

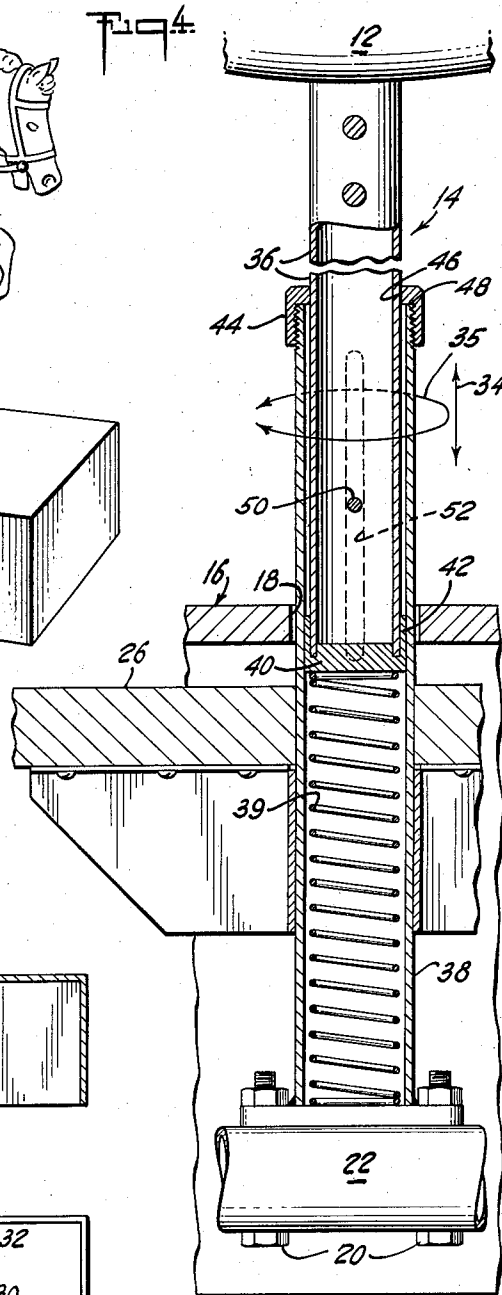
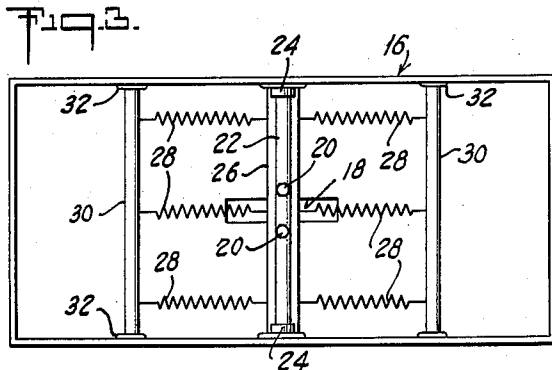
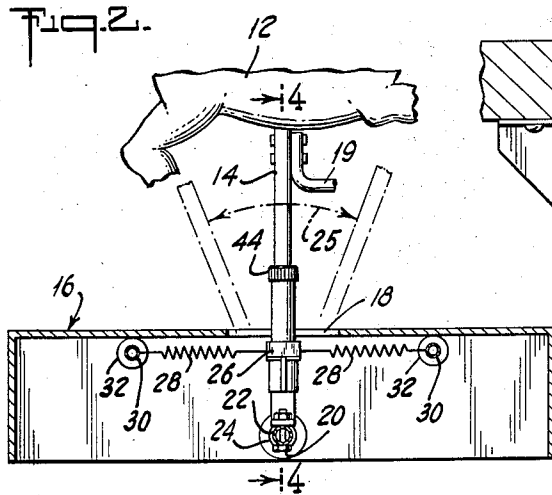
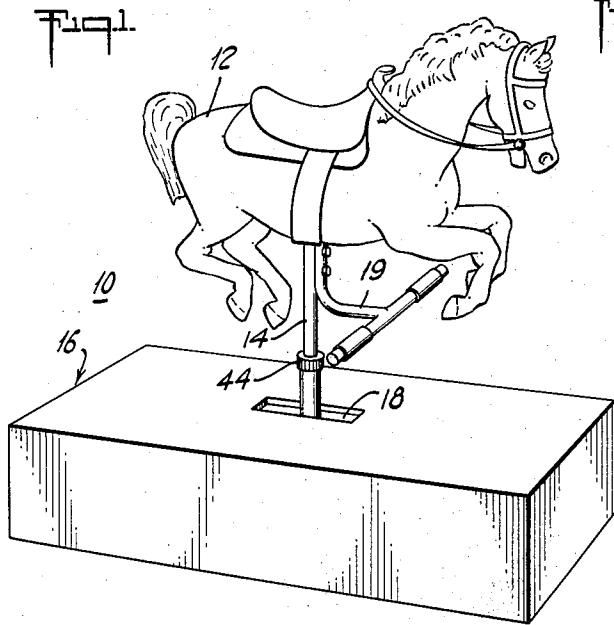
Sept. 10, 1963

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3,103,356

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Filed April 7, 1958



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Filed Apr. 7, 1958, Ser. No. 726,675

8 Claims. (Cl. 272-52)

This invention relates to an amusement device to be ridden by children, and more particularly it relates to a hobby horse.

An object of this invention is to provide a device of this kind which gives a vigorous and entertaining ride to children but which is exceptionally safe and sturdy.

A more particular object is to provide a hobby horse having improved riding characteristics and simplified but rugged construction.

Another object is to provide such a horse which can be manufactured economically and which has a construction which lends itself to easy final assembly by the purchaser so that it can be delivered to him packed compactly in knocked-down condition.

The reason for the popularity of one kind of hobby horse in preference to another kind is not entirely predictable, but in this day and age it appears that the more wild and woolly a ride the horse gives, the better. Precisely because such a vigorous, bouncing ride is desired by the youngsters, however, the suspension of the horse body poses quite a problem. Sizable mechanical forces are developed and the mounting frame of the horse must be able to withstand these with complete reliability and without danger of tipping over. Since a hobby horse is likely to be ridden by children of all ages, its mounting arrangement must be stiff enough to accommodate the weight and strength of older children but yet limber enough so that a young child can get a sufficiently bouncy ride. Moreover, and particularly with regard to very young children, the structure of the horse and frame must not present hazardous sharp members to fall against, or dangerous moving elements to get caught in.

From the manufacturer's point of view a hobby horse, in addition to having all these desirable riding qualities and safety features, must also be economical to manufacture. Requirements such as critical mechanical tolerances or strengths, specially shaped springs, or excessive number of parts have made many previous hobby horse designs completely impractical to produce. Furthermore, even though a particular horse can be produced at a reasonable cost, for it to be a nationwide commercial success and with shipping costs as high as they are, it must be susceptible to distribution and final delivery to the purchaser in knocked down, compactly packed condition ready for quick assembly. The present invention provides a hobby horse which possesses these desirable qualities of manufacturing and distributing economy, of safety and sturdiness, and of vigorous, entertaining riding qualities.

In accordance with the present invention, in one specific embodiment thereof, there is provided a hobby horse wherein the body of the horse is mounted upon the top end of a generally upright, strong slender metal tube or post. The lower end of the post extends down into a box-like base through a guide slot in the top of the base and is pivoted just above the floor so that its upper end can swing back and forth. Acting to hold this post normally in vertical position are a number of simple and inexpensive tension springs fastened to it just underneath the top of the base and completely concealed within it. The lower end of the post above its pivot is a two-piece rotatable and slidable section acting against a compression spring inside the post so that the horse body on the upper end, in addition to being able to swing back and

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forth, can simultaneously bounce up and down and also turn in a circle with the post as the center.

The base of this hobby horse provides a convenient mounting platform for a child in getting on or off of the horse and it is low enough to the floor so that no matter how vigorously the horse is ridden it will not tip over nor slide or "walk" across the floor. The guide slot in the top of the base positively prevents the support post from wobbling to either side and likewise limits its forward and backward swing. The base is advantageously just large enough so that the horse body and supporting post can be packed dis-assembled within it for delivery to the purchaser. Thus packing, shipping and storage costs are minimized.

A better understanding of the invention together with a fuller appreciation of its many advantages will best be gained from a study of the following description given in connection with the accompanying drawings wherein:

FIGURE 1 is a perspective view of a hobby horse embodying features of the invention;

FIGURE 2 is a side section view of the base showing the pivotal mounting of the lower end of the support post;

FIGURE 3 is a bottom plan view of the base; and

FIGURE 4 is an enlarged section view taken as indicated in FIGURE 2.

The hobby horse 10 seen in FIGURE 1 comprises a horse body 12 which is rigidly mounted on the upper end of a support post 14. The lower end of this post extends into a stationary, box-like hollow base 16 through a guide slot 18. Cantilevered forward from the upper end of this post is a T-shaped foot rest 19.

As seen in FIGURES 2 and 3, the bottom end of post 14 is bolted at 20 to a transverse shaft 22 whose ends are rotatably journaled in a pair of bearings 24 each of which in turn is screwed onto a respective longitudinal side of the base. The upper end of post 14 is thus able to swing back and forth in a vertical plane as indicated in FIGURE 2 by the arrow 25, the front and rear limits of swing of the post being indicated by the dotted lines and being determined by the ends of slot 18. The sides of slot 18 are positioned parallel to each other and to the length of the base. They lie closely against each side of support post 14 and thus prevent sidewise play of the post and possible binding of its bottom pivot.

Fastened to support post 14 just beneath the top of base 16 is a cross-brace 26 positioned at right-angles to it and to guide slot 18. Stretching to this cross-brace on opposite sides of it are six spaced-apart tension springs 28 whose outer ends are fastened to a respective one of the two fixed rods 30. The ends of these rods are attached at points 32 to opposite sides of the base at a distance beneath the top such that springs 28 in their rest position shown in FIGURE 2 are approximately horizontal. When support post 14 is swung back and forth, the springs 28 first on one side of cross-brace 26 and then the springs 28 on the other side are alternately stretched and relaxed and thus act to restore the post to its normal vertical position. Springs 28 are of a kind readily obtainable in any hardware store, and as many springs as may be necessary to accommodate the maximum designed load on the support post can be used. The danger from a spring breaking, since they are totally enclosed within the base, is minimized but even if they were all to break no harm would come to the child riding the horse because the support post can not swing farther than the limits set by slot 18.

As seen in FIGURE 4, which is an enlarged transverse sectional view taken as indicated in FIGURE 2, the lower end of support post 14 is made in two sections to permit up and down bouncing in the direction of arrow 34 and also circular rotation in the direction of arrow 35. The inner of these two sections is a one-piece metal tube 36 which extends upward to the horse body and is screwed

to it. The lower end of this tube is telescoped within and slidable relative to a metal sleeve 38 whose bottom end is closed and is bolted at 20 to the pivot shaft 22. Positioned within sleeve 38 beneath tube 36 is an ordinary compression coil spring 39, the upper end of which bears against a plug 40 fastened onto the bottom of tube 36. This plug closes the bottom of the tube and surrounds it for a short length with an annular shoulder 42. The latter serves as a bearing and holds the lower end of tube 36, which is of smaller diameter than the inside dimension of sleeve 38, concentric within the sleeve. The upper end of sleeve 38 is capped by a removable bearing nut 44 whose inside surface 46 contacts tube 36 and holds it centered. In addition, this nut has a bottom surface 48 which limits the upward sliding of tube 36 relative to sleeve 38 by abutting against the top of bearing shoulder 42. Thus tube 36 is free to slide up and down within sleeve 38 against the action of spring 39 and at the same time is free to rotate 360° relative to it. Spring 39 is completely enclosed and even if it breaks the horse can still safely be ridden. In the event that only up and down sliding but not rotation of tube 36 relative to sleeve 38 is desired, the two can be splined together by inserting a pin in a hole 50 in the lower end of tube 36, a lengthwise slot 52 being provided in the upper end of sleeve 38 to guide the pin.

By unscrewing bearing nut 44, tube 36 can easily be withdrawn from sleeve 38. Likewise, this tube, foot rest 19 and the horse body can be unscrewed from each other. Then by unfastening pivot shaft 22 from the base and springs 28 from cross brace 26, sleeve 38 can be removed through slot 18 and all these parts compactly and securely packed within base 16. Thus the base can also serve as a shipping crate. The base of a hobby horse substantially the same as that illustrated and which has been built and successfully tested was made of ½ inch plywood, and was approximately 3 feet by 2 feet by 8 inches. Tube 36 was an aluminum pipe one inch in diameter.

The above description of the invention is intended in illustration and not in limitation thereof. Various changes may occur to those skilled in the art and these may be made without departing from the spirit or scope of the invention as set forth.

#### I claim:

1. An amusement device for children comprising a hollow enclosed base adapted to rest upon the floor, having a height of several inches and having a central slot opening in its top, a strong slender post pivoted at its bottom end inside said base just above the floor, said post extending upward through said slot the ends of which limit the forward and backward swinging of said post and the sides of which limit sidewise play, a seat for a child to sit on and which is mounted on the top end of said post a substantial distance above said base, at least two opposed springs connected to said post closely beneath said slot and normally urging said post to vertical position, and resilient means permitting said seat to bounce up and down above said base while simultaneously swinging back and forth.

2. The structure as in claim 1 wherein said resilient means comprises a compression spring enclosed within said post, said post being in two sections which are slidably telescoped together but urged apart by said compression spring.

3. An improved hobby horse comprising a simulated horse body, a long slender rigid support member extending generally downward from said body, said member being in two sections which are axially slidable back and forth relative to each other, a thin broad base adapted to rest upon the floor, means carried by said base to pivotally support the bottom end of said member just above the floor, spring means acting on said member to normally hold it vertical, and a spring recessed in said member to resist the axial sliding together of said sections.

4. The structure as in claim 3 wherein the outside diameter of the first of said sections is smaller than the inside diameter of the second section, said first section having on its end a bearing sleeve engaging the inside of said second section, said second section having on its end a removable bearing collar engaging said first section and also preventing them from sliding apart, said recessed spring being a compression coil spring positioned axially within said second section and engaged against the end of said first section.

5. A safe, sturdy and inexpensive hobby horse comprising a simulated horse body adapted to be ridden by a child, a thin rigid metal tube fastened to said body and extending downward therefrom, a hollow box-like base having a generally flat rectangular top with a central rectangular slot opening in it, a short metal sleeve pivoted at its bottom end just above the bottom of said base and extending upward, a compression spring within one of said sleeve and said tube and resisting their telescoping farther together, a cross-brace fastened to said sleeve closely beneath said slot, and opposed pairs of tension springs fastened between said cross-brace and fixed points inside said base, said springs being generally parallel to said slot and lying closely beneath the top of said base.

6. The structure as in claim 5 wherein the bottom end of said sleeve is pivoted on a removable shaft extending transversely between the sides of said base, and wherein the length within said base is greater than the length of said horse body, the width within said base is greater than the height of said body and the height within said base is greater than the thickness of said body.

7. An improved hobby horse comprising a horse body, an upright support post attached at its upper end to said body, a hollow box-like base to rest upon the floor and having a central opening in its top, the lower end of said post extending through said opening into said base, means pivotally mounting the lower end of said post just above the floor, spring means enclosed within said base for yieldably holding said post generally vertical, said spring means including two opposed tension springs, each of which is stretched in a generally horizontal plane between said post and a fixed point closely beneath the top of said base, said post including two sections slidably telescoped together, and spring means urging said sections apart whereby said horse body can bounce up and down in addition to swinging back and forth.

8. A safe, sturdy and inexpensive hobby horse comprising a simulated horse body adapted to be ridden by a child, a thin rigid metal tube fastened to said body and extending downward therefrom, a hollow box-like base having a generally flat rectangular top with a central rectangular slot opening in it, a short metal sleeve pivoted on a horizontal axis at its bottom end just above the bottom of said base and extending upward, with the tube telescopically disposed in said sleeve, a compression spring within one end of said sleeve bearing against said tube and resisting their telescoping farther together, and opposed tension springs fastened between said tube and fixed points inside said base, said springs being generally parallel to said slot and lying closely beneath the top of said base, said tube being free to rotate relative to said sleeve while simultaneously sliding up and down and swinging back and forth.

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