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M. PEARLSTINE

3,258,292

ROCKING CHAIR

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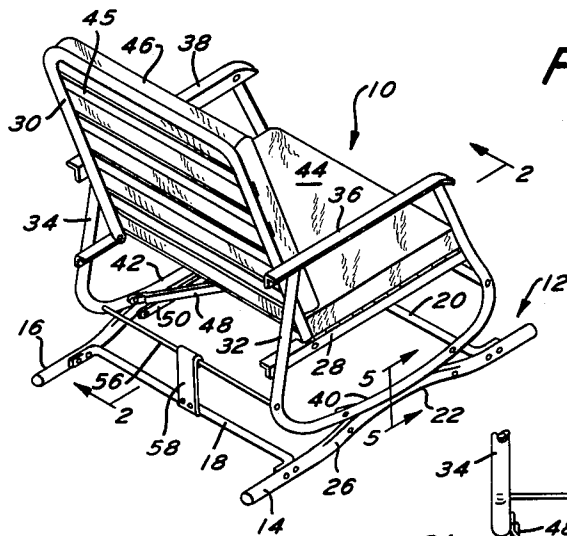


FIG. 1

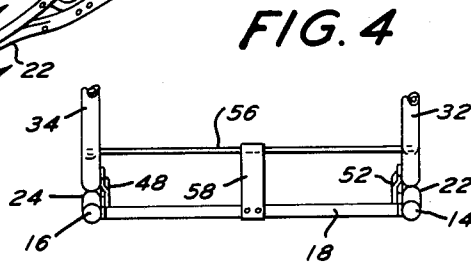


FIG. 4

FIG. 2

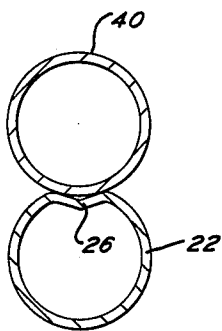
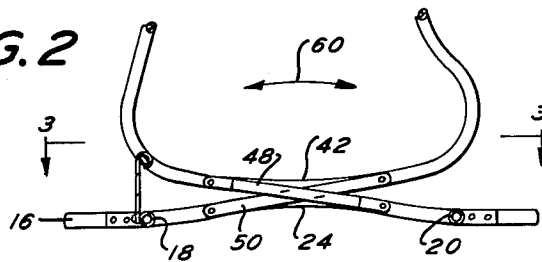


FIG. 5

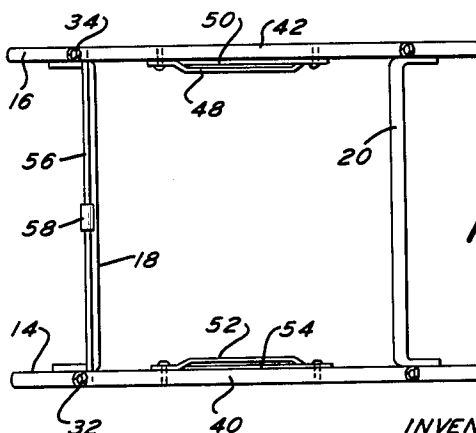


FIG. 3

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1

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ROCKING CHAIR

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11 Claims. (Cl. 297-268)

This invention relates to a rocking chair, and more particularly, to a rocking chair constructed and arranged in a manner whereby the chair is of the type generally referred to as outdoor furniture.

The rocking chair of the present invention is of the type adapted for use on lawns, patios, and the like and therefore is of the type generally referred to as outdoor furniture. The rocking chair of the present invention is structurally interrelated in a novel manner whereby the chair is adapted to remain in its conventional upright position even though it is supported on uneven ground or other supporting surface. When the chair is rocked to a rearmost position through an arcuate path, a torsion bar is provided to return the chair to its original position.

It is an object of the present invention to provide a novel rocking chair.

It is another object of the present invention to provide a rocking chair utilizing a torsion bar to return the chair to its original position.

It is another object of the present invention to provide an outdoor type chair which is adapted to remain upright and facilitate rocking of the same regardless of the fact that the ground or other surface supporting the chair is uneven.

It is another object of the present invention to provide a rocking chair structurally interrelated in a manner which is simple and effective while providing means for returning the rocker portion of the chair to its original position.

Other objects will appear hereinafter.

For the purpose of illustrating the invention, there is shown in the drawings a form which is presently preferred; it being understood, however, that this invention is not limited to the precise arrangements and instrumentalities shown.

FIGURE 1 is a perspective view of a rocking chair in accordance with the present invention.

FIGURE 2 is a sectional view taken along the line 2-2 in FIGURE 1.

FIGURE 3 is a sectional view taken along the line 3-3 in FIGURE 2.

FIGURE 4 is a partial rear elevation view of the chair illustrated in FIGURE 1.

FIGURE 5 is a sectional view taken along the line 5-5 in FIGURE 1.

Referring to the drawings in detail, wherein like numerals indicate like elements, there is shown in FIGURE 1 a rocking chair designated generally as 10.

The rocking chair 10 has a ground supported frame designated generally as 12. The frame 12 includes a side member 14 and a side member 16 interconnected by struts 18 and 20. The side member 14 is provided with an arcuate portion 22 in a central portion thereof and end portions which engage the ground or other supporting surface. The side member 16 is provided with an arcuate central portion 24 and end portions which engage the ground or other supporting surface.

The side members 14 and 16 are identical and the radius of curvature of the arcuate portions 22 and 24 are also identical. As shown more clearly in FIGURE 5, arcuate portion 24 is provided with a groove 26. A similar groove is provided on the upper surface of the arcuate portion 22. The purpose of the grooves on the

2

upper surface of the arcuate portions 22 and 24 will be made clear hereinafter.

The chair 10 is provided with a base 28 connected to an upright portion 30. A first side frame 32 is coupled to the base 28 on one side thereof. A second side frame 34 is coupled to the base 28 on the other side thereof. The side frames 32 and 34 are identical.

Side frame 32 is generally U-shaped with an arm support 36 extending across the free ends thereof. Side frame 34 is provided with a similar arm support 38. Side frame 32 is provided with an arcuate portion 40 which rides in the groove 26. Side frame 34 is provided with an arcuate portion 42 which rides in a groove on the upper surface of arcuate portion 24. The radius of curvature of the arcuate portions 40 and 42 preferably are substantially equal to the radius of curvature of the mating arcuate portions 22 and 24 respectively. The groove 26 and the corresponding groove on the arcuate portion 24 preferably have a length corresponding to the arcuate portions 22 and 24. Since the arcuate portions 22 and 24 curve downwardly and the arcuate portions 40 and 42 curve upwardly, a substantial rocking arc is provided for the chair 10.

A cushion 44 may be provided on the base 28. Likewise, a cushion 46 may be provided juxtaposed to the upright portion 30. Upright portion 30 may be in the form of a U-shaped member interconnected at spaced points by parallel slats 45 or the like. In order to maintain the side frame 34 in assembled relationship with respect to the side member 16, links 48 and 50 are provided. Links 48 and 50 each have one end pivotably coupled to arcuate portion 42 and one end pivotably coupled to arcuate portion 24. Likewise, arcuate portions 26 and 40 are interconnected by links 52 and 54. Links 52 and 54 each have one end pivotably connected to arcuate portion 26 and one end pivotably connected to arcuate portion 40.

A torsion bar 56 has one end coupled to the side frame 34 and its other end coupled to the side frame 32. A bracket 58 has its lower end fixedly coupled to the strut 18. The upper end of the bracket 58 extends around and embraces a central portion of the torsion bar 56. The bracket 58 acts as a fulcrum for the torsion bar 56. The upper end of the bracket 58 is not tightly coupled to the central portion of the torsion bar 56, but rather permits slight rotative movement for the torsion bar 56 occasioned by the fact that the ends of the torsion bar 56 are caused to move through a small arc when the rocking chair 10 is in use.

When the rocking chair 10 is in use, the person sitting on the base 28 moves through an arc designated by the arrow 60 in FIGURE 2. The arcuate portions 40 and 42 on the side frames 32 and 34 oscillate with respect to the stationary frame 12. During such oscillation, the arcuate portions 40 and 42 are guided by the grooves on the upper surface of the arcuate portions 22 and 24. The extent of the arcuate oscillation of the side frames 32 and 34 is limited by engagement between the arcuate portions 40 and 42 with the arcuate portions 22 and 24, respectively. During the rocking movement, the ends of the torsion bar 56 are depressed downwardly in FIGURE 4 and rotate in a small arc. As the ends of the torsion bars 56 resume their normal horizontal position, they return the rocker to its normal position.

In view of the fact that rocking chairs per se are well known, additional description of the operation of the chair 10 is not deemed necessary. It has been found that the torsion bar 56 enables the chair 10 to be utilized in areas where the ground or other supporting surface is uneven.

The present invention may be embodied in other specific forms without departing from the spirit or essential at-

tributes thereof and, accordingly, reference should be made to the appended claims, rather than to the foregoing specification as indicating the scope of the invention.

It is claimed:

1. A rocking chair comprising a stationary base having a pair of downwardly curved portions, a rocker means for supporting a person including spaced frames having upwardly curved portions, said upwardly curved portions being supported by said downwardly curved portions, a torsion bar having its end supported by said rocker means, and means providing a stationary fulcrum for said torsion bar.

2. A rocking chair in accordance with claim 1 wherein said means providing a stationary fulcrum includes a bracket secured to and supported by said base.

3. A rocking chair in accordance with claim 1 wherein said curved portions have substantially equal radius of curvatures.

4. A rocking chair in accordance with claim 1 wherein said downwardly curved portions have a groove on their upper surface for receiving the upwardly curved portions.

5. A rocking chair for use as lawn furniture comprising a stationary base having a pair of spaced parallel downwardly curved portions, a rocker means for supporting a person, said rocker means including a pair of spaced parallel frames having upwardly curved portions being supported on the upper surface of said downwardly curved portions and guided with respect thereto by a groove on said downwardly curved portions, a torsion bar extending between the spaced frames, the ends of the torsion bar being fixedly secured to their respective frame, and bracket means on said base embracing a central portion of the torsion bar and providing for slight rotation of the torsion bar with respect thereto.

6. In a rocking chair wherein a rocker is mounted for rotation through an arc and supported for such rotation by a stationary base, the improvement comprising a torsion bar supported at its ends by the rocker, and a stationary fulcrum for the torsion bar, said fulcrum being supported by the base.

7. In a rocking chair in accordance with claim 6 including a pair of downwardly curved surfaces on the base, grooves on said downwardly curved surfaces, and upwardly curved surfaces on said rocker received in said groove.

8. In a rocking chair comprising a stationary base having first and second downwardly curved portions, a rocker supported on said base, said rocker having first and second frames, said first frame being curved upwardly and

lying in the same plane as said first downwardly curved portion and supported from below thereby, said second frame being curved upwardly and lying in the same plane as said second downwardly curved portion and supported from below thereby, and spring means between said base and rocker for maintaining said rocker in an upright position.

9. In a rocking chair in accordance with claim 8 including means on the downwardly curved portions for guiding the movement of their respective upwardly curved portion.

10. A rocking chair comprising a stationary base having a pair of downwardly curved portions, a rocker means for supporting a person including spaced frames having upwardly curved portions, said upwardly curved portions being supported by said downwardly curved portions, a torsion bar having its ends supported by said rocker means, means providing a stationary fulcrum for said torsion bar, a pair of link members extending between each downwardly curved portion and each upwardly curved portion, each link member having one end pivotally coupled to a downwardly curved portion and an upwardly curved portion.

11. A rocking chair for use as lawn furniture comprising a stationary base having a pair of spaced parallel downwardly curved portions, a rocker means for supporting a person, said rocker means including a pair of spaced parallel frames having upwardly curved portions being supported on the upper surfaces of said downwardly curved portions and guided with respect thereto by a groove on said downwardly curved portions, a torsion bar extending between the spaced frames, the ends of the torsion bar being fixedly secured to their respective frame, bracket means on said base embracing a central portion of the torsion bar and providing for slight rotation of the torsion bar with respect thereto, a pair of link members extending between each frame and its respective downwardly curved portion, each link member having one end pivotally coupled to a frame and its other end pivotally coupled to a downwardly curved portion.

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