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3,039,819

SWING DEVICE

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2 Sheets-Sheet 1

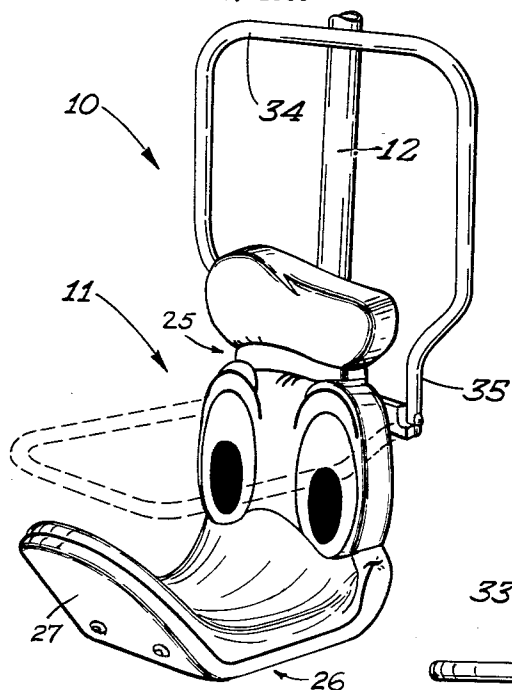


Fig. 1

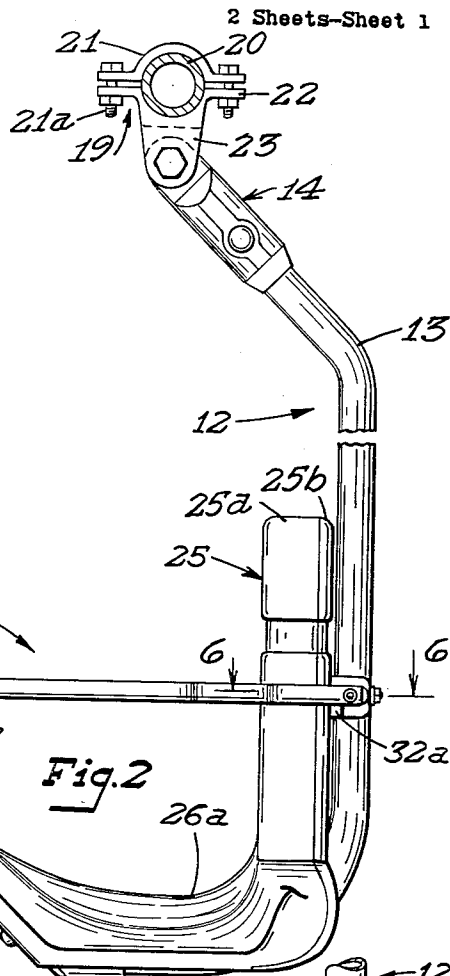


Fig. 2

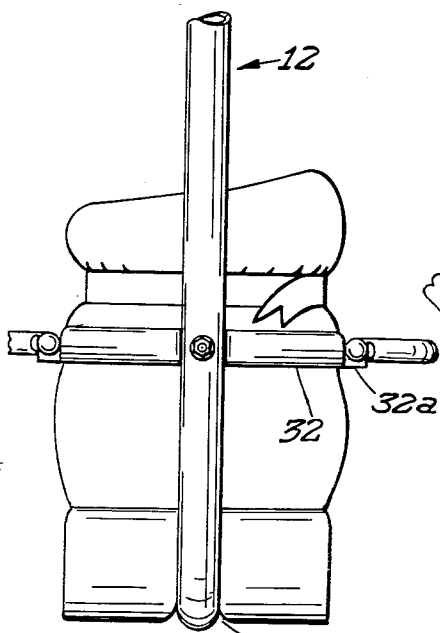


Fig. 3

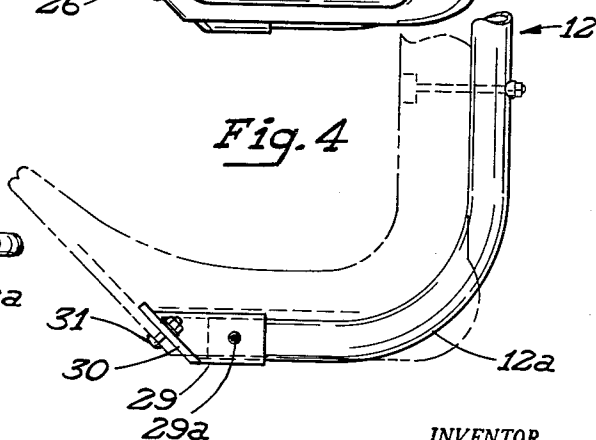


Fig. 4

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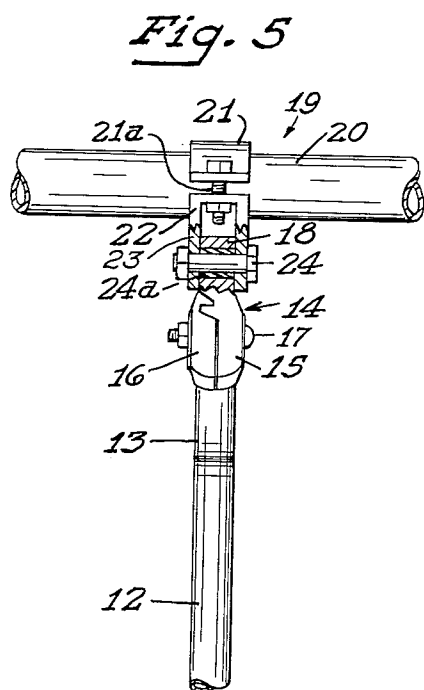
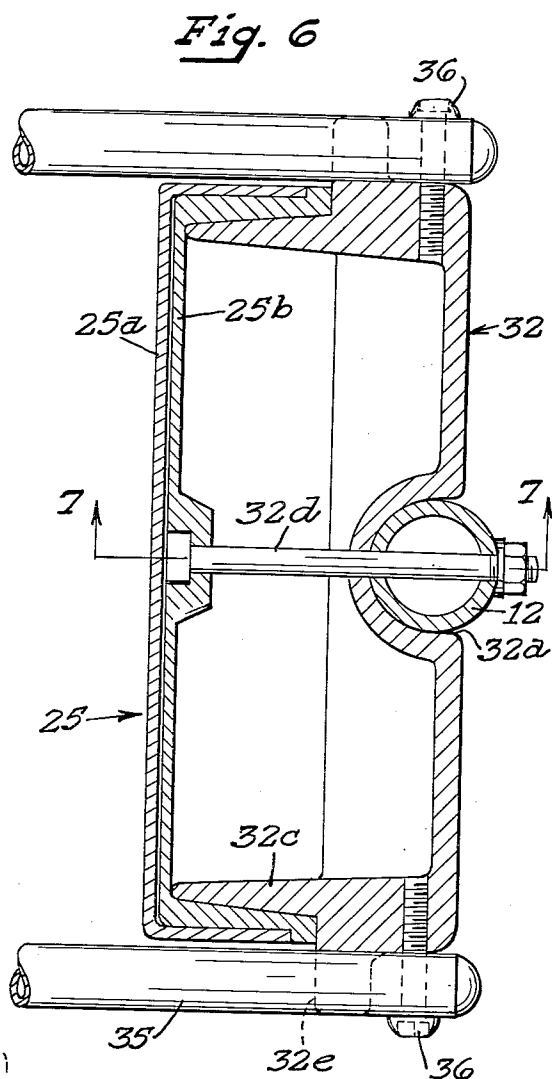
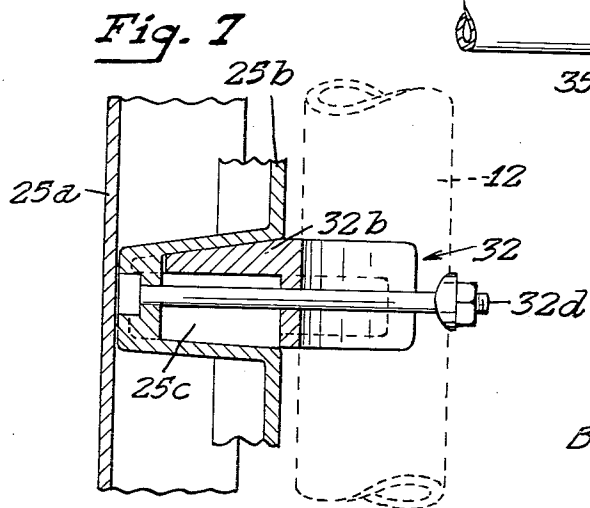
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SWING DEVICE

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3 Claims. (Cl. 297-277)

This invention relates to swing devices and more particularly to saddle seat type swing devices.

An object of this invention is to provide a novel swing device, of simple and inexpensive construction which is readily attachable to conventional swing-supporting frames.

Another object of this invention is to provide a novel swing device including a saddle swing seat which is arranged and constructed to function in a safer and more comfortable manner than any heretofore known comparable devices and which is especially adaptable for use by small children.

A further object of this invention is to provide a novel swing device including a saddle swing seat arranged and constructed to simulate a normally animated object.

A more specific object of this invention is to provide a novel swing device including a saddle swing seat having a back rest and saddle seat arranged and constructed to simulate the head of a duck.

These and other objects and advantages of our invention will more fully appear from the following description made in connection with the accompanying drawings wherein like character references refer to the same or similar parts throughout the several views, and in which:

FIG. 1 is a front perspective view of the novel saddle swing seat with parts thereof indicated in a different position by dotted line configuration;

FIG. 2 is a side elevational view of our swing device foreshortened for clarity;

FIG. 3 is a rear elevational view of our novel saddle swing seat;

FIG. 4 is a fragmentary side elevational view of the lower end portion of the suspension with the saddle swing seat illustrated by dotted line configuration;

FIG. 5 is a front elevational view of the swing hanger and connecting means, partly in section and partly in elevation;

FIG. 6 is a cross-sectional view on an enlarged scale taken approximately along line 6-6 of FIG. 2 and looking in the direction of the arrows; and

FIG. 7 is a cross-sectional view taken approximately along line 7-7 of FIG. 6 and looking in the direction of the arrows.

Referring now to the drawings and more specifically to FIG. 1, it will be seen that the novel swing device is generally designated in its entirety by the reference numeral 10 and includes a saddle swing seat 11 mounted for support by a rigid, formed suspension member 12. The suspension member 12, as best seen in FIG. 2, is in the form of an elongate pipe having its uppermost end angulated or bent as at 13 and this angulated end is received by a clamp mechanism 14.

Referring now to FIGS. 2 and 5, it will be seen that clamp mechanism 14 includes a pair of interlocking substantially semi-cylindrically shaped clamping members 15 and 16 which together form a substantially cylindrical socket and which are releasably interlocked by means of bolt 17. This clamp member 14 is formed of a rigid metallic material and preferably malleable iron and provides means for readily attaching the upper end of the elongate suspension pipe 12 to the hanger of a conventional frame.

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It will be noted, as thus seen in FIG. 5, that clamp member 14 is provided with an eye 18. A conventional hanger 19 as best seen in FIG. 2, is secured to the cross bar 20 of the conventional swing frame and the hanger 19 includes an upper clamping element 21 and a lower clamping element 22 detachably interconnected in clamping relation with respect to the cross bar 20 of the supporting frame by conventional securing means such as bolts 21a. The lower clamping member 22 is provided with a pair of spaced apart depending ears 23 between which is disposed eye 18 as best seen in FIG. 5. A pivot pin in the form of a hex-head machine bolt 24 extends through the ears 23 and eye 18 to pivotally connect the cylindrical clamp mechanism 14 to the hanger 19 for pivotal movement about a substantially horizontal axis. Machine bolt 24 is locked to lower clamping member 22 by a lock nut 24B. It will be seen that an oil-impregnated bearing 24a is inserted into eye 18 in bearing engagement with bolt 24 and serves to facilitate a smooth pivotal action of the clamp mechanism 14 relative to hanger 19.

Referring now to FIG. 1, it will be seen that the saddle swing seat 11 includes a back rest element 25 connected to the rigid, formed suspension member 12 and which is disposed in substantially upright relation. Saddle swing seat 11 also includes a saddle seat element 26 which is secured to the lower terminal portion of back rest element 25 and which extends laterally therefrom as best seen in FIG. 2. It will be seen that saddle seat element 26 extends substantially horizontally from the back rest element 25 to define a horizontal portion 26a and thereafter terminates in an upwardly inclined terminal portion 27. Saddle swing seat 11 is formed of substantially rigid material and in the preferred form is made of a strong light-weight molded Fiberglas reinforced plastic. The back rest element 25, horizontally extending portion 26a, and the upwardly inclined saddle seat portion 27 may be separately formed but are securely bonded together by suitable plastic adhesive such as epoxy cement or the like. Actually, back rest element 25 is also comprised of front and rear parts 25a and 25b respectively, as best seen in FIGS. 2 and 6.

Referring now to FIG. 1, it will be seen that the saddle swing seat 11 simulates the head of a well known comic strip character, Donald Duck, with the back rest portion actually forming the face and cap of the duck while the saddle seat element 26 and upwardly inclined terminal portion 27 forming the beak. It should be pointed out that the paint which defines the head and the beak of the duck is actually molded into the Fiberglas parts.

The saddle seat element 26 has a recess 28 formed along the undersurface thereof and this recess 28 is centrally located with respect to and extends along the underside of the horizontal portion 26a, as best seen in FIGS. 3 and 4. A socket member 29 having an attachment plate 30 is positioned within the recess 28 adjacent the upwardly inclined portion 27 and attachment member 30 is secured to the lower inclined surface of the terminal portion 27 by means of bolts 31. Actually, the sleeve or socket 29 and plate 30 comprise a single malleable iron fitting and it will also be seen that the lowermost end of suspension member 12 is bent laterally as at 12a and this lower bent end 12a is received within the socket member 29 and secured therein by means of a set screw 29a. It is preferred that bolt 31 and set screw 29a be of the rounded Allen head type since this kind of bolt renders the assembled seat construction vandal-proof.

The back rest portion 25 of saddle swing seat 11 is provided with a transversely extending bracket 32 having

a recess 32a centrally formed therein in which the suspension pipe member 12 abuts. This bracket 32 has forwardly extending top flange 32b and forwardly extending end flanges 32c positioned in snug fitting relation with a socket 25c formed in the rear part 25b of back rest 25. Bolt 32d secures the bracket 32, suspension 12 and back rest element 25 together, as best seen in FIG. 4. A concave nylon washer and a hex-shaped lock nut lock the assembly in place.

A substantially U-shaped retaining member 33 having a bight portion 34 and offset ends 35 is pivotally secured to the opposite ends of bar 32 by means of pivot pins 36. It will be noted that U-shaped member 33 is swingable from an elevated inoperative position to a lowered, substantial horizontally disposed operative position and serves as a retaining safety bar for preventing children from falling from the swing when the swing is being used. The bar 32 is provided with a pair of stop elements 32e which cooperate with the U-shaped member 33 to limit the downward swinging movement thereof to a substantially horizontal position and it will be noted that the bight portion of the U-shaped member abuts against the suspension member 12 when the U-shaped members are in elevated inoperative position. It will also be noted that the back portion 34 of U-shaped member 33 is disposed in close proximity to the end of the upwardly inclined terminal portion 27 of the saddle seat element 26 so that there is no chance of a child slipping forwardly from the swing device during oscillation of the swing. It is also pointed out that U-shaped bar 33 is retained in upper and lower positions by frictional engagement of ends 35 with cross bar 32.

The novel swing device may be mounted on the cross bar 20 of any conventional swing supporting frame for outdoor use or it may be attached to a porch or basement ceiling to serve as a playroom swing indoors. In use, the U-shaped retaining member 33 is pivoted upwardly to a vertical position and the user mounts the saddle seat element in straddling relation thereto so that the back of the user will be positioned against the back rest element. The U-shaped member will thereafter be lowered and will assume the horizontally operative position, as shown in FIG. 2, with the bight portion 34 thereof being positioned in close proximity to the end of the upwardly inclined portion 27 of the saddle seat element 26. This upwardly inclined terminal portion 27 of the saddle seat element cooperates with the U-shaped member to securely retain a child upon the saddle swing seat 12 and also provides a hand-gripping means for the user. The swing seat having a child so seated thereon may thereafter be caused to oscillate. The use of the Fiberglas material in the construction of the saddle swing seat not only provides a swing seat having high tensile strength and durability but this Fiberglas material is also moisture resistant and does not absorb heat or cold and, of course, is therefore ideal for outside use.

The swing may also be ridden in carrousel-fashion whereby the child straddles the seat portion but facing the suspension pipe 12. The pipe 12 may be grasped and the U-shaped member 33 and upwardly inclined portion 27 will cooperate to prevent the child from slipping off.

It will be noted that the suspension pipe member 12 is secured to the swing seat 11 by means of the socket and the bar 32 on two widely spaced points so that there is no danger of the seat becoming detached from the suspension member. This two point attachment evenly distributes the load over all areas of the seat and suspension members and eliminates stress and strain from the seat proper. The uniquely constructed suspension socket clamp 14 and the hanger unit 19 are cooperatively connected in a manner to eliminate side sway of the swing seat and the rigid, formed suspension member 12 by assuring a controlled swinging arc. Referring now to FIG. 2, it will be seen that the swing seat 11 extends from one side only of formed suspension member 12 which necessitates that the pipe 12 be offset to position the

center of gravity of the swing seat 11 directly below the frame support member 20. Thus, the offset upper end 13 of suspension pipe 12 not only permits easy safe mounting of swing 11 at the exact center of gravity but also insures a smoothly controlled swinging arc and perfect balance.

It will, therefore, be noted from the preceding paragraphs that we have provided a novel swing device arranged and constructed to be comfortably and safely used by small children.

It will also be noted from the foregoing description that our uniquely constructed swing device includes a saddle swing seat which is of efficient and durable construction, which simulates the head of a duck thus presenting a pleasing picture for small children, and which is the ideal, most comfortable and safest seat for children of pre-school age.

It will, therefore, be seen that we have provided a novel swing device through which children will be provided many hours of pleasure in complete safety.

It will, of course, be understood that various changes may be made in the form, details, arrangement and proportions of the various parts without departing from the scope of our invention.

What we claim is:

1. A swing device comprising a substantially elongate rigid suspension member adapted to be connected in upright relation to a frame structure for oscillating movement relative thereto and having a laterally extending lower end portion,
 - a saddle swing seat fixedly connected to the lower terminal portion of said suspension member for movement therewith and including a back rest element disposed in substantially upright relation when said suspension member is connected to the frame structure,
 - a saddle seat element extending forwardly from the lower terminal portion of said back rest element and including a substantially horizontally disposed portion and an upwardly inclined terminal portion,
 - a generally U-shaped retaining member having its ends pivotally connected with said back rest element for pivotal movement relative thereto between operative and inoperative positions, said retaining member being substantially horizontally disposed and spaced above said saddle seat element when in said operative position and being substantially vertically disposed when in said inoperative position,
 - and a socket carried by said saddle seat portion fixedly receiving the laterally extending lower end portion of said suspension member.
2. The structure as defined in claim 1 and said retaining member including a bight portion disposed in close proximity to said upwardly inclined saddle seat portion when said retaining member is in the operative position.
3. The structure as defined in claim 1 wherein said suspension member has an angularly offset upper end portion, coupling means carried by said offset upper end for pivotal connection to the frame structure, the offset upper end portion of said suspension member cooperating with said coupling means for normally positioning the saddle swing seat directly below the frame structure when said suspension member is connected to the latter.

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