United States Patent

[11] 3,557,916

[72] Inventor **William V. Stowell**
12 Longfellow Drive, Huntington Station, N.Y. 11746

[21] Appl. No. **784,151**
[22] Filed **Dec. 16, 1968**
[45] Patented **Jan. 26, 1971**

[54] **COMBINED CARRYING CASE AND DISPLAY STAND**
12 Claims, 15 Drawing Figs.

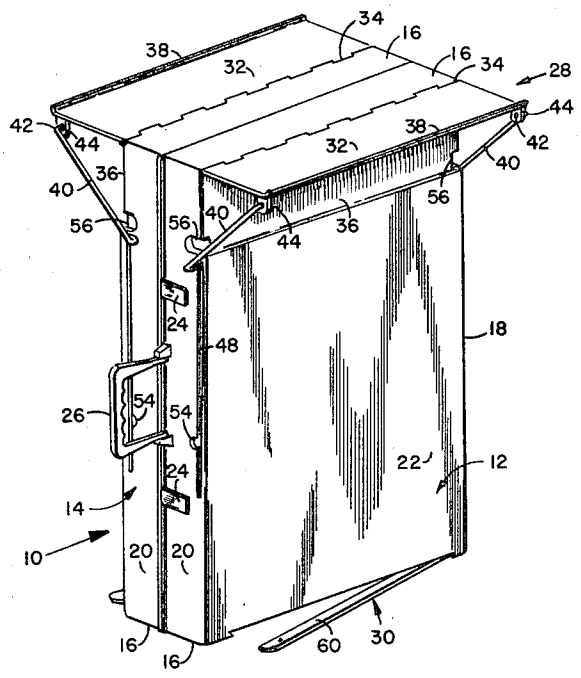
[52] **U.S. Cl.** **190/11,** 190/18
[51] **Int. Cl.** **A47b 3/10**
[50] **Field of Search** ..... 190/9, 10, 11, 16, 17, 18(-1); 108/80, 82; 312/313, 314

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Primary Examiner—Donald F. Norton
Attorney—Jerome Bauer

ABSTRACT: A carrying case and including leaves thereon operable to and from extended positions and when in the extended position providing a table surface, and support legs included on the carrying case for maintaining standing stability of the same.



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SHEET 1 OF 5

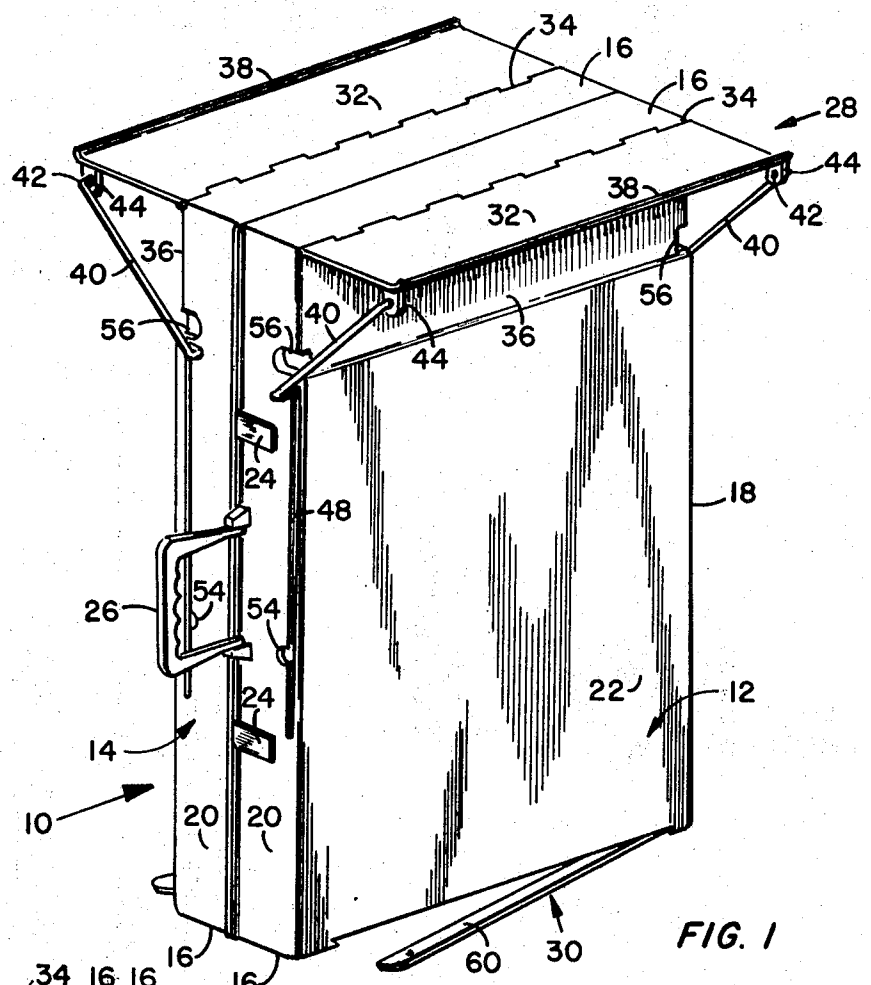


FIG. 1

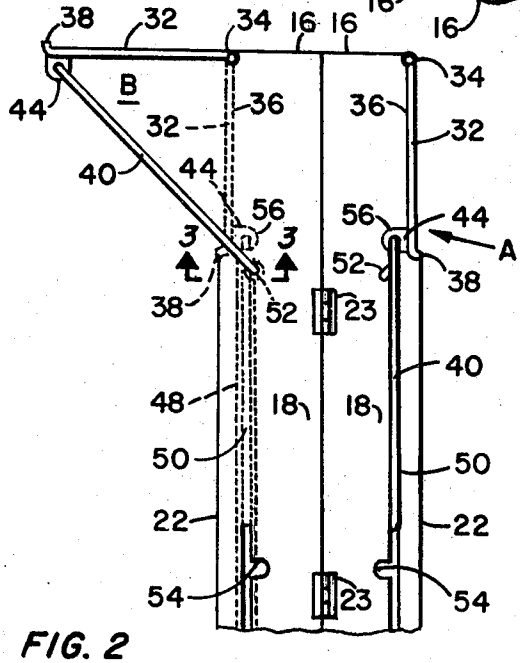


FIG. 2

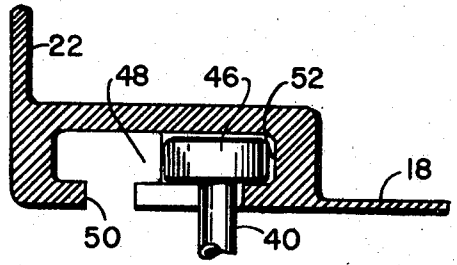


FIG. 3

INVENTOR

William V. Stowell

BY

Jerome Bauer

his attorney

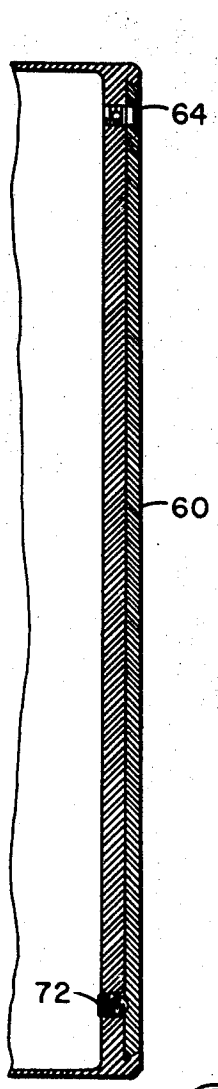


FIG. 5

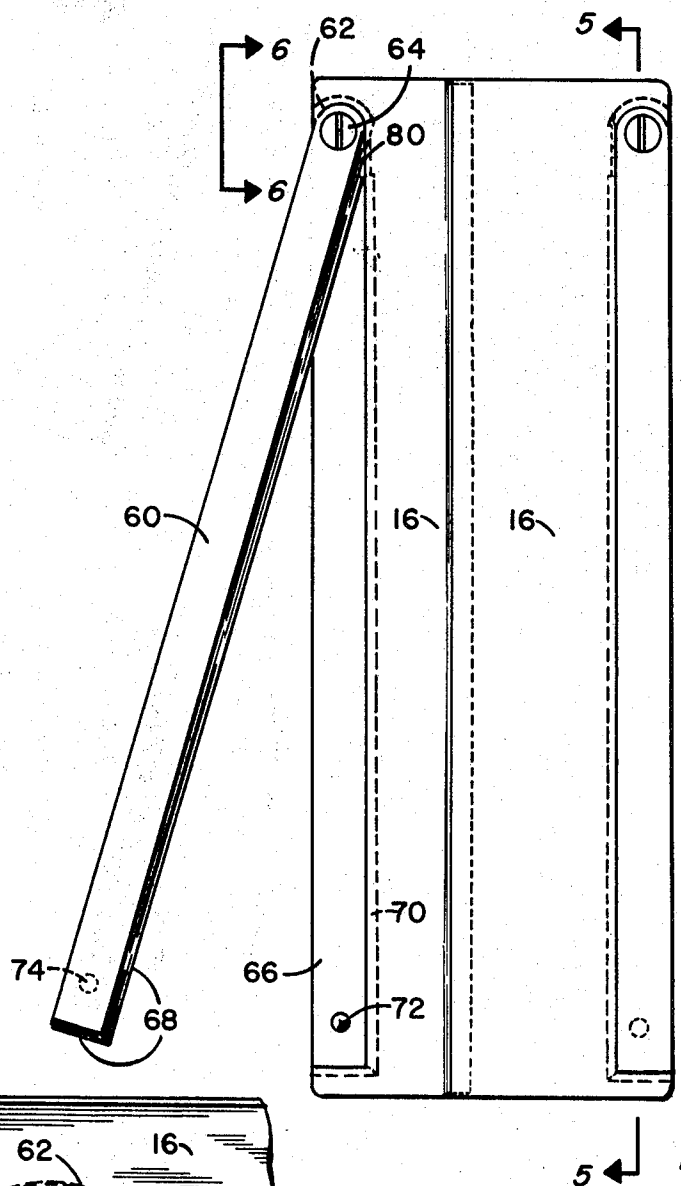


FIG. 4

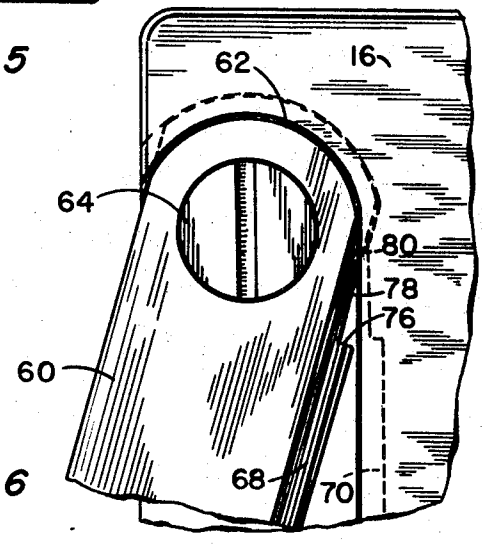


FIG. 6

INVENTOR
William V. Stowell
BY
Jerome Bauer
his attorney

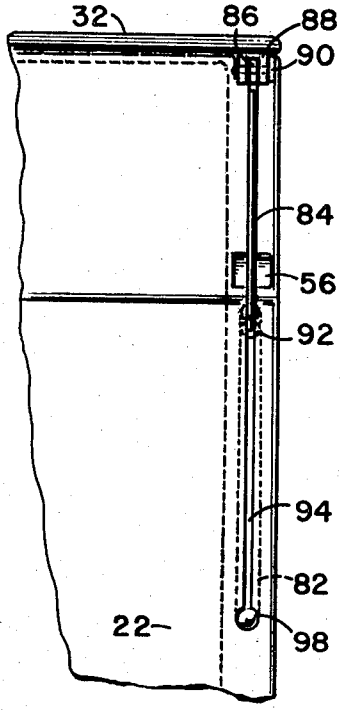


FIG. 7

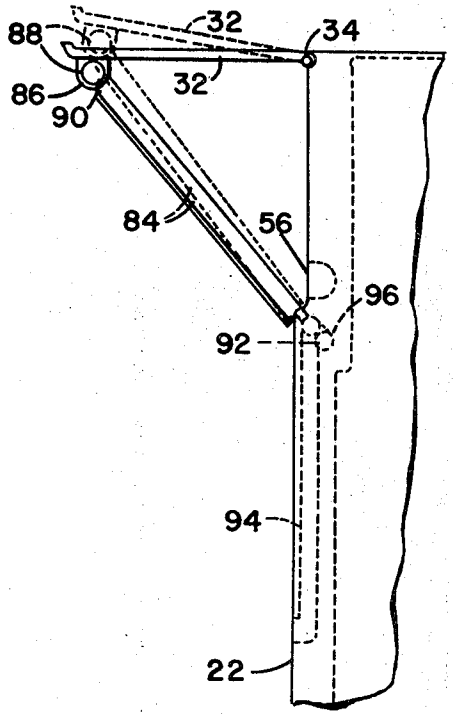


FIG. 8

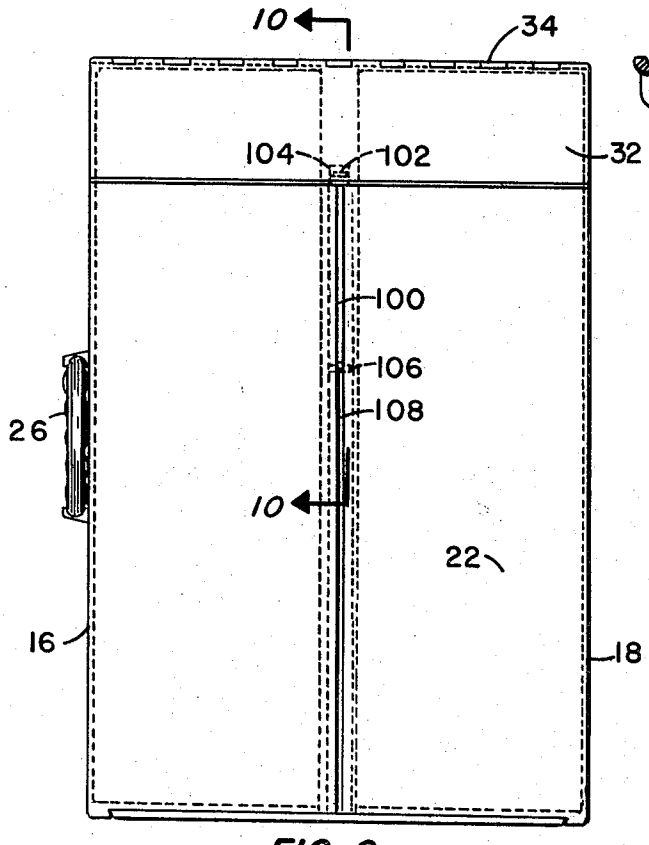


FIG. 9

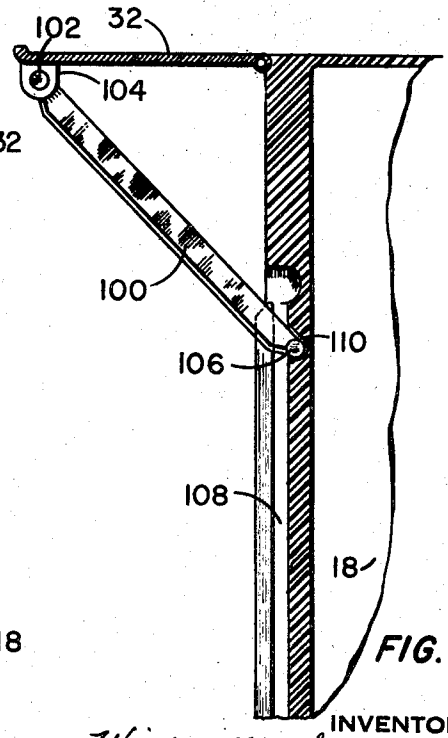


FIG. 10

INVENTOR
William V. Stowell
BY
Attorney

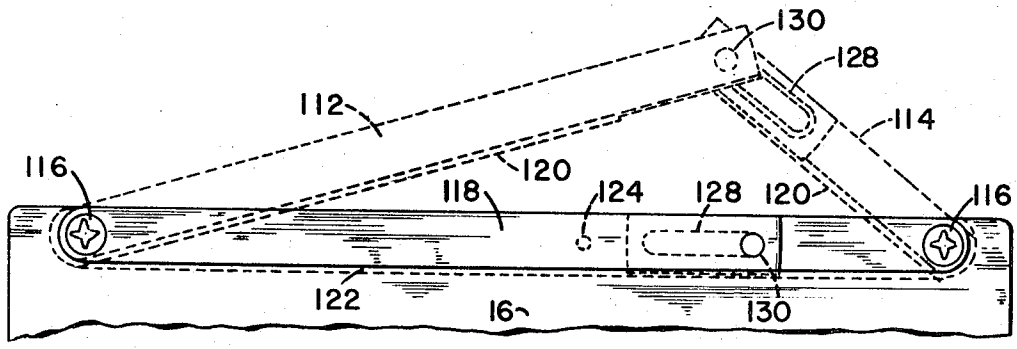


FIG. 11

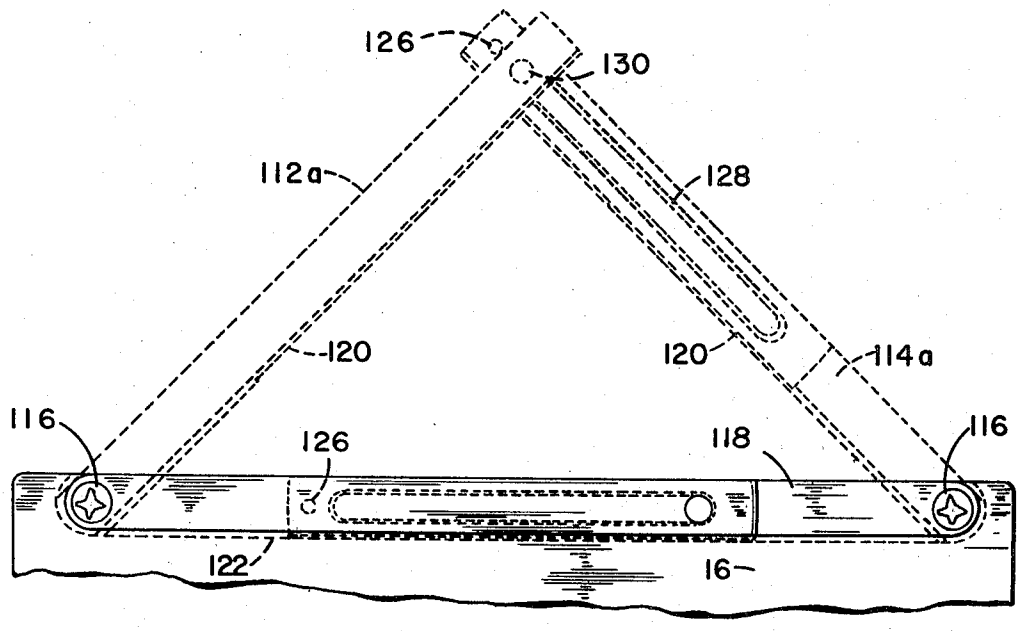


FIG. 12

INVENTOR
William V. Stowell
BY Francis Bauer
His Attorney

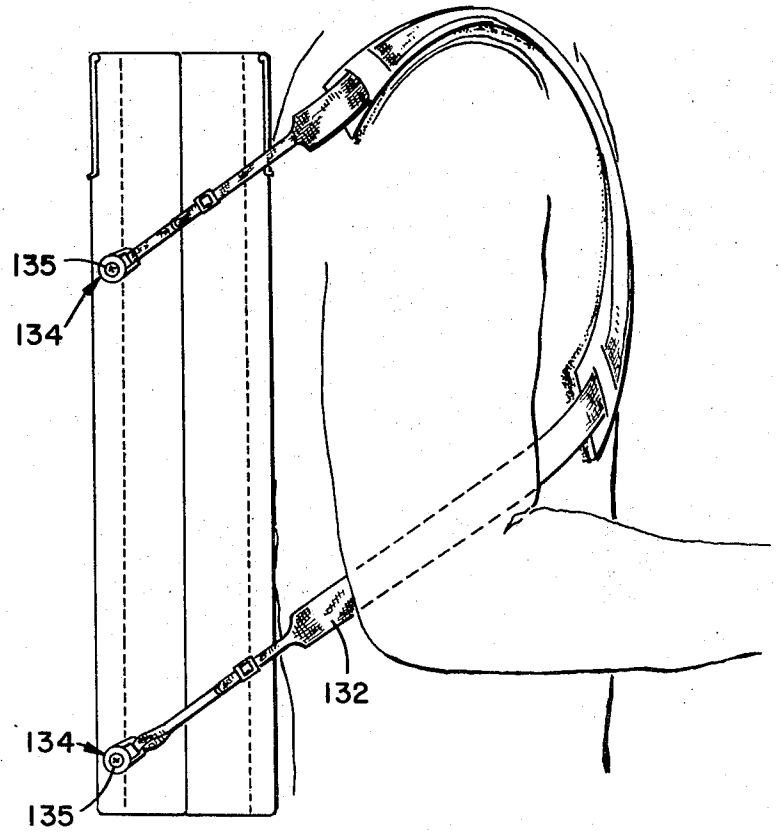


FIG. 13

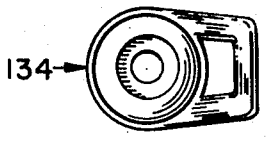


FIG. 14

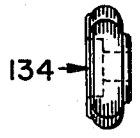


FIG. 15

William V. Stowell INVENTOR
BY James & Banner
His Attorney

COMBINED CARRYING CASE AND DISPLAY STAND

SUMMARY AND OBJECTS OF THE INVENTION

The present invention relates to an improved form of luggage and, in particular, to multiduty carrying cases.

Generally, carrying cases are thought of as having only one function, namely that of providing means for the transportation of goods. Secondary uses are, however, not uncommon. Often one sees carrying cases used as emergency seats or chairs, table tops and/or display cases. These secondary uses are normally unprovided for in the manufacture of luggage and they are indulged in often to the harm and damage of the luggage piece.

It is the prime object of this invention to provide luggage in which secondary uses are specifically contemplated and which contain specific structural means therefor.

It is a general object to provide a carrying case having use both as an item of transport and as an item for the display of merchandise or goods.

It is a specific object to provide a carrying case having leaf extension means for forming a table top surface for use as a display surface or supporting surface.

It is another object of this invention to provide a carrying case having leg support means for maintaining the case stable when the leaf extensions are in use.

It is another object to provide a carrying case having improved strap means for back-carrying.

It is still another object to provide a carrying case of improved strength, rigidity and light weight which is economical to produce.

Briefly, according to the present invention, there is provided luggage having singly, or in combination, leaf extension means as a part of its wall structure and extendible therefrom, leg means for firmly supporting the carrying case and strap means for manually carrying the same by hand or on the back.

The above objects and advantages as well as others, together with full details of the present invention, will be apparent from the following description and the drawings appended hereto to which reference is made. In the drawings:

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of a carrying case showing the novel table surface and a leg structure of this invention,

FIG. 2 is an end view of the case of FIG. 1 showing one leaf closed,

FIG. 3 is a cross section along lines 3–3 of FIG. 2,

FIG. 4 is a bottom view of the case of FIG. 1 showing the leg support,

FIG. 5 is a cross sectional view along lines 5–5 of FIG. 4,

FIG. 6 is an enlarged view of the structure of FIG. 4 taken generally in the direction of lines 6–6,

FIGS. 7 and 8 are partial front and side views respectively of a modified table support structure,

FIGS. 9 and 10 are partial front and side views of a second modified form of table support,

FIGS. 11 and 12 are views of modified versions of the leg support structure,

FIG. 13 is a side view of the carrying case showing novel strap retaining means,

FIG. 14 is an enlarged front view of the retaining means of FIG. 13, and

FIG. 15 is a side view of the retaining means of FIG. 14.

DETAILED DESCRIPTION OF THE INVENTION

Turning to FIG. 1, there will be seen a portable travelling or carrying case 10 of boxlike construction comprising a rectangular traylike body 12 and a similar cover or lid 14. The body 12 and lid 14 are each formed of a pair of parallel opposed end walls 16, a bottom wall 18, a top wall 20 and a side panel 22. In conventional manner, the body 12 and lid 14 are pivotably hinged together along their bottom wall 18 by suitable hinges 23 and at their top walls 16 are provided with cooperating releasable lock means 24. One of the two body members is provided with a handle 26 by which the whole may be carried.

In carrying out the present invention, it is preferable that the case 10 be sufficiently rigid and strong so as to be able to withstand the application of heavy loads placed on it both internally and externally. Such construction can be obtained by any one of the presently known methods, as for example by casting, molding or constructing the body and lid of metallic or plastic materials or by providing reinforcing ribs and similar members to strengthen the frame.

These and other conventional expedients for constructing luggage of any type are well known and their obvious details need not be repeated here. Accordingly, while the present description appears to relate to a carrying case formed of integrally molded plastic material, it is only by way of illustration and is not to be taken in any limiting manner.

According to the present invention, the carrying case 10 is combined, separably and/or jointly, with collapsible leaves for forming a table surface generally designated 28 and retractable leg supports generally designated 30. The table surface comprises a pair of leaves 32 each hinged at 34 to the opposite edges of the corresponding end walls 16. Each leaf 32 extends the length of the end wall 16 and is pivotable to permit movement (see FIG. 2) from a position A which is parallel and adjacent to the respective side panels 22 to a position B in which its surface lies in the plane of the surface of the end walls 16. Piano hinges are suitable means for joining leaves 32 to end wall 16, although in forming a case of molded or cast material, it may be preferable to integrally include cooperating hinge members on both case parts and leaf parts. Other hinges may be substituted, however, it will be appreciated that since it is desirable to have a smooth tablelike surface and an absence of space or spaces between leaves and end wall, the hinge should be chosen with care.

To accommodate the leaves 32, when in collapsed position A, the respective side panels 22 of both body 12 and lid 14 are suitably indented or recessed as seen at 36 in FIG. 1. The form of recess 36, the mounting of the leaves 32 and the form of the leaves themselves should of course be chosen to provide the desired esthetic result and pleasing appearance as well as the functional result desired. As seen in FIG. 2, the form shown provides that the leaves 32 be recessed somewhat below the plane of the surface of panel 32. This gives a pleasing, somewhat slimming look to the carrying case. Leaves 32 are also provided with a lip 38 along their entire outer edge which prevents goods from inadvertently dropping from it should the case be slightly tipped.

Braces 40 are provided at the bottom and top edges (with respect to the case 10) of the leaves 32 to maintain each in horizontal position and to prevent them from falling during use. Each brace 40 comprises a length of rod stock hooked at one end 42. The hooked end 42 is inserted in an eyelet socket 44 depending from the corresponding free corner of the corresponding leaf. Opposite the hooked end, the brace is provided with an annular nylon bearing head 46 (FIG. 3) which lies in a plane perpendicular to the axis of the brace. The bearing head 46 is adapted to fit within a channel shaped trackway 48 mounted within the surface of each of the bottom and top walls 18 and 20 respectively. The trackway 48 extends adjacent the longitudinal edge of the walls from a point near the depressed section 36 of panel 22, a distance at least sufficient to receive and permit movement of the brace 40 when the leaf 32 is collapsed. The trackway 48 is provided with an outwardly facing slot 50 which permits such movement. The trackway 48 may be made of light weight metal such as aluminum for added strength, although with the molded construction described, the trackway may be integrally molded as a part of the molded case itself.

At the end of the trackway 48, near the depressed section 36, the panel 22 there is provided a laterally offset angular slotted projection 52 communicating with the slot 50. This trackway projection 52 depends downwardly and inwardly from the edge of the wall so as to receive and retain the head 46 in cooperation much as a detent or stop means when the head moves up the trackway 48 and is moved laterally out of the trackway and into the confines of the projection 52. The

brace 40 thusly secures the leaf in horizontal position and is only releasable by an upward movement of leaf 32 and a reverse lateral movement of the brace to disengage the head 46 from the projection 52 and return it to alignment with the slot 50 of the trackway 48. At the opposite end of the trackway 48, the slot 50 is enlarged as at 54 to permit the entire head 46 to enter the trackway 48—50 during assembly of the carrying case. Finally, the walls and panels of the carrying case are provided with a recessed or indented portion 56 to receive the depending eyelet socket 44 when the leaf is collapsed.

At this stage, it will be appreciated that there has been disclosed a novel carrying case 10 having a collapsible extendible tablelike surface 28 adapted to be opened as desired without disturbing the contents of the case. The table-top surface 28 is securely held in its open position by brace means 40 which cannot be dislodged except by purposely lifting the table leaf 32 and disengaging the detent means 46 and 52 from each other. Further, the table leaf 32, when collapsed, does not add to the bulk or weight of the case and does not interfere with the ease by which it can be handled or transported.

Attention can now be turned to the supporting leg means 30 for which reference is made to FIGS. 4—6. The leg means 30 comprise an elongated rectangular slat 60 pivotably mounted at one end 62 by screw means 64 to the end wall 16. The slat 60 is fitted within a correspondingly dimensioned cutout 66 within the wall 16 so that when pivoted into closed position it will lie flush with the plane of the wall 16 and its edge, as seen in the right-hand side of FIG. 4. The slat 60 is pivoted outward in a plane parallel to the plane of the wall so it will extend at an angle to the case 10 thus enlarging the extent and support of the base thereof. The inner edge 68 of each slat 60 (i.e. that edge which meets with a corresponding portion of the cutout 66) is beveled and fits beneath a corresponding mating groove portion 70 which acts to securely retain the slat 60 in closed position. The cutout 66 is provided with a detent assembly 72 and the slat 60 is provided with a mating depression 74 which also help secure the slat in its closed position.

The bevel 68 on the long inner edge of the slat 60 terminates short of the pivot screw 64 and the edge is cut back to form a shoulder 76 and a straight terminal portion 78. The groove 70 formed in the cutout portion also terminates short of the pivot screw 64 at a point corresponding to the shoulder 76. The cutout 66 terminates in a walled edge 80 which is slightly angled clockwise to the axis of the cutout. This angular edge 80 permits the slat 60 to pivot without binding or interference from the edges of the cutout and without the necessity of having to make the cutout of enlarged size to accommodate the terminal end 62 of the slat 60 when it rotates. Further, the angular edge 80 serves another purpose, i.e., it limits the extent of outward pivoting of slat 60 since edges 78 and 80 will eventually abut and act as stops, limiting the positioning of one against the other.

Each supporting leg 60, of course, operates by being pivoted outwardly as seen in FIG. 1 where its outer surface, being planar with the surface of the end wall of the case 10, widens the support base of the case as it stands. Upon collapse of the slat 60 into the cutout portion 66, the slat becomes contiguous and conforms smoothly and attractively with the body of the case, creating substantially a unitary profile.

It will be appreciated that the table top surface means 28 and the leg means 30 can be independently employed and they can be used in environments where other forms of table tops and leg supports, respectively, are used. It will also be appreciated that various changes and modifications may be made to the structure of the table surface 28 and for the leg support 30 without departure from the inventive concepts herein disclosed.

FIGS. 7 and 8 and 9 and 10, depict two modifications respectively of the table surface support brace structure. In these FIGS., the case 10 and the leaves 32 are constructed, arranged and pivotally joined all in the manner described previously. In the modification shown in FIGS. 7 and 8, the supporting braces 84 are mounted in a trackway 82 located on the face of the side panels 22 of both the body and lid rather than on the face of the end walls 16 and 18 of FIG. 1.

In the detail of FIGS. 7 and 8, the brace 84 is preferably formed of bar stock rather than rod stock as in the preceding embodiment and is provided at one end with an eye or loop type fitting 86 which enters a yoke 88 secured to an depending from the underside of the leaf 32. A retaining ring and pin or a nut and bolt fastener 90 are employed to assemble the brace 84 and yoke 88 in freely pivotal fashion. The opposite end of the brace 84 is provided with an enlarged spherical nylon head 92 which acts as a bearing when movably positioned in trackway 82. The head 92 is at an angle normal to the axis of the brace and it fits for free movement within the trackway 82. The trackway 82 is provided with an outwardly opening slot 94, an angularly depending extension 96 and a head receiving mouth 98.

In much the same manner, the embodiment of FIGS. 7 and 8 operates as did the first described embodiment. The leaves 32 may be horizontally extended upward beyond their horizontal position thereby permitting the braces 84 and their head 92 to be shifted angularly into the extension 96. This securely maintains the brace 84 against accidental displacement when the leaves 32 are dropped to their horizontal positions. To collapse the leaves 32 to their inactive positions, they may be lifted, disengaging the head 92 from the trackway extension 96, whereupon the brace 84 moves downwardly through the trackway 82 until its entire length is contained therein and the leaf 32 abuts the panel 22. Because of the weight of each leaf 32 and the braces 84, the leaf is secured in collapsed position without added structure, although suitable locking or engaging means may be employed.

In the modification shown in FIGS. 9 and 10, a single centrally located brace 100 is provided for each leaf 32. The brace 100 is also made of bar stock suitably dimensioned. At the upper end it is provided with a transverse pin 102 extending to either side of the brace within a yoke 104 fastened to the underside of the leaf. The lower end of the brace 100 is provided with a similar transverse pin 106. The pin 106 is adapted to ride with a T-shaped slot 108. In this construction the brace 100 differs from the previous braces which, rather than extending pins, are formed with annular bearing 46 and spherical heads 92.

The brace 100 as seen in FIGS. 9 and 10 is esthetically shaped and is enlarged to extend slightly beyond the plane of the wall 22 so that it may be manually grasped along the wall to open or close the leaf. The slot 108, like those of the preceding modification, is provided with an angular locking extension 110 to receive the pin 106 when the leaf 32 is raised to the horizontal. Inasmuch as the device of FIGS. 9 and 10 is substantially the same as that of the preceding construction, a further explanation is believed redundant and unnecessary.

FIGS. 11 and 12 depict two modifications of the leg supports. In both these modifications, the single leg support 60 shown in FIGS. 4—6 is replaced with a two part leg structure 112 and 114 (FIG. 11) and 112*a* and 114*a* (FIG. 12) respectively. Each leg part is pivotably fastened to the bottom 16 of the case by a screw fastener 116 and fits into a cutout portion 118 as did the legs 60 of the first embodiment. The legs 112 and 114 and the cutout portions are also provided with cooperating beveled edges 120 and grooves 122. In FIG. 11, a holding detent 124 may be located on the body 12 to engage the leg 112 when the support structure is not in use and to so retain it inactive. In FIG. 12, the holding detent 126 may be positioned on the leg 114*a* to engage the body 12 when the legs 112*a* and 114*a* are inactive.

The leg parts 112 and 114 are paired and pivoted at their opposite ends so that they move outwardly clockwise and counterclockwise respectively and the dash line positions illustrate the leg supports in their active supporting positions. One leg, in this instance the right leg 114, is provided with an elongated slot 128. The other leg 112 is provided at its end with a transversely extending pin or finger 130 which rides

within the slot **128**. In this manner, the outward extent, or clockwise and anticlockwise pivoting of the legs is defined and limited while the legs may be moved to any angular supporting position between their fully inactive to their full expanded or active dash-line position.

Finally, there is shown in FIGS. **13**, **14** and **15** improved retaining means by which the carrying case **10** may be provided with shoulder carrying straps. In general, the carrying case **10** is such as previously described but is provided with a strap **132** which may be slung over a person's shoulder as shown in FIG. **13**. The novel retaining means comprises a one piece nylon swivel hook, generally identified by the numeral **134**, having an annular or doughnut portion **136** which is securely, but rotatably fastened by suitable means such as a bolt **135** to the frame of the case. The circumference of the annular portion **136** is provided with a groove **140** into which is fitted a buckle member **142**. The buckle member **142** is shaped so as to fit within the groove **140** but is freely rotatable about and within the groove. The buckle **142** has a radially extending portion **144** with a flat edge into and about which the ends of the strap **132** may be fastened.

It will be observed that the annular member **136** is securely fastened to the frame of the carrying case **10**, but that the buckle member **142** swivels. This has the advantage of permitting the strap **132** freedom of movement to adjust to the contour of the wearer during use but avoids any movement of the retaining means relative to the frame of the carrying case. It had been one disadvantage of prior retaining means that they were movable with respect to the carrying case and that after only limited use the stress and strain placed thereon broke the retaining means and necessitated considerable expense in repair. Here stress and strain is placed only on a simple inexpensive buckle member which can easily be replaced.

It is believed that all of the objects and advantages set forth in the introduction hereto have been fully expounded, together with the other advantages mentioned throughout the description. Since there has been indicated a number of modifications and changes and since many more will be obvious, it is intended that the foregoing description be taken as illustrative only and that the invention disclosed herein be limited only to the appended claims.

I claim:

1. A combined carrying case and display stand comprising:
a plurality of hingedly connected relatively pivotable members forming a boxlike body for holding goods,
cooperable means to releasably lock said members to form said boxlike body,
at least one substantially flat surface member hinged to one end of each of said body members for movement alternating between a folded position against a side of its respective body member adjacent said end and an extended position planar with said end,
a brace connecting said body member and its said surface member to support the same in said planar position,
guide means with the surface of said body permitting said brace to move with said surface member and to releasably retain said brace against movement when said surface member is in extended position,
each of said body members being provided with recessed portions for receiving the surface member in folded position, and
each said surface member being hinged to each said body member to provide a substantially smooth unitary profile therewith.

2. The carrying case according to claim **1**:
wherein the brace comprises an elongated arm pivoted at one end to the undersurface of the surface member and is provided at its other end with an angularly extending head, and
wherein said guide means comprises a trackway extending from a position adjacent the level of the recess longitudinally of the body for retaining said angular head slidably therein and detent means at the end of said trackway adjacent said recess to releasably engage and maintain said head against movement when said surface is in extended position.

3. The carrying case according to claim **2**:
wherein said trackway includes a slot running its entire length, and
said slot being adapted to retain the head and permit entry of said arm therein.

4. The carrying case according to claim **3**, wherein said detent means comprises an angular depending extension of said trackway and slot permitting entry of said head and arm therein.

5. The combination according to claim **4** including, said surface members being a pair hinged on opposite edges of said end side.

6. The combination according to claim **4**, wherein the trackway is located on the side of said body against which said surface is folded.

7. The combination according to claim **4**, wherein the trackway is located on the side of said body adjacent to the side against which said surface is folded.

8. A carrying case and display stand comprising:
a boxlike body and at least one leaf extendible from an end thereof to form a tablelike surface,
leg supports located on the other end of said body and movable outwardly thereof in planar relationship to extend the breadth thereof,
each leg support including at least one slatlike member pivoted at one end to a corner of said body,
said slat being arranged so as to rotate about said pivot substantially within the plane of the end of said body, and
wherein said body is provided with a cutout portion receiving said slat making it contiguous and substantially unitary therewith.

9. The carrying case according to claim **8**, including means for limiting the outward movement of said slat.

10. A carrying case and display stand comprising:
a boxlike body and at least one leaf extendible from an end thereof to form a tablelike surface,
a plurality of leg supports located on the other end of said body and movable outwardly thereof in planar relationship to extend the breadth thereof,
each leg support including at least one slatlike member pivoted at one end to a corner of said body,
said slat being arranged so as to rotate about said pivot substantially within the plane of the end of said body,
each leg support comprises a pair of slatlike members pivotably secured at opposite ends to opposite corners of said body, and
the free ends of said slats overlapping each other and being provided with mating slot and pin means permitting their conjoint outward movement within defined limits.

11. A carrying case comprising:
a plurality of hingedly connected relatively pivotable members forming a hollow body when said members are closed and providing access thereto when said members are open,
cooperable means to releasably lock said members closed,
at least a leaf connected with one of said members to move to an extended supporting planar position and to a nonsupporting position in substantial conformation with the profile of said member,
leg supports on at least one of said members and extensible from a nonsupporting position substantially contiguous with said one member to a supporting position extending beyond the confines of said one member to support the same, and
recess means on said one member for receiving said leaf and leg supports when the same are in their respective nonsupporting positions to provide a substantially smooth unitary profile therewith.

12. A carrying case as in claim **11**:
one of said leaves being connected with each of said members,
one of said leg supports on each of said members, and
said recess means being on each of said members for receiving said leaves and leg supports.

UNITED STATES PATENT OFFICE

CERTIFICATE OF CORRECTION

Patent No. 3,557,916 Dated January 26, 1971

Inventor(s) WILLIAM V. STOWELL

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Claim 1, Line 1, delete the colon
Claim 1, Line 3, change "boxlike" to -- box-like --
Claim 1, Line 5, change "boxlike" to -- box-like --
Claim 1, Line 13, after "means" change "with" to -- within
Claim 1, Line 19, after the comma, take out "and" and place in front of "each" at the beginning of Line 20
Claim 2, Line 1, delete the colon
Claim 2, Line 5, after the comma, take out "and" and place in front of "wherein" at the beginning of Line 6
Claim 3, Line 1, delete the colon
Claim 3, Line 3, after the comma, take out "and" and place in front of "said" at the beginning of Line 4
Claim 4, Line 1,after "3" delete the comma
Claim 5, Line 1, after "including" delete the comma
Claim 6, Line 1, after "4" delete the comma
Claim 7, Line 1, after "4" delete the comma
Claim 8, Line 1, delete the colon
Claim 8, Line 2, change "boxlike" to -- box-like --
Claim 8, Line 3, change "tablelike" to -- table-like --
Claim 8, Line 7, change "slatlike" to -- slat-like --
Claim 8, Line 10, after the comma, take out "and" and place in front of "wherein" at the beginning of Line 11
Claim 8, Line 11, change "cutout" to -- cut-out --
Claim 9, Line 1, after "8" delete the comma
Claim 10, Line 1, delete the colon
Claim 10, Line 2, change "boxlike" to -- box-like --
Claim 10, Line 3, change "tablelike" to -- table-like --
Claim 10, Line 7, change "slatlike" to -- slat-like --
Claim 10, Line 11, change "slatlike" to -- slat-like --
Claim 10, Line 13, after the comma, take out "and" and plac in front of "the" at the beginning of Line 14

UNITED STATES PATENT OFFICE

CERTIFICATE OF CORRECTION

Patent No. 3,557,916 Dated January 26, 1971

Inventor(s) WILLIAM V. STOWELL

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Claim 11, Line 1, delete the colon
Claim 11, Line 12, change "nonsupporting" to -- non-supporti
Claim 11, Line 15, after the comma, take out "and" and place in front of "recess" at the beginning of Line 16
Claim 12, Line 1, delete the colon
Claim 12, Line 4, after the comma, take out "and" and place in front of "said" at the beginning of Line 5

Signed and sealed this 18th day of May 1971.

(SEAL)
Attest:

EDWARD M.FLETCHER,JR.
Attesting Officer

WILLIAM E. SCHUYLER, JR
Commissioner of Patents