

A. A. WALL.  
SWING.

APPLICATION FILED MAY 8, 1920.

1,356,418.

Patented Oct. 19, 1920.

2 SHEETS—SHEET 1.

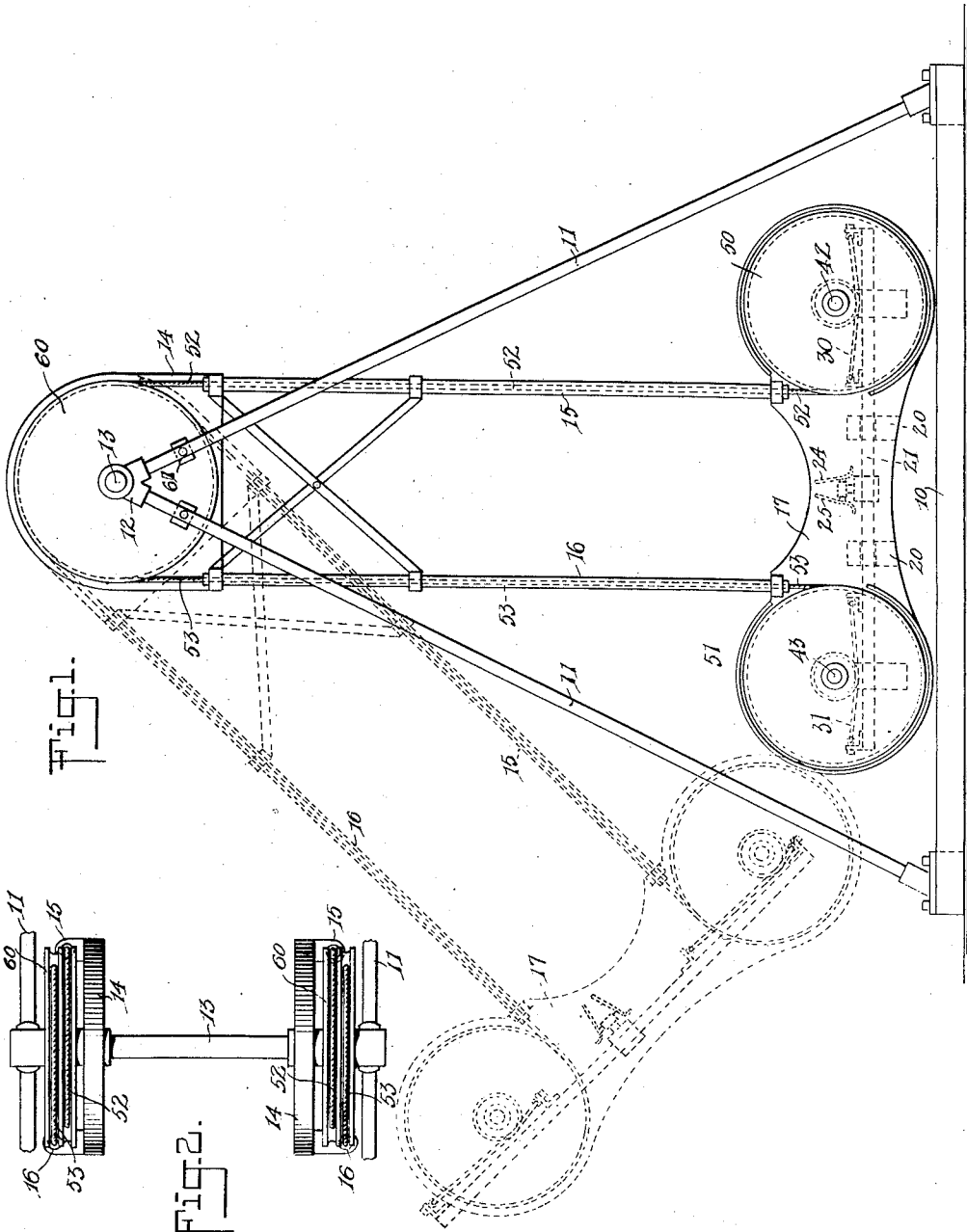


FIG. 1.

FIG. 2.

WITNESSES

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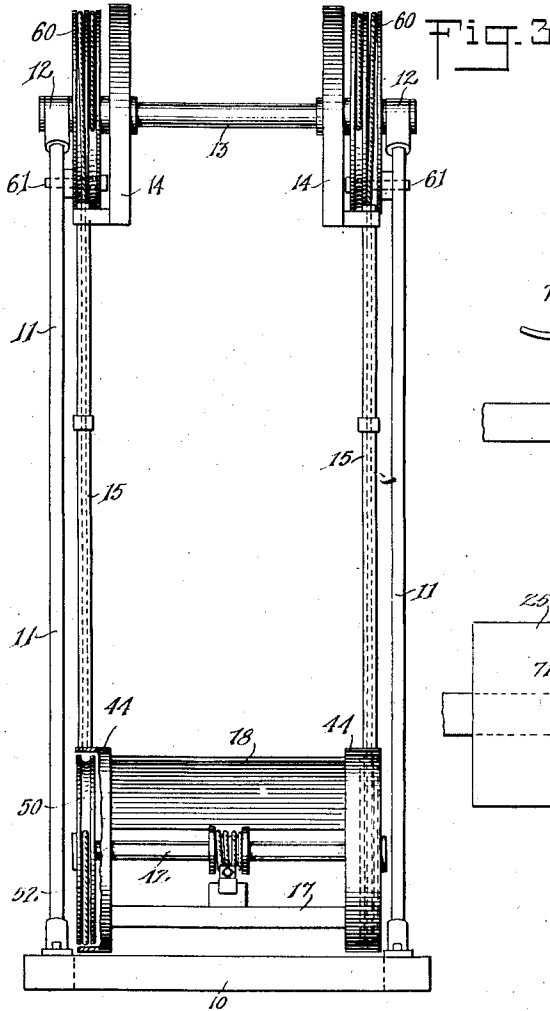


Fig. 3

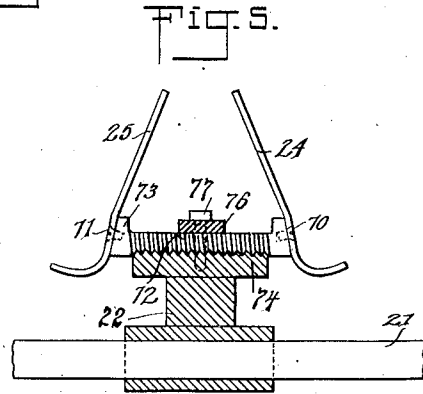


Fig. 5.

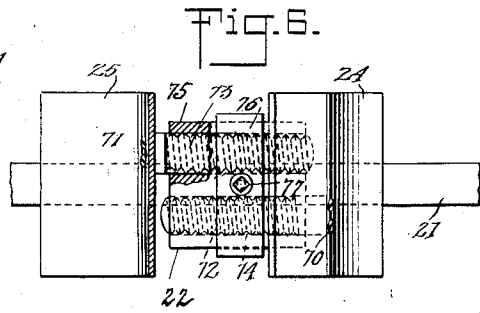


Fig. 6.

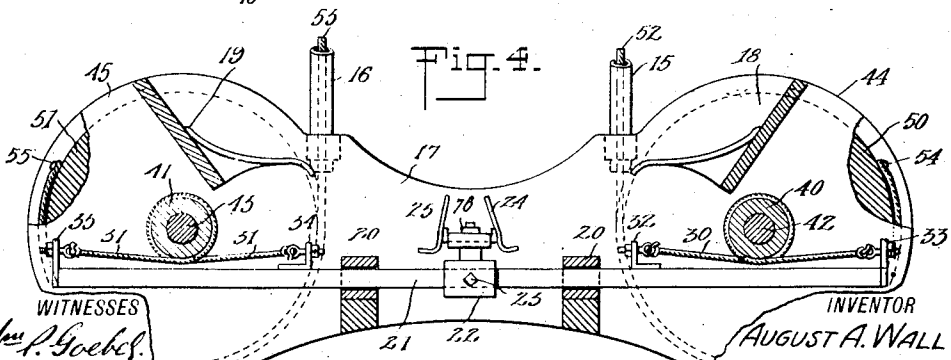


Fig. 4.

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# UNITED STATES PATENT OFFICE.

AUGUST A. WALL, OF BROOKLYN, NEW YORK.

SWING.

1,356,418.

Specification of Letters Patent. Patented Oct. 19, 1920.

Application filed May 8, 1920. Serial No. 379,870.

*To all whom it may concern:*

Be it known that I, AUGUST A. WALL, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Swing, of which the following is a full, clear, and exact description.

The invention relates to swings, accommodating at a time two persons seated opposite each other.

The object of the invention is to provide a new and improved swing arranged to enable the user or users to readily set the swing in motion without requiring undue physical exertion on the part of the user or users.

Another object is to provide a swing of an exceedingly strong and durable construction and one that is not liable to get out of order easily.

With these and other objects in view, the invention consists of certain novel features of construction, as hereinafter shown and described and then specifically pointed out in the claims.

A practical embodiment of the invention is represented in 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 side elevation of the improved swing;

Fig. 2 is a plan view of the upper portion of the same;

Fig. 3 is an end elevation of the improved swing;

Fig. 4 is a sectional side elevation of the body or car of the swing;

Fig. 5 is an enlarged sectional side elevation of the adjustable foot rest; and

Fig. 6 is a plan view of the same with parts shown in section.

The improved swing, as illustrated in Figs. 1 and 3, is mounted on a suitably constructed frame having a base 10 and standards 11, but I do not limit myself to the use of this frame, as the swing may be mounted on a suitable overhead support. As shown, the standards 11 are provided at their upper ends with bearings 12 in which is journaled a transverse shaft or pivot 13, on which are secured heads 14 of an overhead suspension, each having depending tubes 15, 16 secured at their upper ends to the heads 14 and supporting at their lower ends a body or car 17, preferably arranged to accommodate two

persons adapted to be seated opposite each other on seats 18 and 19.

In order to impart a sidewise swinging motion to the overhead suspended body or car 17 by the user or users of the swing, the following arrangement is made: On the body or car 17 are arranged bearings 20 in which is mounted to slide a longitudinally extending slide 21 provided intermediate the bearings 20 with an adjustable standard 22 adapted to be fastened in place by a set screw or other fastening means 23. On this standard 22 are adjustably mounted two foot rests 24, 25, of which the foot rest 24 is adapted to be engaged by the user seated on the seat 18 while the foot rest 25 is adapted to be engaged by the user seated on the seat 19. On the ends of the slide 21 are arranged two ropes, cables, or other flexible connections 30 and 31, of which the flexible connection 30 is secured at its ends to brackets 32, 33 attached to the slide 21, and the flexible connection 31 is similarly attached at its ends to brackets 34, 35 fastened on the slide 21. The middle portions of the flexible connections 30 and 31 wind several times around small pulleys 40, 41 secured on transverse shafts 42, 43 journaled on the body or car 17. The ends of the shafts 42 and 43 extend into cylindrical housings 44, 45 formed on the sides of the body or car 17 on opposite sides of the corresponding seats 18 and 19. On the ends of the shafts 42 and 43 are secured large pulleys 50 and 51 engaged at the lower portions of their peripheral faces by cords, cables or other flexible connections 52, 53 secured to the peripheral faces of the large pulleys 50 and 51 by nails, screws or other fastening devices 54, 55, as plainly shown in Fig. 4. The flexible connections 52 and 53 extend upwardly through the supporting tubes 15, 16 of the body or car 17, and extend around the upper portions of the peripheral faces of pulleys 60 held against rotation by being fastened by suitable fastening devices 61 to the standards 11. It is understood that the two flexible connections 52 and 53 on each side of the swing engage the corresponding pulleys 60 from opposite sides, and the upper ends of the said flexible connections 52, 53 are secured to the faces of the pulley 60 by suitable fastening devices.

The foot rests 24 and 25 are preferably adjustable in a lengthwise direction to move the same nearer to, or farther from the corresponding seats 18, 19 according to the

length of the legs of the users of the swing. For the purpose mentioned, the foot rests 24, 25 are fastened by screws or other fastening devices 70, 71 to rods 72, 73, flat on top and provided with threads on the under side engaging half nuts 74, 75 formed in the standard 22. A button 76 is mounted to turn on a pivot 77 attached to the standard 22, and this button 76 is adapted to extend transversely over the flat top portions of the rods 72, 73 to hold the latter in place in their nuts 74, 75. In order to adjust the foot rests 24, 25 the button 76 is swung into open position to allow removal of the rods 72, 73 from their nuts 74, 75 and replacement of the rods in a desired position, that is, with the foot rests 24, 25 nearer to or farther from the seats 18 or 19 to set the foot rests for the use of children of different sizes.

In using the swing (say by two persons at a time) the same seat themselves on the seats 18 and 19 and engage the foot rests 24, 25 with their feet. Now the user on the seat 18, on pressing against the foot rest 24, imparts a sliding movement to the side 21 from the right to the left whereby the flexible connections 30 and 31 rotate the pulleys 40 and 41 and consequently the shafts 42, 43. When this takes place the flexible connections 52 unwind from the pulleys 50 while the flexible connections 53 wind up on their pulleys 51 and in doing so a swinging motion from the right to the left is given to the swing frame comprising the head 14 and the tubes 15, 16 carrying the body or car 17. When the user seated on the seat 19 next presses the foot pedals 25 then a sliding motion is given to the slide 21 from the left to the right whereby the natural return swinging movement of the swing frame is aided by the reversal of the winding movements of the flexible connections 52 and 53 on the corresponding pulleys 50, 51 and 60. It will be noticed that the user on the right-hand seat 18 imparts movement to the swing frame from the right to the left while the user on the seat 19 imparts movement to the swing frame from the left to the right. It will also be noticed that the users seated on the seats 18 and 19 can readily take hold with their hands of the supporting tubes 15 and 16 to aid the user in exerting the desired force with their feet on the foot rests 24 and 25. It will be noticed that by the arrangement described the users can readily set the swing in motion without requiring undue physical exertion. As the operating parts except the pedals 24, 25 are located under and outside of the seats 18 and 19, the users are not liable to be injured while using the swing.

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

1. A swing, comprising a body, an overhead pivoted suspension for the said body, an overhead actuating device having fixed pulleys and flexible connections connected with the body and a foot-controlled member movable on the body and connected with the flexible connections of the said overhead actuating device to actuate the latter from the foot-controlled member to impart a swinging motion to the body.

2. A swing, comprising a body, an overhead pivoted suspension for the said body, an overhead actuating device having fixed pulleys and flexible connections connected with the said body, and a foot slide mounted to slide lengthwise on the said body and connected with the flexible connections of the said overhead actuating device to actuate the latter and thereby impart a swinging motion to the body.

3. A swing, comprising an overhead suspended body mounted to swing and having a seat, a foot slide mounted to slide on the body, a shaft journaled on the said body, a driving connection between the said foot slide and the said shaft to rotate the latter on imparting movement to the slide, and an overhead suspended actuating means connected with the said shaft to impart a swinging motion to the said body on rotating the said shaft.

4. A swing, comprising a body provided with a seat for the user, an overhead suspension for the said body, a shaft journaled on the said body and provided with pulleys, an overhead suspended flexible actuating member connected with one of the said pulleys, a foot slide mounted to slide on the said body, and a flexible connection connecting the said foot slide with the other pulley to rotate the shaft and to impart a swinging motion to the body.

5. A swing, comprising an overhead pivoted swing frame provided with depending members and with a body attached to the said members, fixed circular guides having their inner axis coinciding with the axis of the said swing frame, flexible connections attached to the said guides, a shaft journaled on the said body, pulleys secured on the said shaft and engaged by the said flexible connections, and a foot slide mounted to slide on the said body and connected with the said shaft to rotate the latter.

6. A swing, comprising an overhead pivoted swing frame provided with depending members and with a body attached to the said members, fixed circular guides having their inner axis coinciding with the axis of the said swing frame, flexible connections attached to the said guides, a shaft journaled on the said body, pulleys secured on the said shaft and engaged by the said flexible connections, a foot slide mounted to slide on the said body, a flexible connection fixed

at its ends on the said slide, and a pulley on the said shaft engaged by the said flexible slide connection to rotate the said shaft.

5 7. A swing, comprising an overhead piv-  
10 oted swing frame provided with depending  
tubular supporting members and with a  
body attached to the lower end of the said  
supporting members, fixed pulleys having  
15 their common axis coinciding with the axis  
of the swing frame, flexible connections ex-  
tending around the peripheral faces of the  
said fixed pulleys and secured thereto, the  
said flexible connections extending through  
20 the said tubular supporting members, a shaft  
journaled on the said body, large pulleys se-  
cured on the said shaft and engaged by the  
said flexible connections, a small pulley se-  
cured on the said shaft, a flexible connec-  
25 tion winding around the said small pulley,  
and a foot slide mounted to slide on the said  
body and provided with a foot rest, the ends  
of the said flexible connection engaging the  
said small pulley being secured to the said  
foot slide.

25 8. A swing, comprising an overhead piv-  
oted swing frame provided with depending  
tubular supporting members and with a body  
attached to the lower ends of the said support-  
30 ing members, fixed pulleys having their com-  
mon axis coinciding with the axis of the  
swing frame, flexible connections extending  
around the peripheral faces of the said fixed  
pulleys and secured thereto, the said flexible  
connections extending through the said tubu-  
35 lar supporting members, a shaft journaled  
on the said body, large pulleys secured on  
the said shaft and engaged by the said flexi-  
ble connections, a small pulley secured on  
the said shaft, a flexible connection winding  
40 around the said small pulley, a foot slide  
mounted to slide on the said body and hav-  
ing the ends of the said flexible connection  
for the small pulley attached thereto, a foot  
rest held adjustably on the said foot slide,  
45 and a seat opposite the said foot rest and at-  
tached to the said body.

AUGUST A. WALL.