J. C. M. SHAW.

SWING.

APPLICATION FILED NOV. 19, 1914.

1,189,393.

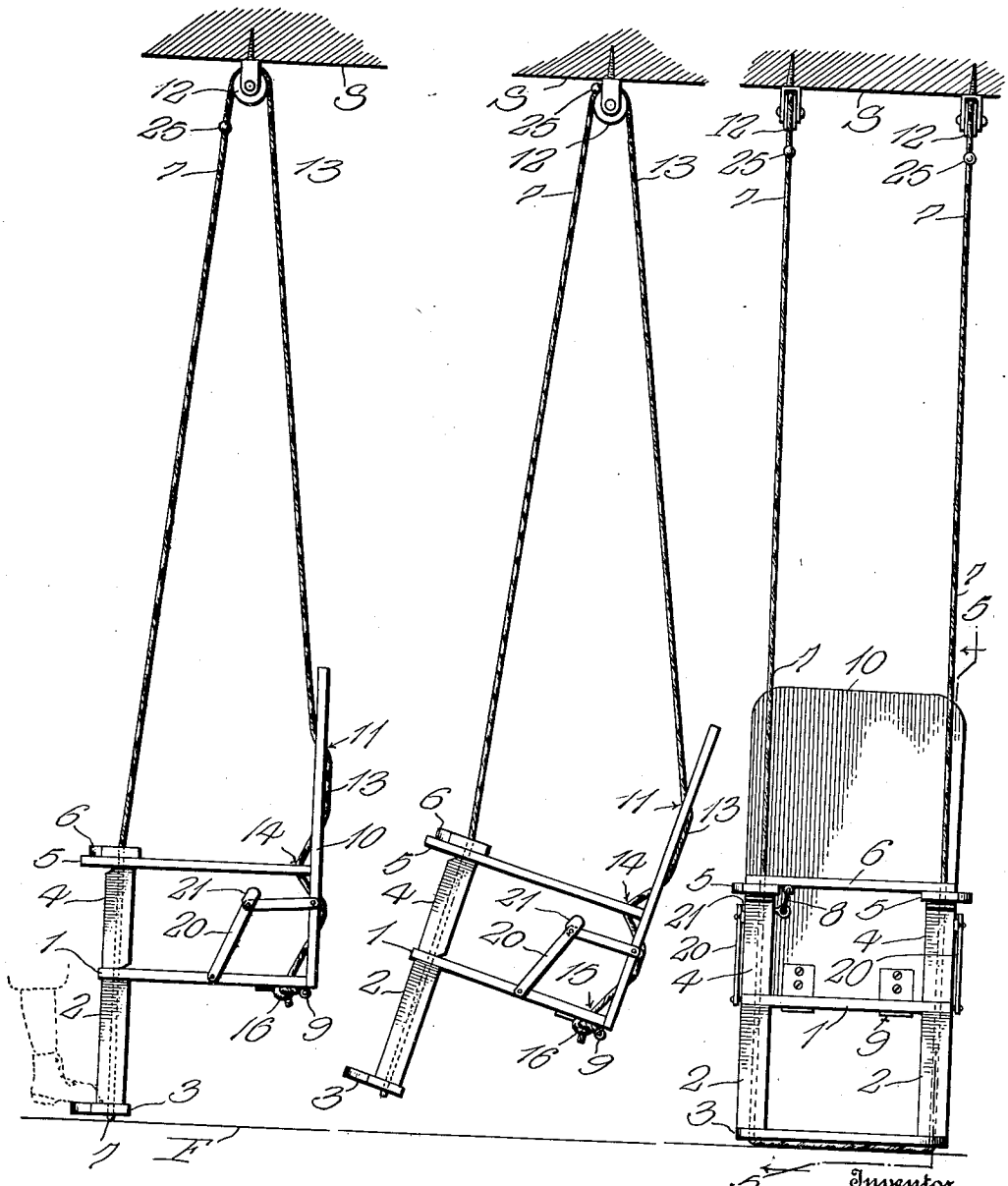
Patented July 4, 1916.

2 SHEETS—SHEET 1.

FIG. 1.

FIG. 2.

FIG. 3.



Witnesses

H. Woodard

C. Clarke

Inventor

J. C. M. Shaw

By A. B. Williamson & Co

Attorneys

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

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2 SHEETS—SHEET 2.

FIG. 5

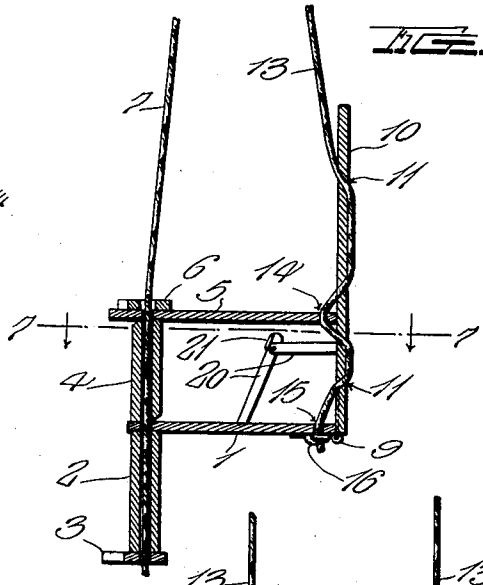


FIG. 4

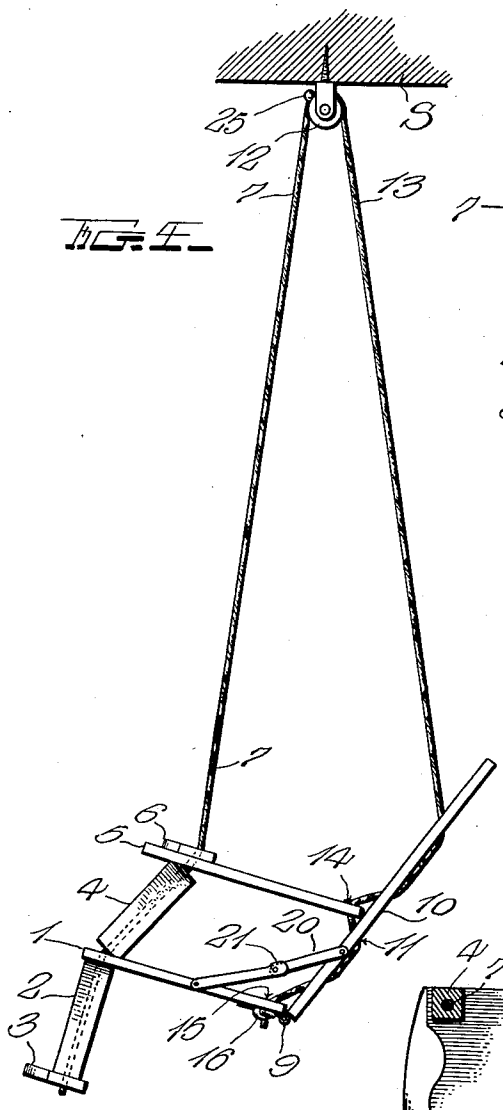


FIG. 6

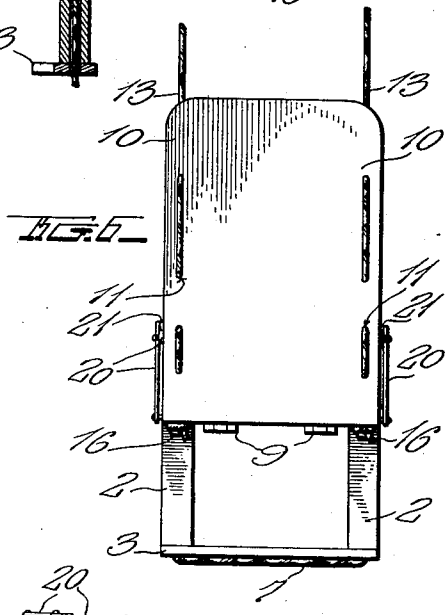
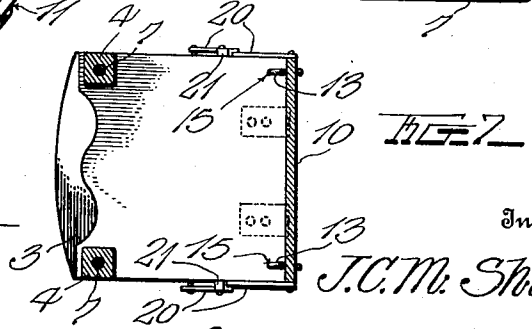


FIG. 7



Witnesses

H. Woodard

E. Clemmer

Inventor

J. C. M. Shaw

By H. B. Williamson & Co

Attorneys

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

UNITED STATES PATENT OFFICE.

JOHN COPELAND MILLER SHAW, OF HILLSBORO, TEXAS.

SWING.

1,189,393. Specification of Letters Patent. Patented July 4, 1916.

Application filed November 19, 1914. Serial No. 873,042.

To all whom it may concern:

Be it known that I, JOHN COPELAND MILLER SHAW, a citizen of the United States, residing at Hillsboro, in the county of Hill and State of Texas, have invented certain new and useful Improvements in 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.

My invention relates to improvements in swings and more particularly to those adapted for the use of children.

The main object of the invention is to provide a device of this character supported in such a manner as to cause a foot rest with which it is equipped, to normally rest near the floor when the swing is not occupied, but to cause said rest to rise from the floor, when a person sits in the swing.

Other objects are to provide novel means for securing the various parts of the swing together and for normally retaining the back in fixed relation to the seat, means being provided, however, whereby this back may be tilted rearwardly to allow the occupant of the swing to recline.

Yet another object of the invention is to construct the device in such a simple and inexpensive manner, as to allow it to be easily manufactured and placed upon the market within the means of the ordinary family.

With the above and minor objects in view, the invention resides in certain novel features of construction and combination herein described and claimed and shown in the drawings wherein:

Figure 1 is a side elevation of a swing constructed in accordance with the invention, showing substantially the position thereof when the swing is unoccupied; Fig. 2 is a similar view showing the position of the swing when a person is seated therein; Fig. 3 is a front elevation with the swing standing as seen in Fig. 1; Fig. 4 is a side view similar to Fig. 2, but showing the back located in tilted position; Fig. 5 is a vertical section as seen on the line 5—5 of Fig. 3; Fig. 6 is a rear view, and Fig. 7 is a horizontal section as seen on the plane of the line 7—7 of Fig. 5.

In the accompanying drawings, forming a part of this application, the numeral 1 designates the seat of the swing which is preferably of rectangular formation, and is so formed on its forward end as to prevent chafing of the limbs of a person sitting thereon. Depending from the front corners of the seat 1, is a pair of hollow foot rest supports 2 whose lower ends contact with a transverse foot supporting board 3 which is provided with openings alining with the openings in the supports 2, while rising from the front corners of the seat 1, is a pair of upright arm supports 4 which are provided with openings throughout their vertical centers which aline with the openings in the members 2 and 3 and with similar openings in the corners of the seat 1. Resting upon the tops of the supports 4, are the front ends of a pair of arms 5 upon which a transverse strip 6 rests, the strip 6 and arms 5 having openings disposed in vertical alinement with the openings above mentioned.

With the parts in the positions just described, the ends of a rope 7 are passed upwardly through the alined openings in the members 3, 2, 1, 4, 5, and 6. By this construction, the above mentioned members at the front of the swing are permanently though yieldably secured together, and the strip 6 may move vertically upon the forward stretches of the ropes 7, but is normally held down by a hook 8, as shown in Fig. 3.

Hinged at 9 to the rear end of the seat 1, is a back 10 whose upright side edges are provided with a plurality of openings 11, one pair of these openings being located above the rear end of each arm 5, while a second pair of such openings is located below each of said arms.

As shown more particularly in Figs. 1 to 5, the ends of the rope 7 rise from the front of the swing and pass over guide pulleys 12 which are secured to a suitable support S which may well be the ceiling or roof of a porch, after which the free ends 13 of said cables depend from the pulleys, are passed rearwardly through the uppermost openings 11, then forwardly through the two openings directly above the arms 5, through openings 14 in the rear ends of said arms, rearwardly through the openings directly beneath the arms, and then forwardly through the openings directly above the seat 1. From these last named openings, the ends of the rope incline downwardly and forwardly and pass through openings

15 in the rear corners of the seat 1, after which they are knotted as shown at 16. By this construction, the rear ends of the arms 5 are held in position, and, since the ends of the rope extend diagonally across the angle between the seat 1 and back 10, they serve to retain these two members in fixed relation, as seen in Figs. 1 and 2, and relieve the hinges of unnecessary strain. With the parts in this position, the foot rest 3 or rather the portion of the cable beneath the same, rests upon the floor F when weight is placed upon the front of the swing or on the foot rest, and the seat 1 stands in horizontal position. This normal positioning of the swing assists a child materially in entering the same. When, however, a person sits in the swing, the latter will tilt rearwardly from the position seen in Fig. 1, to that seen in Fig. 2, this being allowed by the provision of the pulley 12 and the ropes passed thereover. It will be readily seen that this rearward tilting of the swing raises the foot rest 3 clear of the floor, thereby allowing the device to be swung to and fro.

At times it becomes expedient to provide means whereby the back 10 may be retained in such a position as to allow the occupant of the swing to recline. For this purpose, pairs of toggle links 20 are pivoted to the edges of the back 10 and likewise to the edges of the seat 1, said links normally standing as seen in Figs. 1, 2, and 5, but being capable of adjustment to the position seen in Fig. 4, in which position they are thrown past dead center and retained by stops 21. It will be readily seen that the positioning of the links 20, as seen in this last named figure, will tilt the back rearwardly with respect to the seat, and will likewise tilt the arm supports rearwardly, certain corners of the latter being removed in order to facilitate this tilting. It will be understood that the back may be inclined to a still greater amount, if links 20 of greater length be employed, and that said back will be returned to its normal position with respect to the seat, as soon as the links are released, this being due to the fact that the portions of the ropes which extend diagonally from the back of the seat, serve to normally retain the same in the positions seen in Fig. 5, this being an essential feature.

For the purpose of preventing the swing from tilting rearwardly to too great an extent, a pair of stops 25 are provided on the forward stretches of the supporting ropes, these stops contacting with the pulleys, as seen in Figs. 2 and 4, to limit the rearward movement. These stops might well be positioned at a lower point, if it is desired to have the swing tilted rearwardly to a greater extent.

From the foregoing description, taken in connection with the accompanying drawings, it will be seen that a very simple device has been provided which may be easily and inexpensively manufactured and which will possess a number of advantageous features.

I claim:

1. In combination, an elevated rigid support, a pair of spaced pulleys carried thereby, a pair of cables trained over said pulleys and having their ends depending therefrom in downwardly diverging relation, a forwardly overbalanced rigid chair-like swing supported by the cables and having a depending foot rest normally engaging the floor and limiting the forward tilting of said swing when unoccupied, and stops on the cables for coaction with the pulleys to limit the rearward tilting of the swing when rearwardly overbalanced by the weight of the occupant, the pulleys and cables being the sole means of supporting the swing.

2. In combination, a horizontal seat, a rigid back-board rising therefrom and hinged at its lower end to the rear end thereof, said back-board having near each of its upright edges two vertically spaced pairs of vertically spaced openings, a pair of arms having their rear ends apertured and disposed in contact with the front side of the back-board between the two pairs of openings, a pair of elevated guides, and a pair of cables passed over said guides and having one end secured to support the front end of the seat, the other ends of said cables being threaded rearwardly and forwardly through the upper pairs of openings, downwardly through the apertures in the arms, then rearwardly and forwardly through the lower pairs of openings, and being finally extended forwardly across the angle between the seat and back-board and secured to the former.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOHN COPELAND MILLER SHAW.

Witnesses:
HORTON B. PORTER,
H. H. SUMNOE.

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