

Dec. 2, 1958

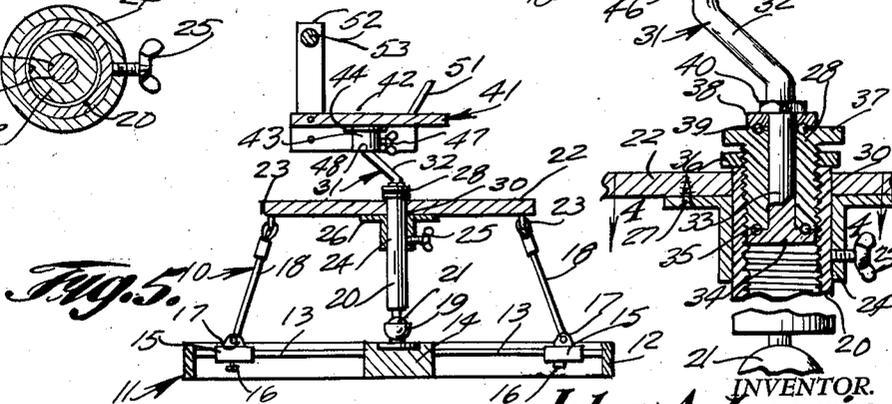
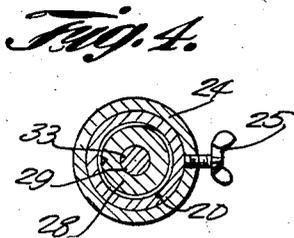
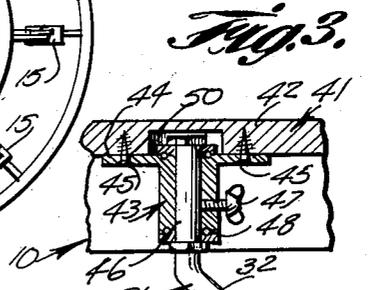
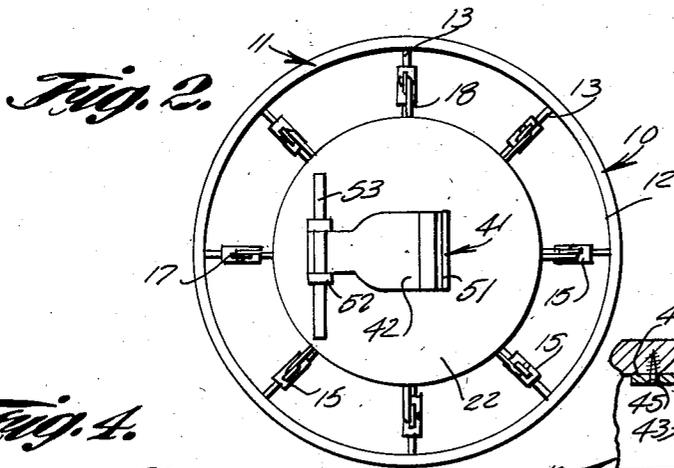
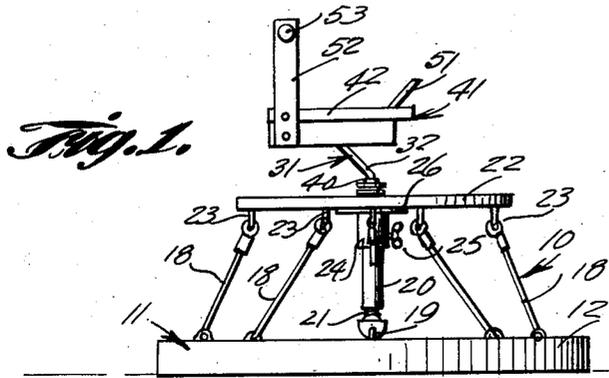
J. A. LEWIS

2,862,710

ROCKING AND SWINGING TOY

Filed Dec. 31, 1956

2 Sheets-Sheet 1



INVENTOR.
John A. Lewis

BY *Victor J. Evans*

ATTORNEYS

Dec. 2, 1958

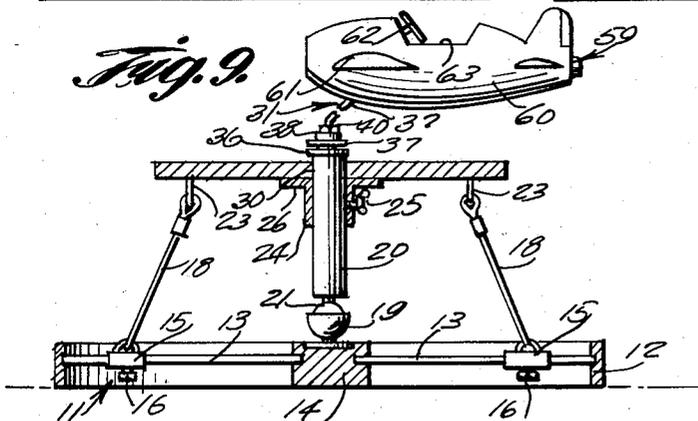
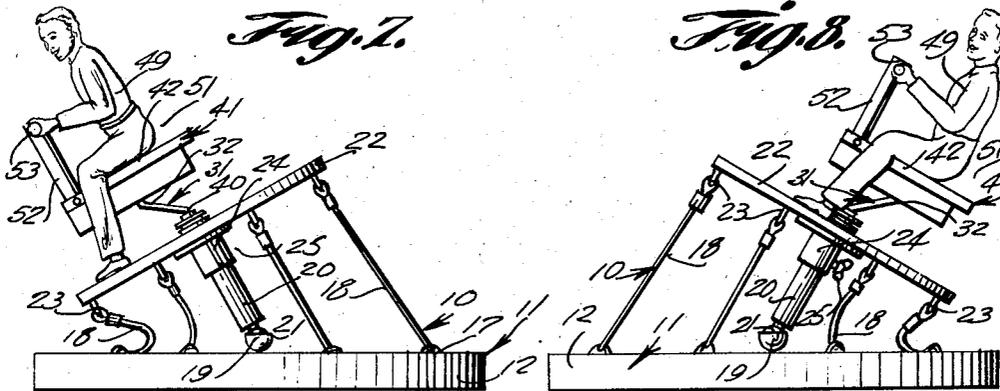
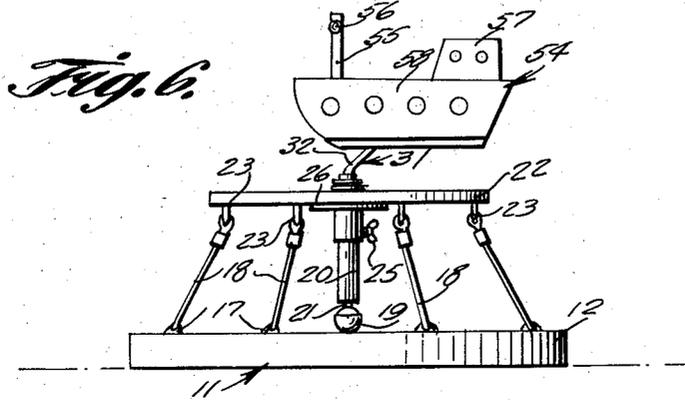
J. A. LEWIS

2,862,710

ROCKING AND SWINGING TOY

Filed Dec. 31, 1956

2 Sheets-Sheet 2



INVENTOR.
John A. Lewis
BY *Victor J. Emmerling*

ATTORNEYS

1

2,862,710

ROCKING AND SWINGING TOY

John A. Lewis, Lincoln, Nebr.

Application December 31, 1956, Serial No. 631,885

5 Claims. (Cl. 272—33)

This invention relates to a toy or amusement device, and more particularly to a rocking and swinging toy.

The object of the invention is to provide a toy which will rock and swing when a child or other person is supported thereon whereby the user will derive much pleasure and amusement and recreation therefrom.

Another object of the invention is to provide an amusement device which consists of a base that has a platform movably mounted thereabove, there being a support member arranged above the platform so that when a person is supported on the support member and wherein when the device is actuated, the user will move with a rocking and swinging motion so that children or other persons using the device will derive much pleasure therefrom.

Another object of the invention is to provide an amusement device which may be provided with a support member that may take the shape of different objects such as airplanes, boats, or the like and whereby the device can be adjusted so that the action can be regulated as desired, whereby in one form of the invention the device is used by adults for relaxation or health stimulating purposes.

A further object of the invention is to provide an amusement device which is extremely simple and inexpensive to manufacture.

Other objects and advantages will be apparent during the course of the following description.

In the accompanying drawings, forming a part of this application, and in which like numerals are used to designate like parts throughout the same.

Figure 1 is a side elevational view of the amusement device, constructed according to the present invention.

Figure 2 is a top plan view of the amusement device.

Figure 3 is a fragmentary sectional view showing certain constructional details of the device.

Figure 4 is a sectional view taken on the line 4—4 of Figure 3.

Figure 5 is a vertical sectional view taken through the amusement device and showing the platform in a horizontal position.

Figure 6 is a side elevational view of a modification wherein the support member has the shape of a boat.

Figure 7 is a view similar to Figure 1 but showing a person seated on the support member and with the device in shifted position, the view shown in Figure 7 corresponding to the views shown in Figures 1 through 5.

Figure 8 is a view similar to Figure 7 but showing the device in a different shifted position.

Figure 9 is a sectional view illustrating another modification wherein the support member resembles an airplane.

Referring in detail to the drawings, the numeral 10 indicates an amusement device or toy which includes a base 11, and the base 11 may include a circular rim 12, Figure 5. Arranged centrally within the rim 12 is a plate or block 14, and extending between the plate 14 and rim 12 and secured thereto is a plurality of radially

2

disposed spokes 13. Adjustably mounted on each spoke 13 is a sleeve or bushing 15, and a set screw 16 extends through each sleeve 15 and engages the spokes 13 for maintaining the sleeves 15 immobile in their adjusted positions on the spokes 13. Formed integral with each sleeve 15 or secured thereto is an upstanding apertured lug or eyelet 17, and connected to each eyelet 17 is an elastic cable 18, for a purpose to be later described.

Extending upwardly from the plates 14 and secured thereto is a socket member 19. An upstanding post 20 has a ball 21 on its lower end, and the ball 21 is arranged in engagement with the socket member 19. Movably mounted above the base 11 is a platform 22, and depending from the platform 22 is a plurality of spaced apart eyelets 23, the upper ends of the cables 18 being connected to the eyelets 23.

The platform 22 is provided with a central opening 30 through which extends the upper portion of the post 20. Arranged beneath or below the platform 22 is a collar 24, and the collar 24 is provided with an upper flange 26 and is secured to the undersurface of the platform 22 by means of a securing element such as nails or screws 27, Figure 3. The collar 24 surrounds or straddles the upper portion of the post 20, and a suitable securing element such as a set screw 25 extends through the collar 24 and engages the post 20 so as to maintain the parts in their proper adjusted position.

Arranged in threaded engagement with the upper portion of the post 20 is a body member 28 which is provided with a longitudinally extending bore 29.

There is further provided a crank which is indicated generally by the numeral 31, and the crank 31 includes an intermediate offset portion 32 and a lower straight portion 33, the portion 33 extending through the bore 29 in the body member 28. An enlarged flange or head 34 is arranged on the lower end of the crank 31, and ball bearings 35 are interposed between the flange 34 and body member 28. A lock nut 36 is arranged in threaded engagement with the body member 28, the lock nut 36 being positioned above the post 20. The upper end of the body member 28 is provided with an enlarged flange 37, and a washer 38 is arranged above the body member 28, there being ball bearings 39 interposed between the washer 38 and body member 28. A lock nut 40 is positioned above the washer 38.

There is further provided a support member 41 which is adapted to support a child or other user such as the person 49 shown in Figures 7 and 8. The support member 41 includes a major section or portion 42 which has a collar 43 arranged therebelow. The collar 43 is mounted on the upper end 46 of the crank 31, and the collar 43 includes a flange 44 which is secured to the support member 41 by suitable securing elements 45, Figure 3. A set screw 47 extends through the collar 43 and engages the upper end 46 of the crank 31, there being ball bearings 48 at the lower end of the collar 43. A ball bearing assembly 50 is arranged above the collar 43 adjacent the upper end of the crank 31.

As previously described, the support member 41 is adapted to support the user such as the individual 49 shown in Figures 7 and 8. The support member 41 includes a backrest 51, and upstanding bars 52 which has a rod 53 mounted therein, and the rods or pins 53 define a handle so that the person seated on the support member 41 can safely grip the handle 53 as when the support member 41 is moving with a rocking and swinging motion as shown in Figures 7 and 8.

Referring to Figure 6 of the drawings there is shown a modified support member which is indicated generally by the numeral 54, and the support member 54 is adapted to be used in lieu or instead of the support member 41. Thus, the support member 54 resembles a boat and the

support member 54 can be used for holding or supporting the user in the same manner as the previously described support member 41. The member 54 includes a main body portion 58 which has bars 55 extending upwardly therefrom, and the bars 55 support a handle 56. The support member 54 is further provided with a portion 57 which defines a backrest, and the member 54 may be shaped and colored so as to resemble a boat whereby children will derive additional pleasure therefrom.

Referring to Figure 9 of the drawings, there is shown a still further modified support member which is indicated generally by the numeral 59, and the support member 59 is adapted to be used in lieu of the support member 41 or in lieu of the support member 54. The support member 59 shown in Figure 9 is shaped to resemble an airplane and includes a main body portion 60 which has wings 61 extending therefrom, and there is further provided a steering wheel or handle 62 and a seat portion 63 so that the child can be comfortably and safely supported therein.

From the foregoing it is apparent that there has been provided an amusement device wherein the user will be provided with a combined rocking and swinging motion. In use, a person such as the child indicated by the numeral 49 in Figures 7 and 8 is adapted to sit on the seat portion 42 of the support member 41. The handle 43 is gripped in the person's hands, and the backrest 51 helps to insure that the person is properly seated on the member 41. Then, as the weight of the person's body is shifted slightly, the platform 22 and support member 41 will move as for example, the parts will move from the position shown in Figures 1 and 5 to the position shown in Figures 7 and 8. This movement is brought about due to the provision of the crank 31 which includes the offset portion 32. Furthermore, as previously described, there is provided the ball 21 which is movably positioned in the socket member 19 so that the platform 22 and support member 41 are free to rotate or move about an axis extending through the socket member 19. The plurality of flexible cables 18 serve to restrain the platform 22 shown in Figures 7 and 8, and it will therefore be seen that the platform 22 and support member 41 are capable of continuously rotating and rocking or swinging so that the user will be provided with a source of much amusement and recreation as the device moves.

Instead of using the support member 41 shown in Figures 1 through 5, and Figures 7 and 8, the support member 54 may be used and this is shown in Figure 6. Thus, the support member 54 includes the main body portion 58 which serves as a seat for the child or other user, and the support member 54 is adapted to be shaped and designed so that it represents a boat whereby the user will derive pleasure therefrom. The support member 54 and platform 22 are adapted to move with a combined rocking and swinging movement in the same manner that the previously described support member 41 and platform 22 move.

Furthermore, by removing the support member such as the support member 41 and adjusting the cables 18 so as to support a greater amount of weight, the platform 22 can be used by adults for exercising and training or improving balance. The parts can be made of any suitable material and in any desired shape or size. Thus, by removing the seat or support member, adults or other persons can use the device as a tumbling device. The set screws 16 can be loosened whereby the sleeves 15 can be adjusted on the spokes 13 whereby the effective action of the cables 18 can be regulated as desired. Thus, by moving the cords or cables 18 closer to the center on the spokes 13, the platform 22 will be more loose as when children are using the device, and by moving the cables 18 further out, the device may be used by adults. When the device is being used by adults, as when the support member 41 and crank 31 are removed, adults

can use the device to improve balance, exercise the muscles and reduce weight.

The construction shown in Figure 3 is such that the crank 31 can turn freely. Thus, due to the provision of the ball bearings 35 which are positioned between the flange 34 and lower end of the member 28, the crank 31 can rotate freely in the body member 28. The cords 18 are adapted to be made of a suitable flexible material such as rubber. After the sleeves 15 have been moved to the desired position to adjust the cables 18 to the desired tension, the set screws 16 can be tightened so as to maintain the sleeves or bushings 15 immobile in their adjusted position. Thus, when the rubber cords 18 are set close to the center, the platform 22 is loose and can be operated by a child of small weight. When the cords 18 are moved towards the outside of the base 11, the platform 22 becomes more rigid and will support greater weights, as for example, the weight of an adult. A pair of set screws 25 and 47 provide a further means for adjusting the parts. Furthermore, the size and shape of the crank 31 can be varied as desired as when cranks are to be used to accommodate different sizes of children. The support member can be made to resemble any desired article such as a rocket or bomb, airplane, horse, or vehicle. The various ball bearings insure that the moving parts will turn easily with a minimum of friction.

Thus, it will be seen that there has been provided a rocking and swinging toy which can be used by a child to give a tilt and swing in all directions. The device is constructed so that the amount of tilt can be adjusted in order to permit the device to suit different children's ability to control the toy. Thus, as the ability and experience of the child increases, the ride can be adjusted to give a progressively more thrilling effect or ride. The device can be used by children of different ages and of different sizes.

In use, the child sits on the support member and places his feet on the platform 22 as shown in Figures 7 and 8. Then, the child exerts a small amount of pressure sideways on the platform 22 and the toy can be made to swing a full 360° or more by means of the previously described bearing structure. Thus, the child can cause the toy to tilt in any direction by throwing its weight off center and tilting is permitted by means of the ball and socket joint and by means of the crank. The tilt is resisted and the toy is brought back to the upright position by means of the plurality of shock cords 18 which extend between the base and platform. The shock cords 18 will limit the amount of tilt and the tension of the cords can be adjusted as previously described. The number of cords 18 which are used can also be varied as desired, and by loosening the set screw 25, the platform 22 can be raised or lowered. Thus, the higher the platform 22, the tighter the cords and the more restricted is the tilt and vice versa. Furthermore, the set screw 47 can be loosened, and the position of the support member 41 can be adjusted so that the action can be regulated further. After the child has gained sufficient skill and confidence in the operation of the device, the parts can be adjusted to permit the maximum amount of freedom. The device can be adjusted so that the child can shift his or her weight whereby pressure from the child's feet will cause the weight to shift which will give various types of rock and roll. Furthermore, the child is never beyond the center on the side that he or she is facing so that the danger of sliding off onto the child's face is greatly reduced or eliminated.

The base 11 is sufficiently large so that it will not accidentally tip over and will not accidentally move. The shock cords 18 may be made of cloth covered rubber, and each support member may be provided with a seat, backrest and hand holds or handles. In Figure 6, the member 55 may indicate the mast of the toy boat 54, and the member 56 is adapted to be gripped by the child's hands. The portion 57 of the support member 54 may

represent a pilot house and also serve as a backrest. Port-holes may be painted on the member 54 so as to increase the attractiveness thereof. When the set screw 47 is tightened, the support member 41 will not rotate on the upper end of the crank 31, and when the set screw 47 is loosened, the support member 41 can rotate on the crank 31. The crank 31 gives the support member its swiveled motion and also serves to throw the weight of the child away from the center to obtain more tilt. The crank is large enough to support the weight without bending and fits into the bearing. The lower end of the crank 31 turns freely in the bearing or member 28, and the bearing 28 is arranged in the upper end of the post or upright support 20. The ball and socket arrangement 19 and 21 permits at least 45° of tilt of the post 20 in all directions and a grease fitting may be placed on the socket so as to permit these parts to be greased with a pressure gun. Furthermore, a suitable hood which may be made of plastic, rubber or the like is adapted to slip over the ball and socket so as to prevent dust, dirt and the like from collecting on this part. If desired suitable braces can be used for strengthening and reinforcing the various parts.

I claim:

1. In a device of the character described, a base including a circular rim, a plate arranged in the center of said rim, a plurality of radially disposed spokes extending between said plate and rim and secured thereto, a sleeve adjustably mounted on each of said spokes, a securing element extending through each sleeve and engaging a corresponding spoke, a socket member extending upwardly from said plate and secured thereto, an upstanding post having a ball on its lower end arranged in engagement with said socket member, a movable platform arranged above said base and provided with a central opening for the projection therethrough of said post, a collar depending from said platform and surrounding said post, a securing element extending through said collar and engaging said post, a plurality of eyelets depending from said platform, an eyelet extending upwardly from each of the sleeves on said spokes, a plurality of elastic cables extending between the eyelets on said sleeves and the eyelets on said platform and secured thereto, a body member arranged in threaded engagement with the upper end of said post, said body member being provided with a longitudinally extending bore, a crank having its lower end projecting through the bore in said body member and said crank having a circular flange on its lower end positioned below said body member, ball bearings interposed between said flange and body member, said crank including an intermediate offset portion, a support member arranged above said platform, a collar having a flange secured to the under surface of said support member, said collar receiving the upper end of said crank, and a securing element extending through said last named collar and engaging said crank.

2. In a device of the character described, a base including a circular rim, a plate arranged in the center of said rim, a plurality of radially disposed spokes extending between said plate and rim and secured thereto, a

sleeve adjustably mounted on each of said spokes, a securing element extending through each sleeve and engaging a corresponding spoke, a socket member extending upwardly from said plate and secured thereto, an upstanding post having a ball on its lower end arranged in engagement with said socket member, a movable platform arranged above said base and provided with a central opening for the projection therethrough of said post, a collar depending from said platform and surrounding said post, a securing element extending through said collar and engaging said post, a plurality of eyelets depending from said platform, an eyelet extending upwardly from each of the sleeves on said spokes, a plurality of elastic cables extending between the eyelets on said sleeves and the eyelets on said platform and secured thereto, a body member arranged in threaded engagement with the upper end of said post, said body member being provided with a longitudinally extending bore, a crank having its lower end projecting through the bore in said body member and said crank having a circular flange on its lower end positioned below said body member, ball bearings interposed between said flange and body member, said crank including an intermediate offset portion, a support member arranged above said platform, a collar having a flange secured to the under surface of said support member, said collar receiving the upper end of said crank, and a securing element extending through said last named collar and engaging said crank, said support member including a seat portion, a brackrest, an upstanding bar, and a handle mounted in said bar.

3. The structure as defined in claim 2 wherein said support member resembles a boat.

4. The structure as defined in claim 2 wherein said support member resembles an airplane.

5. In a device of the character described, a base including a circular rim, a plate arranged in the center of said rim, a plurality of radially disposed spokes extending between said plate and said rim and secured thereto, a sleeve adjustably mounted on each of said spokes, a post arranged above said base and having its lower end swivelly connected to said plate, a movable platform arranged above said base in circumjacent relation to said post, plurality of elastic cables extending between said sleeves and platform and connected thereto whereby the angularity between the platform and the base may be varied, a crank having an offset portion extending upwardly from said post above said platform and rotatably connected thereto, and a support member including a seat and back rest connected to said crank.

References Cited in the file of this patent

UNITED STATES PATENTS

1,015,799	Hazen	Jan. 30, 1912
1,194,551	Schossler	Aug. 15, 1916
1,283,210	Kinney	Oct. 29, 1918
1,464,279	Hindley	Aug. 7, 1923