July 20, 1954 G. H. WHEARY, JR 2,684,136

HAND LUGGAGE CONSTRUCTION

Filed Dec. 3, 1952

Fig. 1.

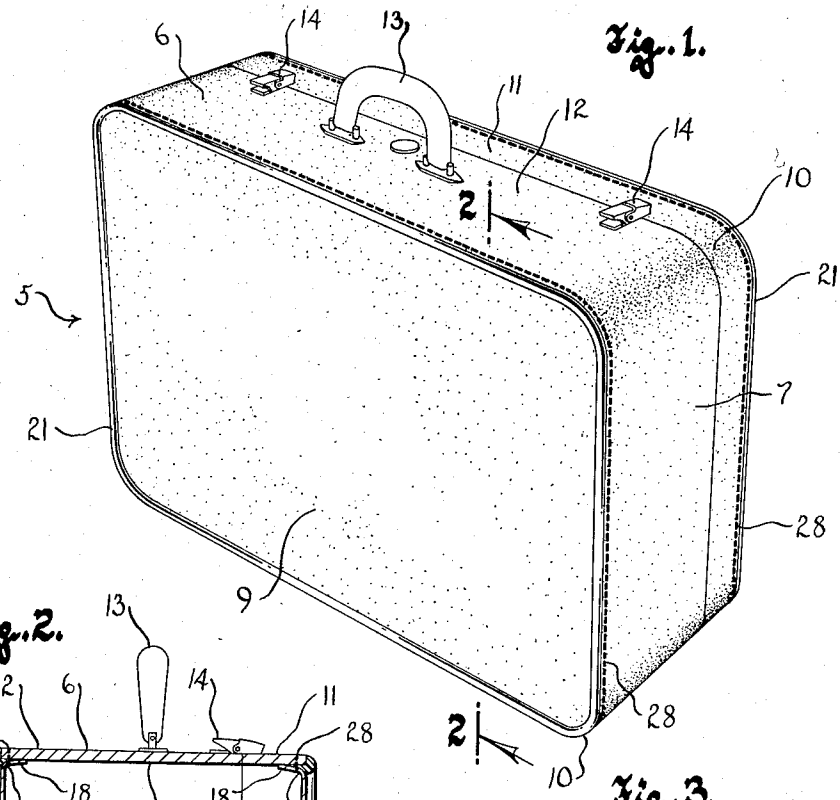


Fig. 2.

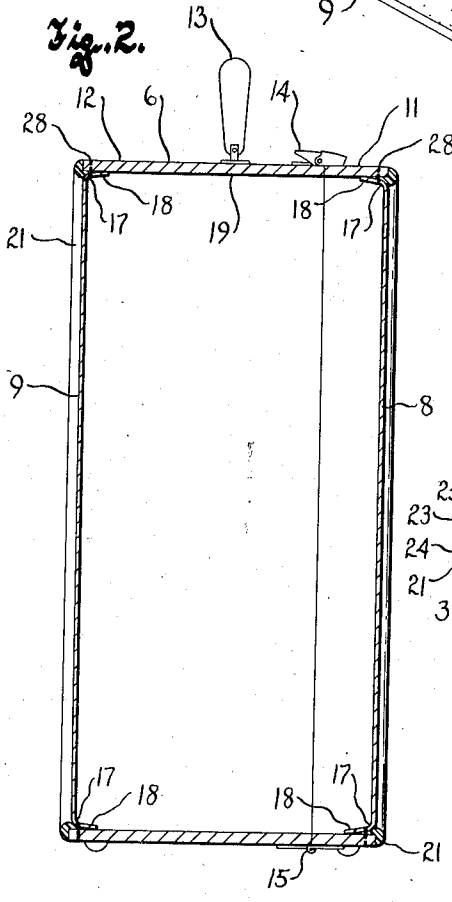


Fig. 3.

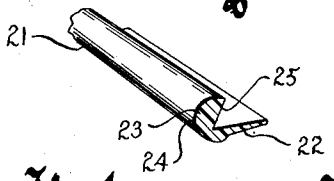


Fig. 4.

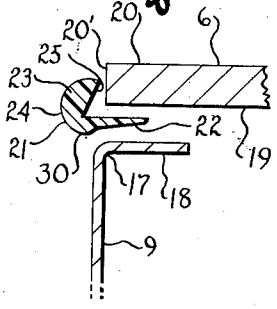
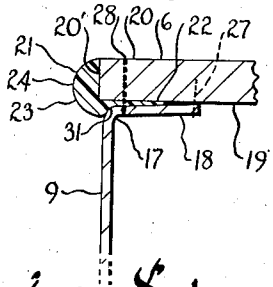


Fig. 5.



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Patented July 20, 1954

2,684,136

UNITED STATES PATENT OFFICE

2,684,136

HAND LUGGAGE CONSTRUCTION

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Application December 3, 1952, Serial No. 323,772

2 Claims. (Cl. 190—50)

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This invention relates to hand luggage and refers more particularly to improved means for securing adjacent wall members of a suitcase or the like to one another and for trimming the corner along the resulting junction of such wall members.

Heretofore in articles of inexpensive light weight hand luggage, such as small suitcases and toilet cases, the corners defined by the junctions of adjoining wall elements have been trimmed with a tape-like binding of leather, leatherette, plastic fabric, or similar sheet material. This binding extended around the corners defined by the junctions of pairs of wall surfaces and along the marginal portions of said walls adjacent to the corners. It was frequently cemented to the underlying wall surfaces and was usually stitched to both of the adjacent walls with a seam adjacent and parallel to each longitudinal edge of the binding. While such binding has heretofore been considered satisfactory in most respects, it nevertheless required two seams to hold it in place, one along each edge of the binding, and since these seams had to be stitched through the relatively heavy material of the walls, and in the relatively close quarters afforded by the corner of the case or bag, the application of a trimming of this type was relatively difficult and therefore expensive.

It is an object of this invention to provide a corner trim for inexpensive light weight luggage cases which trim not only contributes to the strength of the case but also eliminates the necessity for one of the seams heretofore required to hold the tape-like binding trim in place.

Another object of this invention resides in the provision of a construction by which the wall members of light weight luggage cases may be very inexpensively and securely joined to one another, which construction nevertheless makes for an unusually attractive piece of luggage.

Still another object of this invention resides in the provision of a molding for trimming an exposed edge surface of a wall member in a suitcase or the like, which molding may be very inexpensively secured in place by the same seam that joins the adjacent wall members and will have no tendency to separate from the surface which it overlies and conceals.

With the above and other objects in view, which will appear as the description proceeds, this invention resides in the novel construction, combination and arrangement of parts substantially as hereinafter described and more particularly defined by the appended claims, it being understood that such changes in the precise embodiment of the herein disclosed invention may be made as come within the scope of the claims.

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The accompanying drawing illustrates one complete example of the physical embodiment of the invention constructed according to the best mode so far devised for the practical application of the principles thereof, and in which:

Figure 1 is a perspective view of a light weight suitcase embodying the principles of this invention;

Figure 2 is a transverse sectional view through the suitcase of this invention taken on the plane of the line 2—2 in Figure 1;

Figure 3 is a perspective view of a piece of the molding used to trim the suitcase of this invention;

Figure 4 is a fragmentary cross sectional view of the junction of a pair of wall members and a section of molding, separated from one another, but in their relative positions for assembly; and

Figure 5 is a view similar to Figure 4 but showing the elements assembled to one another.

Referring now to the accompanying drawing, in which like numerals designate like parts throughout the several views, the numeral 5 designates generally a suitcase embodying the principles of this invention and having rigid side and end walls 6 and 7 respectively and relatively light, supple top and bottom walls 8 and 9, respectively.

As is conventional in the construction of hand luggage of the type here under consideration, the side and end walls are formed of relatively thick, rigid sheet material, such as plywood, and the side walls merge into the end walls at rounded corners 10. Strictly speaking, of course, both the side and end walls are longitudinally divided to define an upper cover forming portion 11 and a lower and deeper body portion 12 for the bag.

Since the object of the present invention is to achieve a very light and inexpensive piece of luggage, the top and bottom walls 8 and 9 are formed of relatively light weight, supple material, such as waterproof impregnated fiber board. It will be seen that this construction is practical for normal conditions of use because the top and bottom walls are tough enough to withstand ordinary handling and because all of the hardware of the case, including the handle 13, closure fastenings 14 and hinges 15, is secured to the relatively rigid and sturdy side walls. All of the wall members preferably have their surfaces covered with fabric, both to increase the sturdiness of the case and to enhance its appearance.

It will be understood that the top wall 8 is secured to its adjacent side and end walls in the same manner as the bottom wall 9, and conse-

quently, although the bottom wall will be specifically referred to in the following description, everything said about it will be equally applicable to the top wall.

A fold or crease 17 parallel to and spaced from each edge of the bottom wall 9 enables the marginal edge portion thereof to be bent out of the plane of the wall, perpendicular thereto, to form a connecting strip 18. Because the corners 10 of the case are rounded on a relatively large radius, the connecting strip may be continuous around the marginal edge portion of the bottom wall member, being simply crimped at its corners to follow the curvature thereof. The connecting strip is secured to the side and end walls and flatwise overlies the inner faces 19 of the marginal edge portions 20 of the side and end walls, the crease or fold 17 in the bottom wall being contiguous to their edges.

The edges of the side and end walls would thus present an exposed surface 20', except for the fact that said edge surfaces are concealed and trimmed by a molding 21.

The molding is formed of relatively resilient material, such as vinyl plastic, and is substantially L-shaped in cross section, comprising a thin flat securement portion 22 defining the base of the L and an integral bead or trim portion 23 defining the stem of the L. As viewed in cross section the bead portion of the molding is substantially semi-circular, the outer face 24 thereof being convex, although the bead portion may be given any other suitable profile or contour, depending upon the taste of the manufacturer and the design of the case on which the molding is to be used. In any event, the bead portion has a flat under surface 25 which is normally disposed at an acute angle to the securement portion of the molding.

In the assembly of the suitcase of this invention the connecting strip 18 on the bottom wall is first tacked to the marginal lower edge portions of the side and end walls, overlying the inner faces of the latter, with the outer surface of the wall 9 in a plane preferably slightly inwardly of the plane of the edges 20' of the side and end walls. This may be readily accomplished by means of wire staples 27 driven through the connecting strip, near the free edge thereof, and into the underlying side and end wall members. Since the staples are spaced a substantial distance inwardly from the lower edges 20' of the side and end walls, they do not interfere with insertion of the securement portion 22 of the molding between the connecting strip and the thicker wall member, which is the next step in the assembly. With the wall members and the securement portion of the molding in this sandwiched relationship, pressure is applied to the outer face of the bead portion of the molding to force its flat under surface down into intimate flatwise engagement with the edge surface 20' of the thicker wall member and to drive the securement portion inwardly as far as possible, and the parts are held in this relationship while a single continuous seam 28 is stitched around the side and end walls, just above their lower edges 20', and through the connecting strip, closely adjacent to its junction with the bottom wall 9, to secure the wall members and molding in the relationship just described.

When the parts are so secured, it will be seen that the securement portion of the molding is in tension between the seam and its junction with the bead portion of the molding. The molding is thereby distorted to enlarge the acute angle between the under surface 25 of the bead portion and the securement portion to a right angle, corresponding to the angle between the edges 20' and the inner faces 19 of the side and end walls, and the free outer edge of the bead portion is therefore biased into firm engagement with the edge surface 20' of the rigid wall members and will resist separation therefrom by virtue of its natural tendency to spring back to its normal acute angle disposition.

Preferably the bead portion of the molding is provided with a slight bulge or lip 30 which extends slightly across the surface of the bottom wall and thus tends to seal the crack or crevice between the connecting strip and the securement portion of the molding. This lip is emphasized and enlarged by the distortion of the molding which occurs during its securement, and the lip cooperates with the securement portion to form a corner in which the fold of the bottom wall is very snugly received as at 31 (Figure 5), the snugness of this junction being augmented by the yieldability of the material of the bottom wall which conforms itself to the contour of the molding.

If desired, heat may be applied to the molding during the assembly operation so that the amount of pressure required to distort it from the acute angle disposition to the right angle disposition shown in Figure 5 will be relatively slight and can be applied manually. With the proper selection of material for the molding it will resume its tendency to return to its acute angle disposition as soon as it cools down to room temperature. It will be understood that because of the wide radius of curvature of the corners 10 of the case, single strips of molding may be used to trim the entire top and bottom of the case.

Obviously some form of continuous securement other than stitching may be employed to secure the wall members and molding together, as for example a row of rivet-like fasteners or a suitable bonding agent or cement. When the molding is secured to the wall members continuously along its length, however, it will tend to reinforce the case by virtue of the fact that it will tend to distribute the force of any impact on a corner over a wide area.

In the event the exposed edge surface 20' of the rigid wall member is not perpendicular to the faces thereof, the angular disposition of the under surface 25 of the bead portion with respect to the securement portion of the molding should obviously be varied accordingly, and the angle of the molding should be less than the angle between the inner face 19 of the rigid wall member and the exposed edge surface 20' which the bead portion is intended to cover and trim.

It will also be understood that the fabric covering (not shown) for the exterior of the luggage case may have its marginal edges tucked into the corner joints at both the top and bottom of the case, embracing the securement portion of the molding, and secured by the seam 28 at the corner joints.

From the foregoing description taken together with the accompanying drawing, it will be apparent that this invention provides an usually simple and inexpensive yet sturdy construction for a light-weight article of hand luggage, wherein the exposed edge portion of the rigid wall members is trimmed by an inexpensive molding secured in place by the same securement means used to fasten adjacent wall members to one another, and

which molding will resist separation from the edge surface which it overlies.

What I claim as my invention is:

1. In an article of hand luggage: a wall member of substantially flat sheet material having an edge surface substantially perpendicular to its faces; a resilient trim member having a bead portion extending across and along said edge surface of said wall to cover said edge surface, and having a thin, substantially flat securement portion integral with said bead portion and flatwise overlying the adjacent marginal edge portion of a face of said wall, said bead portion having a substantially flat under surface normally disposed at an acute angle to the securement portion; a second wall member having its marginal edge portion flatwise overlying and secured to said first named wall member adjacent to said edge surface, said second wall member extending normal to said first named wall member in line with said edge surface of the latter and in a direction to leave said edge surface exposed; and securement means fastening the marginal edge portion of said second wall member, the securement portion of said trim member and the marginal edge portion of said first named wall together, with the securement portion of said trim member between the wall members and under lateral tension to hold the flat under surface of said bead portion in flatwise engagement with said edge surface of the first named wall member, so that said bead portion resists separation from said edge surface by virtue of its tendency to assume its normal disposition with its flat under face at an acute angle to the securement portion.

2. In an article of hand luggage: a wall member of relatively thick, rigid sheet material having an edge surface perpendicular to its faces; a second wall member of relatively thin, pliable sheet material having a fold parallel to one edge

thereof defining a narrow integral connecting strip portion; a seam through said first named wall member and the connecting strip portion of said second named wall member, said seam being parallel and closely adjacent to said edge of said first named wall member and fastening said wall members together with said connecting strip portion flatwise overlying a face of said first named wall member and with the fold in said second named wall member contiguous to said edge of the first named wall member; and a resilient molding comprising a thin substantially flat securement portion interposed between said connecting strip portion and said face of said first named wall member and secured therebetween by said seam, and an integral bead portion having a flat under surface flatwise overlying said edge surface of said first named wall member to conceal the same, the flat under surface of said bead portion of the molding being normally disposed at an acute angle to the securement portion thereof, and said securement portion being under tension between said seam and its junction with the bead portion so that the free edge of the bead portion resists separation from said edge surface of the first named wall member by virtue of the tendency of the bead portion to return to its normal angular disposition.

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