A. McPHERSON.

SWING.

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1,215,394.

Patented Feb. 13, 1917.

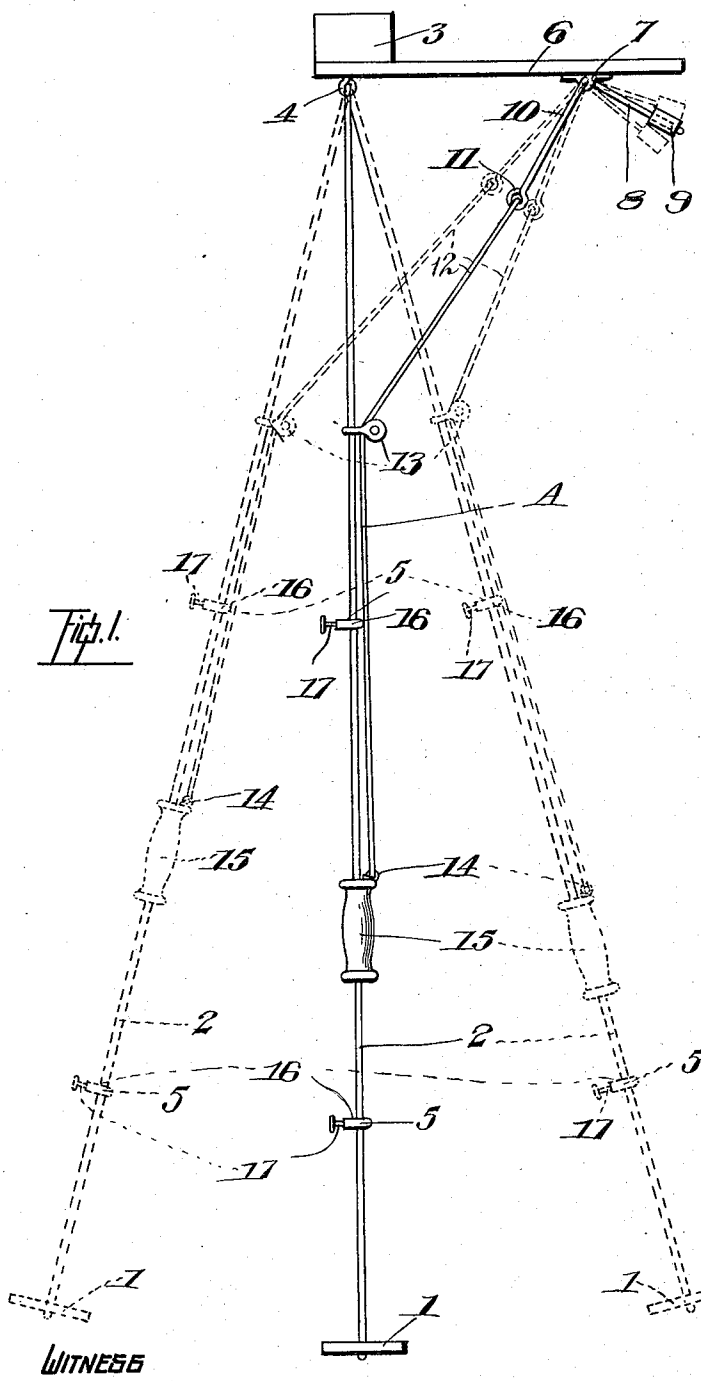


Fig. 1.

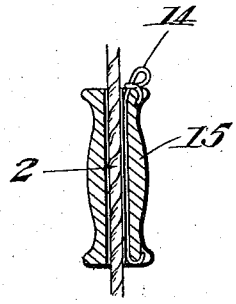


Fig. 2.

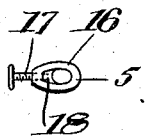


Fig. 3.

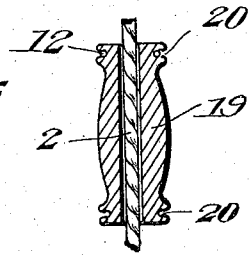


Fig. 4.

WITNESS

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

AMELIA McPHERSON, OF EDMONTON, ALBERTA, CANADA, ASSIGNOR OF ONE-HALF TO ROBERT WILLIAM CONN, OF EDMONTON, ALBERTA, CANADA.

SWING.

1,215,394. Specification of Letters Patent. Patented Feb. 13, 1917.

Application filed December 27, 1915. Serial No. 68,875.

To all whom it may concern:

Be it known that I, AMELIA McPHERSON, a subject of the King of Great Britain, and resident of Edmonton, in the Province of Alberta, Dominion of Canada, have invented certain new and useful Improvements in Swings, of which the following is the specification.

This invention relates to improvements in swings and the objects of the invention are to permit of the user operating the swing without other assistance, to simplify the construction and other objects which will be made clear hereafter, and it consists essentially of the improved swing particularly described and set forth in the following specification and accompanying drawings forming part of the same.

In the drawings,

Figure 1 is a side elevation of the improved swing.

Fig. 2 is a sectional detail of the hand grip.

Fig. 3 is a plan view of the stop members.

Fig. 4 is a sectional elevation of an alternative form of hand grip.

Like characters of reference refer to like parts in the several figures.

Referring to the drawings, A represents the improved swing comprising the seat 1 supported by the suspending ropes 2 hung from the beam 3 by eye screws 4, the said suspending ropes being provided intermediate of their length with adjustable stop members 5, the object of which will be made clear hereafter.

The beam 3 may, owing to the location of the swing, take different forms and when the swing is hung in a doorway the said beam would represent the lintel thereof while when hung in an attic or room the beam would form the roof principal or floor joint.

Coöperating with the beam 3 are boards 6 connected therewith and forming part of the swing support and provided with brackets 7 in which the frame 8 is pivotally mounted. This frame is designed to carry a counterbalance weight 9 thereon and is provided with crank arms 10 terminating in eyelets 11 to which the upper end of the pulling ropes 12 are connected.

It is essential that the desired direction should be given to the pulling ropes 12 and to this end I mount guide members 13 thereon which are provided with rollers around which the pulling ropes 12 take, the lower end of the pulling ropes being operatively secured to the eyelet 14 mounted on the upper end of the hand grips 15.

These hand grips are slidably mounted on the supporting ropes 2 and are designed to engage the stop members 5 which are adjusted to limit the motion of the hand grips.

The formation of the stop members 5 is quite unique consisting of a ring 16 with which the set screw 17 makes threaded engagement, the inner end of the screw terminating in a clamp 18 adapted to frictionally engage the periphery of the supporting rope.

In Fig. 4 an alternative form of hand grip 19 is shown, which differs from that already described only in the fact that the member 14 has been replaced by annular grooves 20 adjacent to the ends of the said hand grip in which grooves the lower ends of the pulling ropes 12 are secured.

The assembly of the swing will be readily understood from the foregoing description.

When the swing is in operation it is only necessary to loosen the set screw 17 and adjust the stops 5 to the desired position whereupon on tightening the said set screw the clamp member 18 will frictionally engage the supporting rope and hold the stop member in the desired position. Oscillation of the swing is then started by the user who may by exerting a pull on the hand grips 15 continue the operation without other aid.

It will be understood that since upper and lower stop members 5 are used the height to which the swing may be oscillated is completely under control. It has also been found advisable to keep the pulling ropes 12 at all times in a state of tension and the function of the balance weight 9 is to bring about this desired result so that the operator does not expend any more energy than is absolutely necessary to obtain the desired motion.

From this description it will be seen that I have invented a swing such as will permit the operator using the same without other aid.

As many changes could be made in the above construction and many apparently widely different embodiments of my invention, within the scope of the claim, con-

structed without departing from the spirit or scope thereof, it is intended that all matter contained in the accompanying specification and drawings shall be interpreted as illustrative and not in a limiting sense.

What I claim as my invention is:

In combination in a swing, a supporting element, a secondary support extending laterally therefrom, seat carrying ropes suspending from said element, hand grips slidably mounted on said ropes, brackets on said secondary support, a frame pivotally mounted therein, a counterbalance weight on said frame, crank arms on said frame ropes connecting said hand grips to said crank arms, and guide members for said connecting ropes carried by said suspending ropes.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

AMELIA McPHERSON.

Witnesses:
RUTH ERLAM,
T. G. McPHERSON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."