

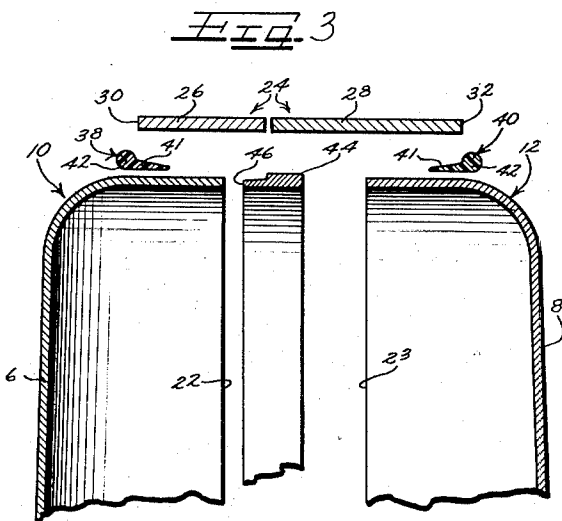
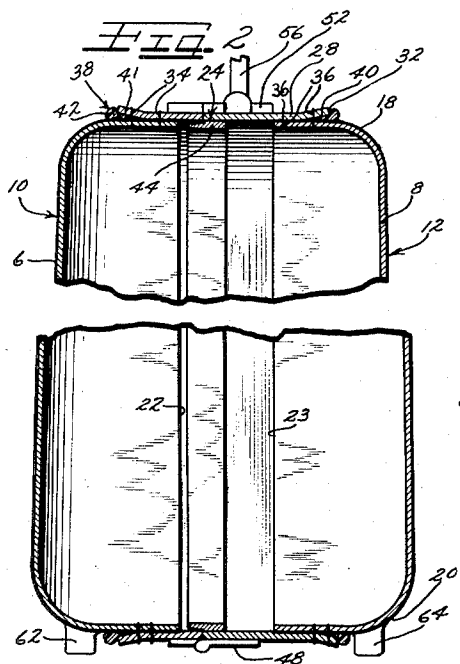
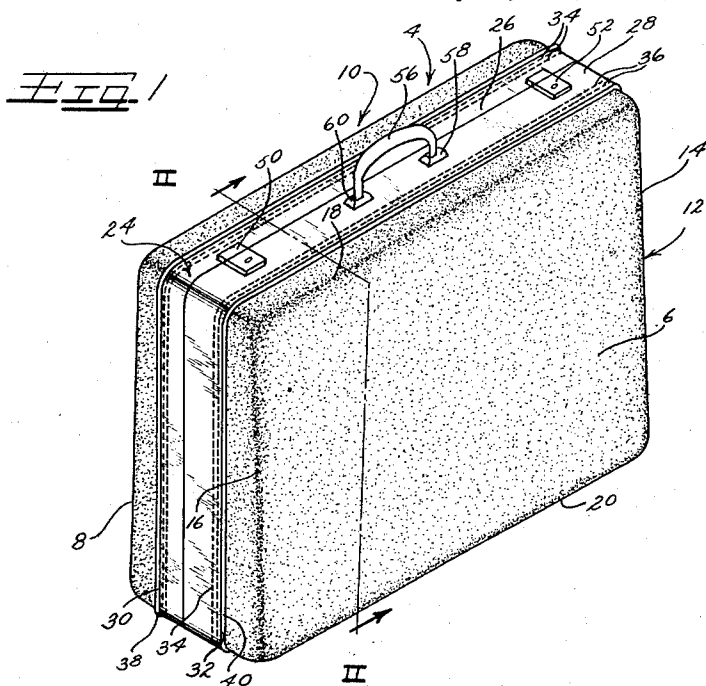
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LUGGAGE CONSTRUCTION

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LUGGAGE CONSTRUCTION

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2 Claims. (Cl. 199—41)

The present invention relates to improvements in luggage construction.

In the construction and manufacture of transportable luggage, efforts are made to achieve enhanced strength and durability combined with graceful style, beauty and attractive appearance. Much of the luggage now in use is of the type which may be referred to as the square-edge type where in the walls of the luggage pieces join each other at right angles. One of the structural difficulties inherent with this square-edge luggage is that much of the stress occurs directly at the edge of the luggage where the joint between the two walls, which is the weakest portion of the structure, occurs. In the effort to attain a more streamlined appearance and to improve the structural strength, some luggage has been manufactured in a rounded or molded form wherein the walls of the luggage pieces meet in rounded edges and corners. Various materials have been employed in this type of luggage including drawn lightweight metals, laminated layers of materials impregnated with a bonding plastic, and other materials.

It is an object of the present invention to provide an improved luggage construction which employs a streamlined, graceful attractive style and shape and which obviates disadvantages inherent in the manufacture of molded, curved, streamlined luggage.

Another object of the invention is to provide an improved luggage construction wherein the joints between the walls do not occur in the edges, and which is improved over structures heretofore used.

A further object of the invention is to provide a luggage construction having a structure employing continuous material at the edges and corners and yet which enables the use of equipment and manufacturing techniques that have been fully developed for use with square-edged luggage.

Another object of the invention is to provide improved luggage structure wherein the advantages and features of strength of both square-edge luggage and luggage with a rounded edge may be utilized.

A still further object of the invention is to provide an improved construction for strong, sturdy and durable lightweight luggage which is attractive and graceful in styling and which is durable so as to retain its appearance, and which is easy to clean, easy to handle and carry and combines features indispensable to luggage.

Another object of the invention is to provide a luggage construction having opposed hollow sections with a continuous resilient form-returning band joining the sections whereby the luggage will withstand shocks and pressures and return to its original shape.

Other objects and advantages will become more apparent from the teaching of the features and advantages of the invention in connection with the disclosure of the preferred embodiment in the specification, claims and appended drawings, in which:

Figure 1 is a perspective view illustrating a luggage piece embodying the features of the present invention;

Figure 2 is a vertical sectional view taken through

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the luggage piece of Figure 1 along the line II—II of Figure 1; and,

Figure 3 is an exploded view of a portion of the luggage illustrating the method of construction.

While the features of the invention are illustrated in their preferred form as embodied in a piece of luggage, such as a suitcase, and the invention finds a particular utility in the environment illustrated, it will be understood that it is not to be restricted to this particular form, which is shown for purposes of illustration.

In the drawings, the luggage piece 4 is illustrated in the form of a carrying case such as a suitcase. The case is rectangular in profile with rounded edges, but is not necessarily limited to the exact shape and size shown. The side walls 6 and 8 of the case are part of the two opposing cup-shaped substantially hollow side sections 10 and 12. The side walls 6 and 8 are substantially vertical and taper outwardly toward the bottom of the case to form a slightly tapered case narrower at the top than at the bottom. Each of the sections consists of a substantially vertical side wall, as shown at 6 in the section 10 and the side wall curves inwardly to form curved rounded edges, such as shown at the ends 14 and 16 and such as shown at the top and bottom 18 and 20. The curved edges which form the hollow concave cup-shaped side 10 terminate in an even edge 22 for the section 10 and 23 for the section 12.

The hollow side 12, which is positioned opposing the side 10, is identically formed with 10, and, therefore, need not be described in detail.

While the sides 10 and 12 may be formed of various materials, they are preferably constructed of layers of laminated material bonded together. As an example of a construction which has proven to have desirable characteristics, the walls may be formed of 9 to 11 layers of kraft paper fibers containing 1-5% glass fibers and 25-40% phenolic resin. The resin is utilized as a bonding material for the layers and is a thermosetting plastic. The layers are pressed together in a press mold to the shape illustrated in the drawings. This construction forms a relatively rigid yet durable construction ideal for use in a luggage piece. The outer surface may be covered to give them a long-wearing surface which is easy to clean and to improve the appearance. This covering may be a cotton-backed vinyl which is pressure-bonded to the outer surface by pressing into the same mold in which the layers are pressed and laminated.

It is an important feature of the invention that the side wall sections 10 and 12, while being concave, are relatively shallow. This affords rounded edges presenting a streamlined appearance and avoids a seam or joint at the exact corner or edge of the case. The shallow sections also make it unnecessary to form a deep draw in the molding of the sections.

In order to achieve a spacious, hollow, easily packed case while utilizing the advantages of shallow molded side walls, the space between the free edges of the side walls is bridged by a continuous broad band 24. This broad band is of a size to snugly receive the side wall sections in telescoping relationship in order that they may be securely attached to the outer edges of the band.

The broad band 24 is constructed of a strong resilient form-restoring material which will not take a permanent set and is preferably formed of wood. In the formation of the continuous broad band 24 which is preshaped or preformed to have the profile desired for the luggage piece, certain of the forming techniques developed for making square-edged luggage may be utilized. Also, the strength afforded by the wooden broad band which is available in square-edged luggage is available in the present construction while certain disadvantages of the square-edged luggage are avoided.

In forming the continuous broad band 24 the wood is preshaped to the shape illustrated in Figure 1, having rounded corners which gives it the desired shape of the case. An extremely wide band section may be first formed. If desired, the section formed may be the width illustrated at 24 in Figure 1, or it may be of a wider width which is cut down to the width illustrated at 24.

The band is next cut into two sections in the manner illustrated in Figure 3, with the original broad band 24 being cut into a narrower section 26, and a wider section 82. The narrower section 26 receives the hollow side wall section 10 which is attached to it at its outer edge 30, and the wider band section 28 receives the side wall section 12 which is attached to its outer edge 32.

In manufacturing and assembling the luggage piece, the side wall sections 10 and 12 are first molded or formed from material such as the laminated layers containing the glass fibers and the bonding thermosetting plastic and which are pressed so that the plastic fills the interstices between the fibers to form a strong lightweight construction. The broad band is next preformed as was described in connection with Figure 3, and the narrower section 26 is attached to the side wall section 10 in telescopic relationship. Attachment of the band to the wall section may be by running stitching 34 through the band material and just inside the free edge 22 of the side wall section. The preformed resilient band section 26 will then aid in holding the side wall section to the proper case shape.

The other portion of the luggage piece is completed in a similar manner with the section 12 being moved telescopically into the wider section 28 of the broad band and attached such as by stitching 36.

For aesthetic effects and to improve the durability and to make the luggage piece easy to clean, the side wall sections 10 and 12 have been covered with the thin layer of vinyl or similar material to give an attractive appearance and to obtain the desired color. The sections 26 and 28 of the broad band may also be covered with the same or a similar type of material before assemblage of the pieces.

Also, to enhance the appearance of the finished luggage piece and to provide a seal between the seam, sealing strips, such as shown at 38 and 40 may be located between the telescoped side wall 10 and the band section 26 and side wall 12 and band section 28, respectively. These sealing strips or beads have a thin flat portion 41, which is caught by the stitching 34 as shown for the strip 38, or the stitching 36 as shown for the strip 40. Outside of the flat portion 41 is a larger bead portion 42 which seals the joint and which may be of a like or contrasting color to enhance the appearance of the finished luggage piece. It will be understood, however, that these strips 38 and 40 are not essential and the construction may be completed without the sealing strips.

To form a seal between the center of the two assembled sections of the luggage piece and to insure an even fit between the edges of the sections 26 and 28, a flange strip 44 may be attached to the inside of one of the sections of the broad band. As illustrated in Figures 2 and 3, a flange strip 44 is formed to be slightly smaller in circumference than the band section 28 and to fit telescopically therein. The flange strip 44 is cemented to the band 28 and may be covered by the same decorative covering material which is laminated to the outside of the band sections 26 and 28 for appearance purposes. The flange strip may be tapered slightly at its free edge 46 to better fit into the band section 28 when the luggage piece is closed.

Hinge members 48 are attached across the bottom of the sections 26 and 28 of the broad band at the base of the luggage piece. This permits the opposing sections to be pivoted apart for access to the contents of the luggage piece.

In order to lock the sections of the luggage piece in closed position for carrying, latch members 50 and 52 are

connected to the sections 26 and 28 of the broad band at the top of the luggage piece. These latch members are manually releasable to open the luggage piece and can be locked for storing or carrying.

At the top, shown as connected midway between the latch members 50 and 52 is a handle 56. The handle is attached in the usual manner by connectors 58 and 60 which are secured to the wider section 28 of the band which encircles the luggage piece. Since the band 28 is wider, the handle may be attached to this section and be centrally located with respect to the luggage piece as a whole for ease of handling and carrying.

Each piece may be provided with rests or feet 62 and 64 at the base which are illustrated as secured to the side wall sections 10 and 12, but which can be attached to the broad band 24.

The wooden band 24 is resilient and will not take a permanent set. It will therefore, restore and maintain the shape of the luggage piece. This is important in enabling the case to withstand blows and the pressures which are encountered when luggage is stocked. The case will then retain its original shape by the form restoring properties of the band.

It will be further noted that considerable strength is contributed to the luggage piece by the sections of the broad wooden band 24 both in a direction parallel to the material of the band and in a direction normal thereto. The band portions and the hollow side wall sections 10 and 12 mutually cooperate to provide a case which is extremely strong and durable.

Thus, it will be seen that I have provided an improved luggage case which meets the objectives and advantages hereinbefore set forth. The luggage piece which is obtained by employing the principles of the invention is extremely lightweight and the features of construction contribute both to its strength and to an attractive appearance.

I have, in the drawings and specification, presented a detailed disclosure of the preferred embodiment of my invention, but it is to be understood that I do not intend to limit the invention to the specific form disclosed, but intend to cover all modifications, changes and alternative constructions and methods falling within the scope of the principles taught by my invention.

I claim as my invention:

1. A luggage piece construction adapted to obtain improved characteristics of strength and appearance comprising a continuous flat broad generally rectangular shaped band with rounded corners formed of wood, said band being separated into two sections each having uniform width and retaining the shape of the broad band to form the profile of the luggage piece, a first concave streamlined shaped hollow side wall having an edge adapted for telescoping within and securing to one section of the band and formed of layers of matted fibers containing a small portion of glass fibers with the fiber interstices impregnated with a plastic, a second identically shaped hollow side wall also formed of layers of matted fibers embedded in a bonding plastic adapted to telescope within the other band section, separate means for attaching the hollow side walls within each of the sections of the broad centrally located band with the band forming a connecting and strengthening bridge between the side walls, a handle secured to at least one of the sections of the broad band for carrying the luggage piece and its contents whereby the weight of the contents is distributed and transmitted to the handle through the side walls and broad band, hinge means at the base of the luggage piece secured to the opposed sections of the broad band at a location opposite the handle whereby the sections may be hingedly separated for access to the contents, and latching means attached to the opposing sections of the broad band whereby the hinged sections may be secured for transporting the luggage piece.

2. A luggage piece having a construction adapted for

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enhanced strength and improved appearance comprising a pair of opposed cup-shaped hollow side wall members of a relatively shallow depth and having curved rounded outer edges and corners terminating in an even uniform edge, a centrally located spanning broad band of a relatively rigid material formed in two sections and extending between the hollow side wall members and with each portion adapted for attachment to one of the wall members, said band having the shape of the even outer edges of the cup-shaped side wall members for telescopically receiving the members, a continuous flexible strip of sealing bead having a thin extension projecting between the edges of the side wall members and the band in assembly and having a rounded sealing bead exposed at the outer juncture of the band and side wall members, attaching means securing the edges of the side wall members to

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the outer edges of the band and clamping the bead therebetween, hinge means attached to the opposite sections of the band at the base of the luggage piece to permit the sections to be hingedly spread for access to the contents, handle means attached to the band at a location opposite the hinge means for supporting the luggage during the time it is being transported, and latch means adjacent the handle for securing the hinged portions in a closed manner.

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