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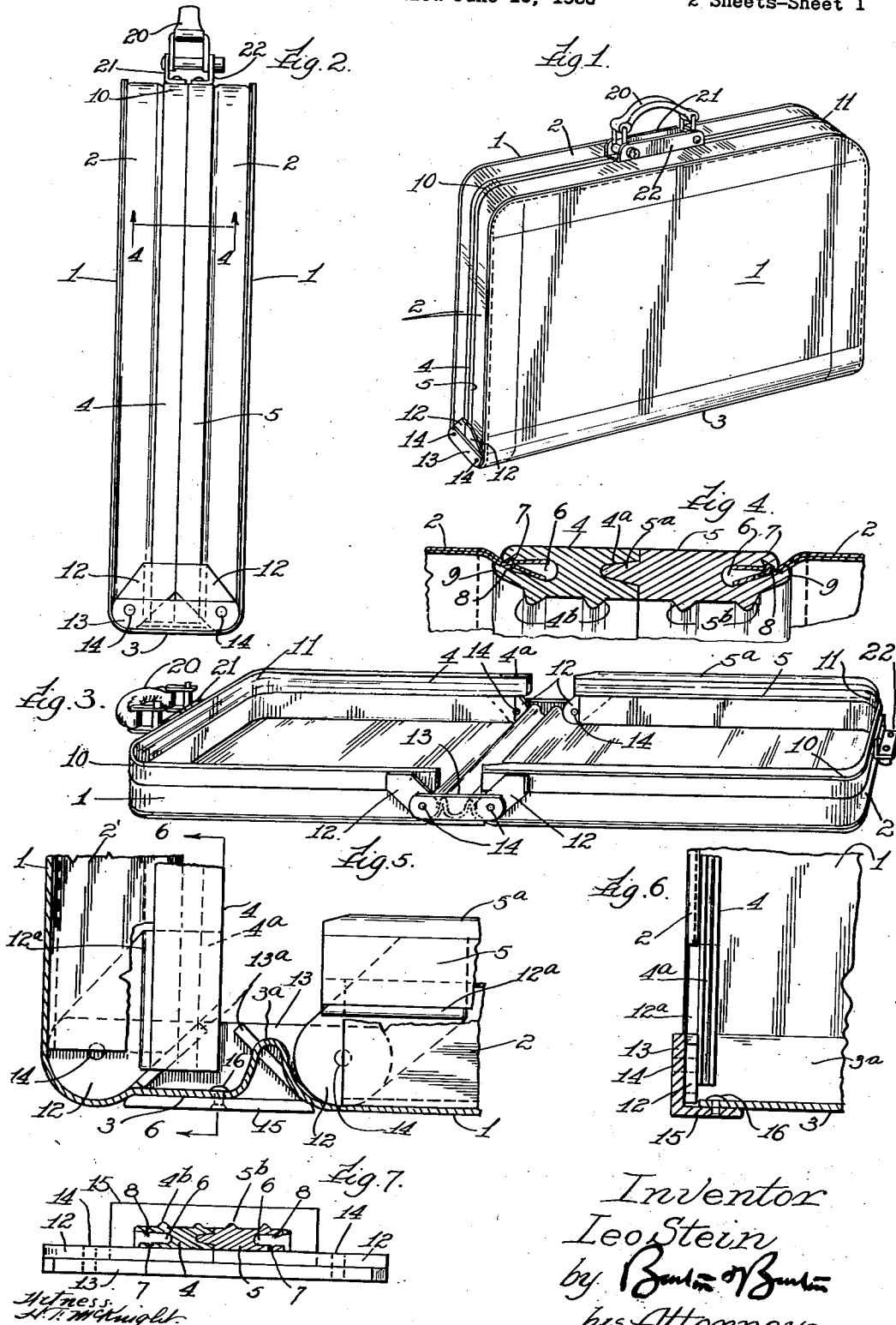
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2,200,972

CARRYING CASE AND FRAME STRUCTURE THEREFOR

Filed June 10, 1938

2 Sheets-Sheet 1



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Fig. 8.

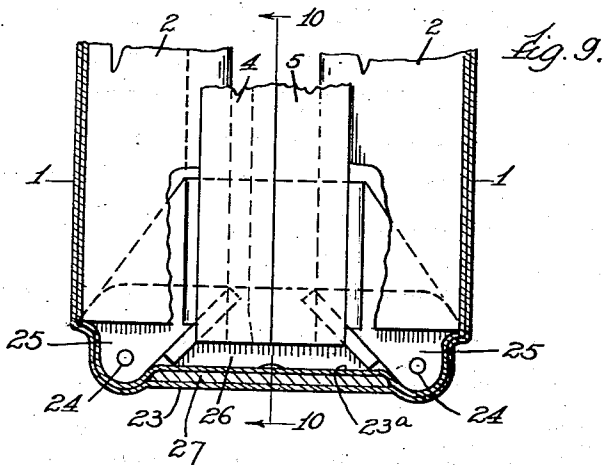
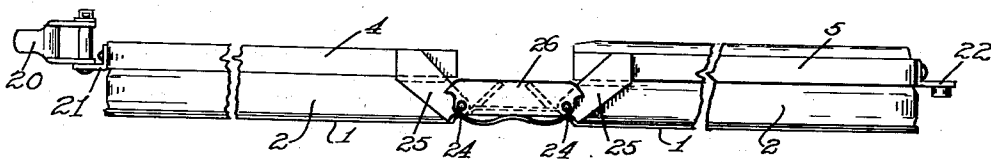


Fig. 10.

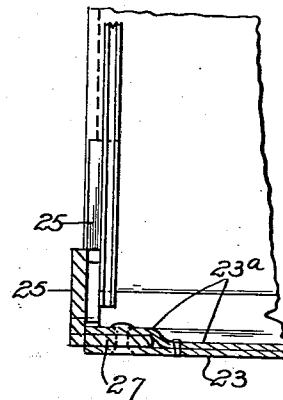
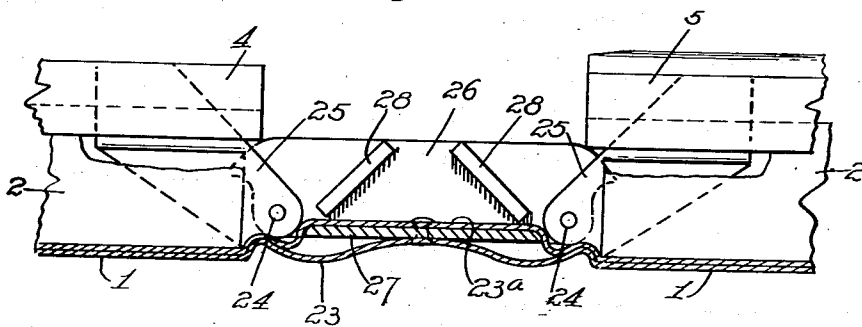


Fig. 11.



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UNITED STATES PATENT OFFICE

2,200,972

CARRYING CASE AND FRAME STRUCTURE THEREFOR

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Application June 10, 1938, Serial No. 212,935

4 Claims. (Cl. 190—41)

This invention relates to carrying cases of various types and sizes adapted to serve as brief cases for papers and documents, or as luggage for transporting clothing and other articles for the convenience of the traveler. One object of the invention is to provide an improved frame for use in combination with leather or other flexible material in the construction of the case. Another object is to provide a frame designed to save time and labor in the assembly of the case. Another object is to provide a carrying case of improved ornamental appearance and of sufficiently rugged construction to retain its original shape and good appearance indefinitely. The invention consists in certain features and elements of construction in combination, as herein shown and described and as indicated by the claims.

In the drawings:

Figure 1 is a perspective view of a carrying case made in accordance with this invention.

Figure 2 is an end elevation of the same.

Figure 3 is an end view in perspective, showing the case in open position.

Figure 4 is a detail section taken as indicated at line 4—4 on Figure 2.

Figure 5 is an enlarged detail sectional view showing a portion of each of the hinged sections of the case, one in closed position and the other in open position.

Figure 6 is a detail section taken as indicated at line 6—6 on Figure 5.

Figure 7 is a detail section of the metallic parts alone, taken as indicated at line 7—7 on Figure 2.

Figure 8 is an end view of the carrying case with a slightly modified form of the invention applied thereto.

Figure 9 is a detail section on a larger scale, cutting through the bottom and side walls of the case and showing the parts of the modified construction in closed position.

Figure 10 is a detail section taken as indicated at line 10—10 on Figure 9.

Figure 11 is a section similar to Figure 9 but showing the parts in open position.

The type of bag to which this invention relates may be in the form of a suitcase, or it may be of a smaller size, to be used as a brief case; in either instance it will include side walls, 1, 1', which are substantially flat, and which may be stiffened to hold them in flat form. Each side wall has secured to it a flexible flange, 2, of leather or like material, extending around three sides of the rectangular marginal outline of the side wall. The two side walls are connected by a back or bottom portion, 3, which may be integral with the side

walls, but is preferably left more or less flexible. The side walls, with their upstanding marginal flanges, 2, form a pair of trays, and the back wall, 3, together with additional connections about to be described, joins the trays so that when swung toward each other they enclose a cavity for housing and carrying the desired material.

The upstanding edge of each of the flanges, 2, is secured in a metallic frame member, preferably of a lightweight metal, such as aluminum. These frame members, 4 and 5, are formed respectively with a projecting lip or tongue, 5^a, and a groove or recess, 4^a, formed to receive the tongue so that when the case is closed, as shown in Figures 1, 2 and 4, these portions of the frames are inter-engaged, serving to definitely position the frames with respect to each other, and hold the parts of the case in proper alignment. The frame members may be of any convenient cross-section; as shown in Figure 4, they are formed with externally flat surfaces, but, internally, they are provided with reinforcing ribs, 4^b and 5^b. In each of the frame members the edge which is disposed toward the flexible flange, 2, of the case is provided with a channel, as seen at 6; one side of the channel is formed with a groove, 7, extending longitudinally near the edge of the channel, and the opposite wall of the channel is provided with an upstanding V-shaped rib, 8, directly opposite the groove, 7.

When the material of the flange, 2, is inserted in the channel, 6, the side walls are pinched together by means of a suitable tool so that the material is forced into the groove, 7, by pressure from the rib, 8, and the material is thus locked in the frame without the necessity of additional fastening means. If the material is of double thickness, including a lining, as indicated in section in Figure 4, both thicknesses may be inserted in the channel, 6, of the frame member, or the lining may terminate adjacent the rib, 8, so that only the outer thickness is actually clamped between the walls of the channel, 6. Preferably, each frame member has a portion projecting at 9 beyond the opposite wall of the channel, 6, so that when the member is pinched together in closing the channel, 6, upon the goods of the flange, 2, this projecting portion will tend to deflect the material of the flange, 2, upwardly, so that it may extend approximately flush with the outer face of the frame member. This slightly increases the interior capacity of the case and also enhances its external appearance.

The frames, 4 and 5, may be bent to form rounded corners, 10 and 11, connecting the ends of

the case with its top wall, and the frames terminate near the bottom of each end wall and adjacent the connecting portion, 3. Near the ends of each frame it is provided with obliquely extending metallic arms, 12, secured rigidly and permanently to the frame member, and the arms of the two frames, 4 and 5, are connected together through the medium of a cross-bar, 13, pivotally joined with the arms, 12, near its opposite ends, at 14. This arrangement permits the two trays formed of the side walls, 1, with their flanges, 2, and frames, 4 and 5, respectively, to lie flatly adjacent each other, as seen in Figure 3 when the case is opened, and the pivotal connections at 14 control the movements of the trays as they are swung upwardly into the closed position illustrated in Figure 2. Preferably, the cross-bar, 13, is formed with a foot flange, 15, to which the flexible bottom wall, 3, of the case may be attached—preferably, at the middle only, as by the rivet, 16, shown in Figures 5 and 6, so as to permit the wall, 3, to fold or flex upwardly, as shown in Figure 5 at 3^a when the case is open. The excess material represented by the folds, 3^a, is taken up in forming the connections between the bottom and the adjacent side walls, 1, when the parts are in closed position. As the case closes, the tongue, 5^a, enters the groove, 4^a, of the inter-membering frame, and the cross-bar or plate, 13, with its foot flange, 15, serves as a closure connecting the bottom wall, 3, with the end flanges, 2, and their frames, 4 and 5, to prevent small articles from escaping through the bottom of the case at these points.

To insure the proper assembly of the arms, 12, with the respective frame members, 4 and 5, the arms may be formed with flanges, 12^a, against which the edges of the frames, 4 and 5, are lodged when the parts are secured together. And the cross-bar, 13, may be provided with obliquely extending stop flanges, 13^a, which serve to limit the swinging movement of the arms, 12, as they approach closed position.

With this frame structure, as shown in Figures 1 to 7, when the case is closed, it rests upon the foot flanges, 15, when standing in upright position. Any suitable type of handle may be supplied, but I have illustrated herein a special form of handle, 20, which is secured to the frame member, 4, by means of an angular fitting, 21, and which interlocks with the angular fitting, 22, on the frame member, 5, when the case is closed. The details of construction of this handle are the subject matter of another application, and need not be further described in this connection.

Figures 8 to 11 illustrate a slightly modified construction in which the frame members, 4 and 5, together with the flanges, 2, and side walls, 1, may be understood as substantially similar to the corresponding parts already described. But in this construction the pivots, 24, which connect the oblique arms, 25, with the cross-member, 26, are set somewhat closer to the lower edge of the cross-member than the pivots, 14, in the member, 13. And the bottom wall, 23, of the modified form of case is attached to the under side of the foot flange, 27, instead of to the upper side, as in Figure 5. This bottom wall is shown as of two-ply construction, with the two plies separated to admit the flange, 27, between them. The lower ends of the oblique arms, 25, are specially formed so that the flexible covering of leather or similar material constituting the side walls, 1, and the bottom wall, 23, may be fitted

rather closely around the pivots, 24, with the result that there is less excess material in the flexible bottom when the case is opened than in the first construction described. The outer ply, 23, tends to bulge downwardly to some extent, as seen in Figure 6, but the inner ply or lining, 23^a, remains flatly secured to the upper side of the foot flange, 27. The arms, 25, are, of course, secured rigidly to the corresponding frame members, 4 and 5, and control the movements of the latter in the manner already described. Stop flanges, 28, are provided on the cross-member, 26, to limit the closing movements of the arms, 25, and the connected frames.

Thus it will be seen that with either construction herein described I have produced a neat, strong and serviceable carrying case in which the leather or other fabric material may be quickly and effectively secured in a simple manner to the metallic frame portions, and in which the latter provide sufficient reinforcement to hold the case in proper shape at all times. Since the frame members are formed with their reinforcing ribs, 4^b and 5^b, extending continuously throughout the length of the members, and with the grooves, 7, and ribs, 8, similarly continuous, these members may be manufactured as extruded bars, then cut to the proper length and bent to form the rounded corners of the case.

While there is shown and described herein certain specific structure embodying the invention, it will be manifest to those skilled in the art that various modifications and re-arrangements of the parts may be made without departing from the spirit and scope of the invention, and that the same is not limited to the particular form herein shown and described, except in so far as indicated by the appended claims.

I claim:

1. A frame member for a carrying case, said member comprising an integral bar of malleable metal formed with an initially open channel extending longitudinally of the bar in one edge thereof to receive a marginal portion of the flexible material composing a wall of the case, the malleable metal of said member being sufficiently rigid to maintain an effective grip on said material after the walls of the channel have been bent together with said material between them.

2. A frame member for a carrying case, said member comprising an integral bar of malleable metal including a middle portion and end portions bent at right angles thereto and connected by smoothly curved portions with said middle portion, said bar being formed with an initially open continuous channel extending longitudinally of the bar in one edge thereof to receive a marginal portion of the flexible material composing a wall of the case, the malleable metal of said member being sufficiently rigid to maintain an effective grip on said material throughout the length of the bar after the walls of the channel have been bent together with said material between them.

3. A frame member for a carrying case, said member comprising an integral bar of malleable metal formed with an initially open channel extending longitudinally of the bar in one edge thereof to receive a marginal portion of the flexible material composing a wall of the case, said channel having a projection on one of its walls and a recess on the opposite wall registering with said projection, and the malleable metal of said

member being sufficiently rigid to maintain an effective grip on said material after the walls of the channel have been bent together with the projection forcing said material into the recess
5 of the channel wall.

4. A frame member for a carrying case, said member comprising an integral bar of malleable metal formed with an initially open channel extending longitudinally of the bar in one edge
10 thereof to receive a marginal portion of the flexible material composing a wall of the case, said channel having a continuous rib projecting

from one wall and a continuous groove in the opposite wall positioned to register with said rib whereby said material of the case is forced into said groove and interlocked with said rib when the walls of the channel have been bent together
5 with said material between them, the malleable metal of said member being sufficiently rigid to maintain its position and provide an effective grip on said material after the walls of the
10 channel have been thus closed upon it.

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