No. 664,933. Patented Jan. 1, 1901.

M. DURNELL, JR.

SWINGING CHAIR OR HAMMOCK.

(Application filed Oct. 18, 1897. Renewed Mar. 28, 1900.)

(No Model.) 2 Sheets—Sheet 1.

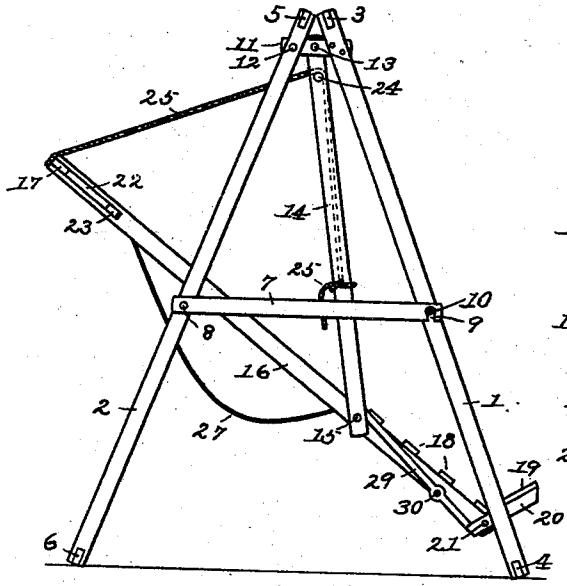


Fig. 1.

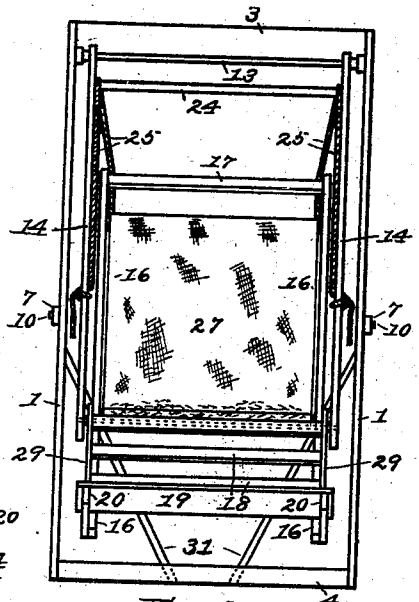


Fig. 2.

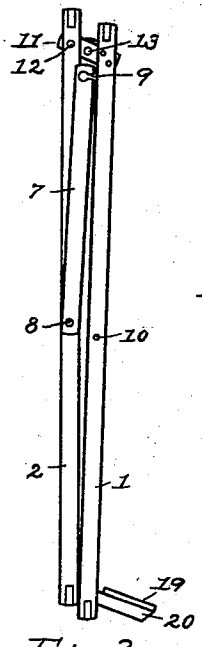


Fig. 3.

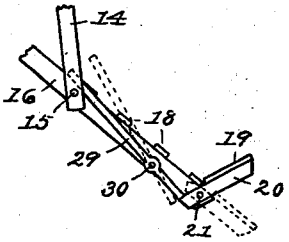


Fig. 4.

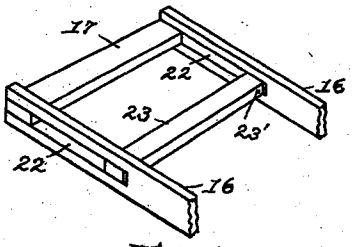


Fig. 5.

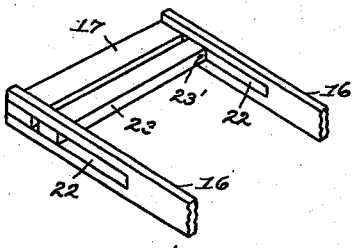


Fig. 6.

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No. 664,933.

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2 Sheets—Sheet 2.

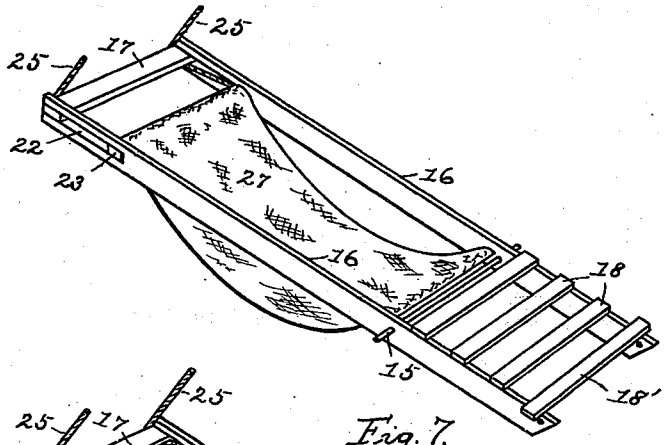


Fig. 7.

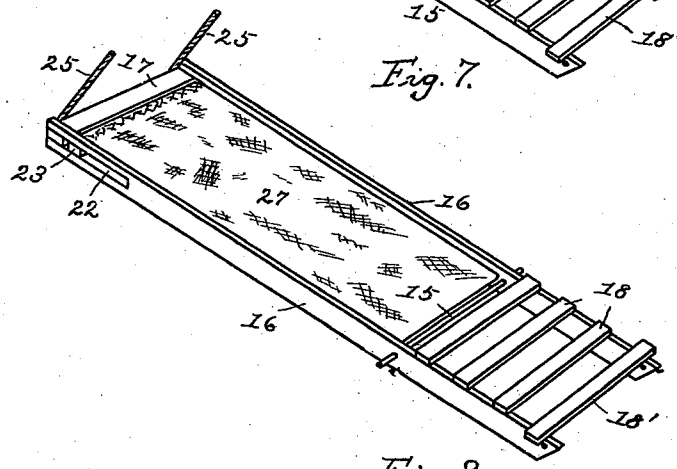


Fig. 8.

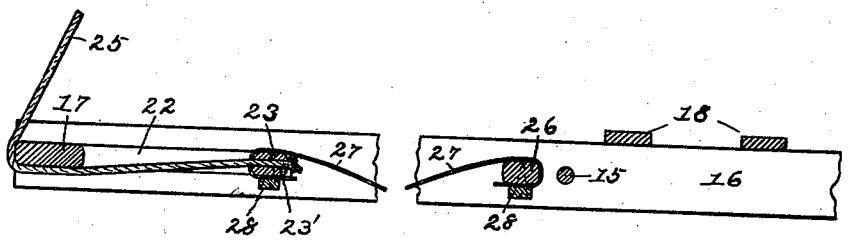


Fig. 9.

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UNITED STATES PATENT OFFICE.

MILTON DURNELL, JR., OF GREENFIELD, OHIO.

SWINGING CHAIR OR HAMMOCK.

SPECIFICATION forming part of Letters Patent No. 664,933, dated January 1, 1901.

Application filed October 18, 1897. Renewed March 28, 1900. Serial No. 10,550. (No model.)

To all whom it may concern:

Be it known that I, MILTON DURNELL, Jr., a citizen of the United States, residing at Greenfield, in the county of Highland and State of Ohio, have invented certain new and useful Improvements in Swinging Chairs or Hammocks, of which the following is a specification, reference being had to the accompanying drawings.

The object of the invention is to provide a swinging chair or hammock with a flexible seat or section which may be readily adjusted into a relaxed or curved position to form a swinging chair or into a straight or stretched position to form a swinging hammock and without the occupant leaving the same.

In the accompanying drawings, Figure 1 is a side elevation of a swinging chair or hammock embodying my invention. Fig. 2 is a front elevation of the same. Fig. 3 shows the swinging chair or hammock in its folded position. Fig. 4 is a detail view showing the operation of the foot-rest. Figs. 5 and 6 are detail perspective views showing the operation of the sliding cross-bar. Figs. 7 and 8 are detail perspective views showing the operation of the flexible seat or section. Fig. 9 is a detail sectional view showing the attachment of the suspending ropes or cables and the flexible seat or section.

Similar figures of reference represent similar parts in the different views.

The swinging chair or hammock has an inner frame suspended by means of side bars, and ropes or cables from a cross-bar and an outer frame in which said cross-bar is mounted.

In the drawings the numeral 1 represents the front side bars, and 2 the rear side bars of the outer frame. Bars 1 are connected at top and bottom by the horizontal bars 3 and 4. Bars 2 are connected at top and bottom by the horizontal bars 5 and 6. Bars 1 and 2 are connected by the horizontal bars or braces 7. Bars 7 are pivotally connected to bars 2 by means of bolts 8 and have slots 9 to fit over pins 10 in bars 1. Bars 11 are riveted to bars 1 and pivotally connected to bars 2 by means of bolts 12. Braces 31 extend from bar 6 up to bars 2 to give lateral support to the frame.

The horizontal bar or rod 13 is mounted in bars 11. The vertical bars 14 are mounted upon and suspended from rod 13. The horizontal rod 15 passes through the lower ends of bars 14 and through the side rails 16 of the inner frame.

The side rails 16 are connected at their upper ends by the cross-bar 17 and at their lower ends by the slats 18. The lower slat 18′ extends somewhat beyond the rails 16, as shown. The foot-rest 19 has cleats or bars 20, which are pivoted to rails 16 by means of bolts 21. The stops or braces 29 are pivoted to bars 16 by means of bolts 30. The lower ends of stops or braces 29 engage the lower ends of cleats or bars 20.

The rails or bars 16 have slots 22 at their upper ends. A cross-bar 23 has its ends in said slots and is adapted to slide therein. A cross-bar 24 is secured in bars 14. Ropes or cables 25 have their ends secured in cross-bar 23, passing through holes 23′ and being knotted, as shown in Fig. 9, and pass under cross-bar 17, thence over cross-bar 24, and down along bars 14, being tied or secured thereto, as shown. A cross-bar 26 extends between bars 16.

The flexible seat or section 27, which may be made of canvas, carpet, cloth, or other suitable material, has one end secured to cross-bar 23 and the other end secured to cross-bar 26. The seat or section 27 may be secured to said bars by means of strips 28 and screws passing through the strips and into the bars, as represented in Fig. 9.

When the seat or section 27 is in its relaxed or curved position, as shown in Figs. 1 and 7, it forms a comfortable seat, in connection with the frame and foot-rest, for the occupant. Now if it is desired to change the device from a swinging chair to a swinging hammock the occupant raises the upper ends of stops or braces 29 to the position shown in dotted lines in Fig. 4, whereupon the lower ends of the stops or braces clear the lower ends of the cleats or bars 20, and the latter, with foot-rest 19, swing down around their pivotal points 21 to the position shown in dotted lines in Fig. 4.

The inner ends of cleats or bars 20 engage the extended ends of slat 18', the foot-rest 19 being then in the plane with slats 18. The occupant then places his hands or arms upon bars 16 and throws his weight somewhat forcibly thereon, at the same time releasing his weight from seat or section 27. The cross-bar 23 being relieved of the weight of the occupant is drawn rearward in slots 22 by ropes 25 to the position shown in Figs. 6 and 8. The rear ends of bars 16 drop down a corresponding distance. The section 27 is drawn into a straight or stretched position. The section 27, the slats 18, and the foot-rest 19 will then be in the same plane. Now if the occupant wishes to change the device again from a swinging hammock to a swinging chair he throws his weight somewhat forcibly upon the section 27, whereupon cross-bar 23 will be drawn forward in slots 22 to the position shown in Figs. 5 and 7. The rear ends of bars 16 will rise a corresponding distance. The section 27 will be drawn into a relaxed or curved position. The occupant then raises foot-rest 19 to the position shown in Fig. 1 and brings stops or braces 29 into engagement with the lower ends of cleats or bars 20, as shown.

When the section 27 is in either its straight or curved position, the friction of ropes 25 with cross-bar 17 is sufficient to prevent the section from shifting or changing its position even under the weight of the occupant until the occupant exerts extra force to accomplish that result, as hereinbefore set forth.

The rear end of the inner frame may be raised or lowered to any desired position by untying ropes 25 from bars 14 and taking in or giving out rope, as will be readily understood.

When the device is to be folded for transportation, the brace-bars 7 are swung up around their pivotal points 8 to positions substantially parallel with bars 2. Ropes 25 are then drawn in until the rear ends of bars 16 are brought up against cross-bar 24. The lower ends of bars 1 and 2 are then brought together, bars 2 swinging around their pivotal points 12 on bars 11, the whole device assuming the compact position and appearance shown in side elevation in Fig. 3.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a swinging chair or hammock, a suspended frame having a flexible seat or section, one end of said seat or section being rigidly secured to said frame and the other end of said seat or section being secured to a sliding cross-bar, the suspending ropes or cables being secured to said sliding cross-bar, substantially as set forth.

2. In a swinging chair or hammock, a frame having one end suspended by means of ropes or cables, said frame having a flexible seat or section secured at one end to said frame and secured at the other end to a cross-bar, said cross-bar being secured to said ropes or cables and being adapted to slide so as to stretch or relax said flexible seat or section, substantially as set forth.

3. In a swinging chair or hammock, a frame having one end suspended by means of ropes or cables, said frame having a flexible seat or section, one end of said seat or section being secured to said frame and the other end of said seat or section being connected with said ropes or cables, substantially as set forth.

4. In a swinging chair or hammock, a frame having one end suspended by means of ropes or cables, said frame having a flexible seat or section, the side rails of said frame having slots, a cross-bar adapted to slide in said slots, one end of said seat or section being secured to said frame and the other end of said seat or section being secured to said sliding cross-bar, and said ropes or cables being secured to said sliding cross-bar, substantially as set forth.

5. In a swinging chair or hammock, a frame having one end suspended by means of ropes or cables, said frame having a flexible seat or section, the side rails of said frame having slots, a cross-bar having its ends in said slots and adapted to slide therein, an end cross-bar rigidly secured to the ends of said side rails, one end of said seat or section being secured to said frame and the other end of said seat or section being secured to said sliding cross-bar, and said ropes or cables being secured to said sliding cross-bar and passing under said end cross-bar, substantially as set forth.

6. In a swinging chair or hammock, a suspended frame having a foot-rest, cleats or bars secured to said foot-rest and pivoted to the side rails of said frame, and stops or braces which engage the inner ends of said cleats or bars and hold said foot-rest at an angle to said frame, and when disengaged allow said foot-rest to swing down into the plane of said frame, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

MILTON DURNELL, JR.

Witnesses:
A. S. BODEN,
C. M. MILLS.