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Taylor

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[54] **LUGGAGE CASE**

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[51] **Int. Cl.** **A45c 3/00**

[58] **Field of Search** ..... 190/49, 50, 54, 41 Z, 190/24

[56] **References Cited**

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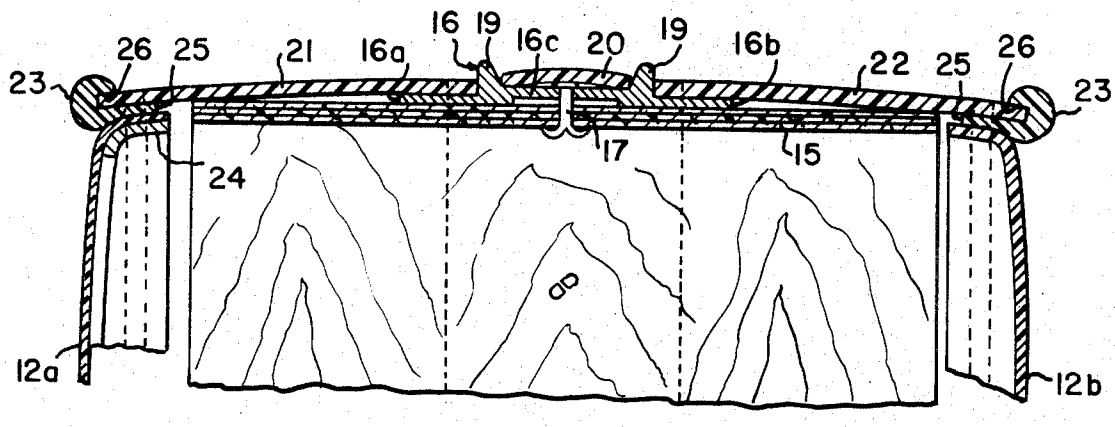
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[57] **ABSTRACT**

The specification discloses a luggage case having a molded multi-ply veneered frame reenforced centrally with a surrounding metal strap through which the carrying handle and covering material are attached to the frame. The covering material surrounding the frame overhangs the sides of the frame and the side walls are so attached to the overhanging portion of the covering material in spaced relation to the frame as to provide peripheral elongation of the side walls when subject to loads applied to the side walls.

10 Claims, 2 Drawing Figures



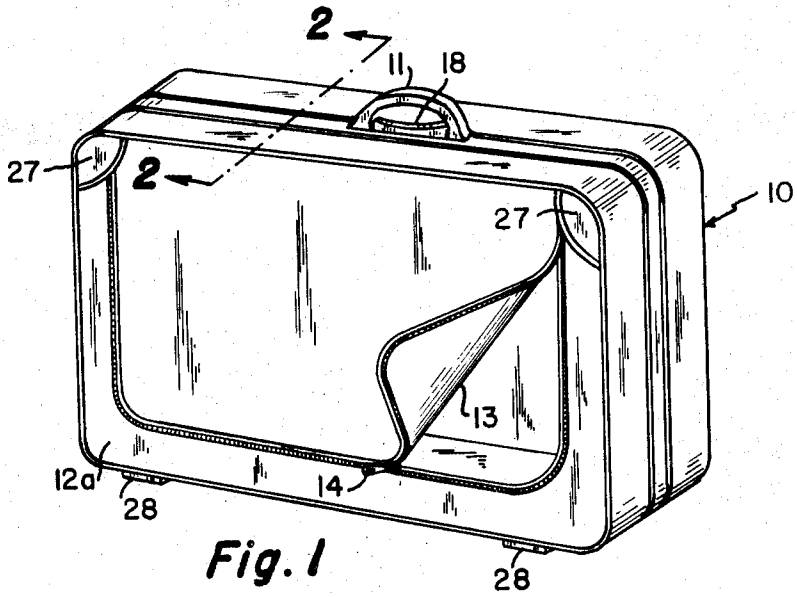

2
11
18
27
2
10
27
13
12a
28
14
28

Fig. 1

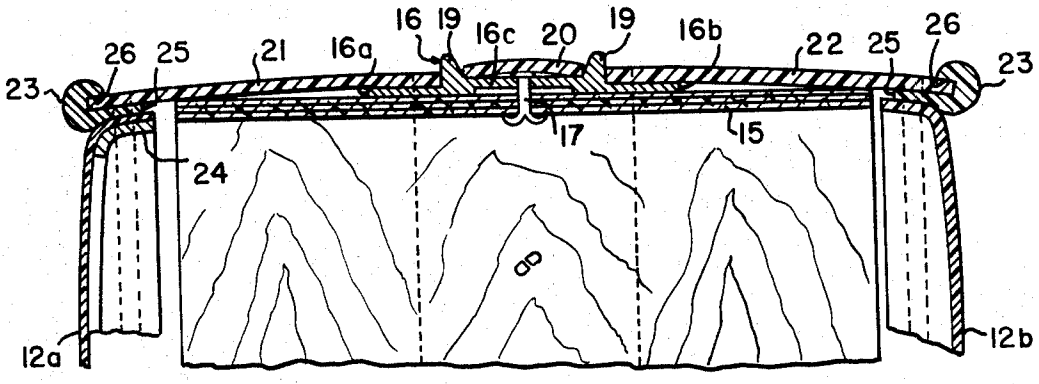

16
19
16c
20
19
16b
26
25
21
16a
22
25
26
23
23
17
15
24
60
12a
12b

Fig. 2

LUGGAGE CASE

This invention relates to luggage cases of the light weight type in which the framework of the case is limited to a substantially rectangular molded multi-ply veneer frame of selected size to which a fabric or molded plastic covering is applied, access to the interior of the case being provided through a separable flap in one side wall of the casing, the flap having a slide-type fastener along the outer edge thereof.

Luggage cases have in the past comprised a structural metallic framework to which a covering such as leather or fabric is attached as by rivets or similar fasteners. They have moreover, consisted of two half-portions, hinged along one edge whereby the separation of the portions of the case provides access to the interior. The principle of construction of such luggage cases was that the framework of the case and the rigidity or strength of the covering material should be able to support loads applied to the side walls.

More recently, with the advent of increased air travel, there has been a trend toward luggage of relatively lighter weight and low cost, which would prove equally satisfactory and serviceable. The more recent types of luggage are characterized essentially by a reasonably rigid frame work consisting of a multi-ply veneered wood molded under pressure and heat conditions to a desired shape, such as a rectangle, to which a flexible covering of desired strength and water-resistant character is applied, one of the side walls being provided with a separable flap for access to the interior of the case.

By reason of the fact that the side walls of such luggage cases are unsupported except along the periphery thereof, the imposition of loads to the side walls, especially where the contents of the case provide no support, often results in ripping, tearing or separation of the side walls from the frame or, if the attachment is secure enough, puncturing of the side wall itself.

I provide an improved luggage case wherein the manner of attachment of the flexible covering to the central multi-ply veneered wood frame enables the side walls to adjust sufficiently along the periphery thereof, when subject to laterally directed loads, as to prevent ripping or tearing of the covering or possible puncture of the side wall covering. More specifically, I employ an arrangement for attachment of the covering of a luggage case of the aforesaid character to the ply-wood frame by which the covering overhangs the side edges of the ply-wood frame by a marginal area and by which the side walls are peripherally attached as by stitching to the overhanging portion in spaced relation to the edge of the frame, whereby a flexible hinge is provided allowing peripheral elongation of the side walls when subjected to laterally directed loads.

Additionally, I provide an improved form of reinforcement of the multi-ply veneered wood frame of a luggage case to support attachment of a carrying handle and covering material to the frame, said reinforcement comprisng a flexible metallic grooved strap surrounding and attached to the frame midway of the side walls. The metallic strap is sufficiently thin at the side edges to enable the covering material to be secured to the frame by stitching through the thin side edges of the strap and the veneered frame, thereby firmly anchoring the material to the frame.

A presently preferred embodiment of the invention will be hereinafter more fully described in connection with the accompanying drawings, wherein:

FIG. 1 is a general perspective view of a luggage case constituting a presently preferred embodiment of the invention; and

FIG. 2 is a fragmental cross-sectional view on enlarged scale, taken on the line 2—2 of FIG. 1.

Referring to the drawings, FIG. 1 shows the general appearance of a luggage case **10** embodying the invention. As will be described more fully later on, the case is provided with a carrying handle **11**, side walls **12***a* and **12***b* (FIG. 2) and a flap **13** in side wall **12***a*, the flap having a slide fastener along its periphery with a tab **14** for opening and closing the fastener. While omitted for simplicity it will be understood that a suitable lock may be provided at the closing end of the fastener for locking the tab **14** in its final fastener closed position.

Referring to FIG. 2, the improved construction and manner of assembly of the embodiment of luggage case there shown will now be described.

The basic frame **15** of the case is of multi-ply veneered wood formed in the desired rectangular shape, under appropriate heat and pressure conditions, and of substantial rigidity. However, if the handle **11** were to be secured directly to the top wall of the frame **15**, the handle could conceivably separate from the frame under unusually heavy load content in the case. I have accordingly provided reinforcement for the frame in the form of an extruded metal strap **16** completely surrounding the frame **15** and tightly secured thereto at frequent intervals as by rivets **17**. The handle **11** comprises a C-shaped member of molded plastic material with coaxially aligned pins extending coaxially inward from the ends thereof for engaging in holes at opposite ends of an attaching piece **18**. The piece **18** is attached by suitable rivets (not shown) which extend through the metal strap **16** and the top wall of frame **15**. It will be seen that strap **16** thus provides reinforcement to the frame whereby the case may be fully and adequately supported from the handle, regardless of the weight of the contents of the case.

It will be noted from FIG. 2 that strap **16** is also provided with relatively thin side edge portions **16***a* and **16***b* and a relatively thick central portion **16***c* having parallel longitudinally extending ribs **19** at opposite sides thereof. The outer surface of the central portions **16***c* is preferably longitudinally ribbed or knurled to provide a suitable rough surface to which a flexible covering strip **20** is adhesively attached, and which extends completely around the frame. Covering strip **20** is of a flexible molded material, of the order of 1/16 inch thick, having an inner surface layer of fabric and an outer surface layer of vinyl composition which may simulate a desired grain pattern or design.

Matching the strip **20** in appearance and of similar material, additional relatively wide and stiff covering strips **21** and **22** for the frame **15** are provided. Strips **21** and **22** are secured to the frame **15** by stitching with strong thread, such as nylon, adjacent the inner edges abutting ribs **19** and through the relatively thin side edge portions **16***a* and **16***b* of metal strap **16** and the wall of the frame **15**. Thus, the covering strips are firmly anchored to the frame **15**.

The strips **21** and **22** are made sufficiently wide to overhang the side edges of frame **15** approximately 1 inch. Attachment of the side walls **12***a* and **12***b* to the

overhanging portions of strips 21 and 22 is effected in the manner now to be described.

Side wall 12*a* containing the flap 13 is of vinyl impregnated fabric, the outer surface matching the outer finish of the strips 21 and 22. The edge of the opening in the side wall 12a, closed by flap 13, is provided with a slide-type fastener member mating with a fastener member on the periphery of the flap 13. A suitable binder strip of vinyl or plastic fabric is stitched to the edge of the opening and the outer edge of the flap, paralleling the slide-type fastener. Sliding movement of tab 14 in opposite directions serves to lock and unlock the cooperative fastener elements. In order to prevent tearing of the fabric of side wall 12a at the termini of the flap opening, substantially triangular gussets 27 are secured, as by stitching, to the side wall 12a at the upper corners of the case. The edge of the gussets has a suitable binder strip of vinyl or plasticized fabric material.

Prior to attachment of side wall 12*a* to the overhanging portion of strip 21, a molded plastic bead 23 substantially cylindrical in shape, is attached as by stitching, to the outside of the peripheral portion of the side wall 12*a*. A reinforcing inner strip 24 of suitable fibrous material such as cardboard is provided on the inside of the peripheral portions, the threads of stitching penetrating through a relatively thin inwardly projecting web 25 formed integrally with the cylindrical portion of bead 23, the fabric of the side wall 12*a* and the reinforcing strip 24.

Bead 23 is formed with a longitudinal groove 26 in the cylindrical body portion thereof, into which the outside edge portion of the strip 21 is tightly received. The combined assembly of side wall 12*a* and bead 23 is then secured together, as by stitching, the threads extending through the strip 21 adjacent the outer edge of the overhanging portion thereof, the web 25 of the bead, the fabric of side wall 12*a* and the reinforcing strip 24.

In a similar manner, the other side wall 12*b*, which is made of the same material as strips 21 and 22, is attached to the overhanging portion of strip 22. In this case, however, the reinforcing strip 24 is dispensed with and the bead 23 is attached to the side wall as by stitching through the web 25 of the bead and the peripheral portion of the side wall 12*b*. Following insertion of the outer edge of the strip 22 in the groove 26 of the bead, the side wall is secured to the overhanging portion of strip 22 as by stitching through strip 22 adjacent the outer edge thereof, web 25 of the bead 23 and the pheripheral portion of the side wall.

It should be noted that the line of stitching attaching the side walls 12*a* and 12*b* is adjacent the outer edge of the overhanging portion of strips 21 and 22 in outwardly spaced relation to the side edge of frame 15. Thus, the outer portion of the strips 21 and 22 acts as a hinge that permits the overhanging portion to bend inwardly and, in effect, elongate the side walls when subjected to side load or force tending to collapse the side walls of the case. At the same time, the stresses tending to tear or rip the strips 21 and 22 from the frame 15 are relieved.

As apparent from FIG. 1, the case is provided with feet on the bottom surface, in the form of small blocks 28 of molded plastic material, secured as by riveting to the frame 15 adjacent each of the four corners of the bottom wall of the frame. Blocks 28 are preferably installed after installation of the strips 21 and 22 and prior to installation of the side walls 12*a* and 12*b*.

The case is provided also with a suitable lining (not shown) of fabric material which is attached as by a suitable adhesive to the interior surface of the frame 15 and of side walls 12*a* and 12*b*.

It will accordingly be seen that I have provided an improved luggage case of light weight serviceable construction in which the covering material is firmly anchored to the ply-wood frame and in which the side walls are so attached as to elongate when subjected to side loads tending to collapse the sides, thereby relieving the stresses tending to rip or tear the covering from the frame. While I have described and shown only a preferred embodiment, it will be apparent that modifications therein are possible within the terms of the appended claims.

I claim:

1. A luggage case comprising a substantially rectangular frame made of multi-ply veneered wood molded to the desired contour, a covering material disposed in peripheral surrounding relation and attached to said frame and having a substantial overhang with respect to the side edges of said frame, side walls of covering material one of which has a separable flap closing an area thereof and providing access to the interior of the case, and means attaching the periphery of each side wall to the overhanging portion of the covering material in spaced relation to the edge of the said frame.

2. A luggage case according to claim 1, wherein said covering material surrounding said frame comprises flexible molded plastic sheet, the portions of said covering material overhanging the side edges of said frame being bendable inardly to provide elongation of the periphery of the side walls when the side walls are subject to laterally applied loads.

3. A luggage case according to claim 1, wherein a reinforcing strap of metal peripherally surrounds and is attached to said frame midway between the side edges of said frame, said material peripherally surrounding said frame comprising two strips disposed respectively on opposite sides respectively of said metal strap in abutting relation thereto, the inner edge of said strips being attached to said frame by stitching through the covering material, the side portions of said strap and said frame.

4. A luggage case according to claim 1, wherein a reinforcing strap of metal peripherally surrounds and is attached to said frame midway between the side edges of said frame, said reinforcing strap of metal having relative thin webs at each side, a relatively thick central portion, and longitudinally extending ribs at each side of the relatively thick central portion, said material peripherally surrounding said frame comprising two strips disposed respectively on opposite sides of said metal strap and having the inner edges thereof abutting said longitudinally extending ribs, and a separate strip of covering material disposed between the said longitudinally extending ribs of the said metal strap in surrounding relation and adhesively attached to the outer surface of the central thick portion of said metal strip, the inner edges of said two strips of covering material being attached to said frame by stitching through the covering material, the relatively thin webs on the metal strap and the said frame.

5. A luggage case according to claim 1, wherein the said one of said side walls and said flap are made of a

covering material comprising a relatively thin vinyl impregnated fabric, and the other of said side walls is made of covering material comprising a relatively thick molded plastic sheet, the inside of which has a fabric layer and the outside of which has a vinyl layer.

6. A luggage case according to claim **1**, wherein a bead is provided for each of the overhanging edges of the covering material, each of said beads having a substantially cylindrical body portion, a web portion laterally projecting from the body portion, and a longitudinal groove in the body portion, the outer overhanging edge of the covering material fitting in said groove, and wherein the respective side walls are attached to the overhanging portions of the covering material by stitching through the covering material, the web of the bead, and the peripheral area of the side wall.

7. A luggage case according to claim **3**, wherein a carrying handle is attached to said strap of metal and said frame.

8. A luggage case according to claim **6**, wherein said beads are first attached to the periphery of the side walls by stitching through the web of the bead and the covering material comprising the side wall.

9. A luggage case according to claim **7**, wherein said handle comprises a member attached to said metal strap and said frame, said member having coaxially aligned holes in opposite ends thereof, and a C-shaped member having coaxially aligned pins extending inwardly from the ends thereof, said pins extending into the holes at the opposite ends of said member to provide a hinged connection therebetween.

10. A luggage case according to claim **8**, wherein a reinforcing strip of fibrous material is disposed coextensively with and inside the periphery of the said one side wall, the several stitchings for securing said bead to the periphery of said one side wall and for securing said one side wall to the overhanging portions of the covering material also extending through said reinforcing strip of fibrous material.

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