United States Patent [19]

Gawlinski

[11] **3,929,373**

[45] **Dec. 30, 1975**

[54] **INCLINING SUN CHAIR**

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[52] **U.S. Cl.** **297/19;** 297/25; 297/29

[51] **Int. Cl.²** **A47C 4/00**

[58] **Field of Search** 297/19, 24, 25, 26, 29, 297/16, 377; 108/3; 248/454, 455, 456, 457

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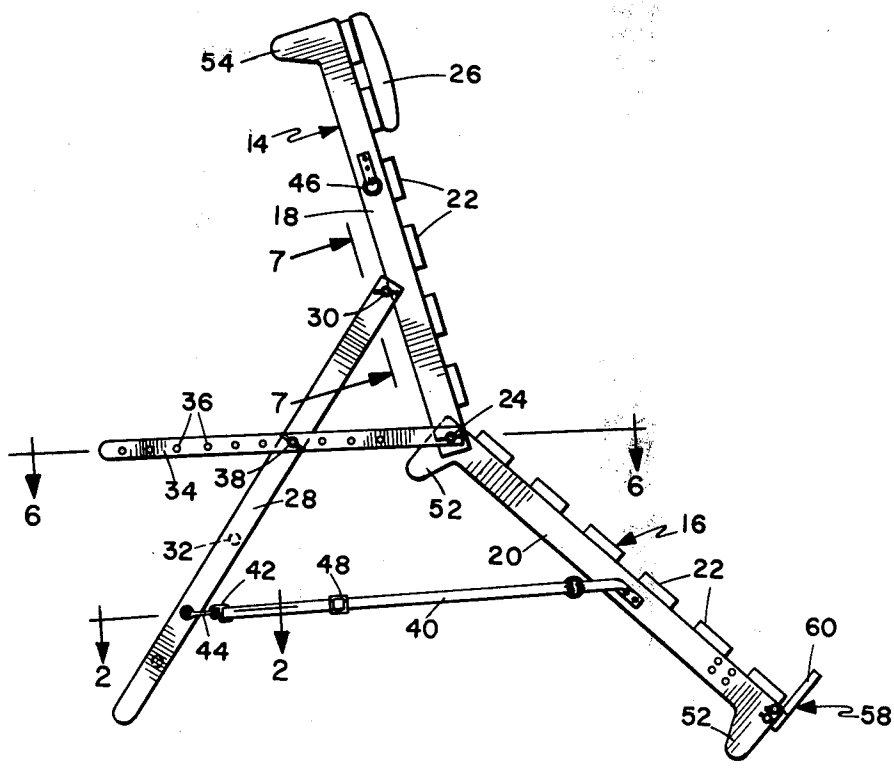
Primary Examiner—Roy D. Frazier

Assistant Examiner—Peter A. Aschenbrenner

[57] **ABSTRACT**

The invention comprises a deck chair having an upper and lower platform which are hinged together to define the deck or body-contacting portion of the chair, these platforms being adjustable to provide a wide variety of positions available to the user, adjustability being provided by the support mechanism of the chair which includes a pair of pivotal legs depending from the upper platform and rigidly maintained at any desired angle relative to the upper platform by a pair of braces pivotally secured to the joints connecting the two platforms and engageable at selected positions along the lengths thereof with complementary catch means on the legs, the lower platform resting at its lower edge on the ground and supported at any selected angle relative to the ground by adjustable straps or chains connecting the lower platform to the supporting legs of the upper platform, and an adjustable footrest is connected to the lower platform.

10 Claims, 13 Drawing Figures



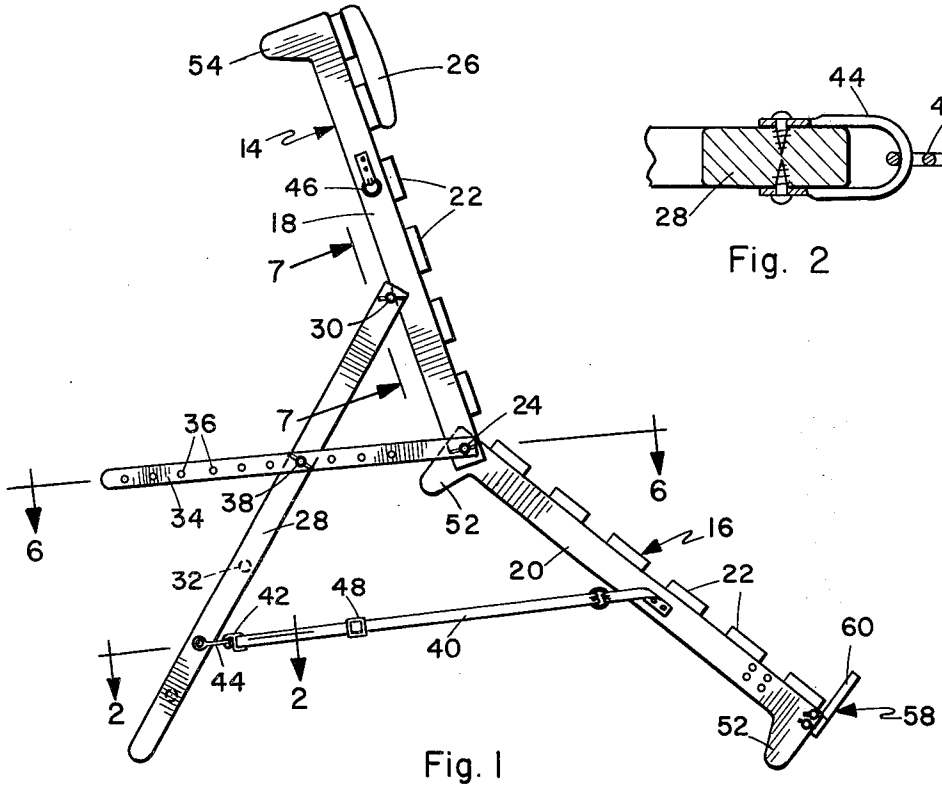


Fig. 1

Fig. 2

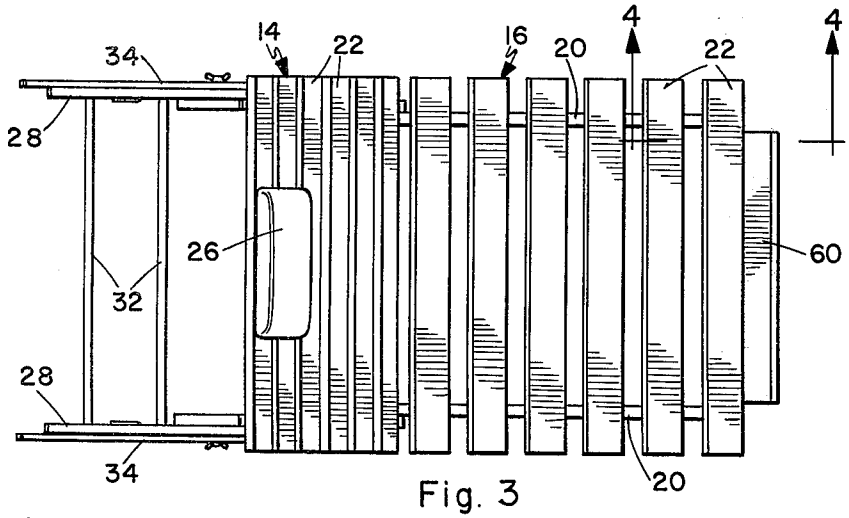


Fig. 3

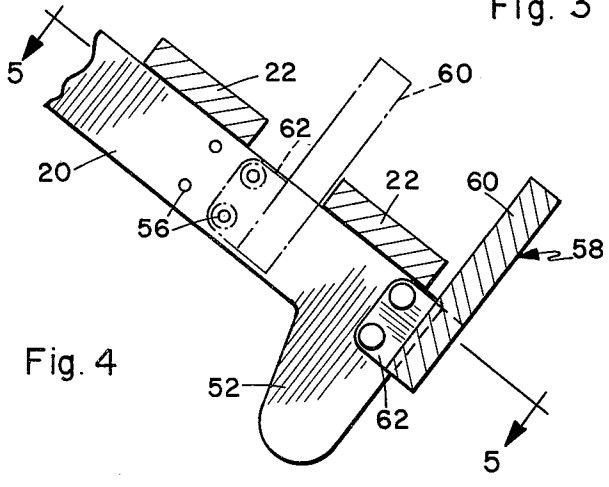


Fig. 4

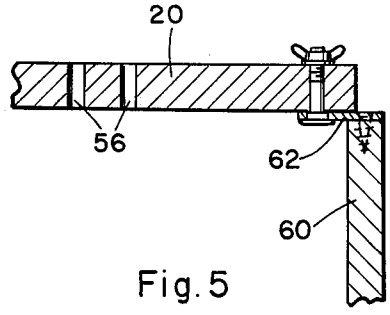


Fig. 5

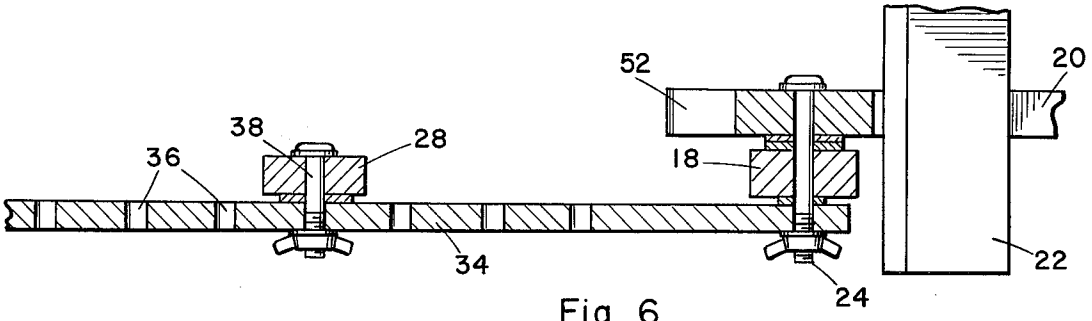


Fig. 6

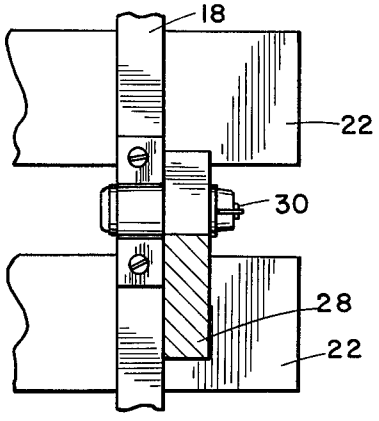


Fig. 7

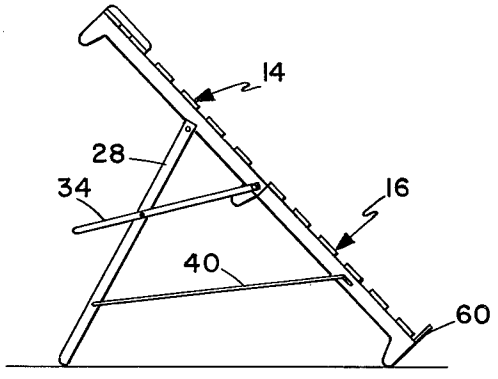


Fig. 8

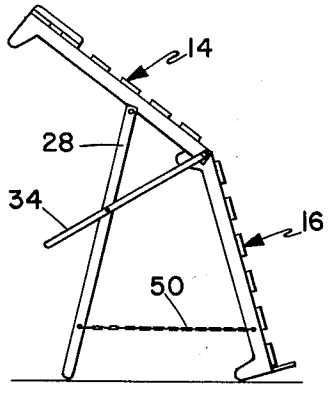


Fig. 9

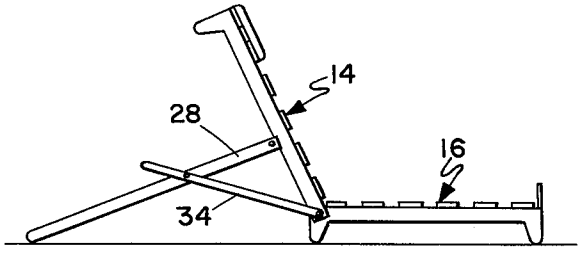


Fig. 10

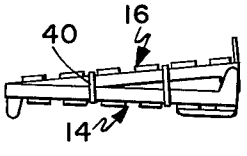


Fig. 12

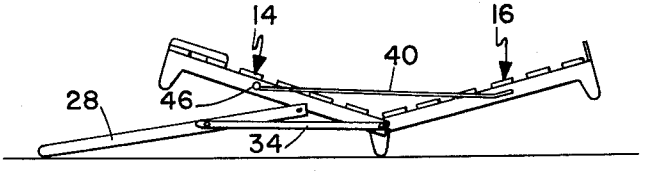


Fig. 11

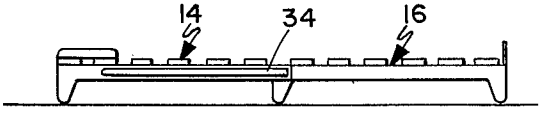


Fig. 13

INCLINING SUN CHAIR

BACKGROUND OF THE INVENTION

Various deck chairs and contour chairs have been developed to provide the wide variety of reclining and sitting positions preferred by people of varied tastes, many of these chairs being adjustable and quite flexible in the number of orientations and positions which may be established. However there is no deck chair available which allows the user almost complete flexibility in arranging two substantially planar halves of the chair into any convex, concave, or straight orientation and assuming any angle with the supporting surface.

SUMMARY OF THE INVENTION

The deck chair of the instant invention fulfills the above mentioned gap in the prior art by providing a deck chair having two hinged platforms on a support mechanism which permits the platforms to be oriented at a wide variety of angles relative to one another and relative to the ground or other supporting surface. The support mechanism includes a pair of reinforced legs depending from the upper platform and secured at any desired angular position by a pair of adjustable braces pivotally connected to the hinge joint between the platforms and engageable at different positions along their lengths with catch means provided on the legs. A pair of straps or chains connected to the lower platform may be engaged at various positions along their lengths either with catch means on the support legs or with catches on the upper platform. The chair was inspired by the needs of sunbathers and can be oriented in planar form to up to about 60° relative to the ground so that the user may catch the sun's rays at the optional angle at the sun's position.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a side elevation view of the chair in one position;

FIG. **2** is an enlarged sectional view taken on line **2—2** of FIG. **1;**

FIG. **3** is a top plan view of the chair;

FIG. **4** is an enlarged sectional view taken on line **4—4** of FIG. **3;**

FIG. **5** is a sectional view taken on line **5—5** of FIG. **4;**

FIG. **6** is an enlarged view taken on line **6—6** of FIG. **1;**

FIG. **7** is an enlarged sectional view taken on line **7—7** of FIG. **1;** and

FIGS. **8-13** illustrate various positions into which the chair can be adjusted.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

The deck chair has an upper platform **14** and a lower platform **16,** these platforms each having parallel sidewalls **18** and **20,** respectively, and a plurality of parallel slats **22** mounted to the tops of the sidewalls. The slats and sidewalls can be of wooden construction and glued or nailed together in conventional fashion, the two platforms being pivotally connected to each other as by the bolts and wingnuts **24** joining the sidewalls. The upper platform may have a cushion head rest **26** mounted thereon.

The principal support for the chair is provided by a pair of legs **28** which are pivoted to generally central points on the sidewalls **18** of the upper platform by bolts **30,** and a pair of cross braces **32** are mounted between the legs for lateral rigidity.

Two additional braces **34** are pivoted on the bolts **24** as shown in detail in FIG. **6,** these braces having a plurality of spaced stations along their lengths which are attachable to catches on the legs, these stations being bores **36** in the preferred embodiment which are selectively engageable on bolts **38** extending from the legs. A pair of supports such as staps **40** are fastened at their forward ends to sidewalls **20** of the lower platform and have hooks **42** on their other ends which are engageable either in rings **44** on the chair legs or alternatively in the rings **46** on the sidewalls of the upper platform. The straps have central buckles **48** so that they are adjustable in length. It is of course possible that rigid supports could be used in place of the flexible straps **40,** or a pair of telescoping supports be used, but flexible members are preferred.

FIGS. **8** through **13** show a few of the large number of positions that the chair may be made to assume by adjusting the straps and the braces **34.** FIG. **9** illustrates a convex configuration of the chair in which a user might lie face down, and the straps have been replaced by a pair of chains **50.** In FIG. **10,** a position is illustrated in which the lower platform rests on the ground and is supported by protrusions **52** which extend from the sidewalls of the lower platform, and in FIG. **13** the protrusions **54** are also used so that the chair is fully reclined and supported slightly above the ground. In FIG. **11,** the straps **40** are connected to the alternate rings **46,** and in FIG. **12** the chair is shown in its collapsed position for storage in which the legs and braces **34** have been removed and the straps **40** are used to hold the chair in its collapsed state.

The lower portion of the lower platform is provided with pairs of spaced holes **56** in the sidewalls and a removable footrest **58** comprising a planar panel **60** having lateral mounting brackets **62** is bolted between the sidewalls. Different pairs of the holes **56** can of course be selected to alter the position of the footrest to accommodate the needs of different users.

The deck chair can thus be seen to be extremely versatile, compact when folded for storage, inexpensive and simple to construct, and of great utility especially to sun bathers.

I claim:

1. An adjustable deck chair comprising:

a. an upper platform and a lower platform connected together by a hinge joint to define an elongated deck portion of a chair;

b. leg means pivoted to said upper platform to support same above a generally horizontal surface;

c. brace means pivoted to said hinge joint and releasibly securable to said leg means;

d. elongated means connected generally centrally to said lower platform and releasibly connectible to a lower portion of said leg means, whereby upon securing said leg means, brace means, and elongated means together, said upper and lower platform are rigidly oriented at a set position.

2. Structure according to claim **1** wherein said elongated means is flexible.

3. Structure according to claim **2** wherein said brace means has a plurality of stations provided along the length thereof selectively engageable with a catch means on said leg means, whereby said brace means is securable in a variety of different positions on said leg

means.

4. Structure according to claim 3 wherein said leg means includes two parallel legs, said brace means comprises two parallel elongated brace elements, said stations comprise bores through said brace elements, and said catch means comprise threaded bolts projecting from said legs, engageable through said bores, and including wing nuts fastenable on said bolts to secure said brace elements against said legs.

5. Structure according to claim 2 wherein said flexible means are of adjustable effective length.

6. Structure according to claim 5 wherein said elongated flexible means comprise a pair of chains and said leg means are provided with hooks to engage selected links of said chains, whereby the effective lengths of said chains are adjustable by selecting the links thereof engaged by said hooks.

7. Structure according to claim 2 wherein the end of said lower platform opposite said hinge joint is provided with a footrest.

8. Structure according to claim 7 wherein said footrest comprises a planar panel having parallel apertured mounting brackets projecting from one side thereof and said lower platform is provided with a plurality of bores such that said panel is adjustable by virtue of being boltable to said lower platform at selected ones of said bores.

9. Structure according to claim 2 wherein said platforms each include a pair of elongated sidewalls, the sidewalls of one platform being pivoted to the sidewalls of the other platform to define said hinge joint, the sidewalls of one of said platforms having downwardly projecting protrusions at both ends thereof and the sidewalls of the other of said platforms having downwardly projecting protrusions at the ends thereof remote from said hinge joint, whereby said deck chair defines a slightly elevated deck when both of the platforms thereof are laid on a horizontal surface.

10. Structure according to claim 2 wherein each of said platforms comprises a pair of elongated sidewalls maintained in spaced parallelism by a plurality of spaced slats orthogonally mounted therebetween.

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