

Feb. 21, 1967

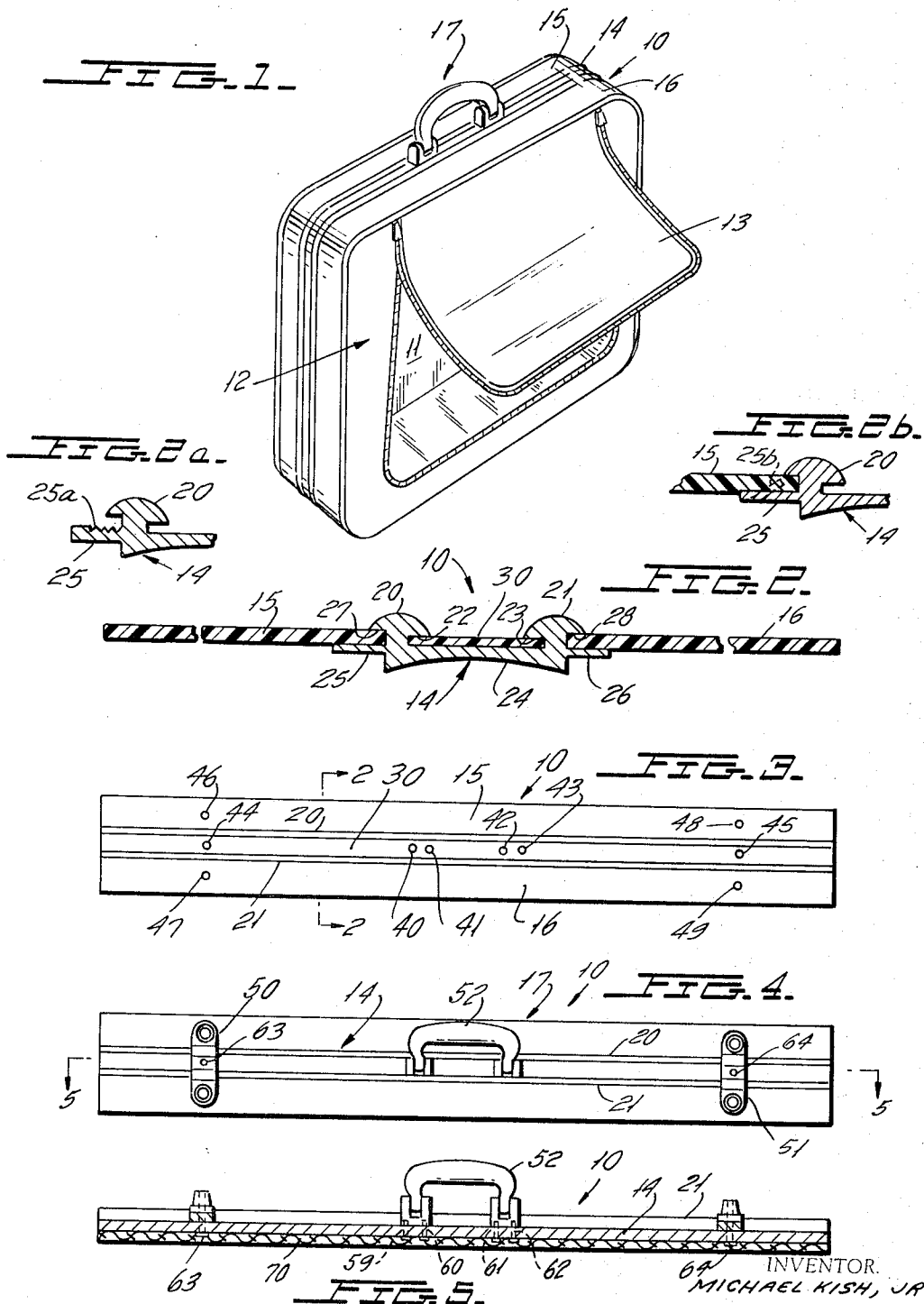
M. KISH, JR

3,305,052

LUGGAGE AND METHOD OF MANUFACTURE FOR LUGGAGE

Filed Aug. 4, 1964

2 Sheets-Sheet 1



INVENTOR.
MICHAEL KISH, JR.

BY
OSTROLENK, FABER, GERB & SOFFEN

ATTORNEYS

Feb. 21, 1967

M. KISH, JR

3,305,052

LUGGAGE AND METHOD OF MANUFACTURE FOR LUGGAGE

Filed Aug. 4, 1964

2 Sheets-Sheet 2

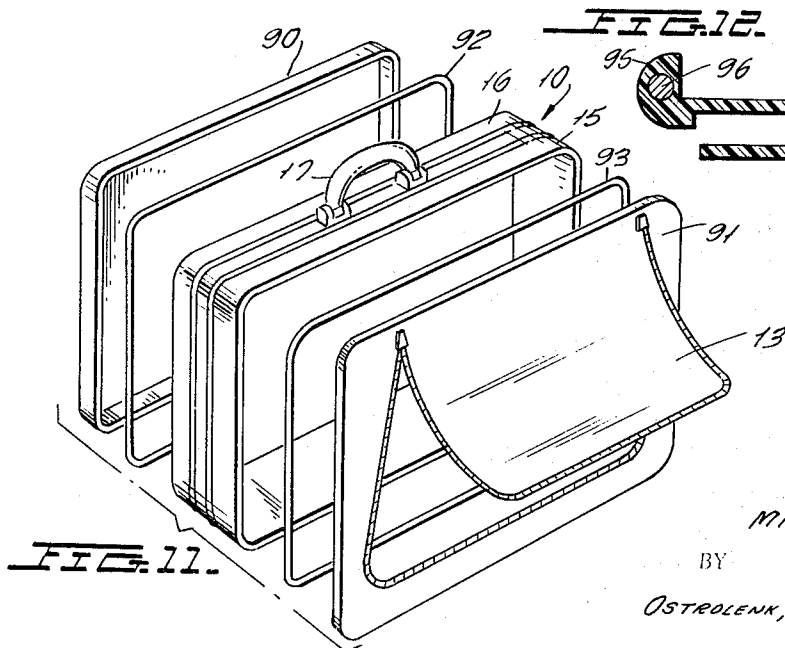
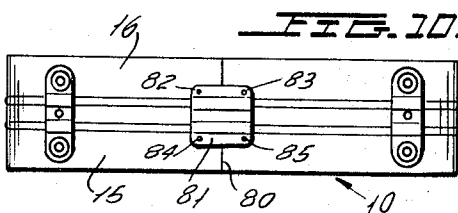
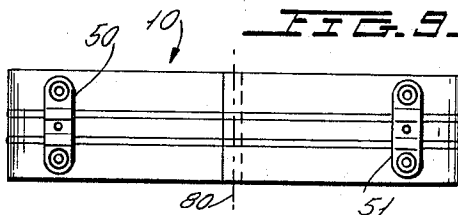
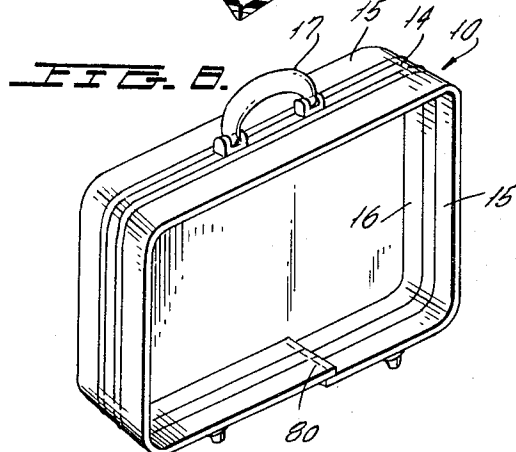
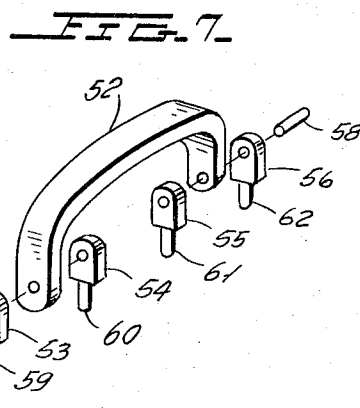
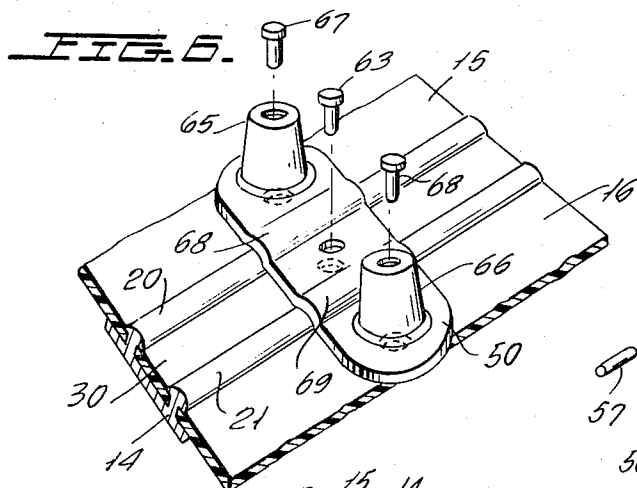


FIG. 12.

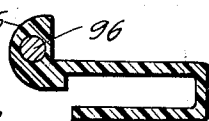
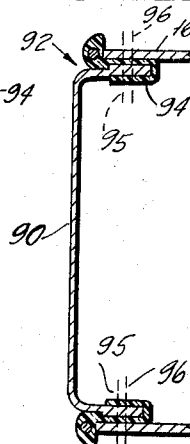


FIG. 13.



INVENTOR.
MICHAEL KISH, JR.

BY

OSTROLENK, FABER, GERB & SOFFEN
ATTORNEYS

1

3,305,052

LUGGAGE AND METHOD OF MANUFACTURE FOR LUGGAGE

Michael Kish, Jr., Hightstown, N.J., assignor to Atlantic Products Corporation, Trenton, N.J., a corporation of New Jersey

Filed Aug. 4, 1964, Ser. No. 387,390

21 Claims. (Cl. 190-49)

This invention relates to a novel method of manufacture for enclosed articles, such as luggage, and includes a novel article of luggage wherein a central metallic member is connected to the luggage frame body which may be of stiff or flexible material, and serves as the main mechanical support for the entire bag.

In accordance with the invention, a novel method of manufacture for luggage and the like is provided wherein the complete frame is assembled in the flat with handles and other hardware being directly connected to a central metallic support member. Substantially all the finishing of the bag frame is also carried out in the flat and the flat frame is thereafter bent into its enclosed form. Thereafter, the bag sides are sewn directly to the frame edges through a novel extruded and reinforced welt.

The central metallic support member in the frame body may be an extruded metallic member which receives the frame body at its either side in a crimping or other securing operation. This frame body with a solid central reinforcement is then used in conjunction with bag side walls that have other means, such as a zipper flap, for providing access to the interior of the case. Alternatively, the central metallic member of the frame could serve directly as the closure for the bag.

Accordingly, a primary object of this invention is to provide a novel method for the manufacture of generally tubular frame bodies.

Another object of this invention is to provide a novel method of manufacture for luggage wherein the complete frame is manufactured in the flat, and the finished flat member is thereafter formed into its enclosed frame shape.

Still another object of this invention is to provide a novel welt for connecting the sides of luggage to the luggage frame.

A further object of this invention is to provide a novel frame structure for luggage wherein a central metallic member serves as the main support element for the frame and directly receives the handle and other hardware associated with the frame.

These and other objects of this invention will become apparent from the following description when taken in connection with the drawings, in which:

FIGURE 1 illustrates a completed piece of luggage manufactured in accordance with the present invention.

FIGURE 2 is a cross-sectional view of the novel central support member having the side frame section secured thereto.

FIGURE 2a illustrates the central frame member adapted to have gripping teeth on its projecting ledges.

FIGURE 2b illustrates an alternative method of gripping between the central member and the outer panels wherein perforated sections of the ledge enter the channel members.

FIGURE 3 illustrates the first step of the novel method of manufacture of the present invention wherein the frame members of FIGURE 2 are laid out in the flat.

FIGURE 4 illustrates the flat frame of FIGURE 3 after the handle and other hardware has been connected thereto.

FIGURE 5 is a cross-sectional view of FIGURE 4 taken across the lines 5-5 in FIGURE 4, and further

2

includes the placement of an interior lining on the flat frame.

FIGURE 6 is a detailed perspective view showing the support leg hardware connected to the frame in FIGURES 4 and 5.

FIGURE 7 is an exploded perspective view of the handle arrangement connected to the flat frame of FIGURES 4 and 5.

FIGURE 8 illustrates an important step in the method of the present invention in perspective view wherein the flat substantially finished frame of FIGURES 4 and 5 is formed into its enclosed frame shape.

FIGURE 9 is a bottom view of the frame of FIGURE 8 after it has been bent to shape and sewn at its adjacent ends.

FIGURE 10 illustrates the connection of a bottom plate across the seam in FIGURE 9.

FIGURE 11 is an exploded perspective view of the finished frame of FIGURES 8, 9 and 10 along with side panels and the welt for connecting the sides to the frame.

FIGURE 12 is a cross-sectional view through the extruded welt, and particularly illustrates the reinforcing wire therein.

FIGURE 13 is a cross-sectional view illustrating the manner in which the novel welt permits the direct sewing between the side wall panels and the frame member.

Referring first to FIGURE 1, I have illustrated therein a complete bag structure manufactured in accordance with the invention and which includes a main frame body 10 having two outer panels 11 and 12. The outer panels 11 and 12 are each secured to frame 10 in an appropriate manner to be described more fully hereinafter, outer panel 12 having a zipper flap opening 13 to permit access to the interior of the bag 10. The main frame 10, as will be described more fully hereinafter, has a central metallic reinforcing member 14 and outer panels 15 and 16 secured thereto.

As seen in FIGURE 1, where panels 15 and 16 are of flexible leatherlike material, a handle structure 17 is connected directly to the metallic member 14 along with other associated hardware. Thus, where the complete bag of FIGURE 1 is of relatively flexible leatherlike material, the metallic member 14 serves as the main support body for the bag and further serves as the means for receiving handle 17 in a centrally located position. Note, however, that the novel method of the invention, to be described more fully hereinafter, applies equally well to those bags using a rigid material, such as rigid plastic shells wherein panels 15 and 16 can be formed of this more rigid material.

While the bag of FIGURE 1 particularly illustrates a side opening bag, it should be further noted that the method of the invention, to be described more fully hereinafter, also applies to that type of bag wherein the central metallic member 14 serves as the closure member. That is to say, the steel member 14 could be an overlapping valance type of closure connected to panels or frames 15 and 16.

Referring next to FIGURES 2 and 3 and in accordance with the invention, frame 10 is formed of a central metallic extrusion 14 which may be of aluminum. The extrusion 14 may particularly have extending bead heads 20 and 21 which have interiorly opposed cutout sections 22 and 23 respectively. The extrusion 14 further has a lower arch section 24 to impart improved rigidity to member 14, and further as lower projecting ledges 25 and 26 respectively. The ledges 25 and 26 defining exterior cutout sections 27 and 28 receive the interior ends of frame sections 15 and 16 respectively, as illustrated. The interior cutout sections 22 and 23 serve to receive the color banding strip of some suitable flexible material 30 in the manner described in my U.S. Patent 3,099,975, as-

signed to the assignee of the present invention. If desired, the strip 30 could be of a rigid material which serves to further strengthen frame 10.

In accordance with the invention and as illustrated particularly in FIGURE 3, the assembly of metallic strip 14, panels 15 and 16 and the strip 30 are all accomplished in the flat. That is to say, panels 15 and 16 are nested into slots 27 and 28. Thus, slots 27 and 28 may thereafter be crimped downwardly or closed in order to rigidly secure panels 15 and 16 to member 14. In order to obtain more secure crimping and as shown in FIGURE 2a, ledges 25 and 26 (not shown) may have serrations, such as serrations 25a, therein which will serve to firmly grasp the ends of panels 15 and 16. As a further alternative and as shown in FIGURE 2b, during the crimping operation the crimping apparatus may be provided with a suitable stamping section for stamping projections, such as projected finger 25b, from the ledge 25 (and ledge 26) into panel 15 (and panel 16). Clearly, any other suitable means for improving the gripping between the crimped beads 20 and 21 and ledges 25 and 26 respectively could be incorporated into the novel structure. The strip 30 is also slid between cutouts 22 and 23 while the assembly is in the flat.

While the frame 10 is still flat, as shown in FIGURE 3, a plurality of openings are stamped through extrusion 14, such as openings 40, 41, 42 and 43, which will ultimately receive the handle 17 along with openings 44 and 45 which will ultimately receive the bag leg hardware. Additional openings 46, 47, 48 and 49 are also placed in the panels 15 and 16, as shown in FIGURE 3, for reception of the leg hardware.

As then shown in FIGURES 4 and 5, handle assembly 17 and leg hardware pieces 50 and 51 are secured to the frame assembly and particularly to the central rigid member 14. The handle structure, as best seen in FIGURE 7, is comprised of a handle 52 having support brackets 53-55 and 55-56 which are pivotally connected to either end of handle 52 by suitable shafts 57 and 58. Projecting sections 59, 60, 61 and 62 then pass through prepunched openings 40 through 43 respectively and are suitably secured to the under side of rigid member 14. Thereafter, the leg hardware members 50 and 51 are suitably riveted to rigid member 14 as by rivets 62, 63 and 64 (FIGURES 4, 5 and 6) while suitable leg members 65 and 66 (FIGURE 6) are connected to the hardware members 50 and 51 through suitable riveting means 67 and 68 which could pass through openings 46, 47, 48 and 49. Note from FIGURE 6 that the hardware members, such as hardware member 50 of FIGURE 6, is a metallic stamping having raised portions 68 and 69 which conform to the raised shape of beads 20 and 21 of rigid member 14.

After this assembly, which is accomplished in the flat, is completed, a lining member 70 of some suitable decorative cloth can be cemented or otherwise secured to the bottom of the flat frame of FIGURE 5.

The next step of the novel method of manufacture of the present invention is that the completely flat assembled structure is bent to its enclosed frame configuration, as shown in FIGURE 8, with the opposite ends of the flat frame overlapping one another, as shown in FIGURE 8, and being secured to one another, as by sewing along the stitch line 80 of FIGURES 8 and 9. Alternatively, the opposite ends of the flat frame can be brought into abutting relation and thereafter sewn or stapled in any suitable manner. After this sewing step is accomplished, a second cloth member (not shown) which could, for example, include a pocket is laid over the interior bottom of the frame of FIGURES 8 and 9 to cover sewn junction 80. The exterior of this junction, as shown in FIGURE 10, then receives a suitable metallic plate 81 which is riveted through the opposite ends of the frame adjacent the seam 80, as by rivets 82 through 85 which pass through panels 15 and 16 and into a back-up plate on the

interior surface of the bag (not shown). This finishes the bag frame and it only remains to connect side walls to the bag to complete the bag construction.

As shown in FIGURE 11, the completed frame 10 is then assembled with two side walls 90 and 91, which may be of flexible cloth or leather-like material, through the intermediary of welts 92 and 93. Each of welts 92 and 93 are plastic extrusion members having a cross-section best shown in FIGURE 12, which includes a U-shaped section 94 and a head 95 which has an opening therein receiving a reinforcing metallic wire 96. Welts 92 and 93 are normally made as flat elongated members and are bent to shape prior to their use in connecting side walls 90 and 91 to frame 10.

More particularly and as shown in FIGURE 13, for the case of side wall 90, the rim of wall 90 is dished and its periphery is inserted into the U-shaped welt portion 94. Thereafter, wall 90 and welt 94 are secured to one another as by sewing along stitch line 95. The wall 90 is then inserted under panel 15 of frame 10 and a second stitch line 96 is sewn through frame section 16, the welt 92 and wall 90 to secure these members together. Clearly, the other wall 91 will be sewn to panel 15 in an identical manner to that shown in FIGURE 13.

Note that the reinforcing wires in the welts 92 and 93 serve to provide rigidity to the exterior periphery of the bag, particularly where a soft, relatively flexible material is used for the bag body. Clearly, the welt 94 need not have the lower portion forming the U shape, but a simple binding arrangement could be used.

Although there has been described a preferred embodiment of this novel invention, many variations and modifications will now be apparent to those skilled in the art. Therefore, this invention is to be limited, not by the specific disclosure herein, but only by the appending claims.

The embodiments of the invention in which an exclusive privilege or property is claimed are defined as follows:

1. The method of manufacturing luggage comprising the steps of securing a first and second flat elongated frame section to the opposite sides of an elongated flat metallic reinforcing member with said first and second elongated frame sections and said flat metallic member lying in a common plane, and thereafter bending said flat assembly of said first and second frame sections and said flat metallic reinforcing member to a tubular form and securing the opposite ends of said flat assembly to one another.

2. The method of manufacturing luggage comprising the steps of securing a first and second flat elongated frame section to the opposite sides of an elongated flat metallic reinforcing member with said first and second elongated frame sections and said flat metallic member lying in a common plane, securing a carrying handle to said flat metallic reinforcing member, and thereafter bending said flat assembly of said first and second frame sections and said flat metallic reinforcing member to a tubular form and securing the opposite ends of said flat assembly to one another.

3. The method of manufacturing luggage comprising the steps of securing a first and second flat elongated frame section to the opposite sides of an elongated flat metallic reinforcing member with said first and second elongated frame sections and said flat metallic member lying in a common plane, securing a carrying handle to said flat metallic reinforcing member, securing first and second support leg receiving means to said flat metallic reinforcing member on either side of said carrying handle, and thereafter bending said flat assembly of said first and second frame sections and said flat metallic reinforcing member to a tubular form and securing the opposite ends of said flat assembly to one another.

4. The method of manufacturing luggage comprising the steps of securing a first and second flat elongated

5

frame section to the opposite sides of an elongated flat metallic reinforcing member with said first and second elongated frame sections and said flat metallic member lying in a common plane, securing a carrying handle to said flat metallic reinforcing member equidistantly located from the ends of said flat metallic reinforcing member, and thereafter bending said flat assembly of said first and second frame sections and said flat metallic reinforcing member to a square tubular form and securing the opposite ends of said flat assembly to one another.

5 The method of manufacturing luggage comprising the steps of securing a first and second flat elongated frame section to the opposite sides of an elongated flat metallic reinforcing member with said first and second elongated frame sections and said flat metallic member lying in a common plane, and thereafter bending said flat assembly of said first and second frame sections and said flat metallic reinforcing member to a tubular form and securing the opposite ends of said flat assembly to one another, and securing first and second side walls across the opposite ends of said tubular form.

6 The method of manufacturing luggage comprising the steps of securing a first and second flat elongated frame section to the opposite sides of an elongated flat metallic reinforcing member with said first and second elongated frame sections and said flat metallic member lying in a common plane, securing a carrying handle to said flat metallic reinforcing member, securing first and second support leg receiving means to said flat metallic reinforcing member on either side of said carrying handle, and thereafter bending said flat assembly of said first and second frame sections and said flat metallic reinforcing member to a tubular form and securing the opposite ends of said flat assembly to one another, and securing first and second side walls across the opposite ends of said tubular form.

7 The method of manufacturing luggage comprising the steps of securing a first and second flat elongated frame section to the opposite sides of an elongated flat metallic reinforcing member with said first and second elongated frame sections and said flat metallic member lying in a common plane, securing a carrying handle to said flat metallic reinforcing member equidistantly located from the ends of said flat metallic reinforcing member, and thereafter bending said flat assembly of said first and second frame sections and said flat metallic reinforcing member to a square tubular form and securing the opposite ends of said flat assembly to one another, and securing first and second side walls across the opposite ends of said tubular form.

8 A carrying case comprising a rectangular frame body comprising an elongated central metallic body, a first and second elongated frame section secured to the opposite sides of said central metallic body; each of said first and second frame sections having a width of at least twice the width of said central metallic body; a carrying handle directly secured to said central metallic body, and a first and second side wall secured to the opposite ends of said frame body; said first and second frame sections having a flexibility characterized by the flexibility of a leather panel.

9 The carrying case of claim 8 which further includes a first and second leg support means; said first and second leg support means being directly secured to said central metallic body.

10 The carrying case of claim 8 wherein said first side wall has an opening means therein comprising the sole means for gaining access to the interior of said carrying case.

11 A carrying case comprising a rectangular frame body comprising an elongated central metallic body, a first and second elongated frame section secured to the opposite sides of said central metallic body; each of said first and second frame sections having a width of at least twice the width of said central metallic body; and a first

6

and second side wall secured to the opposite ends of said frame body, said first and second frame sections having the flexibility of a leather panel.

12 A rectangular frame for a carrying case comprising an elongated central metallic body, a first and second elongated frame section secured to the opposite ends of said central metallic body; said elongated metallic body having a cross-section defining a first and second slot extending along the sides thereof; one side of each of said first and second elongated frame sections being received in said first and second slots and being secured therein.

13 The frame of claim 12 wherein said first and second frame sections have a flexibility characterized by the flexibility of a leather panel.

14 The frame of claim 12 wherein said first and second slots are crimped toward a closed position to clamp onto the said one side of said first and second frame members respectively.

15 The frame of claim 12 wherein said elongated central metallic body has a first and second extending bead section extending from its said sides and extending along the outer surface of said elongated metallic body.

16 The frame of claim 15 wherein the interior surface of said elongated central metallic body has a concave arch shape.

17 A carrying case comprising a rectangular frame body, a side wall extending across one end of said frame and welt means for receiving said side wall to the end of said frame body; said welt means comprising an extruded member having a cross-section defined by a generally U-shaped portion with one leg terminated by an extended bead portion, the peripheral end of said side wall being received in said U-shaped portion; the exterior surface of the leg of said U-shaped portion having said bead portion being adjacent the interior surface at said end of said frame body, and fastening means extending through said frame, the legs of said U-shaped portion of said welt, and said side wall to secure said frame, sidewall, and welt together.

18 The carrying case of claim 17 wherein said frame is of material having flexibility characterized by the flexibility of a leather panel; said extended bead portion of said welt having an axially directed opening therein, and a metallic reinforcing wire in said opening.

19 A welt for securing first and second flat members to one another, said welt having a cross-section defined by a generally U-shaped portion with one leg terminated by an extended bead portion, the peripheral end of said first flat member being received in said U-shaped portion; the exterior surface of the leg of said U-shaped portion having said bead portion being adjacent one surface of said second member at the end of said second member, and fastening means extending through said first member, the legs of said U-shaped portion of said welt and said second member to secure said first and second members and said welt together.

20 The welt of claim 19 wherein said extending bead portion of said welt has an axially directed opening therein, and a metallic reinforcing wire in said opening.

21 The frame of claim 12 wherein the interior surface of one of said slots has an irregular surface; said irregular surface of each of said first and second slots gripping the adjacent surface of said first and second elongated frame sections respectively.

References Cited by the Examiner

UNITED STATES PATENTS

2,918,997	12/1959	Kotkins	190—51 X
2,985,265	5/1961	Gehrie	190—41
3,185,271	5/1965	Kotkins	190—41

FOREIGN PATENTS

460,853	11/1949	Canada.
1,216,042	11/1959	France.

FRANKLIN T. GARRETT, *Primary Examiner.*