Aug. 30, 1955 A. DROUTMAN 2,716,473

LUGGAGE CONSTRUCTIONS

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FIG. 1.

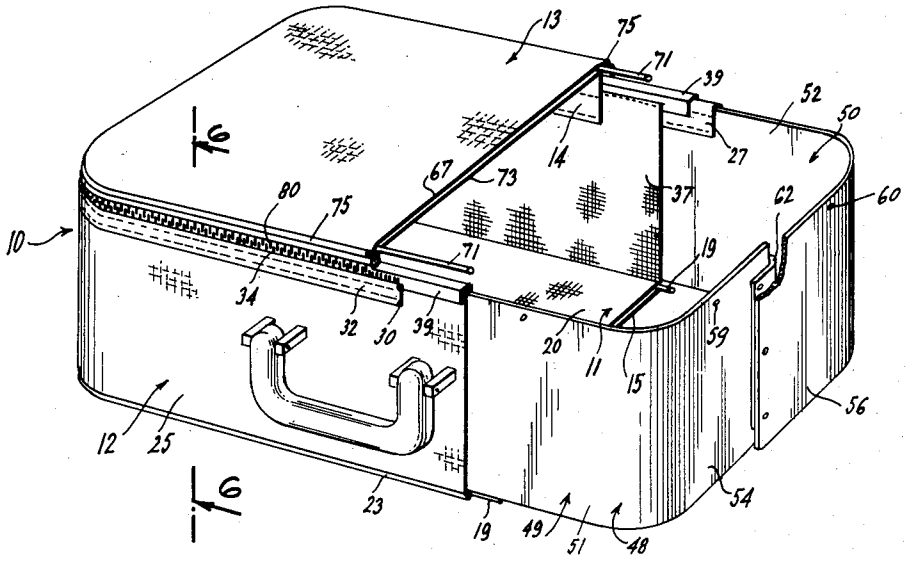
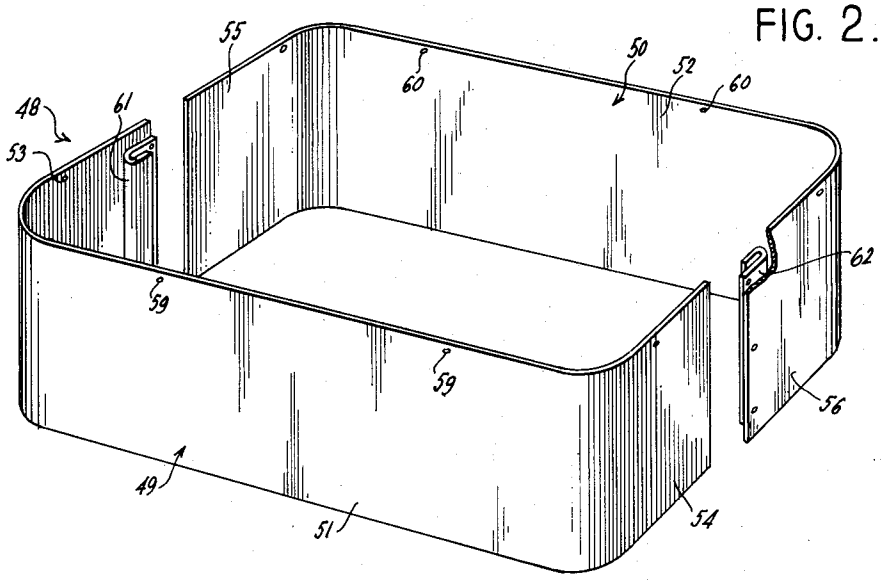


FIG. 2.



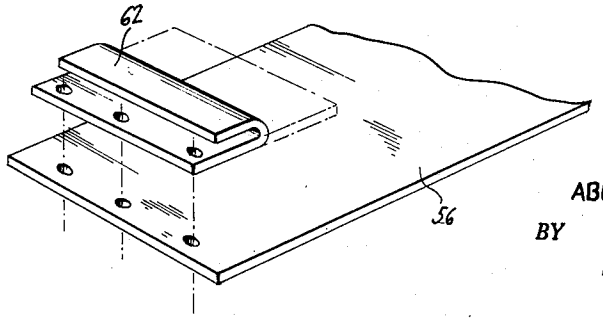


FIG. 3.

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FIG. 4.

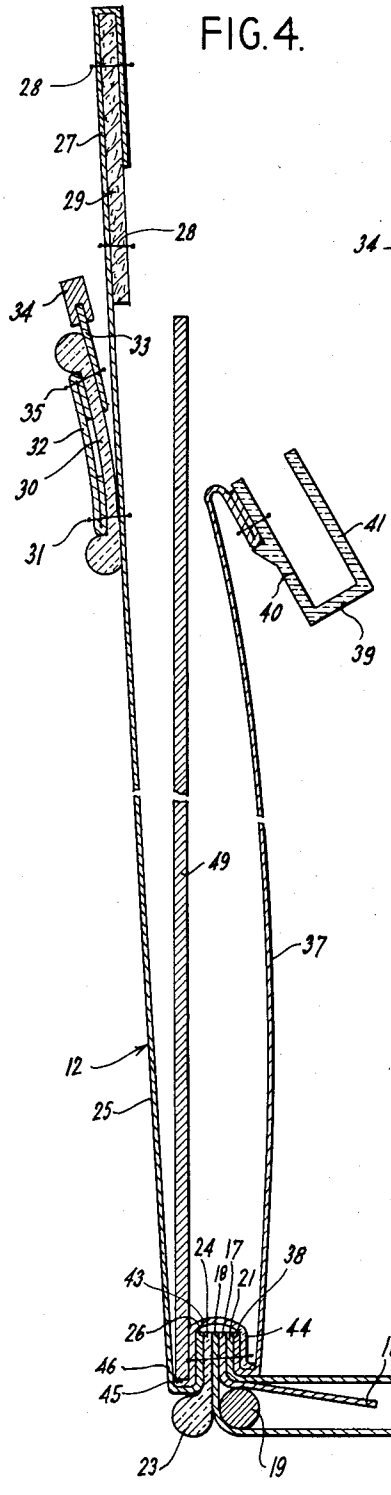


FIG. 5.

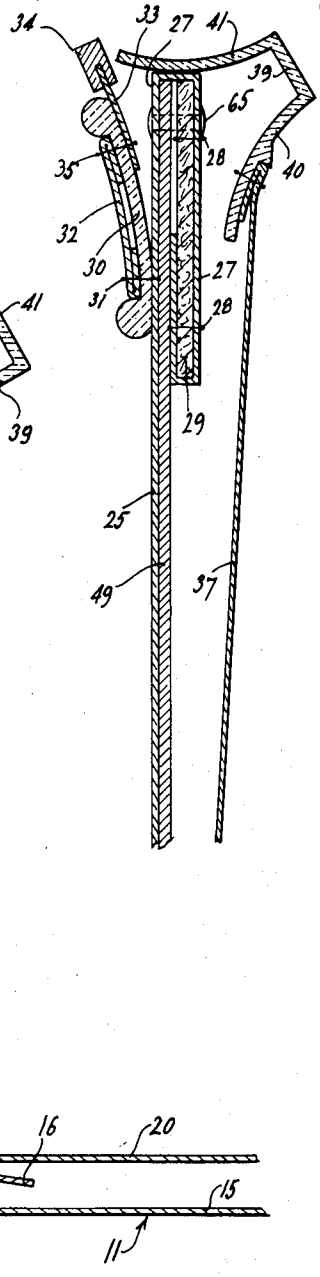
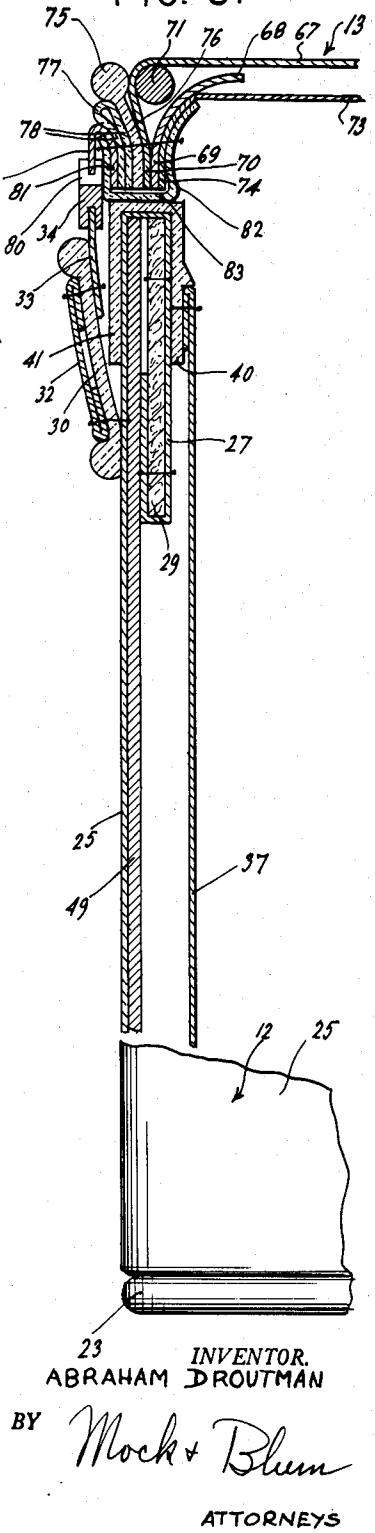


FIG. 6.



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LUGGAGE CONSTRUCTIONS

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Application September 3, 1954, Serial No. 454,160
8 Claims. (Cl. 190—49)

This invention relates generally to improved articles of luggage for baggage, and is particularly directed to light weight traveler's cases.

The particular embodiment of the present invention, which is illustrated in the drawings and which will be described hereinafter in greater detail, comprises generally a bottom wall having an upstanding peripheral bead, a flexible side wall cover extending along the bottom wall just outwardly of the bead, and a side wall frame having its lower portion extending into and seated between the side wall cover and bead, the upper side wall cover portion being secured in fully distended condition to the upper portion of the frame.

In present day traveler's luggage, it is well known that lightness of weight is highly desirable, and that such characteristic is essential in luggage intended for use in air travel. Hence, wood, steel, leather and other heavy and bulky materials formerly employed in the manufacture of luggage have become generally unsatisfactory and fallen into disuse; and, increased use is being made of light weight plastics, cloth fabric, and the like. However, numerous problems have arisen in the use of light weight materials for luggage construction, both in the manufacturing processes and products resulting therefrom. More specifically, employment of flexible materials such as cloth and plastic sheeting, require the use of relatively rigid supporting frames, especially in the form-retaining or case type of luggage, as distinguished from the folding, hanging bag type.

In prior luggage constructions of the light weight case type, the supporting frames were prone to cause excessive wear and damage as by running through or rupturing the flexible sheet material. Further, it was extremely difficult to incorporate supporting frames in articles of luggage so that the flexible sheet material would remain fully distended, a requisite to neat and attractive appearance.

Accordingly it is a general object of the present invention to provide to an article of light weight, case type luggage, which overcomes the above mentioned disadvantages, which is simple, staunch and durable in construction, wherein all flexible sheet material is permanently maintained in smooth and neat appearing, fully distended condition, and which eliminates excessive wear or rupture of the flexible material as was previously caused by supporting or distending frames.

It is another object of the present invention to provide an article of luggage of the type described which may be quickly and easily manufactured at a relatively lower cost without the use of specialized and expensive equipment, and, in which a supporting or distending frame may be simply and efficiently incorporated by persons of only average skill.

It is still another object of the present invention to provide a luggage construction having the advantageous characteristics mentioned in the foregoing paragraphs, and which is firmly braced so as to be self-sustaining in any position, and permit of stacking one upon the other without crushing or otherwise adversely affecting the luggage or its contents.

It is a further object of the present invention to provide a novel luggage construction which permits the use of an exterior slide fastener, and wherein the article of luggage is completely sealed when the fastener is closed. As is well known, the use of exterior slide fasteners in articles of luggage is a highly desirable feature, for reasons of convenience, secure closure, and the like. But such construction has heretofore been subject to the disadvantages of dirt and water leakage when exposed to the elements. However, the novel construction of the present invention permits the use of exterior slide fasteners, affording all the advantages thereof, and effectively seals the interior of the luggage against rain, dirt, dust, etc.

Other objects of the present invention will become apparent upon reading the following specification and referring to the accompanying drawings, which form a material part of this disclosure.

The invention accordingly consists in the features of construction, combinations of elements, and arrangements of parts, which will be exemplified in the construction hereinafter described, and of which the scope will be indicated by the appended claims.

In the drawings:

Fig. 1 is a perspective view showing an article of luggage constructed in accordance with the present invention, and partially cut away for clarity of understanding;

Fig. 2 is a perspective view showing a side wall frame, as removed from the article of luggage of Fig. 1;

Fig. 3 is a fragmentary perspective view, somewhat enlarged, illustrating a constructional feature of the side wall frame;

Fig. 4 is a partial, transverse sectional view showing the article of luggage of Fig. 1 in an intermediate stage of assembly;

Fig. 5 is a partial, transverse sectional view similar to Fig. 4, illustrating a slightly later stage of the assembly procedure; and

Fig. 6 is a partial, transverse sectional view taken along the line 6—6 of Fig. 1; showing the article of luggage in its completely assembled condition.

Referring now more particularly to the drawings, and specifically to Fig. 1 thereof, the embodiment of the invention illustrated therein comprises an article of luggage, generally designated **10**, including a bottom wall **11**, an upstanding peripheral side wall **12** on the bottom wall, and a top wall or cover **13** removably disposed in covering relation with respect to the bottom and side walls, and swingably connected to the latter by a flexible sheet or hinge **14**.

The bottom wall **11**, best seen in Fig. 4, is formed of an outer panel or cover **15**, fabricated of flexible sheet material, and which is generally rectangular in configuration in the illustrated embodiment. Stiffening strips **16**, such as may be formed of crinoline or other suitable material, are disposed interiorly of the bottom wall cover **15** along the side edges thereof, and each has a longitudinal edge portion **17** secured to a marginal edge portion frame **19**, which may comprise a rectangularly bent wire, extends about the margin of the bottom wall cover **15** between the latter and the stiffening members **16**.

An inner bottom wall panel or lining **20**, also of rectangular configuration in the illustrated embodiment and fabricated of flexible sheet material, is disposed overlying the bottom wall cover **15** and the stiffeners **16**. The bottom wall lining **20** is preferably of slightly smaller size than the bottom wall cover **15**, so that securement of the marginal lining portion **21** to the stiffener edge portions **17** and the peripheral margin **18** of the bottom wall cover causes the latter to turn upwards about the wire frame **19**. Stated otherwise, securement of the peripheral edge portion **21** of the slightly smaller bottom wall lining **20** to the side edge portions **17** of the stiffener members **16**, and to the peripheral edge portion **18** of the bottom wall cover **15**, effects a conjoint upstanding disposition of the three edge portions **17**, **18** and **21**.

A protective corner bead 23 extends about the periphery of the bottom wall 11, and includes an upwardly extending flange portion 24 disposed along side of and secured in facing engagement with the upstanding marginal portion 18 of the bottom wall cover 15. The bead 23 may be formed integrally with the flange 24, and is preferably fabricated of pliable plastic or other material adapted to absorb shock and resist abrasion, as when the article of luggage is dropped on a corner.

The side wall 12 includes an outer flexible sheet or cover 25, which extends peripherally about the bottom wall 12, and has its lower marginal edge portion turned inwards and upwards, as at 26. The edge portion 26 of the side wall cover 25 is thus disposed in upstanding relation and fixedly secured in facing engagement with the bead flange 24. Extending along the upper peripheral portion 27 of the side wall cover 25, and fixedly secured thereto, as by stitching 28 or other suitable means, is a relatively stiff strip 29, preferably fabricated of cardboard or other suitable stiffening material.

Extending peripherally about the side wall cover 25, exteriorly thereof and disposed just below the strip 29, is a flexible strip or molding 30, preferably fabricated of plastic material. The molding 30 is beaded along its upper and lower longitudinal edges, the latter edge being secured to the side wall cover by any suitable means, such as stitching 31. If desired, a cloth strip 32 may be secured to the molding 30, exteriorly thereof, between the longitudinal edge beads; and, a slide fastener tape 33, having upwardly extending engaging elements 34 provided thereon, is secured to the molding 30, along the upper edge thereof, as by stitching 35, except in the region of the flexible flap or hinge 14.

A flexible side wall lining 37 extends about the periphery of the bottom wall 11, interiorly of the side wall cover 25, and has its lower marginal edge portion turned outwards and upwards, as at 38. The lining edge portion 38 is secured in facing engagement with the edge portion 21 of the bottom wall lining 20, and thereby maintained in an upstanding disposition. Extending peripherally along and secured to the upper portion of the side wall lining 37 is a form retaining, flexible molding 39, which is preferably U-shaped in cross section. More specifically, see Fig. 4, the U-shaped molding 39, advantageously fabricated of polyethylene plastic or other suitable material, has one leg or wall 40, the inner wall when the molding is inverted, secured to the side wall lining 37 and the other leg or wall 41 unsecured or free.

The peripherally extending, upstanding edge portions 38, 21, 17, 18, 24 and 26 are covered by a peripherally extending strip 43, the latter combining with the secured edge portions to define an upstanding bead 44 extending about the periphery of the bottom wall 11. The outer edge portion 45 of the strip 43 preferably extends into the space between the bead 44 and the lower portion 46 of the side wall cover 25, so that the bead and lower side wall cover portion combine to define an upwardly opening groove, for a purpose appearing presently.

The peripheral side wall 12 also includes a supporting or distending frame, generally designated 48 and best seen in Fig. 2. The frame 48 is preferably constructed in complementary sections, two being shown in the illustrated embodiment, and each may be formed of relatively stiff sheeting, such as aluminum or other light weight material. The side wall frame sections 49 and 50 are identical in construction, having intermediate portions 51 and 52 and transversely bent end portions 53 and 54, and 55 and 56. As seen in Fig. 2, the frame sections 49 and 50 may be arranged in facing, end to end relation to complete a generally rectangular form. Provided along the upper edge portions of the frame sections 49 and 50, respectively, are spaced, through apertures 59 and 60, for a purpose appearing presently.

A generally U-shaped female or holding clip is secured to one end of each frame section, as at 61 and 62, on the end portions 53 and 56, respectively. If desired, the holding members may be carried on opposite end portions of one or the other frame section. That is, one end portion of each adjacent pair of end portions is provided with a female member for receiving the other end portion of the respective pair of end portions. Thus, the clip 61 is adapted to receive the end portion 55, while the clip 62 is adapted to receive the end portion 54, and by this construction prevent contraction or decrease in size of the rectangle defined by the frame sections 49 and 50.

In the assembly operation, the frame sections 49 and 50 may be inserted either simultaneously or individually between the side wall cover 25 and lining 37 with their lower edge portions extending into the groove defined between the bead 44 and the lower portion 46 of the side wall cover. Frame sections 49 and 50 are preferably inserted between the side wall cover and lining with the holding members 61 and 62 in a flat, plate-like configuration; and, with the frame sections forcibly held apart the holding members may be folded or turned into embracing engagement with the respective adjacent frame section end portion. The frame sections will thus be restrained against contraction by the holding members and serve to effect full peripheral distention of the side wall cover 25.

After insertion of the side wall frame 48, as seen in Fig. 4, the upper side wall cover portion 27 and its stiffening strip 29 are folded inwards over the upper edge of the frame and into facing relation with respect to the inner surface of the frame, as seen in Fig. 5. If desired, rivets 65, or other suitable fastening means, may be extended through the upper side wall cover portion, stiffening member 29, and the frame apertures 59 and 60. However, it has been found that omission of the fastening means 65 does not substantially affect the characteristics of the resultant article, and that inward folding of the upper side wall cover portion and stiffening member 29 serve to permanently maintain the side wall cover in a taut, completely distended condition, both peripherally and transversely.

The free or unsecured wall 41 of the molding 39 is then engaged over the upper edge of the frame 48, and inserted between the side wall cover 25 and the molding strip 30, as seen in Figs. 5 and 6. This arrangement serves to further insure retention of the upper side wall portion in its folded condition, while effecting distention of the side wall lining 37. To further secure molding strip 39 in position over the upper edge of frame 48, a double-faced strip of adhesive may be affixed to the inner face of leg 41 of molding strip 39 and the opposite side of said strip secured along the upper edge of side wall cover 25.

The top wall or closure 13 includes a generally rectangular, flexible outer sheet or cover 67, and a plurality of stiffener strips 68 extending along and secured to the marginal edge portion of the cover. That is, the longitudinal edge portions 69 of the strips 68 are secured in facing engagement with the inner surface of the marginal edge portion 70 of the cover 67; and, a generally rectangular wire frame 71 extends about the periphery of the cover 67 between the latter and the stiffening strips 68.

A top wall lining 73, also fabricated of flexible sheet material and of a rectangular configuration slightly smaller than the top wall cover 67, is arranged underlying the top wall cover and has its marginal edge portion 74 secured in facing engagement with the stiffener strip edge portions 69 to effect downward extension of the edge portions 74, 69 and 70. In other words, the securement of the marginal edge portion 74 of the slightly smaller top wall lining 73 to the edges 69 and 70 of the stiffener 68 and top wall cover 67, serves to turn the edge portions downwards around the frame 71 and

maintain the secured edge portions in a peripherally extending, depending disposition.

Extending peripherally about the exterior of the frame **71** and cover **67** is a protecting bead **75**, which is preferably formed of yieldable plastic or other suitable shock absorbing and abrasion resisting material, and includes a downwardly extending securing portion or flange **76**, preferably formed integrally with the bead, and secured in facing engagement with the outer surface of the depending peripheral edge portion **70** of the cover **67**. A peripherally extending, longitudinally folded or doubled piping strip **77** is disposed outwards of the bead flange **76**, with its bight portion engaging the underside of the bead **75** and its edge portions **78**, **78** secured along the bead flange. Extending peripherally about the piping edge portions **78**, except in the region of the hinge **14**, is a slide fastener tape **79** which has engaging elements **80** secured along one longitudinal tape edge, and has its other longitudinal edge portion **81** secured in facing engagement with the outer edge portion **78**.

A covering strip or molding **82** extends peripherally about the closure **13** and is secured over and in embracing relation with respect to the depending edge portions **74**, **69**, **70**, **76**, **78** and **80**, and combines therewith to define a peripherally extending, depending bead **83** on the top wall **13**.

As best seen in Fig. 6, the depending top wall bead **83** is adapted for abutting engagement with the side wall molding **39** when the top wall is in closed position, and the bead cover **82** is preferably fabricated of plastic or other suitable material for sealing engagement with the side wall molding. The slide fastener engaging elements **34** and **80** of the lower and upper tapes **33** and **79** are releasably interengageable with each other, as shown in Fig. 6, to maintain the bead **83** and molding **39** in their sealing engagement, and thereby seal the space enclosed between the bottom, side and top walls. Of course, opening of the article of luggage **10** may be readily effected by disengagement of the slide fastener elements and swinging movement of the top wall **13** about the hinge **14**.

From the foregoing, it is seen that the present invention provides an article of luggage which fully accomplishes its intended objects, and which is well adapted to meet practical conditions of manufacture and use.

Although the present invention has been described in some detail by way of illustration and example for purposes of clarity of understanding, it is understood that certain changes and modifications may be made within the spirit of the invention and scope of the appended claims.

What is claimed is :

1. An article of luggage comprising a bottom wall, an upstanding bead along the periphery of said bottom wall, a flexible side wall cover extending along the periphery of said bottom wall outwardly of said bead and secured to the latter below the top of said bead, an upstanding side wall frame having its lower portion extending between said bead and side wall cover, the upper portion of said side wall cover being secured to the upper portion of said frame to maintain said side wall cover in fully distended reinforced condition, a flexible side wall lining extending about the periphery of said bottom wall interiorly of said side wall frame, and a molding strip extending about the upper portion of said lining and engageable over the upper portions of said side wall cover and frame to maintain said side wall cover and lining in distended condition over said frame.

2. An article of luggage according to claim 1, in combination with a top wall adapted to close the space between said bottom wall and side wall lining, a depending bead extending about the periphery of said top wall and engageable with said molding strip to seal the enclosed space, and interengageable slide fastener elements on said depending bead and side wall cover for releasably holding said depending bead and molding strip in sealing engagement.

3. An article of luggage according to claim 2, each of said bottom and top walls comprising a sheet of light weight flexible material, and an open frame of substantially the same size as said sheet and secured to the latter to maintain said sheet in firm distended condition.

4. An article of luggage comprising a bottom wall, an upstanding bead extending about the periphery of said bottom wall, a flexible side wall cover secured about the periphery of said bottom wall and having its lower portion disposed adjacent to and outwardly of said bead, an upstanding side wall frame extending about the periphery of said bottom wall and having its lower edge extending between the lower portion of said side wall cover and said bead, the upper portion of said side wall cover being folded inwards over the upper portion of said frame, a side wall lining having its lower portion secured about the periphery of said bottom wall adjacent to and inwardly of said bead, and a molding secured along the upper portion of said lining in embracing engagement over the upper portion of said side wall cover and frame to hold said side wall cover and lining in distended condition over said frame.

5. An article of luggage according to claim 4, in combination with a top wall adapted to close the space between said bottom wall and side wall lining, a depending bead extending about the periphery of said top wall and engageable with said molding to seal the enclosed space, and interengageable slide fastener elements on said depending bead and side wall cover for releasably holding said depending bead and molding in sealing engagement.

6. An article of luggage according to claim 4, said frame comprising a plurality of complementary sections arranged in end to end relation about the periphery of said bottom wall, and a U-shaped female member on one section end of each adjacent pair of section ends for receiving the section end of the respective adjacent pair.

7. An article of luggage comprising a bottom wall, an upstanding bead extending about the periphery of said bottom wall, a flexible side wall cover extending about the periphery of said bottom wall adjacent to and outwardly of said bead, a peripherally extending strip secured to and overlying said bead and having one edge portion extending laterally outwards to space said side wall cover from said bead and cover to define therebetween an upwardly opening groove, and an upstanding side wall frame extending about the periphery of said bottom wall and having its lower edge portion seated in said groove, the upper portion of said side wall cover being secured to the upper portion of said frame to maintain said side wall cover in fully distended condition.

8. An article of luggage comprising a bottom wall, a flexible side wall cover extending about and having its lower portion secured along the periphery of said bottom wall, and an upstanding side wall frame extending about the periphery of said bottom wall interiorly of said side wall cover and having its upper portion secured to the upper portion of said side wall cover, said frame comprising a plurality of frame sections arranged in generally end to end relation and each of a transverse dimension substantially the same as that of said side wall cover to transversely distend the latter, and a female member on one end of each adjacent pair of frame section ends for receiving and retaining the other end of the respective pair, whereby said frame sections are retained in their end to end relation without fasteners.

References Cited in the file of this patent

UNITED STATES PATENTS

2,335,950	Lyman	Dec. 7, 1943
2,509,370	Rubin	May 30, 1950
2,684,135	Cart	July 20, 1954