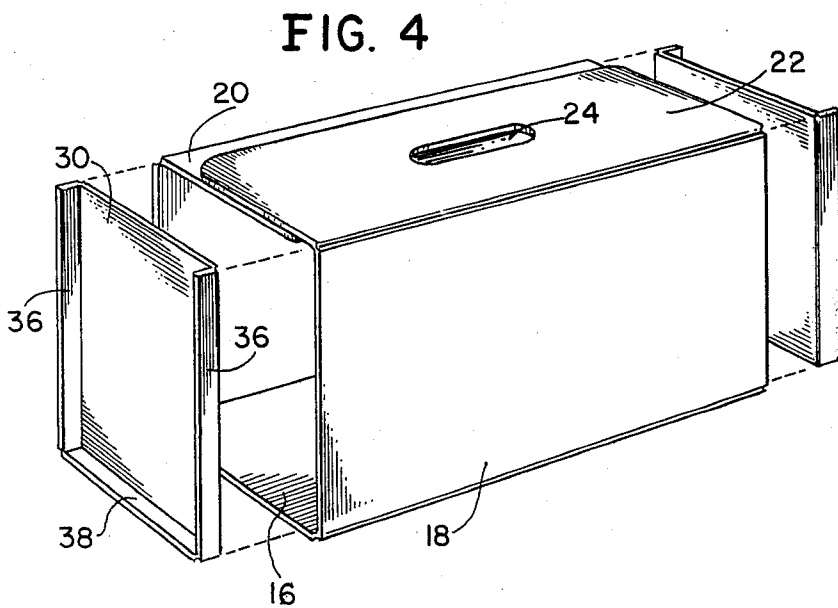
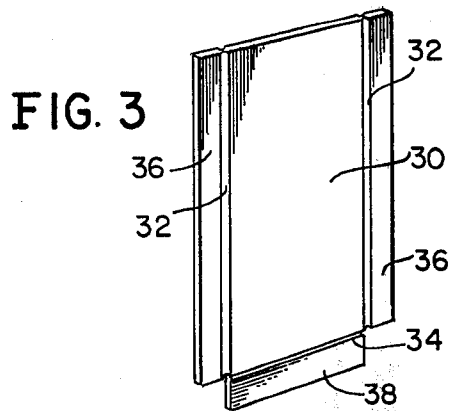
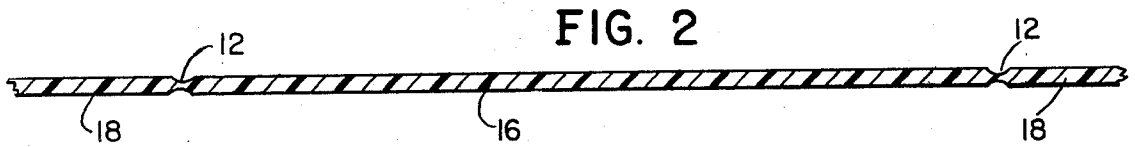
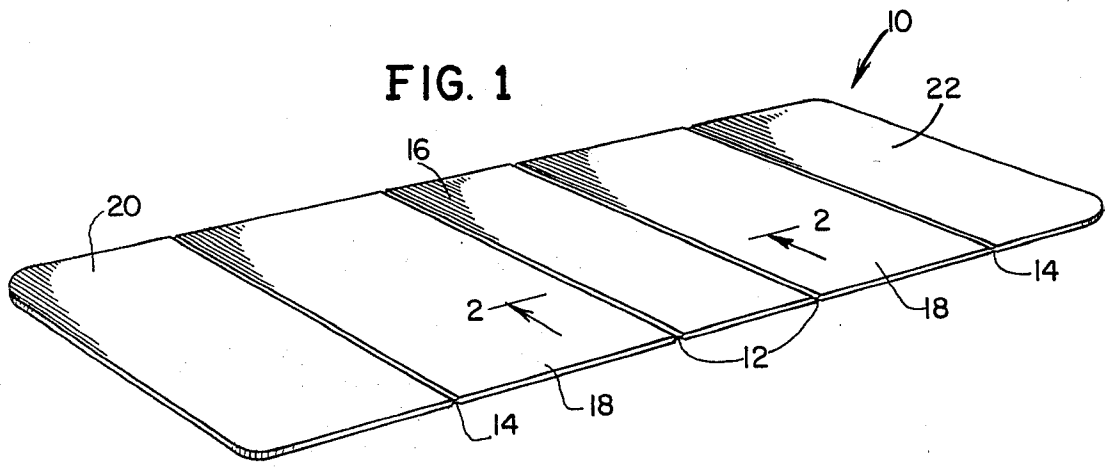
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4 Claims, 6 Drawing Figures





CARRYING CASE

BRIEF SUMMARY OF THE INVENTION

One of the objects of this invention is to provide a body of a carrying case which includes spaced side walls, a bottom, and top closure flaps formed of a strong plastic material such as polyethylene, which is formed from a single strip of said plastic material and provided with spaced grooves which form the bend or fold lines between the bottom and the sides and which form the hinge lines between the sides and the top closure flaps. The body of the carrying case is then completed by separate end walls each formed of a plastic strip with grooves therein so that the strip is folded along the grooves to form side and end flanges which are suitably secured to the sides and bottom of the body by means of an edge molding member which is generally U-shaped in plan and generally U-shaped in transverse section.

With a structure of the foregoing character, a carrying case may be made economically in contrast to prior carrying cases in which the body is formed of separate sides, bottom, and flaps secured together. This invention results in economy by reducing the labor time necessary for the construction of such a carrying case. The plastic material to be used is a strong polyethylene material having a gauge of between 0.080 and 0.090 and said material is substantially rigid but is capable of being longitudinally flexed by manual pressure.

Another object of this invention is to provide a carrying case, more particularly that type of case known in the trade as a "catalog case" which by virtue of its integrally formed body may be economically produced.

BRIEF DESCRIPTION OF THE DRAWINGS

In the drawings:

FIG. 1 shows a single blank of plastic material provided with spaced grooves formed therein which permits the single blank to be folded to form the bottom, spaced sides, and top flaps of the carrying case.

FIG. 2 is a sectional view taken on line 2—2 of FIG. 1.

FIG. 3 is a view of the blank which forms one of the end walls with the spaced grooves therein.

FIG. 4 is an exploded view of the blanks of FIGS. 1 and 3 folded to form the carrying case.

FIG. 5 is a perspective view of the carrying case with the end molding strips applied thereto; and

FIG. 6 is an enlarged view, broken away and partly in section, showing the frame or edge molding securing the end walls to the body of the carrying case.

The carrying or luggage case is generally known in the trade as a catalog case. The body of the carrying case, namely, the spaced side walls, the bottom, and the two top flaps are formed from a single strip or blank of plastic material, best shown in FIG. 1, and generally designated by the numeral 10. The said plastic material is strong polyethylene plastic, preferably having a gauge between 0.080 and 0.090. The plastic material is substantially rigid, however, it is capable of being longitudinally flexed by manual pressure.

The strip of plastic material in its flat form is provided with a pair of spaced grooves designated at 12 and provided with two additional spaced grooves 14, one adjacent each of the opposite ends of the strip. All of the grooves are similarly formed and said grooves are each recessed on the opposite sides, as best shown

in cross-section in FIG. 2, so that when the body of the carrying case is formed by folding along the grooves 12 and 14, a groove will extend interiorly as well as exteriorly of the case. When the strip of material is folded to form the body, the section of the strip between the two spaced grooves 12 defines the bottom 16 of the carrying case and the opposite extending sections between the spaced grooves 12 and 14 define the sides 18 of the case. The outermost sections of the blank strip form the two opposing overlapping top closure flaps 20 and 22. The corner edges of the two closure flaps are rounded. Closure flap 22 is provided with an elongated recess or cutout 24 through which the handle 26 which is attached to the other flap 20 is passed through. Conventional locking means 28 are secured to the two closure flaps 20 and 22, as best seen in FIG. 5.

Essentially, the body of the carrying case as aforescribed is made of a single blank of plastic material and when folded as described is substantially complete except for the opposite end walls. The opposite end walls generally indicated at 30 are formed of separate strips of plastic material of the same character as the strip 10 and each of the end walls is formed from a single strip, as shown in FIG. 3, and is provided with spaced vertical grooves 32 and a horizontal groove 34 which forms the fold lines in the end walls for forming the flanges so that when they are folded, as shown in FIG. 4, side end flanges 36 and a bottom end flange 38 are formed from the end strips. The end walls 30 are secured to the sides 18 and bottom 16 so that the flanges extend outwardly of the end wall which is then recessed inwardly from the outer edges of the flanges. The end walls 30 are secured to the sides 18 and bottom 16 by means of the trim, edge or frame molding, generally indicated at 40 and best shown in FIG. 6.

The trim, frame or edge molding 40 is generally U-shaped in plan and is adapted for securement to the edges of the case body. The spaced sides 41 and bottom 42 of the molding 40 is integrally formed of an aluminum extrusion and are suitably mitered as at 43 to permit the bending adjacent the bottom. The spaced sides and bottom of the molding is generally U-shaped or channel-shaped in transverse section and comprises an outer leg 44, an inner leg 46, and a connecting portion 48.

The outer leg 44 extends generally perpendicular to the connecting portion 48. The inner leg 46 before it is connected to the case body inclines or slopes outwardly so that the widest portion is at the mouth of the channel with the narrowest portion at the connecting portion 48. The inner leg 46 adjacent the mouth of the channel strip is provided with inwardly extending spaced pointed ribs 50. The inner leg is also provided with a longitudinal groove 51. The outer leg 44 is provided with a longitudinally extending channeled or recessed portion 52 and the connecting wall 48 is similarly provided with a channeled or recessed portion 54. The recessed portions 52 and 54 may each be covered by a vinyl strip 56 and 58 which is adhesively secured thereto to provide a contrasting color to that of the aluminum extruded strip 40, which strip is preferably brass anodized, whereas the vinyl inserts or strippings 56 and 58 are of a contrasting color which may be similar to the color of the side and end walls of the case to provide a decorative effect. Likewise, the bottom 42 of the frame is provided with a channel or recess portion 60 covered with a vinyl insert 62.

The U-shaped frame 40 is positioned on the edges of the case so that the outer leg 44 of the molding strip extends over the outer edge of the side walls 18 as well as under the outer edge of the bottom 16, with the inner leg 46 extending against the forwardly extending side flanges 36 and bottom flange 38. The connecting portion 48 of the molding strip extends over and covers the edges of the case. The U-shaped frame is secured to said edges by having the inner leg 46 pressed inwardly by means of a proper tool so that the pointed ribs 50 will bite into the side and bottom flanges 36 and 38. When the inner leg 46 is pressed inwardly to effect its locking engagement it assumes a substantially perpendicular position to the connecting wall and it is substantially parallel to the outer leg. The molding strip 40 will by reason of its own compressive force against the flanges of the end wall and the sides and bottom of the case lock the end walls to the body of the case without the necessity of stitching the flanges to the body. The molding thus completely encloses the end edges of the case and permanently attaches the end walls 30 to the case and also provides a protective covering therefor so that irrespective of the use to which the case is put, the end edges of the case will not become frayed or the appearance thereof otherwise impaired or damaged. The U-shaped frame will also form a support and reinforcement for the ends of the case to strengthen the body of the case. Thus, the trim 40 provides the means for attaching the end walls 30 to the case and also provides a protective and ornamental covering for the normally exposed edges. The protective strips may be readily applied to the case, thus, the case may be protected and ornamented with a minimum of expense.

As shown in the drawings, the entire body of the case is formed of three strips, namely, one strip 10 and two strips like 30 and the molding 40 secures the end walls to the body of the case. This eliminates sewing, stitching or the like.

What is claimed is:

1. A carrying case comprising a body formed from a single integral strip or blank of plastic material which is substantially rigid but is capable of being longitudinally flexed by manual pressure, with said strip having

spaced grooves formed in said material to provide fold lines for said strip so that when said strip is folded it forms a bottom, spaced side walls and a pair of top closure flaps with one of said flaps overlapping the other, said grooves between the side walls and the top closure flaps forming the hinge lines for said closure flaps, said body having separate end walls, in which the end walls are each formed of the same plastic material and provided with spaced marginal grooves which form fold lines for forming side end flanges and a bottom flange, said side end and bottom flanges positioned adjacent the margins of the side walls and bottom of said body, an integrally formed channel strip frame formed of metal and substantially rigid and which is of generally U-shaped configuration in end view plan comprising spaced vertical sides connected by a bottom horizontal portion but with an open top, said channel strip also being U-shaped in transverse section with an outer leg and an inner leg and a connecting portion therebetween and securing the side and bottom flanges to the end edges of the side and bottom walls, respectively, and not extending over the top of the end walls, said channel strip having inwardly extending pointed ribs on one of said legs biting into the side flanges to secure said end walls to the side and bottom walls without the use of any stitching or other fastening means and solely by the use of said integrally formed channel strip frame, said outer leg and connecting portion of said U-shaped channel strip being flat and each having a recessed flat central portion in the outer surface thereof.

2. A carrying case as set forth in claim 1 in which the end walls are formed of a plastic polyethylene material.

3. A carrying case as set forth in claim 1 in which the body is formed of a plastic polyethylene material of a gauge between 0.080 and 0.090.

4. A carrying case as set forth in claim 1 in which one of the closure flaps has a centrally located hole and the other of the closure flaps has a handle which extends through said opening and interlocking means secured to the flaps to lock said flaps in overlapping closed position.

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