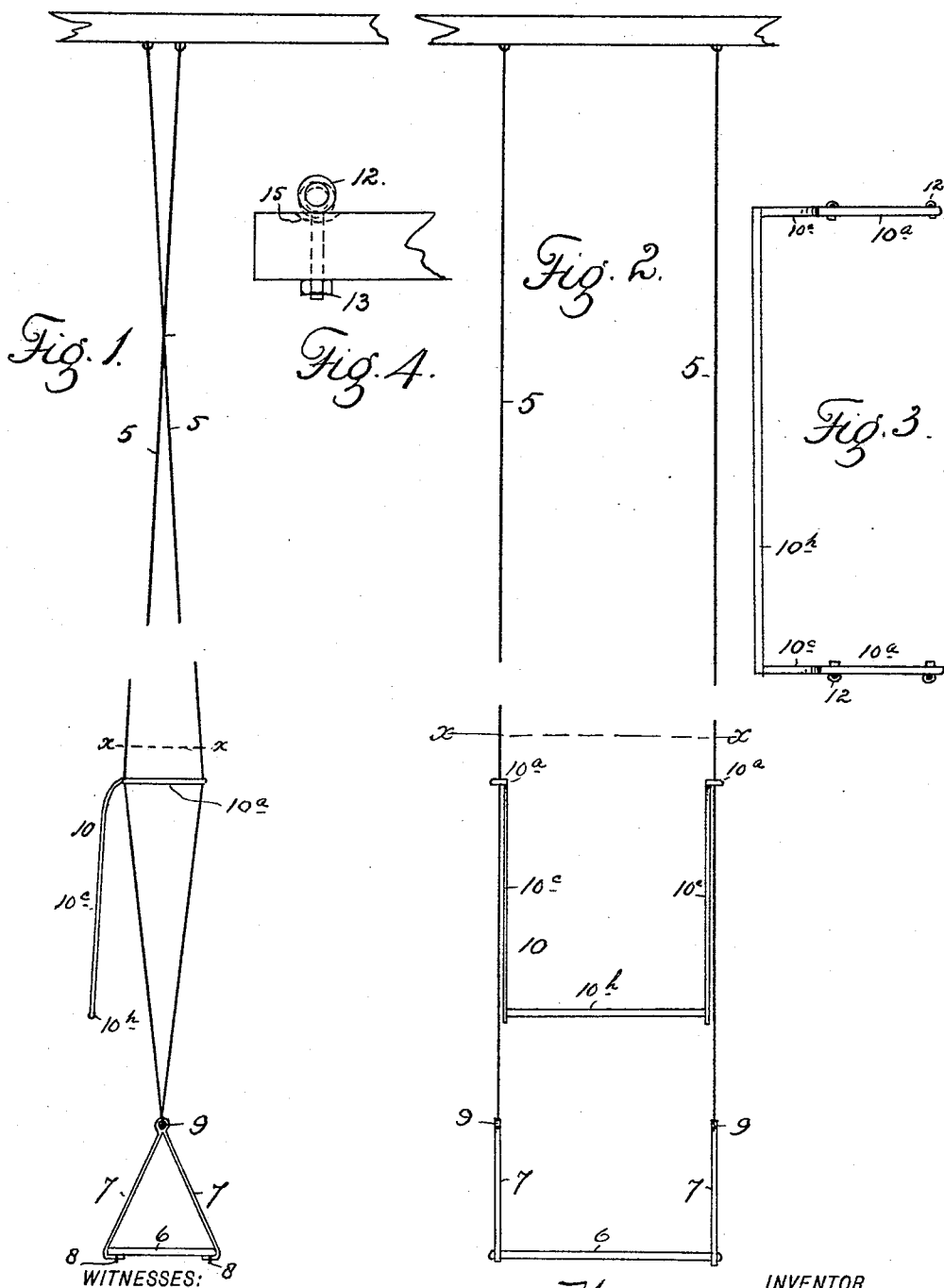


(No Model.)

W. R. WILCOX.
LEVER SWING.

No. 495,922.

Patented Apr. 18, 1893.



WITNESSES:
G. J. Rolland
Wm. M. Connell

INVENTOR
William R. Wilcox
BY
A. J. O'Brien
ATTORNEY.

UNITED STATES PATENT OFFICE.

WILLIAM R. WILCOX, OF RIDGWAY, COLORADO.

LEVER-SWING.

SPECIFICATION forming part of Letters Patent No. 495,922, dated April 18, 1893.

Application filed August 31, 1892. Serial No. 444,709. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM R. WILCOX, a citizen of the United States of America, residing at Ridgway, in the county of Ouray and State of Colorado, have invented certain new and useful Improvements in Lever - Swings; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in swings and its object is to provide an apparatus which may be more easily propelled than ordinary constructions of its class now in use.

To this end the improvement consists of the features, arrangements and combinations hereinafter described and claimed and will be fully understood by reference to the accompanying drawings in which is illustrated an embodiment thereof.

In the drawings, Figure 1 is a side view of the apparatus. Fig. 2 is a front view of the same. Fig. 3 is a section taken on line $x-x$, Figs. 1 and 2. Fig. 4 is a detail of construction.

Similar reference characters indicating corresponding parts or elements of the mechanism in the several views let the numeral 5 designate the suspension ropes attached to a suitable support and shown crossed, but which may be parallel from the lever bar upward, or occupy any desired degree of inclination. The seat 6 is provided with side arms 7 hinged to the bottom thereof as shown at 8 and connected at the top as shown at 9 forming a triangle in connection with the side lines of the seat. The suspension ropes 5 are attached at 9 to arms 7, and are separated above this point by bars 10 having horizontal arms 10^a and downwardly projecting arms 10^b. The ropes are secured to the horizontal arms by eye-bolts 12 made fast by nuts 13. The ropes pass through the eyes of these bolts, and the bolts pass through horizontal openings formed in arms 10^a of the bars. The bars are recessed as shown at 15 to let in the eyes of the bolts. Hence by tightening the nuts 13 suf-

ficiently the bars may be made fast upon the ropes. There are two bars 10 one on each side of the swing and their lower extremities are connected by a rod or handle 10^b adapted to be grasped by the occupant of the swing. As he pulls or draws backward on this handle the rear rope is slackened while the weight is thrown upon the forward one, which being placed under tension causes the seat to move backward until this rope assumes the perpendicular and somewhat farther on account of the momentum. When the seat has reached its backward limit of movement a push upon the handle 10^b slackens the forward rope and places the rear one under tension causing the seat to move forward. Thus by a series of pushes and pulls the swing is oscillated by a gradually accelerated motion until the arc of oscillation is as great as desired, when very little effort will maintain the required movement.

Having thus described my invention, what I claim is—

1. In a swing the combination with the seat and side arms attached thereto, of the levers having oppositely disposed horizontal and depending arms, the latter being connected at their lower extremities, a suitable support, and two pairs of suspension ropes attached to said support and extending downward through the horizontal arms of the levers to which they are made fast, said ropes passing thence downward from the levers to the seat arms where they are also secured, substantially as described.

2. In a swing the combination of the seat, two levers having oppositely disposed horizontal and depending arms, the latter being connected at their lower extremities, a support and two pairs of ropes attached thereto, the two ropes of each pair passing downward through the respective horizontal arms of the levers at separated points, and made fast and passing thence downward from the levers to the seat where they are also secured, substantially as described.

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

WILLIAM R. WILCOX.

Witnesses:

WM. MCCONNELL,
LOUIS E. P. WILKES.