The present invention relates generally to a mobile exercising and amusement device. More particularly, the invention relates to a mobile, spring suspended hobby horse construction for the exercise and amusement of a child. Specifically, the invention relates to a hobby horse which is spring suspended in a frame having wheels for mobility, whereby a child may propel the device for exercise and amusement.

In recent years, there has been a pronounced influx in the popularity of hobby horses. The original rocker mounted horses have been largely supplanted by more realistic looking, a principal object of the invention. Hobby horses commonly have a simulated horse-like body constructed of wood, metal, or plastic. Normally, the body has projecting suspension elements on the four corners which are attached to spring members connected to a fixed rigid base surrounding the horse-like body in spaced relation. Appropriate foot rests and handles are provided so that the rider is completely supported by the hobby horse and is displaced in accordance with its movements. Depending upon the placement and characteristics of the spring members, the shifting of the rider's weight produces a combination of roll, pitch, and yaw which simulates the motion of a horse with varying degrees of realism.

Numerous problems have plagued such constructions resulting in less than satisfactory operation for certain types of applications. In hobby horses made of wood or plastic, sufficient dynamic loads may be achieved to cause cracking or checking of the horse body and the subsequent failure. To preclude possible material failures, elaborate and expensive support and reinforcing structures have been devised to distribute the forces over larger areas or to transfer the forces to specially designed load-resistant or dissipating members. Also, many of the prior art constructions have proven to be dangerous for use by children under three years of age who can be thrown to the ground by the erratic motions and changes of direction. This problem can be reduced to some degree by employing stiffer springs and reducing the motion of the horse; however, this expedient impairs the attractiveness of the device to children resulting in a rapid loss of interest by the rider. Further, the necessary placement of horse body a sufficient distance from the ground so that ample clearance is provided when the device is in motion presents a difficult, if not dangerous, mounting and dismounting obstacle for smaller children in this younger age group.

The principal object of the invention is to provide an improved horse-like body which can be easily and safely supported or dismounted from by even the smallest toddlers. One further object of the invention is to provide a hobby horse which stimulates appreciable exercise for the lower body and legs of the rider, and has a remedial effect on injured or sub-normal limbs. Various other objects and advantages will appear from the following description taken in conjunction with the attached drawings, and the novel features will be particularly pointed out hereinafter in conjunction with the appended claims.

In the drawings:

FIG. 1 is a side elevation of a spring suspended hobby horse embodying the principles of the present invention; FIG. 2 is a fragmentary top plan view showing the base and suspension members with the body of the hobby horse being shown in phantom lines; and FIG. 3 is a fragmentary end elevation view taken substantially on line 3--3 of FIG. 1 showing the base and suspension members with a portion of the body of the hobby horse being shown in phantom lines.

The mobile exercising and amusement device is shown in the form of a hobby horse, generically indicated by the numeral 10 in FIG. 1. A horse-like body 11 provides a structure upon which a small child or toddler under the age of approximately three years may be seated. Since the toy figure is employed merely to arouse the imaginative interest of a child, any animal or other figure which incorporates a seating surface is equally adaptable.

The exemplary horse-like body 11 has an upwardly projecting head 12 which may be provided with suitable characteristic features, e.g., eyes, ears, nose, and mane, and integral accessories such as the bridle 13. Below and to the rear of the head 12 is a somewhat contoured seat 14 which merges downwardly into a thigh support area 15. For additional realism, a tail 16 may be located to the rear of and below the contoured seat 14. In addition, the horse-like body 11 has a forward body portion 17 located generally below the head 12 and a rear body portion 18 located generally below the tail 16. If desired, abbreviated simulations of legs (not shown) may be attached at the forward and rear body portions 17 and 18, respectively.

The horse-like body 11 may advantageously be a hollow casting formed of plastic or other suitable material such as a flexible rubber latex or a plasticized polyvinyl chloride. These or other suitable materials may be employed in accordance with well known processes to form a device having an adequate wall thickness to withstand the treatment to which toys of this nature are normally subjected. Further, the body may be appropriately colored to conclude a toy which is attractive in appearance and sound in structure for its intended purpose.

It has been found advantageous to provide some type of hand hold or support in the area of the head 12 to assist a rider in maintaining his balance and imparting the mobility hereinafter described in greater detail. A rod or shaft 19 may be passed through the head 12 of the body 11 to form laterally projecting handles on either side of the head 12. The rod or shaft 19 may be constructed of the same material as the body 11 or suitable wood or metallic dowel stock.

Referring now to FIGS. 1 and 2, the body 11 is partially enclosed and suspended within a frame or base, generally indicated by the numeral 20. The principal components of the base 20 are curvilinear end supports 21 and 22. As best seen in FIG. 3, end supports 21, 22 have lower lateral members 23 and 24, which are substantially linear and which merge into U-shaped uprights 25, 26, 27, and 28 disposed in quadrature about the body 11. The end supports 21, 22 are longitudinally spaced and joined by the connecting struts 30 and 31 which may be attached centrally of lower lateral portions 23 and 24 as by welding (not shown). These compo-
The height of the contoured seat 14 off the floor or ground 32 should be such that a child seated astraddle the body 11 with his legs contacting the thigh support area 15 can easily place his feet solidly on the floor or ground 32. This height is partially dependent upon the lateral thickness as well as the height of the horse-like body 11 and the height of the base 20 and location of the suspension members 40. With a lateral thickness of approximately 6 inches, the height of the seat 14 may be on the order of one foot to achieve general adaptability to the great majority of children in the toddler or under three years age group and additional apertures may be provided in the uprights 25, 26, 27, and 28 for greater versatility. The stretching, pulling, and pushing with the leg and lower body muscles in conjunction with the coordinated action of the upper body provides a high degree of stimulating exercise for the rider. It has been found that such exercise is greatly beneficial in the case of physically handicapped children.

A preferred form of the invention has been shown and described in sufficient detail to enable one skilled in the art to practice the invention. Since various modifications in details, materials, and arrangements of parts are within the spirit of the invention herein disclosed and described, the scope of the invention should be limited solely by the scope of the attached claims.

What is claimed is:

1. In a spring suspended toy to be ridden by a child the combination comprising, a body member, a frame, curvilinear end supports in said frame, a lower lateral member in each of said end supports, U-shaped uprights in said curvilinear end supports disposed in quadrature about said body member, a connecting strut spacing and joining said curvilinear end supports, casters attached at the lateral extremity of said lower lateral members of said end supports to provide longitudinal and lateral stability, and spring suspension means connecting said U-shaped uprights and said body member to resiliently mount said body member on said frame.

2. In a spring suspended toy to be ridden by a child the combination comprising, a body member, a seating surface on said body member, through rods projecting laterally from said body member, a support frame, a pair of curvilinear end supports in said support frame, lower lateral members in said curvilinear end supports, U-shaped uprights in said curvilinear end supports disposed in quadrature about said body member, a connecting strut spacing and joining said curvilinear end supports, casters attached at the lateral extremity of said lower lateral members of said end supports to provide longitudinal and lateral stability, and coil springs having a high resilience characteristic attached at one end to said through rods and at the other end to said U-shaped uprights, said coil springs mounting said body member at a height such that the feet of a child astride said body member contact the floor.

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