

Aug. 11, 1953

I. J. MEYERS

2,648,412

SUITCASE WITH SOFT SIDES

Filed May 18, 1951

2 Sheets-Sheet 1

FIG. 1

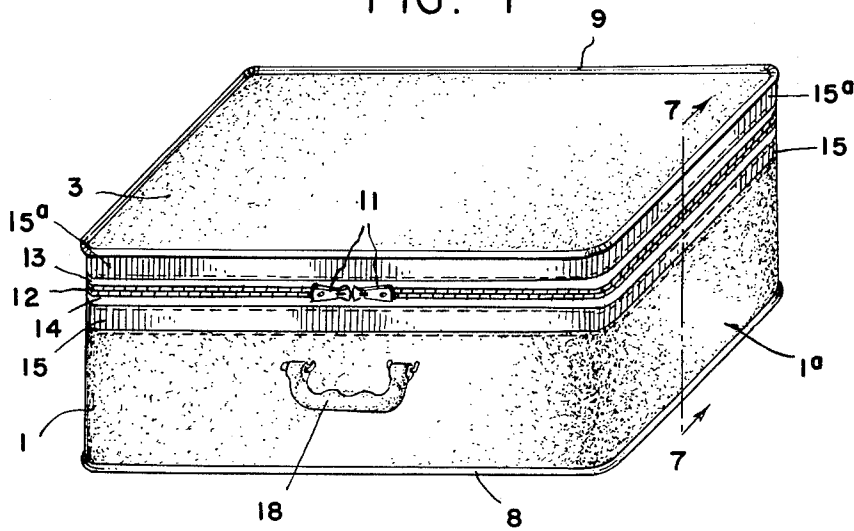
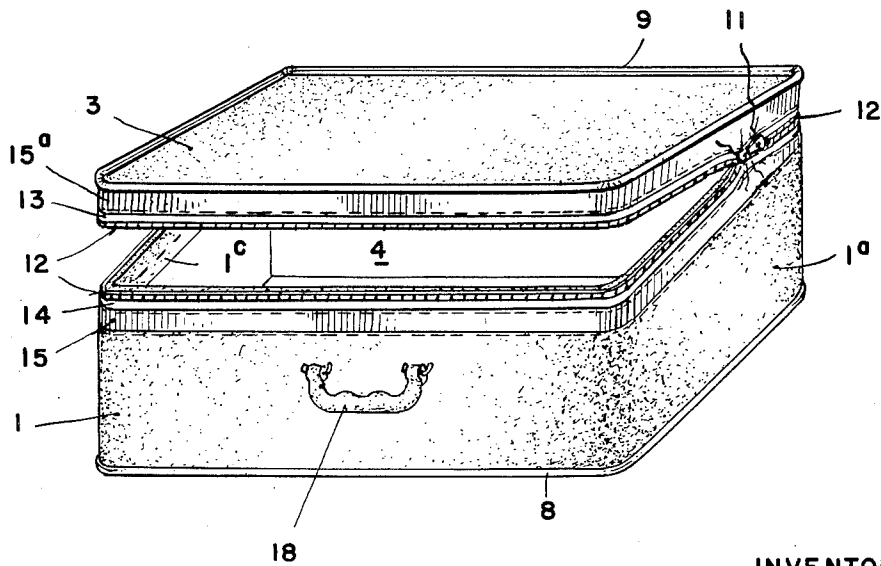


FIG. 2



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2 Sheets-Sheet 2

FIG. 4

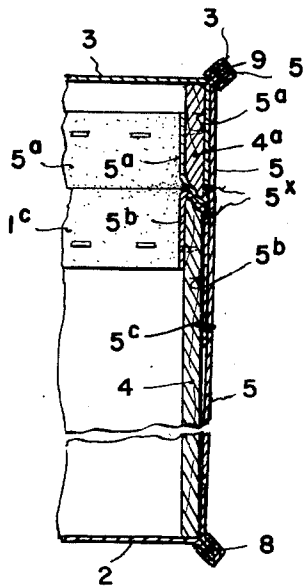


FIG. 5

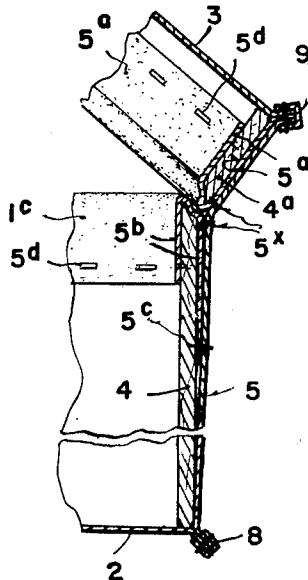


FIG. 3

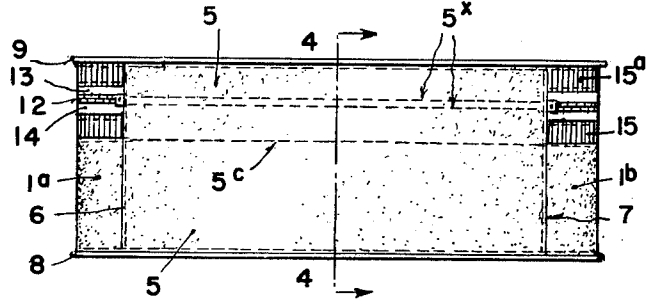


FIG. 7

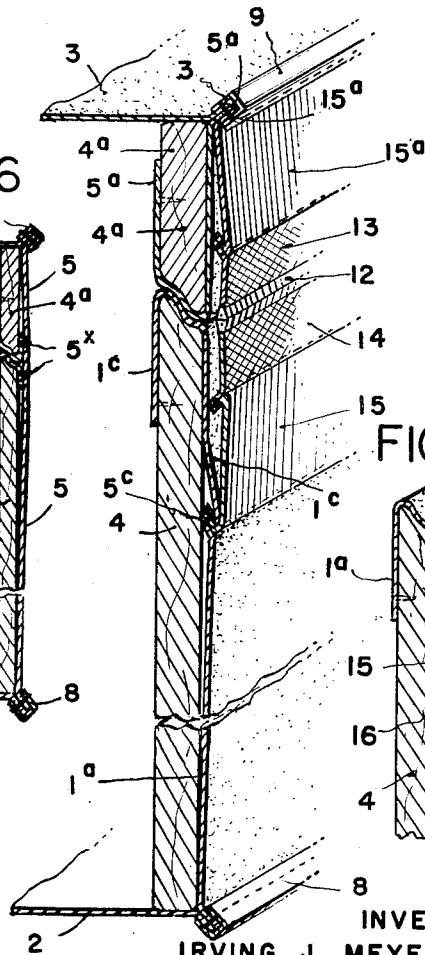


FIG. 6

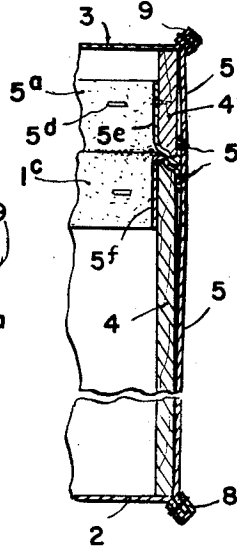


FIG. 8

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SUITCASE WITH SOFT SIDES

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2 Claims. (Cl. 190—41)

1

This invention relates to an improvement in light weight luggage, and especially pertains to an improved suitcase of the type having soft sides. That type has a rigid main frame of some sort, and possibly also stiff ends, bottom and top, on which latter a handle is mounted.

More specifically, the present invention relates to an improved construction in accordance with which a slidable fastener is so mounted as to secure the lid to the covering on the main frame in such a way that the latter covering is not marred by the movement of the fastener, and the action of the fastener, together with a special elastically stretchable fabric associated with it, operates to place tension on the soft sides and thereby eliminates the possibility of the wrinkling of the material of the soft sides.

Luggage having so-called soft sides is conventional. Such articles have been provided with stiffening frames for both the wall of the container and the associated rim of the lid. In such constructions, the rim of the lid has usually been sufficiently rigid to enable hinge and lock means to be secured thereto for fastening the lid to the side wall of the luggage article. Such hardware usually adds outward projections on the exterior surface of the luggage.

In contrast to such prior forms, the article of the present invention provides a much simplified and much lighter construction. In this improved form, the lid is directly secured to the main portion of the luggage article by a piece of the covering material similar to that with which the covering of the lid and the main frame is made, and by a slidable fastener the respective interlocking parts of which are resiliently mounted on the lid and the main portion of the luggage article. The covering material of the lid and the main frame is placed under tension when in the closed position. The tensioning of the material of the lid by the action of the slidable fastener when the lid is being secured in the closed position occurs simultaneously with a tensioning of the surface of the covering on the main frame, as will be clear from further detailed description herein.

More specifically, one of the features of this improved construction is that the side covering of the piece of luggage is so constructed as to include elastic material associated with a slidable fastener. As a result of this construction, an advantage is provided in that the slidable fastener will not pull apart or separate. This is due to the stretchable nature of the elastic material. The usual strain is not present such as

2

would cause the failure of a slidable fastener in a conventional mounting of such a fastener.

A further advantage is due to the fact that the article of luggage can be overpacked to the extent that the soft side walls bulge and thus the total capacity of the piece of luggage is greater than if those main walls were of rigid material. Despite such bulging and stretching, the slidable fastener is assured of perfect operation because of the stretchable nature of the elastic material associated with the slidable fastener.

Easy operation of the slidable fastener is facilitated and expedited after the movable element of the slidable fastener has been partially opened. This is because of the fact that the elastic material assists in opening the lid. The opening movement of the lid and the cooperation of the elastic material assist in so positioning the opposite sides of the slidable fastener that the movable element thereof will glide freely.

The elastically stretchable material may be carried by the covering material of the side wall or by the lid section, or by both.

The foregoing and further advantages and details will be understood from the following specification and claims when considered in view of the accompanying drawings, in which:

Fig. 1 is a perspective view of a suitcase involving this invention looking somewhat downwardly toward the front, top, and one end of the case, the lid being in the closed position and the slidable fastener closed;

Fig. 2 is a view similar to that shown in Fig. 1 but with the slidable fastener in a position nearly completely open, the lid being raised somewhat;

Fig. 3 is a view of the rear or hinged portion of the case shown in Fig. 1 with the lid and the slidable fastener closed;

Fig. 4 is an enlarged sectional view taken on the line 4—4 of Fig. 3 looking in the direction of the arrows;

Fig. 5 corresponds to Fig. 4 but shows the lid in a partially open position;

Fig. 6 is a sectional view, similar to that shown in Fig. 4, but showing a modified form of construction for the rear or hinged portion;

Fig. 7 is an enlarged vertical sectional view taken on line 7—7 of Fig. 1, looking in the direction of the arrows, showing the slidable fastener closed; and

Fig. 8 is a modification relating to the construction of the covering of the end surfaces and handle supporting surfaces, differing from Fig. 7 in that the material of the side wall is continued as a unitary piece over the upper end of the side wall.

3

Referring in detail to the several figures of the drawing, the suitcase is provided with an exterior covering of suitable durable material, which, by way of example, may be a plastic coated textile. The cover material for the handle supporting face or front of the suitcase is indicated at 1. The material is continued around the respective ends as indicated at 1^a and 1^b in Fig. 3. The covering at the base of the suitcase is not shown in Figs. 1 and 2, but is identified at 2 in Figs. 4, 5, 6 and 7. The opposite face, consisting of the lid of the suitcase, is indicated at 3. Manifestly, the opposite faces 2 and 3 are the broader side faces of the suitcase when the handle is in the uppermost position, and may be designated as the soft side faces 2 and 3, since they extend across open sides of rigid frames, which are covered by similar material.

The suitcase of this invention is one of those divided into two sections on a plane which includes the hinge point, and in which peripheral walls of both sections are rigid. Adequate rigidity for the suitcase is provided by a single continuous wall frame 4 for one section and a similar wall frame 4^a for the other section. The frames for these sections are preferably of plywood, and preferably have four sides, the corner portions being somewhat rounded to insure strength and to assist in avoiding distortion. The height of the walls 4 and 4^a are substantially the heights of the respective sections.

The upper or meeting edge of the wall 4 and the lower or meeting edge of the wall 4^a are preferably covered by the same type of material which is used to cover the walls 1, 1^a and 1^b, and to provide the surfaces 2 and 3. In practice, a satisfactory construction is provided by continuing upper edges 1^c of the covering material 1, 1^a and 1^b over the upper edge of the wall 4 and thence slightly downwardly for a short distance, so that there is sufficient covering material to be tacked or otherwise secured on the inner surface of the wall 4 and slightly below its upper edge. This can be done by using a single piece of goods or several pieces, as will be explained. A similar construction is used to cover the lower edge of the wall 4^a of the lid. In the construction shown in Fig. 4, the covering material 5^a is secured to the material of the lid 3 and extends downwardly to the edge of the wall 4^a, thence inwardly and thence upwardly a short distance where it is tacked or otherwise secured to the inner surface of the wall 4^a.

The completed case preferably contains suitable linings for both sections depending on personal taste and sales appeal, but the lining is not illustrated as it forms no part of the essential construction.

The hinging of the lid portion 3 and wall 4^a to the wall 4 and main portion of the suitcase is effected by a construction which will now be described. Referring to Figs. 3-6 inclusive, the covering of the side walls 1^b and 1^a is extended around the rear corners of the wall 4 slightly and the extreme ends of those coverings are secured to a strip 5 of covering material strong enough and durable enough to serve as the bottom of a suitcase when the handle 18 is uppermost. The strip 5 extends from the face 2 to the face 3 and thus across the entire width of the suitcase at the bottom thereof. The strip 5 is sewed or otherwise secured to the ends of the covering 1^a and 1^b as by suitable stitching 6 and 7, respectively. Preferably also the opposite edges of the strip 5 are sewed to face coverings 2 and 3

4

at the edges of the suitcase by stitching, as indicated. Around the periphery of the face covering 2, that face material is sewed to the material of the adjacent side wall. A suitable binding, somewhat U-shape in cross section, is used to provide a trim and bead for the portions thus sewed together, and preferably the stitching is extended through the binding and through the edge portions of the enclosed layers of the covering material thus secured. Such a trim or bound edge is indicated at 9 adjoining the face covering 3. Such a construction is also used at the base of the suitcase where the piece 5 is secured to the binding 8 and the lower covering 2.

The construction which provides for the hinged relation between the cover or lid 3 and the rear or bottom wall of the suitcase preferably includes structural details such as shown in section in Figs. 3, 4, 5 and 6. In those views, it will be observed that the upper end of the cover piece 5 terminates within the U-shaped binding 9. Also within the binding 9 and next adjacent and interiorly of the upper edge portion of the piece 5 is a strip of covering material 5^a which extends from the binding 9 downwardly to the lower edge of the wall 4^a, thence across the lower edge of the wall to the interior of the lid and thence upwardly for a short distance on the inside of the wall 4^a. The upwardly extending portion of the material 5^a on the inside of the wall 4^a may be secured to the wall 4^a by any suitable means, as by the tacking 5^d, in substantially the same manner that the wall portion 1^c is secured to the wall 4, as shown in Fig. 5. It will also be observed in Fig. 4 that within the binding 9 and on the opposite side of the piece 5^a from the piece 5, there is also secured by stitching the extreme rear edge of the top cover material 3.

The trim for the upper edge of the wall 4 at the hinge portion of the suitcase is completed by a construction quite similar to that used in finishing the lower edge of the wall 4^a. Thus, as shown in the sectional view Fig. 4, which is taken on the line 4-4 of Fig. 3, a piece of covering material 5^b similar to the goods of the coverings at 1, 1^a and 1^b and preferably also like the goods 5, is secured at its lower edge, as by stitches 5^c to the inside face of the piece 5 and next adjacent the wall 4. This piece 5^b is extended upwardly to the upper edge of the wall 4, thence across that edge, and thence downwardly for a short distance on the inside of the wall 4, so that it may be secured, as by tacking 5^d.

The covering pieces 5^a and 5^b and their relation to the piece 5 contribute to the strength of the hinge action, as will now be explained. According to the construction described and shown herein, it is important that the weight of the lid and the rearward and downward thrust caused when the lid is raised, be carried by the pieces 5^b and 5^a. This is effectively assured by the construction described and in which the outer edges of the pieces 5^a and 5^b are secured with respect to the piece 5. However, a very definite factor of strength is obtained by the attachment of the pieces 5^a and 5^b to the piece 5, as indicated by the stitching 5^x immediately adjacent the extreme upper end of the outside surface of the wall 4 and extreme lower end of the outside surface of the wall 4^a. In short, the two lines of stitching are as close together as is possible. When the lid or cover 3, with its rim wall 5^a, is raised, the material of the strip 5 is likewise folded on itself between the two stitch lines 5^x,

5

6

thus serving as hinge means, as illustrated in Fig. 5.

A modification of the construction shown in Figs. 4 and 5 is illustrated in Fig. 6. In this latter view, the pieces 5^e and 5^f are relatively short as compared to the pieces 5^a and 5^b of the construction shown in Figs. 4 and 5. Thus, in Fig. 6, the pieces 5^e and 5^f overlap with the piece 5 only far enough to enable the stitchings 5^x to be used, whereas in Figs. 4 and 5, the piece 5^a extends to the upper binding 9, and the piece 5^b extends down as far as the stitched line 5^c. The structure shown in Fig. 6 affords some saving in the amount of covering material required.

In Fig. 7, an enlarged sectional view, it will be observed that the side wall material 1^a is supplemented by a piece 1^c of similar material which is continued upwardly and across the top of the wall 4 and thence downwardly for a short distance, being secured to the wall 4 by suitable tacking.

Fig. 7 illustrates the construction which is used for the front and side wall fastening assembly. In this arrangement, a slidable fastener is used. Sliding locking elements for the fastener are indicated at 11, and the respective rows of interengaging teeth are indicated at 12. In Fig. 7, these teeth are shown in the closed position, indicating that the lid of the suitcase is likewise closed. The usual tapes or strips to which the slidable fastener interengaging units are secured are indicated at 13 and 14. The upper edge of the uppermost strip 13 is sewed or otherwise secured to a strip of elastically stretchable material 15^a which extends for the complete length of the slidable fastener, thus from one edge of the covering 5 to the opposite edge thereof and around both ends and the front of the piece of baggage. The opposite edge of the strip 15^a is secured within the binding 9 along with the extreme lateral edge of the upper covering 3. Hence the fastening units of the strip 13 depend downwardly alongside of the wall 4^a and the covering 1^a. The corresponding strip 14 of the lower set of interengaging fastener elements hangs downwardly from the line of the fastener teeth 12 and has its lower edge sewed or otherwise fastened to a strip of elastically stretchable material 15 which extends for the complete length of the slidable fastener. The elastically stretchable strip 15 has its lower edge fastened as by sewing at 5^c to the covering 1^c for the meeting edge of the wall 4, as shown in Fig. 7. Likewise, as shown in Fig. 7, the strip 15 is secured by the stitching 5^c to the end wall covering 1^a, and thus the stitching at 5^c may be used to secure both the strip 15 and the covering 1^c to the covering 1, 1^a and 1^b.

When a construction is used as shown in Fig. 7, in which a piece 1^c is used to extend over the upper edge of the wall 4, and which piece 1^c is supplemental to and added to the material below the elastic 15, the piece 1^c is continued around both ends and across the front. It is, of course, hidden from view when the suitcase is closed and the slidable fastener secured, but is visible when the fastener is released or the lid 3 is raised.

According to the modification shown in Fig. 8, the covering material of the piece below the elastic 15 is continued upward and over the top of the wall 4, thus as a unitary construction in lieu of the extra piece 1^c of Fig. 7. According to the modification of Fig. 8, the elastic material 15 has its lower edge turned inwardly and up-

wardly, and that edge portion is sewed directly to the outer face of the side wall covering, as at 16. This same construction is used around both ends and across the front.

The function of the elastic strips 15 and 15^a will now be described.

The material of the strips 15 and 15^a is stretchable respectively over the face of the walls 4 and 4^a in a direction conforming to the height of the wall and at right angles to the line of the slidable fastener. The relation of these parts is so designed that the strips 15 and 15^a are placed under tension when the slidable fastener is in its closed position. This tensioning effect and the action of closing the fastener serves to provide tensioning on the covering material 3 of the lid and also on the material covering the side walls below the slidable fastener and also on the covering material 2 of that face of the suitcase opposite the top 3. This tensioning action serves to avoid folds, bagginess, wrinkles and any unsightly appearance which might occur if the covering material were not taut. It is therefore desirable that the elastic strips 15 and 15^a be slightly narrower when the slidable fastener is in the open position than when the fastener is closed and tension has been applied to the strips 15 and 15^a.

One of the advantages of the present construction arising from the use of the two strips of elastic used in the mounting of the slidable fastener is that which results when the slidable elements are moved from the front to intermediate positions at the ends of the suitcase. When in such intermediate positions, and the lid is partly raised, further inclination of the lid causes the movable elements of the fastener to slide rearwardly to their extreme open position. This ability to slide when the lid is further opened from a partly open position is advantageous and results from the use of the elastic. If the slidable fastener were mounted without the use of the elastic strips, such movement of the lid from a partly opened position would tend to pull apart the intergaging jaw elements of the fastener whereas with the elastic incorporated, a sliding action is possible. In Fig. 2, there is illustrated the location of the slidable element of the fastener and the shape of the strips 15 and 15^a when under tension under the conditions just described.

A conventional handle 18 is indicated. It is secured to the wall 4.

The construction described in the foregoing and illustrated in the accompanying drawings provides an advantage mentioned hereinbefore as being due to the fact that the article of luggage can be over packed to the extent that the soft side walls may bulge. Such bulging action is provided with an automatic control, however, because of the influence of the elastically stretchable material which is associated with the slidable fastener. The following factors contribute to this controlled stretch of the soft side walls of this piece of luggage. It will be obvious that the material of the lid 3 is free to slide over the upper edge of the wall 4^a and that such sliding is subject to the control of the slidable fastener and to its associated elastically stretchable material 15^a. It will also be clear that the side wall covers over the outer faces of the walls 4 and 4^a are free to slide over the outer surfaces of those walls and that the material of the lower face 2 of the suitcase is free to slide over the lower edge of the wall 4. In short, it will be appar-

ent that the side wall coverings are not secured to the outer faces of the walls 4 and 4^a and that the material of the lower face 2 is not permanently secured to the adjacent edge of the wall 4. In view of this construction, a small measure of relative sliding motion is thus possible between the side wall and lower face coverings and those surfaces of the wall here identified. The action of the elastically stretchable material 15 and the operation of the slidable fastener may thus exert a tensioning action on the material, as described. It thus follows that the bulging of the walls 2 and 3 of a piece of luggage when somewhat stretched is resisted by the action of the elastically stretchable material 15. It will also be clear that after the article of luggage has been unpacked and the strain from such bulging has been relieved, any slack or appearance of stretching in the walls 2 and 3 will be taken up by the influence of the elastically stretchable material 15 and this is by reason of the fact that the covering material is free to slide over the upper edge of the wall 4^a and the lower edge of the wall 4 and over their outer surfaces.

From the foregoing, it will be understood that the suitcase of the present invention is of relatively light weight but has a unitary and strong frame and that the respective soft walls 2 and 3 thereof can nevertheless be provided with a considerable tautness when the suitcase is closed, thereby enhancing the desirable appearance of the article.

It will also be manifest that the present invention dispenses with hardware, such as metallic hinges, locks and latches. Fastening of the lid is accomplished by the use of a slidable fastener so mounted that it will not mar the luggage surface and which will so fasten the lid to the edge of the side wall that the lid is under tension and thus free from unsightly slackness, folds or bagginess.

I claim:

1. An article of luggage comprising a main section and a lid section and being open on its lower side, a first rigid frame constituting a peripheral supporting wall of said main section, a section rigid frame constituting a peripheral supporting wall of said lid section and being open on its upper side, said first and said second frames also being open on their meeting sides, perma-

nent sheet material coverings stretched over the exterior of said frames over the open upper side of said lid frame and over the open lower side of said main frame, said coverings also extending over the meeting edges of said frame, and having portions attached to the respective frames adjacent said meeting edges, said lid section being pivotally mounted with respect to said main section by means comprising a strip of sheet material, said strip extending along a portion of the peripheral supporting wall and from said upper to said lower sides, and being secured to the coverings on both said main section and said lid section, and slide fastener means for securing the meeting edges of the lid section to the meeting edges of the side walls, said slide fastener means extending peripherally from one end of said hinge strip to the opposite end thereof, and including two rows of interlocking parts carried by upper and lower mounting strips, each said mounting strip having opposite peripheral edges connected respectively to the sheet material covering stretched across said frames, and elastically stretchable material associated with at least one of said mounting strips and located between the row of interlocking parts carried by said one mounting strip and the connected edge of said one mounting strip, said elastically stretchable material extending the peripheral length of one mounting strip.

2. An article of luggage as described in claim 1 in which the coverings on those faces of said frames on which the slidable fasteners are located are free to slide over those faces and over the distant edges of said frames to the extent that the elastically stretchable material and the action of the fastener exert or release tension on the covering material.

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References Cited in the file of this patent UNITED STATES PATENTS

Number	Name	Date
1,799,210	Blaskopf	Apr. 7, 1931
2,178,885	Buff et al.	Nov. 7, 1939
2,301,182	Kaser	Nov. 10, 1942
2,335,950	Lynam	Dec. 7, 1943
2,444,511	Kaufmann	July 6, 1948