March 14, 1967 A. H. ROBERTS 3,309,134

INTERCHANGEABLE LUGGAGE-CHAIR STRUCTURE

Filed April 8, 1965 3 Sheets-Sheet 1

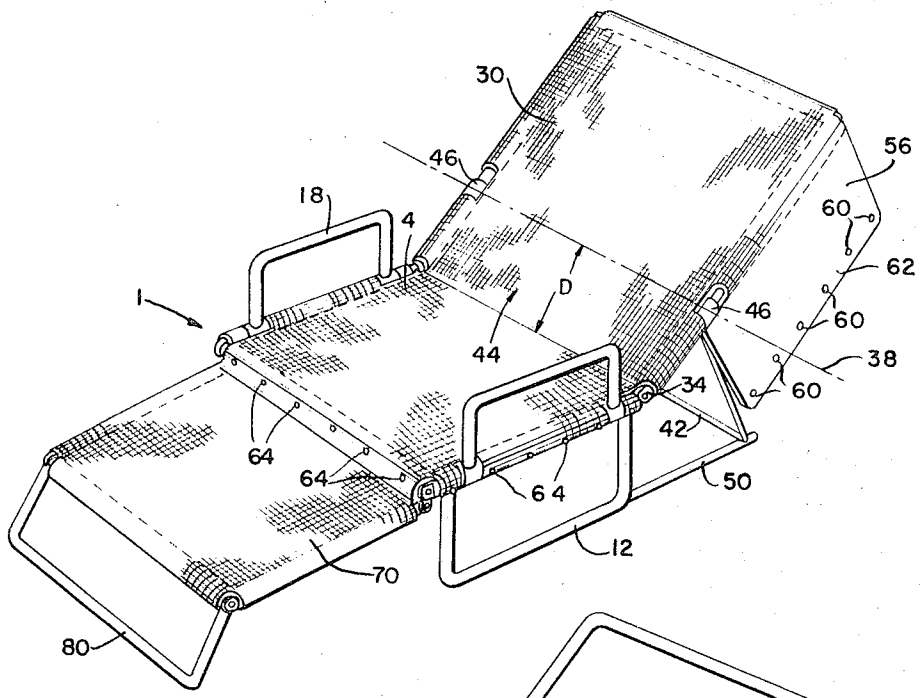


FIG. 1.

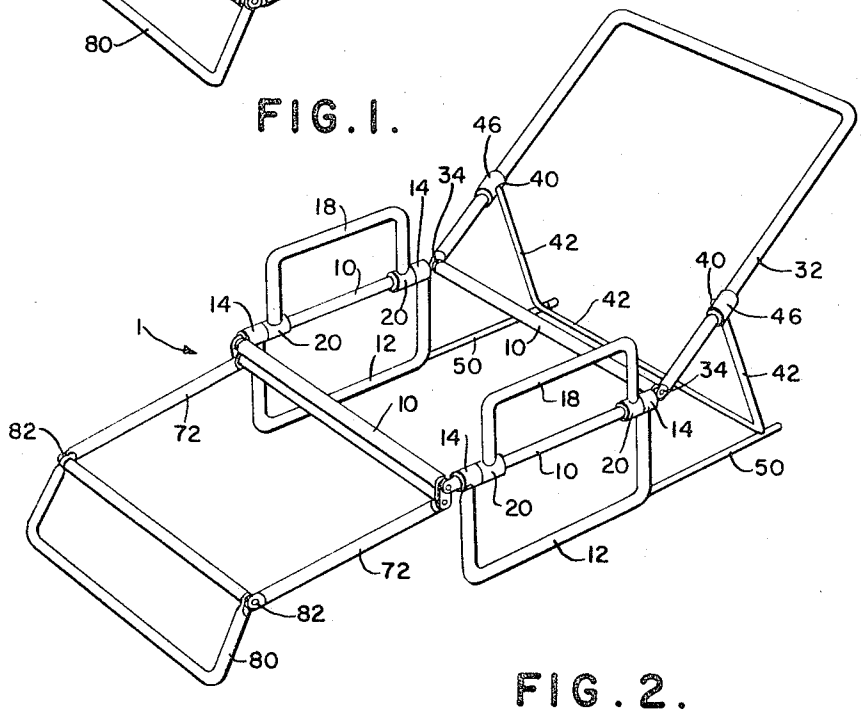


FIG. 2.

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INTERCHANGEABLE LUGGAGE-CHAIR STRUCTURE

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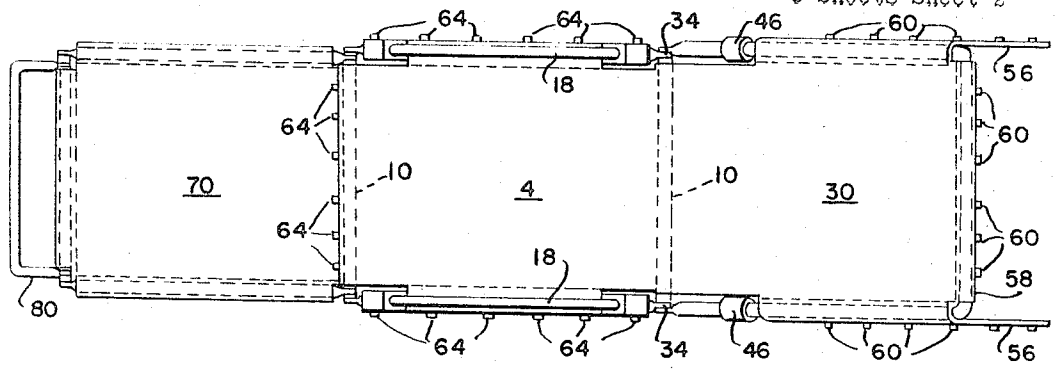


FIG. 3.

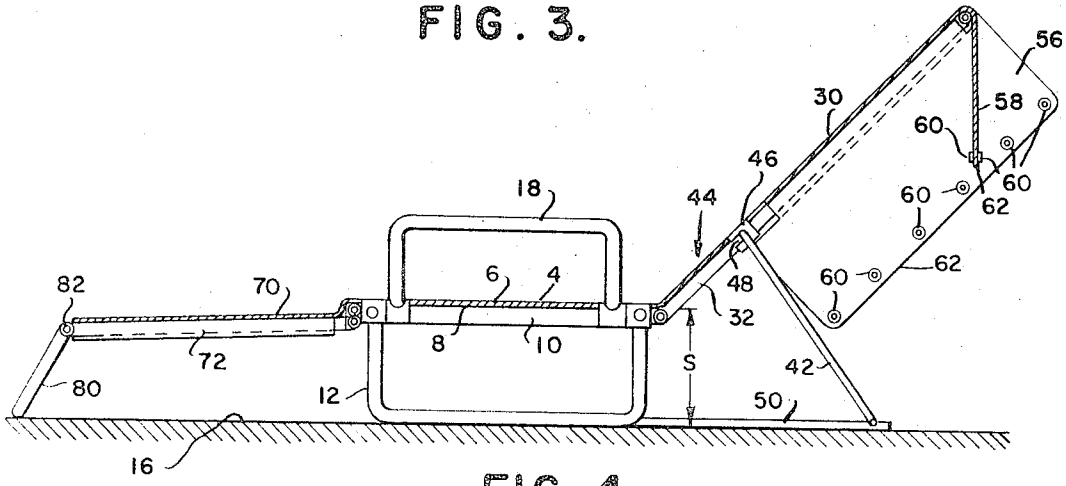


FIG. 4.

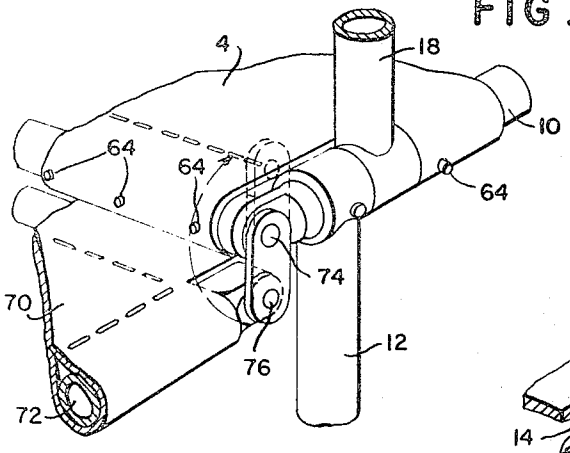


FIG. 5.

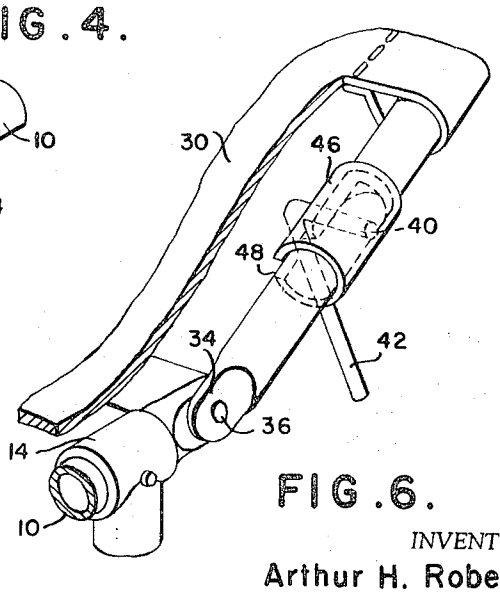


FIG. 6.

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INTERCHANGEABLE LUGGAGE-CHAIR STRUCTURE

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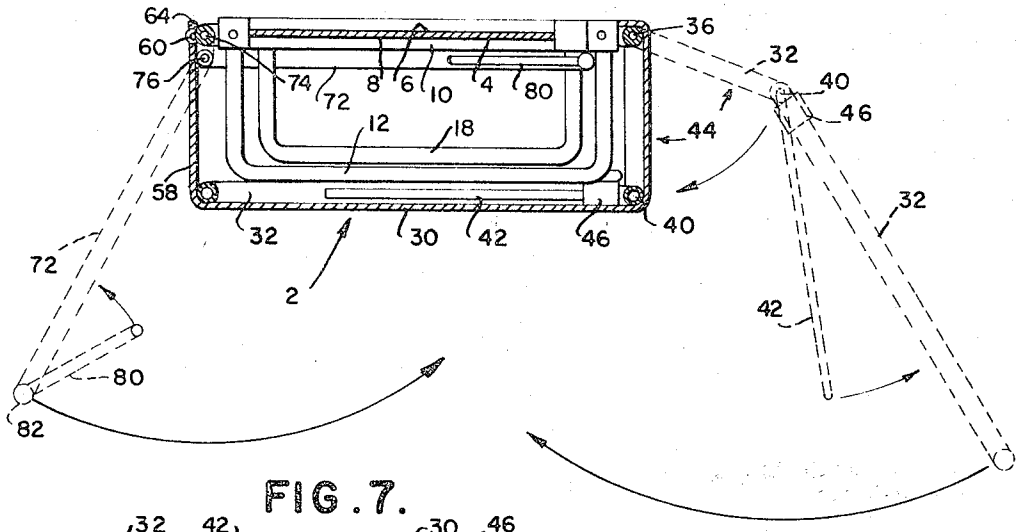


FIG. 7.

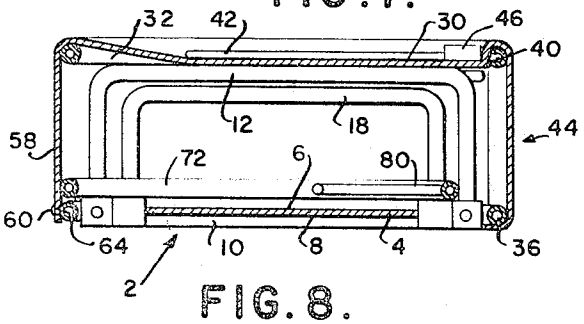


FIG. 8.

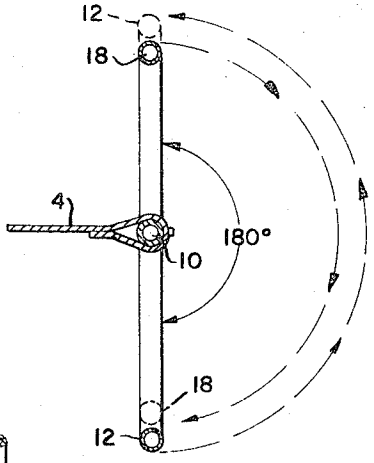


FIG. 9.

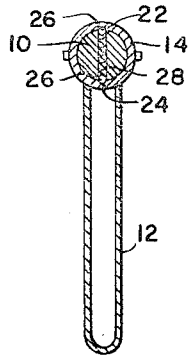


FIG. 10.

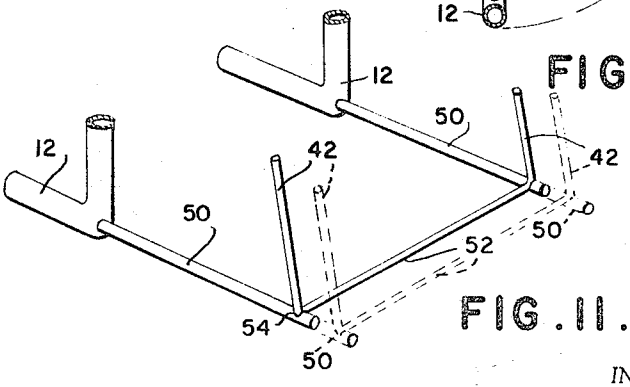


FIG. 11.

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INTERCHANGEABLE LUGGAGE-CHAIR STRUCTURE

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Filed Apr. 8, 1965, Ser. No. 446,623
4 Claims. (Cl. 297—17)

This invention relates to the conversion of a chair structure into a usable luggage configuration.

The primary object of the instant invention resides in the provision of a simplified beach chair-luggage carrier article of novel character and of improved utility.

Another object of the invention is to provide an article usable in a beach chair configuration and which is capable of being folded into a lugage configuration, the latter being usable for luggage carrying purposes.

A further object of the present invention is to provide a unique foldable beach chair whereby the latter may be variably foldable to form a luggage case of conventional configuration.

A still further object of the invention resides in the provision of a beach chair having novel back-portion support means.

Another general object of the present invention resides in the provision of an article of the foregoing character which is light in weight, economical of manufacture, easily and quickly converted from one form to the other, durable, and highly effective in use.

Other objects and advantages of the instant interchangeable luggage-chair structure will be set forth in part hereinafter and in part will be obvious herefrom, or may be learned by practice of the invention, the same being realized and attained by means of the structure defined and pointed out in the appended claims.

The accompanying drawings referred to herein and constituting a part hereof, illustrate the invention and together with the description, serve to explain the principles thereof. Similar reference characters refer to corresponding parts and elements throughout the several figures.

FIGURE 1 is a perspective view of the article in its complete beach chair configuration;

FIGURE 2 is a perspective view showing the entire frame structure only, of the beach chair form;

FIGURE 3 is a plan elevational view of the operative beach chair configuration;

FIGURE 4 is a side elevational view of the beach chair as illustrated supported upon a surface;

FIGURE 5 is an enlarged fragmentary perspective view of the double hinge used in connecting the leg-rest portion to the seat portion;

FIGURE 6 is an enlarged fragmentary perspective view showing the pivotal connection of the seat and intermediate or back portions and the detail of the locking means and support means used for supporting the back portion at the desired angle;

FIGURE 7 is a sectional elevation showing the article folded into its lugage configuration whereby the obverse side of the beach chair seat portion serves as an outside face of the article in its luggage configuration;

FIGURE 8 is a sectional elevation view of the luggage carrier wherein the reverse side of the beach chair seat portion serves as an outside face of the article in its luggage configuration;

FIGURE 9 illustrates the pivotability of the arm-rest and first support means with respect to the seat portion frame structure;

FIGURE 10 is a cross sectional view of the first support means and the support securement mechanism used for lockingly positioning said means with respect to the seat portion frame structure; and

FIGURE 11 is a fragmentary perspective view showing the telescopic association of the extensible means and the first support means and the coaction of the second support means with said extensible means.

In accordance with the foregoing and with reference now to the accompanying drawings, it will be appreciated that the article designated generally by numeral **1** is usable as a beach chair and the article in the form generally designated by numeral **2** is usable as a luggage carrier.

With particular reference to FIGURES 1–4, the article **1** will be seen to include seat portion **4**, the latter having obverse and reverse sides **6** and **8**, respectively, and a frame structure **10** to which said seat portion is attached. Chair legs or support means **12** are attached to said frame structure **10** as shown by support securement means **14**, said legs being normally downwardly extending from said frame structure for supporting said seat portion above a surface **16**, as shown in FIGURE 4. Arm-rest means **18** which serve to support the arms of a person seated within the chair are similarly secured to said frame structure **10** by arm-rest securement means **20**, said arm-rest means being normally extended upwardly of said frame structure as shown.

Support means **12** and arm-rest means **18** are both preferably adapted for at least 180° movement with respect to said frame structure **10** as indicated in FIGURE 9, said respective securement means **14** and **20** being adapted to lock support means **12** and arm-rest means **18** in either the vertically upward or vertically downward position at the selection of the user of the article, all of said positions being illustrated in FIGURE 9 with respect to frame structure **10**. To accomplish these ends, securement means **14** and **20**, both of which are identical are constructed in accordance with the disclosure of FIGURE 10 which is particularly directed to securement means **14** and support means **12**. Therein as shown, indents **22** and **24** provided 180° apart internally of sleeve-like securement means **14** will receive balls **26** which are biased outwardly of the center of frame structure **10** by spring **28**. Thus leg support **12** may be locked in the vertical upward or downward position as aforedescribed. Arm-rest means **18**, as above stated are similarly pivotable and lockable. Therefore, it will be observed that respective pairs of arm-rests **18** and leg support **12** will lie in substantially the same planes, when in the vertical upward or downward locked positions as can be seen in FIGURE 3.

As support for the back of a person seated within the chair configuration, back portion **30** is provided, the latter being attached to frame structure **32**. Said seat and back portion frame structures are pivotally connected at **34** by pins **36**, as typically shown in FIGURES 1 and 7, frame structure **32** and the back portion attached thereto is adapted to fold along a line **38** disposed distance D from the pivotal connection of said seat and back portion frame structures. The folding or pivoting operation is enabled by pivot pins **40**, which are the bent free ends of U-shaped back portion support means **42** to be described in further detail hereinbelow. Thus, when the back portion is folded, a separate section or intermediate portion designated generally by numeral **44** is defined, said section lying between the pivotal connection **34** and fold line **38**. The distance D, it will be observed, is slightly greater than space S between said seat portion **4** and surface **16** when the former is supported above the latter.

For the purpose of restraining said back portion frame structure against pivotability at **40** or foldability along imaginary line **38** illustrated in FIGURE 1, locking means member **46** is provided, said locking means being in the form of a slidable sleeve having a split region **48** whereby

pins 40 will be avoided when said member is slid thereover to preclude folding of said back portion frame structure 32 as previously described. Thus, the locking member 46 is selectively positionable to accomplish such restraint against folding or pivotability and causes the entire back portion including the separately foldable section 44 to remain rigid.

Support member 42, ends 40 of which serve as the pivot pins aforedescribed, extends pivotally from said back portion frame structure 32 and can therefore be folded within the side elements of frame structure 32 to thereby assume a parallel attitude therewith as shown more particularly in FIGURES 7 and 8, such parallelism being required when the article is in its luggage configuration as shown in said figures. Said support member when in the extended position being capable of supporting said back portion in a desired angular position when said article is in its chair configuration, may be directly embedded within surface 16, where e.g., said surface is sand. Extensible members 50, which are telescopically contained within support members 12, will when withdrawn from said support members, be adjustably positionable as shown in FIGURE 11, to reach beneath said back portion and in spaced relation therewith whereby, end 52 of support member 42 which is removably securable within notches 54 of said extensible member 50, will support said back portion as shown in FIGURES 1, 2 and 4.

Curtain members or closure means 56 depending peripherally of the sides of said back portion frame structure 32 and curtain member or closure means 58 depending from the rear of said back portion frame structure as shown in cross section in FIGURE 4 are each provided with fastening members 60 such as snaps as shown on each side adjacently the lower edges 62 thereof. These fastening members coacts with a second set of fastening members 64 which are shown suitably provided on the sides and forward end of said seat portion frame structure 10 to retain said curtain members in position when serving as three of the side faces of the article when in the luggage configuration. As shown in FIGURES 7 and 8 of the drawings, the article can be folded two ways to form the luggage configuration. In the form shown in FIGURE 7, the arm-rest members 18 are folded and locked in the downward position whereby observe side 6 of the seat portion 4 forms the top face of the luggage article. Where as in FIGURE 8, support members 12 are pivoted and locked in the upward position, reverse side 8 of said seat portion 4 forms the bottom face of the luggage article. The back portion 30 is accordingly folded either of two ways where as in FIGURE 7 said back portion 30 forms the bottom face and in FIGURE 8 where said back portion forms the top face of the luggage. The curtain members, it will be understood, have either surface exposed when used as side faces in the luggage configuration depending upon the manner in which the arm-rest support member and the back portions are folded.

Leg-rest portion 70 which has a frame structure 72 is similarly foldable in a dual manner with respect to said seat portion for the purpose of converting the article from the chair to the luggage configuration. The double hinge assembly illustrated in detail in FIGURE 5 discloses a preferable means for accomplishing such alternate folding feature. That is, frame structure 72 is pivotally connected to frame structure 10 at two points 74 and 76, link 78 establishing the floating connection which provides the necessary motion to enable leg-rest portion 70 to fold below or above frame structure 10 and in parallelism therewith as shown in FIGURES 7 and 8, respectively. A leg-rest end support member 80 is provided and may as shown be folded within said leg-rest frame by dint of the pivotal connection at 82.

Although the preferred embodiment of the interchangeable luggage-chair structure has been described, it will be understood that the foregoing detailed description is

exemplary and that various changes may be made in the shape of the article, the materials of construction, the frame-structure may be tubular or solid, circular of cross-section as shown or otherwise suitably shaped, the seat, back and leg-rest portions may be fabric, synthetic or natural or of other suitable sheet material, and that other modifications may be made by those skilled in the art without actually departing from the invention. The appended claims, therefore, are intended to cover all such equivalent variations as fall within the true spirit and scope of the foregoing disclosure.

What is claimed is:

1. In an article usable in one configuration as a beach-chair and usable in another configuration as a luggage-carrier having top and bottom faces and side faces, the combination comprised of a seat portion having obverse and reverse sides and a frame structure, first support means secured to and extending from said frame structure for supporting said seat portion above a surface, support securement means attaching said first support means to said frame structure for lockingly positioning said first support means in either vertically upward or vertically downward relation with respect to said seat portion, arm-rest means secured to and extending from said frame structure for supporting the arms of a person seated upon said article, arm-rest securement means attaching said arm-rest means to said frame structure for lockingly positioning said arm-rest means vertically upward or vertically downward with respect to said seat portion, said arm-rest and first support means being in substantially the same planes, respectively, when in the vertical upward or downward locked positions, a back portion having a frame structure, the frame structures of said seat and back portions being pivotally connected, said back portion frame structure being foldable along a line intermediate the ends thereof, the distance between said line and pivotal connection of said seat and back portion frame structures defining a separate section, said distance being slightly greater than the space between said seat portion and said surface when the former is standing upon the latter, locking means for restraining said back portion frame structure against folding along said line, said locking means being selectively positionable to accomplish such restraint against folding, second support means extending from said back portion frame structure, said second support means being pivotally connected to said back portion and capable of assuming parallelism with respect thereto, said second support means, when in its extended position, being capable of supporting said back portion in a desired angular position when said article is in its chair configuration, curtain members depending peripherally of said back portion frame structure, said curtain members having first fastener means located adjacently the edges thereof, extensible means telescopically associated with said first support means, said extensible means, when extended being adapted to reach beneath said back portion and in spaced relation therewith, an end of said second support means being removably securable to said extensible means for supporting said back portion when the article is in its chair configuration, a leg-rest portion having a frame structure, the frame structures of said seat and leg-rest portions being pivotably connected, said leg-rest portion being foldable into parallel superposition with respect to either said obverse or reverse sides of said seat portion, said seat and back portions serving as the top and bottom faces of said article when in its luggage configuration, said separate section of said back portion serving as a side face of said article when in its luggage configuration and said curtain members serving as the remaining side faces of said article when in its luggage configuration, second fastener means provided on said seat portion frame structure, said first and second fastener means being cooperable to retain said curtain members in position when serving as said remaining side faces.

2. In an article usable in one configuration as a beach chair and usable in another configuration as a luggage-

carrier having top and bottom faces and side faces, the combination comprised of a seat portion having a frame structure, first support means secured to and extending from said frame structure for supporting said seat portion spacedly above a surface, support securement means attaching said first support means to said frame structure for lockingly positioning said first support means in vertically downward relation with respect to said seat portion, arm-rest means secured to and extending from said frame structure for supporting the arms of a person seated upon said beach chair, arm-rest securement means attaching said arm-rest means to said frame structure for lockingly positioning said arm-rest means vertically upward or vertically downward with respect to said seat portion, said arm-rest and first support means being in substantially the same plane when said arm-rest is in the vertical upward or downward locked positions, a back portion having a frame structure, the frame structures of said seat and back portions being pivotally connected, said back portion frame structure being adapted to fold along a line disposed a distance from the pivotal connection of said seat and back portion frame structures to, when folded, define a separate section intermediate said pivotal connection and the fold, said distance being slightly greater than the space between said seat portion and said surface when the former is supported above the latter, locking means for restraining said back portion frame structure against pivotability, said locking means being selectively positionable to accomplish such restraint against pivotability, second support means adapted to support said back portion in a desired angular position when said article is in its chair configuration, curtain members depending peripherally of said back portion, a leg-rest portion having a frame structure, said leg-rest portion being adapted for removable placement in superposition with respect to said seat portion, said seat and back portions serving as the top and bottom faces of said article when in its luggage configuration, said separate section of said back portion serving as a side face of said article when in its luggage configuration and said curtain members serving as the remaining side faces of said article when in its luggage configuration, and curtain member fastening means for securing said curtain members to a frame structure when the article is in its luggage configuration.

3. In an article usable in one configuration as a beach chair and usable in another configuration as a luggage-carrier having top, bottom and side faces, the combination comprised of a seat portion having a frame structure, first support means secured to and extending from said frame structure for supporting said seat portion spacedly above a surface, arm-rest means secured to and extending from said frame structure for supporting the arms of a person seated upon said beach-chair, arm-rest securement means attaching said arm-rest means to said frame structure for lockingly positioning said arm-rest means vertically upward or vertically downward with respect to said seat portion, said arm-rest and first support means being in substantially the same plane when said arm-rest is in the vertical upward or downward locked positions, a back portion having a frame structure, the frame structures of said seat and back portions being pivotally connected, said back portion frame structure being adapted to fold at a distance from said pivotal connection to, when folded, define a separate section intermediate said pivotal connection and the fold, said distance being slightly greater than the space between said seat portion and said surface when the former is supported above the latter locking means for restraining said back portion frame structure

against folding upon itself, said locking means being selectively positionable to accomplish such restraint against folding, second support means adapted to support said back portion in a desired angular position when said article is in its chair configuration, a leg-rest portion having a frame structure, said leg-rest portion being adapted for removable placement in superposition with respect to said seat portion, said seat and back portions serving as the top and bottom faces of said article when in its luggage configuration, said separate section of said back portion serving as a side face of said article when in the luggage configuration, and closure means, said closure means being adapted to cover the remaining side faces of said article when in its luggage configuration.

4. In an article usable in one configuration as a beach-chair and usable in another configuration as a luggage article having top, bottom and side faces, the combination comprised of a seat portion having a frame structure, first support means secured to and extending from said seat portion frame structure for supporting said seat portion spacedly above a surface, said first support means being pivotable through 180° with respect to said seat portion, single securement means adapted to lock said first support means in either a vertically upward or vertically downward position with respect to said seat portion, whereby the luggage configuration can be formed whether said support means is locked in the vertically upward or downward positions, a back portion having a frame structure, the frame structure of said seat and back portions being pivotally connected, said back portion frame structure being adapted to fold at a distance from said pivotal connection to, when folded, defined a separate section intermediate said pivotal connection and the fold, said distance being slightly greater than the space between said seat portion and said surface when the former is supported above the latter, second support means adapted to support said back portion in a desired angular position when said article is in its chair configuration, said seat and back portions serving as the top and bottom faces of said article when in its luggage configuration, said intermediate section serving as a side face of said article when in the luggage configuration, and closure means, said closure means being adapted to cover the remaining side faces of said article when in its luggage configuration.

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