J. T. WILLIAMS.

SWINGING CHAIR.

APPLICATION FILED DEC. 2, 1908.

979,236. **Patented Dec. 20, 1910.**

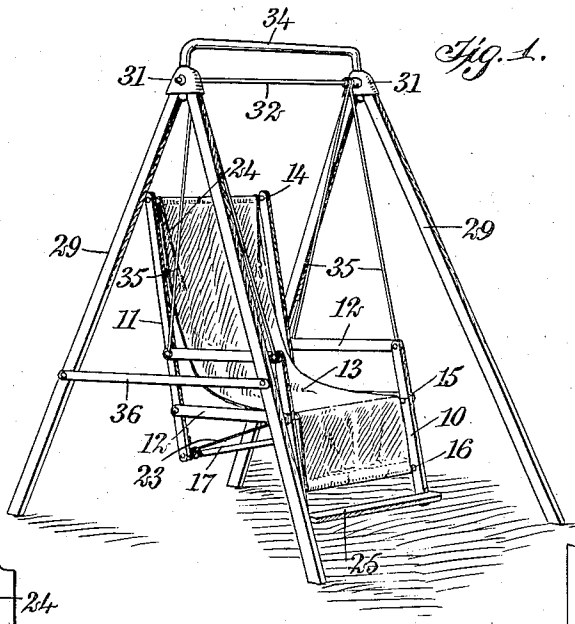

Fig. 1.

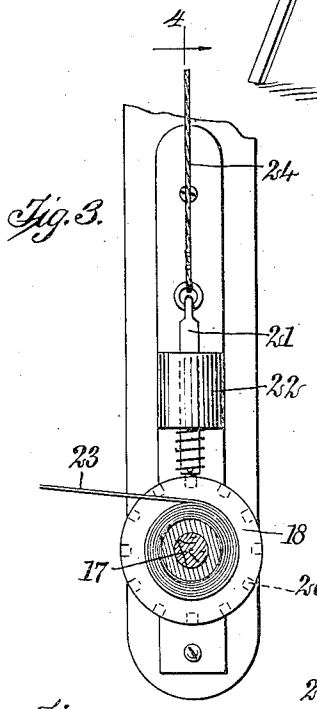

Fig. 3.

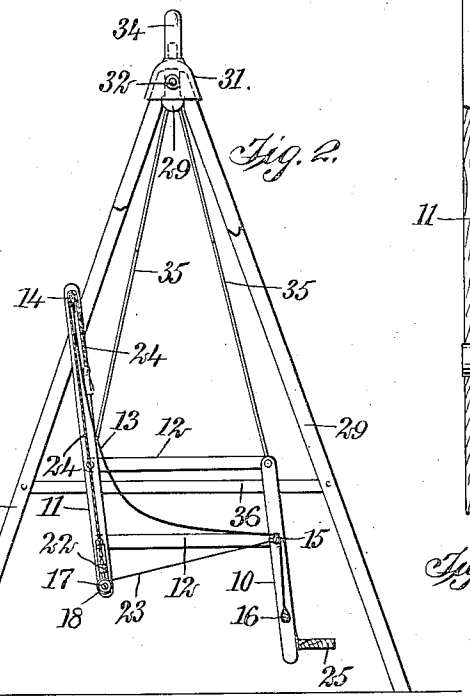

Fig. 2.

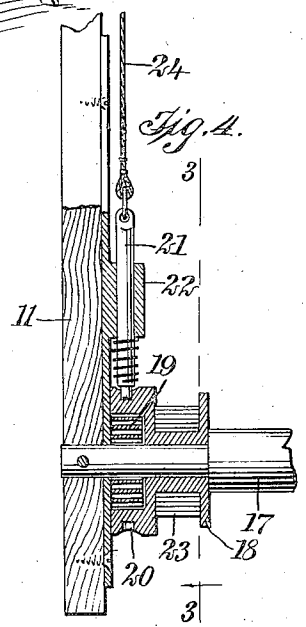

Fig. 4.

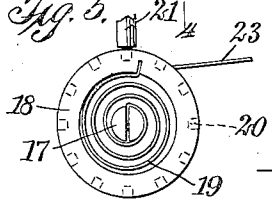

Fig. 5.

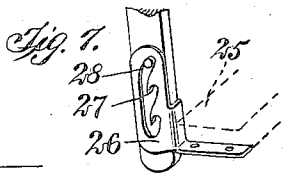

Fig. 7.

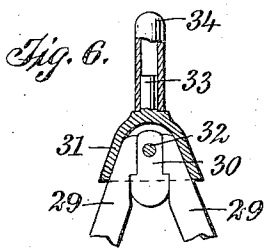

Fig. 6.

WITNESSES

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SWINGING CHAIR.

979,236. Specification of Letters Patent. Patented Dec. 20, 1910.

Application filed December 2, 1908. Serial No. 465,644.

To all whom it may concern:

Be it known that I, JOHN THOMAS WILLIAMS, a citizen of the United States, and a resident of Reno, in the county of Washoe and State of Nevada, have invented a new and Improved Swinging Chair, of which the following is a full, clear, and exact description.

The invention is an improvement in swinging chairs, and has for its purpose a chair of this character having a back adjustable to different inclinations, the back being controlled in its adjustment by the weight of the occupant on the seat of the chair, suitable locking means being provided to retain the back in substantially any of its positions of adjustment; thus, when the full weight of the occupant is on the seat of the chair, upon releasing the locking means the back is swung forwardly. By relieving the seat wholly or partially of the weight, the back is swung rearwardly, this last operation being effected by a spring drum having a tape or other flexible member which it normally tends to wind up, and arranged between the front and rear portions of the chair, ordinarily underneath the seat.

The invention further resides in the provision of a support for the chair which may be readily erected and disassembled.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of my improved swinging chair complete; Fig. 2 is a side elevation of the same, parts being broken away; Fig. 3 is a section substantially on the line 3—3 of Fig. 4, looking in the direction of the arrow; Fig. 4 is a section on the line 4—4 of Fig. 3; Fig. 5 is a detail view of the lock shown in Figs. 3 and 4; Fig. 6 is a fragmentary sectional view of the upper portion of the support; and Fig. 7 is a fragmentary view of the front bars of the chair, showing the manner in which the foot-rest is adjusted.

The chair is preferably constructed of front bars 10, back bars 11 and side bars 12 (two for each side), pivotally connected at their points of intersection, the seat and back for the chair being made of a strip of canvas 13 extending from a round 14 between the upper ends of the back bars 11, over a front seat round 15 to a round 16 between the lower ends of the front bars 10. The lower ends of the back bars 11 are connected together by a round or shaft 17, on the reduced end of which, as best shown in Fig. 4, is journaled a drum 18, with one end of the drum bored for receiving a spiral spring 19, and provided with a series of circumferential recesses or notches 20, the latter being engaged by a spring-pressed locking bolt 21 sliding within a bearing 22 attached to the inner face of one of the back bars 11. About the drum 18 is wound a flexible tape 23 which is connected to the forward portion of the chair, as, for example, to the round 15. The bolt 21 is provided with a flexible member or line 24 which passes over the top round 14 of the chair and is in accessible position from the chair seat.

A foot-rest 25 is attached to brackets 26, as best shown in Fig. 7, which bear on the front and outer faces of the front bars 10 and are longitudinally slotted, with a number of downwardly-directed notches 27 at the forward edge of the slot adapted to engage over pins 28 projecting from the side bars 10, this construction obviously enabling the foot-rest to be moved to the desired elevation.

The support for the chair has the usual downwardly-diverging legs 29 at each side, each pair of legs notched at their upper ends to engage over the head of a locking key 30, all of which are inclosed within a cast bell-cap 31, through which and also the keys 30 passes a cross-bar 32. Each bell-cap has an upright stud 33 which fits into one of the depending ends of a cross-brace 34, the latter being constructed of pipe as shown. The chair is suspended from the cross-bar 32 by cables or rods 35, the ends of which are attached to the chair at the connections between the upper side bars 12 with the front and back bars 10 and 11 respectively.

The operator of the chair desiring to change the inclination of the back, draws on the line 24, which retracts the bolt and releases the drum 18 from the adjacent side bar 11. By then relieving the seat of a portion of the weight, as by transferring the weight to the foot-rest 25, the back will be moved rearwardly by the spring of the drum winding up the tape. The back is moved in the opposite direction by applying the full weight to the seat and giving a lurch forwardly, if necessary. The cable is released

as soon as the desired position of the back is attained, permitting of the bolt passing into locking engagement with the drum. Any slack in the tape 23 in adjusting the back will be immediately taken up by the spring 19. The weight of the user of the chair will tend to swing the upper portion of the back forwardly, but this tendency will be resisted by the tape, and the back will accordingly remain stationary. The construction of the support enables this part of the apparatus to be readily taken apart and packed within a small space, by removing the cross-bolt 32 and lifting the cross-brace 34 from the stud support. Ordinarily the legs 29 will be provided with detachable cross-braces 36 to further insure the rigidity of the support.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. In a swinging chair, a support comprising headed keys, downwardly-diverging legs at opposite sides engaging over the heads of said keys, bell-caps fitting over the upper ends of the legs and the keys, each having an upwardly-projecting stud, a cross-bar passing through the bell-caps and keys, connecting the opposite sides of the support together, and a tubular brace having downwardly-turned ends engaging over the studs of the bell-caps.

2. A swinging chair having front bars and back bars connected together to move in unison to different inclinations, a flexible member extending between the upper portions of said bars, constituting a seat and back for the chair and tending under the weight of an occupant to swing the upper portions of the back bars forwardly, and means operatively connected to said bars which will swing the upper portions of the back bars rearwardly when the weight upon the seat is relaxed.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN THOMAS WILLIAMS.

Witnesses:
HARRY FRAY,
GEORGE DARBY.