SWING WITH HORIZONTALLY SWINGABLE SUPPORT BAR

Filed July 6, 1954

2 Sheets-Sheet 1

JOSEPH A. TONNE, INVENTOR.

BY Donald G. Windele, ATTORNEY.
J. A. TONNE

2,731,073

SWING WITH HORIZONTALLY SWINGABLE SUPPORT BAR

Filed July 6, 1954

1. FIG. 7.

2. FIG. 8.

JOSEPH A. TONNE
INVENTOR

Donald E. Windle
ATTORNEY
The invention relates to swings, and more particularly to playground swings, for the use of one or more persons, and more especially for the combination of older and younger children, with the younger being incapable of being able to swing themselves, and with the swinging of the younger being accomplished by the swinging of the older.

The principal object of the invention is the provision of a swing bar providing for the movement of one swing being transferred to a second or other swings hung to the same swing bar.

A second object is the provision of a movable swing bar extending across the upper portion of the swing-supporting structure.

A third object is the provision of a swing bar pivotally attached at one of its ends to one end of the supporting structure, and with the other end of the swing bar being free to move in a horizontal plane.

A further object is the provision of a swing structure having a swing bar pivotally secured therein and providing means whereby two swings are carried by the swing bar, with the second swing following the movements of the first swing through its connection with the swing bar.

Other objects and particular advantages of the invention will become more apparent in the course of the following description, and that which is new will be pointed out in the appended claims, and with reference thereto being had to the accompanying drawings, in which:

Figure 1 is an isometric view of a swing embodying the features of the invention.

Figure 2 is a detail elevation of the left end of the swing showing the normal position of the swing bar roller in solid lines, and with the extreme limits or positions thereof being shown in broken lines.

Figure 3 is a plan view detail of the left end of the swing bar and its roller, as taken on line 3—3 of Figure 2.

Figure 4 is a detail vertical section through the left housing, taken on line 4—4 of Figure 3.

Figure 5 is a detail plan of the right end of the swing bar and showing the pivotal connection of the swing bar to the frame structure.

Figure 6 is a detail vertical section through the right housing, taken on line 6—6 of Figure 5.

Figure 7 is a roller end elevation of the swing showing a modification of the swing.

Figure 8 is a detail vertical section through the roller housing, taken on line 8—8 of Figure 7.

Figure 9 is a detail vertical section, taken on line 9—9 of Figure 7, and showing the means of securing the lower end of the spring.

Like reference characters designate like parts throughout the several views of the drawings.

In order that the advantages and the construction of the invention may be more fully understood and appreciated, I will now take up a detailed description thereof, in which the same will be more fully set forth.

Referring now to the drawings in detail, numerals 10 designate the leg members on the left end of the device, and numerals 11 designate the leg members on the right end of the device. A brace bar 12 is extended across legs 10 and is rigidly secured thereto, and a brace bar 13 is rigidly secured to legs 11.

The legs 10 with brace bar 12 and legs 11 with brace bar 13 together provide a supporting structure for the swing.

The upper ends of legs 10 are rigidly secured to a rectangular frame 14, and with the upper ends of legs 11 being rigidly secured to a second rectangular frame 15, as shown in Figure 1.

Longitudinal bars 16 and 17 extend between and are rigidly secured to rectangular frames 14 and 15 and provide means maintaining the frames in spaced relation. The structure is further maintained by means of brace members 18 which extend from the respective legs 10 and 11 to the longitudinal bars 16 and 17, as more clearly shown in Figure 1.

A swing bar 19 is provided of such length to reach between the frames 14 and 15. One end of the swing bar is provided with an eye 20 which is adapted to fit on pivot pin 21 which is secured into the lower cross member of frame 15. The opposite end of the swing bar is provided with a reduced portion for the reception of a roller 22, and with the roller being removably secured in its position thereon by means of a washer 23 and a cotter 24. Roller 22 is adapted to roll on the upper surface of the lower member of frame 14 as the swing bar is moved forwardly and rearwardly as in the swinging action of the swings.

Swing seats 25 and 26 are suspended from the swing bar 19 by means of respective chains 27 and 28. Details and parts shown in Figures 7, 8 and 9 are the same as shown in Figures 1 through 6 with the exception that the same have been modified by the addition of a tension spring 29 having the upper end thereof secured through the projecting reduced end portion of swing bar 19 by means of eye bolt 31, and with the lower end thereof being secured through the brace bar 12 by means of eye bolt 31, as shown in Figures 7, 8 and 9.

Operation

With the device being assembled as shown in Figure 1, a person swinging in either of the seats 25 or 26 causes the left or roller end of the swing bar to move rearwardly and forwardly with the movement of the swing. In the movement of the swing bar, the bar pivots on pin 21, and with the opposite end of the bar being supported on roller 22, the left end of the bar is permitted to move to the limits of frame 14, as indicated by the broken lines in Figures 2 and 3. The rearward and forward movement of the swing bar transmits swinging movement to the second swing. With the addition of spring 29, as shown in Figures 7, 8 and 9, the swinging motion of the swings is given more accelerated action, with the spring providing means starting the swing bar from its limits.

The swing is useful in swinging children who are too small to operate the swing. In such case, an older child or an adult may, by swinging in one of the swings, transmit the swing motion, through the swing bar, to the second swing.

In the drawings and in the specification, I have provided for two swings suspended from the swing bar. It is possible, however, that more than two swings may be suspended from the swing bar, and with all of the swings being caused to swing by a person in only one of the swings.

It is to be understood that, while the presently pre-
ferred embodiment of the invention has been shown and
described, minor changes may be made in the device, in-
ssofar as the changes therein may be of such nature to
fall within the scope of the appended claims.

Having now shown and described the invention, what
I claim, and desire to secure by Letters Patent of the
United States, is:

1. In a swing, a supporting structure, a rectangular
frame located at each end of the supporting structure
and forming portions thereof, a swing bar extending be-
tween the rectangular frames and having one end ther-
of pivotally secured in one of the frames, a roller posi-
tioned on the other end of the swing bar, and with the
roller rolling in the other frame.

2. In a swing as set forth in claim 1, a plurality of
swings secured to and depending from the swing bar, and
with the motion of one swing being transferred to the
other swings through the swing bar.

3. In a swing, a supporting structure, a pair of rec-
tangular spaced-apart frames secured on the upper por-
tions of the supporting structure and forming portions
thereof, with one of the frames having a pivot pin sec-
cured thereinto, a swing bar having one end thereof
journalled on the pivot pin, a roller positioned on the
opposite end of the swing bar, with the roller being mov-
able in the other of the frames, and with a plurality
of swings being secured to and depending from the swing
bar.

4. In a swing, a pair of rectangular shaped frames in
spaced-apart opposed relation, means supporting and brac-
ing the rectangular frames, a swing bar having one end
thereof pivotally secured in one of the frames with the
other end of the swing bar having a roller secured there-
on, and with the roller rolling on the upper surface of
the lower of the other rectangular frame member.

References Cited in the file of this patent

UNITED STATES PATENTS

2,391,721 Huetaff --------------- Aug. 4, 1942
2,448,225 Poorman --------------- Aug. 31, 1948
2,638,967 Morton --------------- May 19, 1953