G. DITTMAR.

SWING.

APPLICATION FILED JUNE 18, 1908.

910,994.

Patented Jan. 26, 1909.

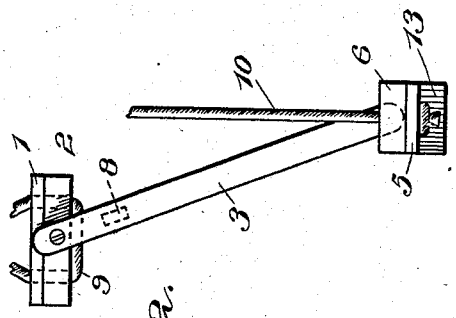


Fig. 2.

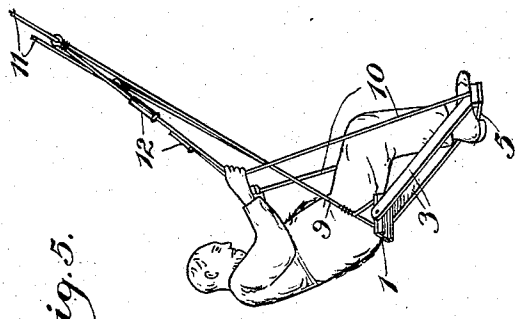


Fig. 5.

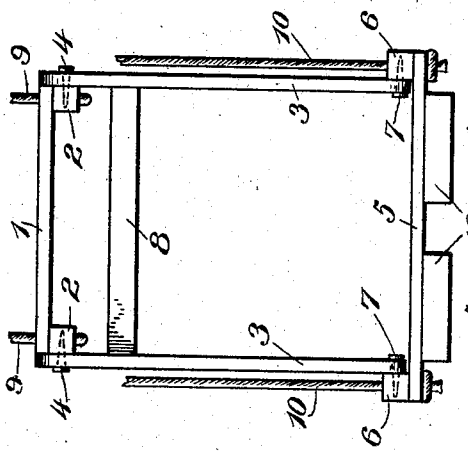


Fig. 1.

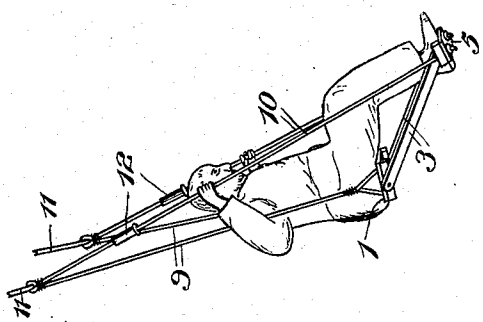


Fig. 4.

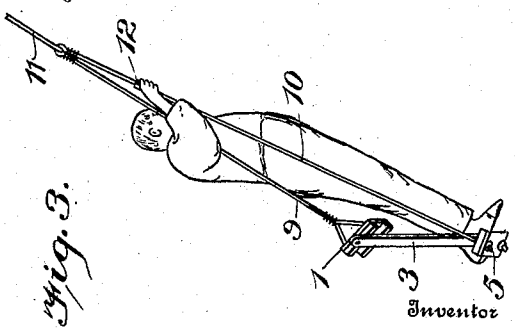


Fig. 3.

Witnesses

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UNITED STATES PATENT OFFICE.

GUSTAVE DITTMAR, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR OF ONE-HALF TO FRIDA DITTMAR, OF WASHINGTON, DISTRICT OF COLUMBIA.

SWING.

No. 910,994. Specification of Letters Patent. Patented Jan. 26, 1909.

Application filed June 18, 1908. Serial No. 439,246.

To all whom it may concern:

Be it known that I, GUSTAVE DITTMAR, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Swings, of which the following is a full, clear, and exact specification.

The present invention relates to swings and more particularly to that class of swings which are suspended on ropes.

It is difficult for one person to use a rope swing without the aid of an assistant standing behind and pushing, and the way of using the rope swing without assistance is to shift the center of gravity while the swing is going, that is to say to increase and decrease at suitable moments the leverage or the distance of the center of gravity from the point of suspension. In standing on a swing and stooping down while the pendulum is approaching the vertical center line and in rising while the pendulum is passing beyond it, the body acts on the swing in the well known manner, very rapidly increasing the oscillations of the pendulum. But this way of working a swing is fatiguing, especially for ladies.

The object of the present invention is a swing which can be easily worked in this manner whereupon the party occupying the swing can sit down on a seat board, resting himself on the same, till it is necessary to give a few strokes by standing on the foot rail in the well known manner. To this end the swing is provided with a seat board and a foot rail connected to each other in a special manner and adapted to support the occupant alternately. The swing provides also means to shift the center of gravity of the occupant by moving the feet up and down, and this affords a very easy way to operate the swing.

In the accompanying drawings forming part of this specification: Figure 1 shows the parts of the swing in front elevation. Fig. 2 is a side elevation. Figs. 3, 4 and 5 are perspective views of the swing in motion.

An ordinary seat board 1, strengthened at the ends by cross-strips 2 is suspended by ropes from a beam, not shown, a branch of a tree or any other point in the ordinary manner. A foot rail 5 having cleats 6 at its ends is supported by separate ropes from the same supporting member which holds the seat board. The foot rail and the seat board are pivotally connected by a frame or simply by bars 3 perforated at the ends for the purpose of receiving a pivot such as a screw 4 at the upper end turned into the cross strips of the seat board and a screw 7 at the lower end turned into the cleats of the foot rail as shown in the drawings. The bars 3 may be rigidly connected to each other in any suitable manner for instance by a cross rail 8. The foot rail 5 is preferably made longer than the seat board 1 so that the ropes 9 supporting the seat board do not interfere with the ropes 10 which are secured at the ends of the foot rail. It is not necessary to continue the ropes 9 and 10 to the point of suspension. They can be united to single ropes 11 at any point between the seat board and the member of suspension as shown in the perspective views.

The outer ropes 10 can be provided with handles 12 to be used by the occupant when he is rising from the seat in standing on the foot rail in order to increase the oscillations of the swing as shown in Fig. 3.

The occupant can lower his body as it is usually done on swings and the seat board is sufficiently in the rear not to interfere with the stooping down of the occupant. As soon as he has reached the desired angle of oscillations he can readily sit down on the board 1 and rest himself, as shown in Fig. 4. But the swing affords another means of giving impulses which is easier than standing up and is better adapted for lady occupants.

It is well known that an occupant of an ordinary rope swing can give slight impulses by leaning back the body and holding on to the supporting ropes. The same motion executed on the swing of present construction affords a much better result. Instead of grasping the supporting ropes 9 of the seat board, the occupant holds on to the outer ropes 10 of the foot rail, as shown in Fig. 5. By leaning back the above mentioned well known effect is obtained, but besides the foot rail is brought up a considerable distance towards the center of suspension and thus the center of gravity is shifted with advantage by raising the feet and the legs. In order to increase this effect the foot rail can be weighted and to this end bricks or any heavy bodies 13 can be secured under the foot rail as shown in Figs. 1 and 2.

The principal feature of the construction is, that the supporting members of the seat board and the foot rail form a triangle with the pivoted bars or frame connecting the

foot rail and the seat, and that the supporting members of the foot rail be made flexible.

The connection of the seat and the rail forming the foot rest by the side bars 3 may be made rigid if desired, but it is preferable to make it pivotal as described and shown because such construction affords the advantage that the swing is reversible. The seat may easily be thrown over to the other side between the members 10, 10, so that the occupant faces the opposite side as will be easily understood. The parts in this position work absolutely in the same manner as in the position shown and described.

Having thus described my invention, what I claim is:

1. A swing comprising a seat and a foot rest, members pivotally connected thereto, the foot rest being of greater length than the seat and separate suspending members for the seat and foot rest, the suspending members for the foot rest being outside of the pivoted members.

2. A swing comprising a seat and a foot rest, members pivotally connected to said seat and foot rest, the seat being reversible with reference to the foot rest and separate suspending members for the seat and the foot rest, the latter being outside of the former.

3. A swing comprising a seat and a foot rest, members pivotally connected at their ends to the transverse center of each and separate suspending members for the seat and the foot rest, the same being joined together above the head of the occupant into a single rope.

4. A swing comprising a seat and a foot rest, members pivotally connected to said seat and foot rest, the seat being reversible with reference to the foot rest and separate suspending members for the seat and the foot rest, the latter being outside of the former, in combination with supplemental weights attached to the foot rest.

In testimony whereof I affix my signature.

GUSTAVE DITTMAR.

In the presence of—
FRIDA DITTMAR,
GE. HEINICKE.