

[54] LUGGAGE HANDLES

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[58] Field of Search 190/57, 58 R, 58 A, 58 B; 16/110 R, 110.5, 111 R, 112, 114 R, 116 R, 125; 220/94 R, 95

[56]

References Cited

UNITED STATES PATENTS

2,747,706	5/1956	Finkelstein	190/57
2,231,060	2/1941	Eber	190/57
1,730,820	10/1929	Holden	16/116 R
2,483,307	9/1949	Wheary, Jr.	190/58 R
3,034,617	5/1962	Genrie	190/57
2,140,157	12/1938	Huffman	16/116 R

2,673,630	3/1954	Axtell	190/57
3,023,868	3/1962	Koffler	190/57
2,987,149	6/1961	Finkelstein	190/57
3,559,779	2/1971	Lautin et al.	190/58 R
933,936	9/1909	Waldschmitt, Jr.	190/58 R

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[57]

ABSTRACT

A composite luggage handle formed of a bail-shaped reinforcing core of rigid material having a central portion and two lateral legs diverging from the ends thereof which terminate in mounting pintles. The legs of the core are covered with molded bodies of hard plastic material and runner bars of the same plastic material of reduced section extend between the ends of the molded bodies in addition to the central portion of the core. A filler of soft material is folded onto the central portion of the bars and core to provide a comfortable gripping area, and this filler may be provided with an outer covering of sheet material.

14 Claims, 11 Drawing Figures

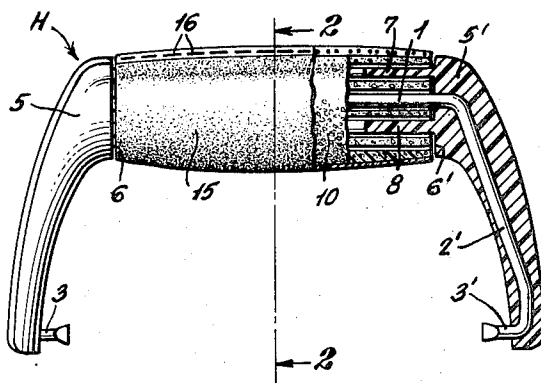


Fig. 1.

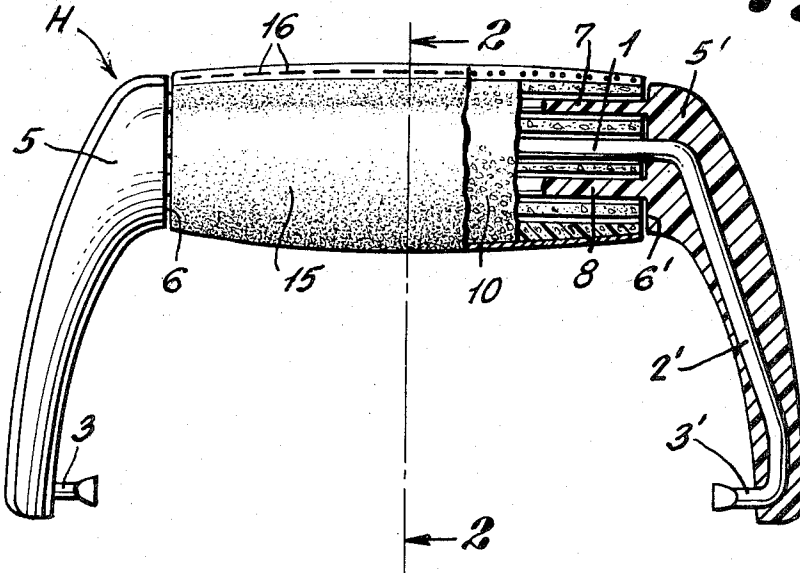


Fig. 2.

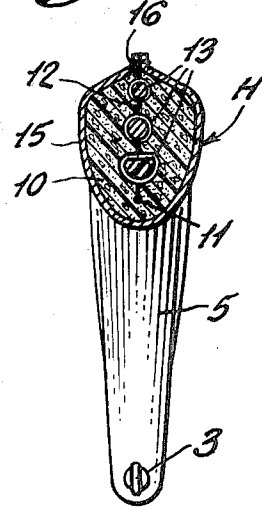


Fig. 4.

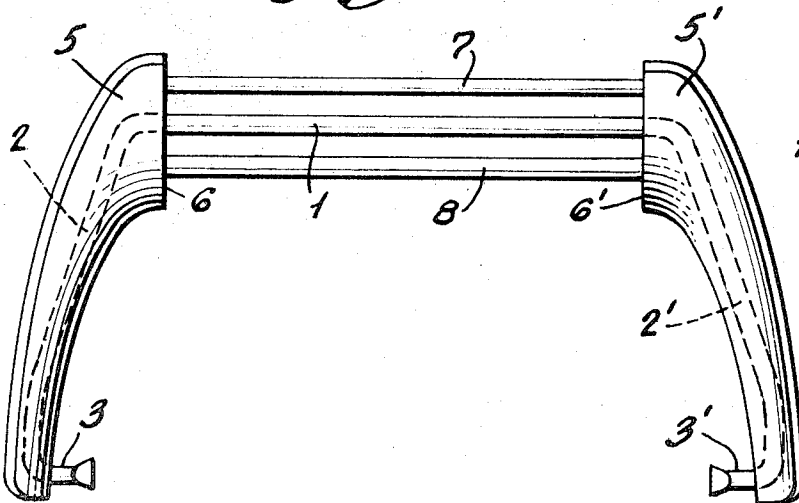


Fig. 3.

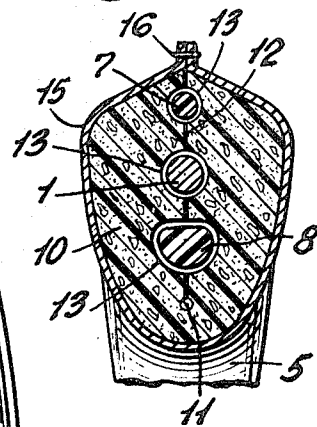


Fig. 10.

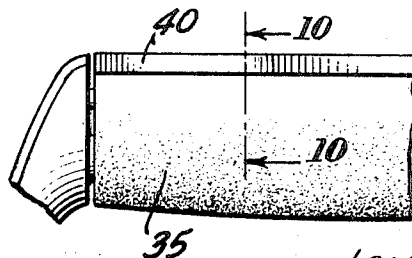
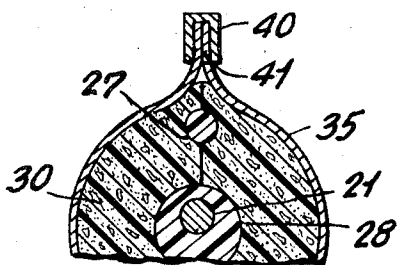


Fig. 9.

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Fig. 6.

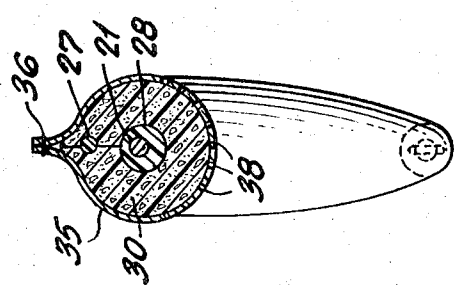


Fig. 7.

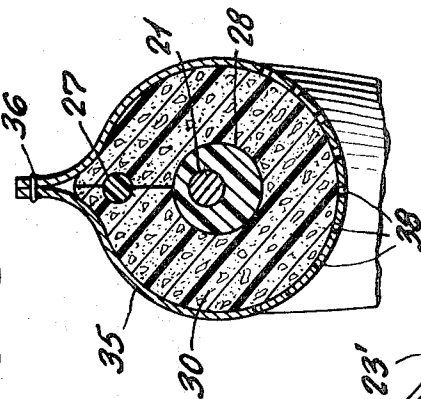


Fig. 5.

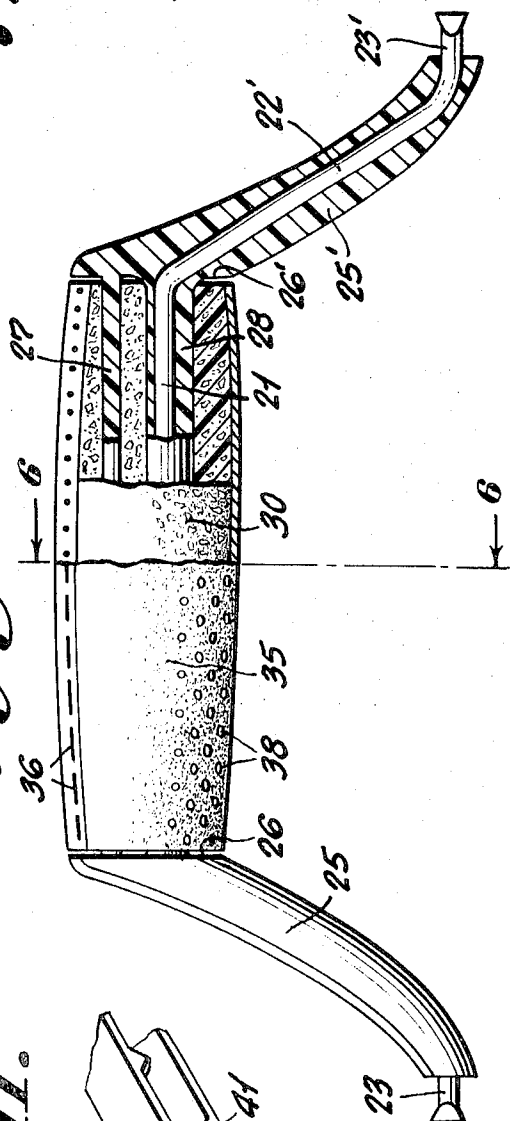


Fig. 8.

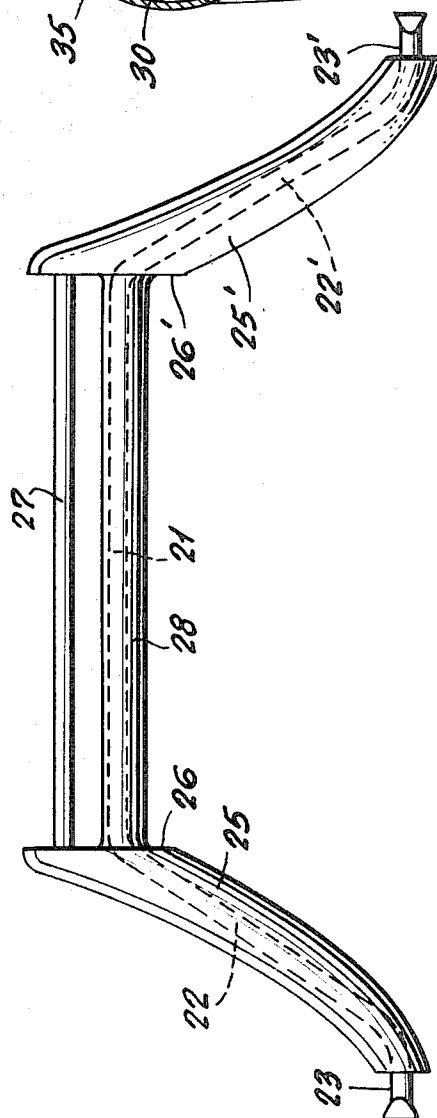
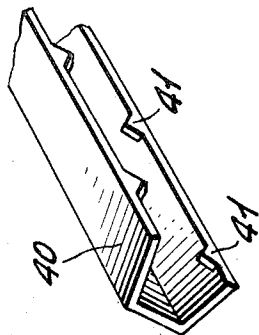


Fig. 11.



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LUGGAGE HANDLES

This invention relates to luggage handles, and particularly handles molded of hard synthetic plastic materials which are reinforced with rigid bars extending therethrough and which, in addition, are provided with soft gripping portions.

It is the object of the present invention to provide rugged and economical luggage handles which may be molded at low cost from synthetic plastics, which incorporate core reinforcements in addition to plastic runner bars of diminished cross-section at the central portions of the handles, around which may be connected gripping portions of soft material, which may or may not be provided with a covering on the exterior thereof.

It is another object of the invention to provide a rugged luggage handle which incorporates a wire-core reinforcement and which, in addition, is provided with a light-weight central portion cooperating with the wire reinforcement so that a soft padding material may be combined therewith to afford a gripping portion which is comfortable, esthetic in appearance, and lasting.

Other objects and purposes will appear from the following detailed description of the invention, taken in conjunction with the accompanying drawings, wherein

FIG. 1 is a front view of the luggage handle in accordance with the invention, partly in elevation and partly in section;

FIG. 2 is a vertical sectional view along line 2—2 of FIG. 1;

FIG. 3 is an enlarged sectional view of the upper portion of FIG. 2;

FIG. 4 is a front view of the molded handle before the central gripping portion is applied thereto;

FIG. 5 is a front view of a second embodiment of the luggage handle in accordance with the invention, partly in elevation and partly in section;

FIG. 6 is a vertical sectional view along line 6—6 of FIG. 5;

FIG. 7 is an enlarged sectional view of the upper portion of FIG. 6;

FIG. 8 is a front view of the molded handle frame shown in FIG. 5, before the gripping portion is applied thereto;

FIG. 9 is a fragmentary front view of the handle shown in FIG. 5, with a modified fastening for the outer covering;

FIG. 10 is an enlarged vertical sectional view along line 10—10 of FIG. 9; and

FIG. 11 is a fragmentary perspective view of the metallic fastening plate shown in FIGS. 9 and 10.

In the drawings are shown a bail-shaped luggage handle H comprising a wire core reinforcement of metal or other rigid material constituted by a central portion 1 wherefrom extend lateral legs 2,2', which terminate at their free ends in pintles 3,3', respectively. The lateral legs of the reinforcing bar are embedded within bodies of hard plastic material 5,5', of any desired curvature and cross-section, which are molded around the reinforcing bar by known injection or compression molding procedures, leaving free the terminal ends of the pintles 3 and 3' for connection to the hardware affixed to any item of luggage or carrying cases, as is well known in the art.

The ends of the molded bodies or legs 5,5' remote from the pintles terminate in edges 6,6' between which extend runner bars 7 and 8 of the same plastic material of which the legs 5,5' are molded. In fact, these runner bars serve as material feed-channels which allow the gating on one side only of the mold to fill the entire mold during the casting operation. The provision of these runner bars of plastic material, in addition to the reinforcing core, results in a reduction of the amount of molding material required for the handle, without reducing the strength or the loading capacity thereof.

The handle is completed by providing a filler 10 of soft material, at the central portion between the edges 6,6'. This filler member may be of a molded spongy texture such as polyurethane foam, which preferably is formed in one piece and folded at the median line 11 of the internal surface of the molded body, so that the filler embraces both the runner bars 7 and 8, as well as the reinforcing bar 1, as shown in FIGS. 2 and 3.

The interior surface of the soft handle portion 10 may be provided with grooves 13 to accommodate the contours of the runner bars and reinforcing bar or, if desired, the internal surfaces of the filler portion may be smooth, reliance being had upon the yieldability of the foam material to adapt its contours to the shape of the bars extending across the arch of the handle.

If desired, the juxtaposed edges 12 of the two halves extending from the hinge line 11 may be united with adhesive, especially so if the filler has an external skin surface of such appearance and texture which does not require an outer covering.

In the illustrated embodiment, an outer covering 15 of sheet material, which may be of leather, plastic, fabric, or any other sheeting, is applied to the external surface of the filler and is sewed by stitches 16 to encompass the molded body of the filler. This stitching can be executed by conventional sewing or stitching operations, as well as by riveting or by heat seaming developed by ultrasonic or radio-frequency energy.

The color and texture of the covering 15 may be selected to blend with the colors and finish of the plastic lateral legs 5,5'.

The provision of the multiple bars in the plane of the pintles results in a reduction in the amount of molding material for the handle, without sacrificing any strength characteristics thereof, while imparting maximum carrying comfort by virtue of the filler of soft material which complements the handle assembly at the central portion thereof.

Another embodiment of the invention is illustrated in FIGS.

5 to 8. In this construction, the reinforcing bar is composed of a central portion 21, from the opposite ends of which diverge the leg portions 22 and 22', which terminate in outwardly directed pintles 23,23', respectively. The lateral legs 25,25' are shaped in any desired manner in encompassing relation to the portions 22,22' of the reinforcing bar. The bar may be of different sections other than circular and, in fact, may be formed of any strong rigid material other than metal.

In this embodiment, the outermost runner bar 27, of cylindrical outline, extends between the inner edges 26,26' of the legs 25,25'. The second runner bar is molded integrally with the reinforcing bar 21 which may extend centrally thereof or eccentrically, as shown in FIGS. 6 and 7.

The filler 30 of sponge material, such as polyurethane foam, is folded around the bars 28 and 27 and is maintained in close contact with the runner bars 27 and 28 by means of a covering 35 of leather, fabric or plastic sheet material which may, in addition, be provided with perforations 38 on its entire surface or only at the bottom portion thereof, whereat the same is carried in the hand. This improves the grip of the handle and also induces ventilation of the handle.

As shown in FIG. 6, stitches 36 serve to unite the opposite edges of the cover 35. These stitches may be formed by threads, or they may be imitation stitches if the opposite edges of the sheet are united by heat seaming. The covering may be composed of several parts instead of being an integral piece of sheeting.

FIGS. 9 to 11 show an alternate mode of uniting the opposite edges of the outer covering sheet 35. In this case, a channel-shaped clamp 40, of sheet metal, provided with barbs 41, is superposed upon the mating edges of the cover sheet, so that upon penetration of the barbs into the latter, the sheet serves to encase the molded filler of soft material at the central part of the handle.

We claim:

1. An arch-shaped luggage handle adapted for pivotal mounting to a luggage unit, comprising
 - a. a bail-shaped rigid reinforcing bar forming an arch with lateral legs and terminating in coaxially arranged pintles at the free ends of said lateral legs,
 - b. a body of rigid plastic material molded integrally in encompassing relation to each lateral leg of said reinforcing bar from each pintle to the arch of said bar,
 - c. a plurality of rods of said rigid plastic material molded integrally with said bodies and extending therebetween

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- from the inner end of said bodies at the arch of the handle, to form the core of the gripping portion of the handle, and
- d. a filler of soft material surrounding said rods of molded plastic material and reinforcing bar between said inner ends of said molded bodies.
2. A device as set forth in claim 1, including an outer covering of sheet material for said filler of soft material.
3. A device as set forth in claim 1, wherein said reinforcing bar is a metallic wire of circular cross-section.
4. A device as set forth in claim 3, wherein said coaxially arranged pintles extend inwardly towards the center of the arch.
5. A device as set forth in claim 3, wherein said coaxially arranged pintles extend outwardly from the free ends of said lateral legs.
6. A device as set forth in claim 3, wherein said rods of rigid plastic material are rectilinear and of circular cross-section.
7. A device as set forth in claim 6, wherein the axes of said rods of rigid plastic material, said reinforcing wire and said pintles lie in a common plane.
8. A device as set forth in claim 7, wherein said reinforcing wire is disposed between two of said rods of rigid plastic material.
9. A device as set forth in claim 7, wherein said reinforcing

wire extends through the interior of one of said rods of rigid plastic material.

10. A device as set forth in claim 9, wherein said reinforcing wire extends through the rod of rigid plastic material which is closer to said pintles.

11. A device as set forth in claim 6, wherein said filler of soft material is an integral molded member of foamed plastic resin of a length conforming substantially to that of said rods extending between the inner ends of said bodies, having a rounded exterior surface and adapted to be folded along the central longitudinal median of the inner surface of said member onto the opposite sides of said rods to fill the space between the inner ends of said molded bodies.

12. A device as set forth in claim 11, wherein the interior surface of said molded member is provided with contoured grooves to accommodate said cylindrical rods and bar.

13. A device as set forth in claim 11, including a unitary outer covering of sheet material having the opposite edges thereof joined together to encompass the exterior of the molded member of soft material.

14. A device as set forth in claim 13, wherein a sheet metal clamp provided with barbs overlies said edges of sheet material with said barbs penetrating the sheet material.

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