United States Patent

Hakim

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[54] AMUSEMENT AND EXERCISE DEVICE

[72] Inventor: **Albert S. Hakim,** P.O. Box 4826, Monroe, La. 71201

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[52] **U.S. Cl.** **46/32**

[51] **Int. Cl.** **A63h 3/50**

[58] **Field of Search** 46/32, 175, 174, 178, 179, 46/180, 181, 183, 184; 272/67, 68

[56] **References Cited**

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Primary Examiner—Louis G. Mancene
Assistant Examiner—D. L. Weinhold
Attorney—Robert G. McMorrow

[57] **ABSTRACT**

Suspended toys for infants are formed of flexible material and incorporate sound emission means operated in response to manipulation, as by squeezing, of the toys. One form of the invention comprehends the suspension of the squeeze toys on elastic cords, and the employment of a demountable assembly which supports the toys in the fashion of a mobile. The suspension assembly includes a hub with a series of T-form slots about its periphery, and a spoke with an internal vertical wall and a vertical connector, said wall and connector being spanned by a web and having a top extension which seats on the hub with the connector and web within the slot. A wedge feature maintains the spoke frictionally in place.

4 Claims, 7 Drawing Figures

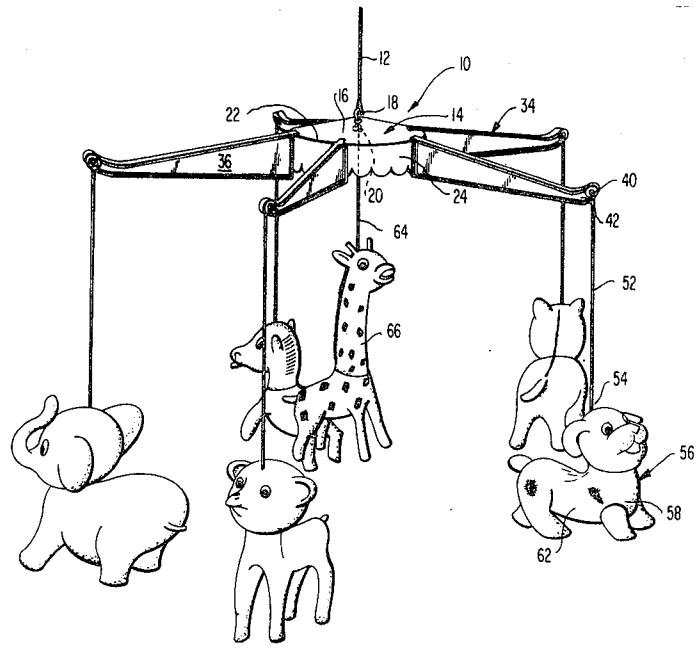


FIG. 1

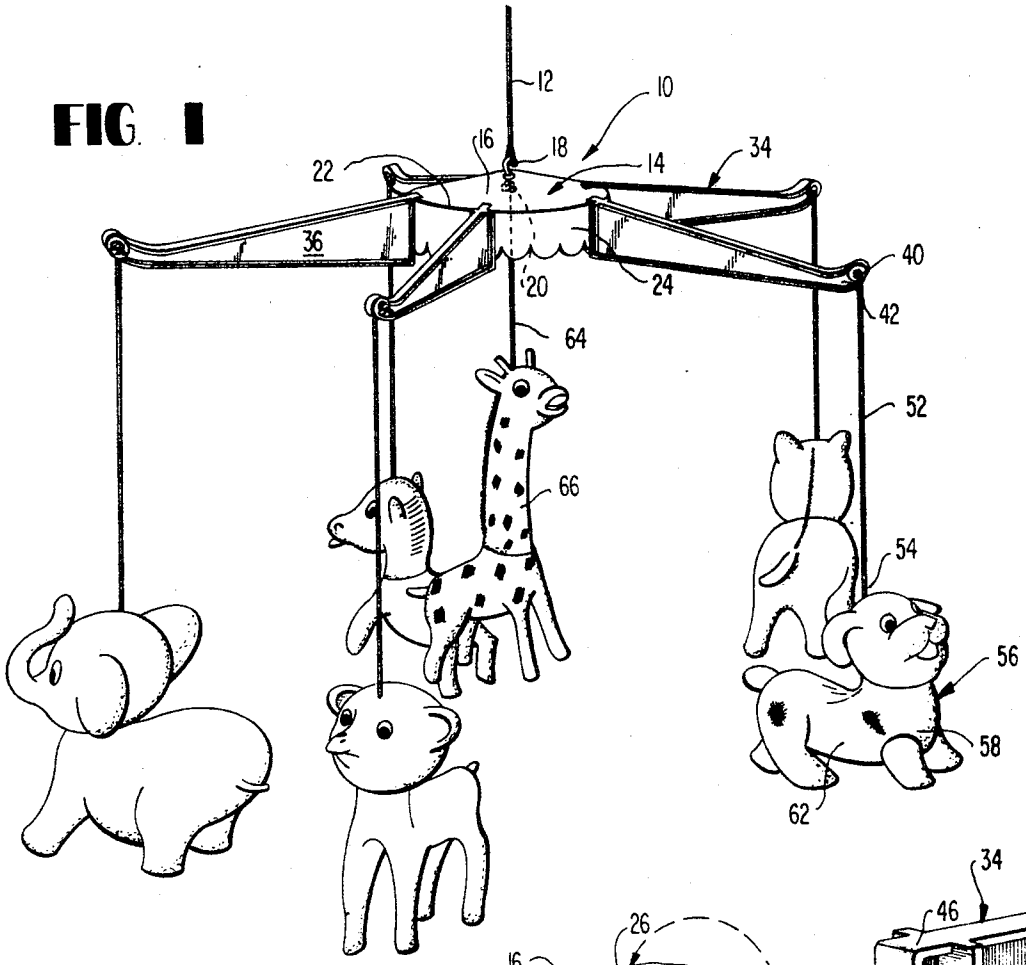
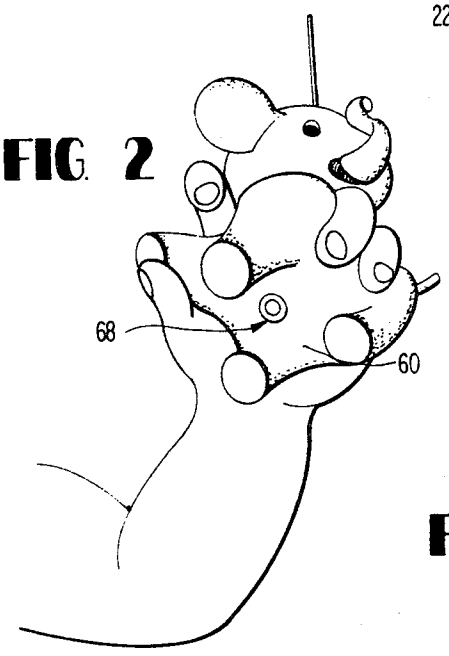


FIG. 2



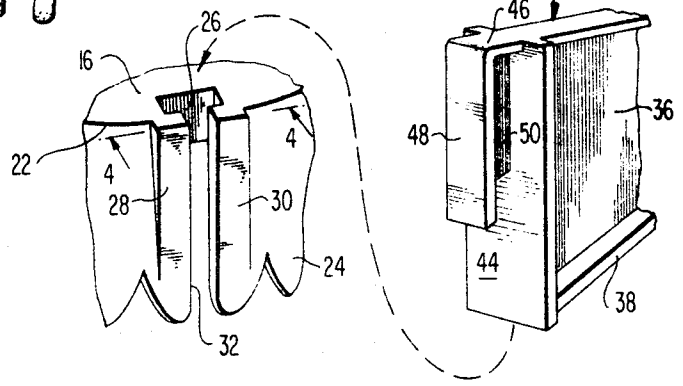


FIG. 3

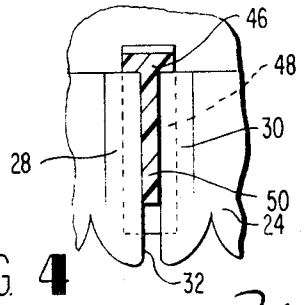


FIG. 4

INVENTOR
ALBERT S. HAKIM

BY Robert J. McMorrow
ATTORNEY

FIG. 5

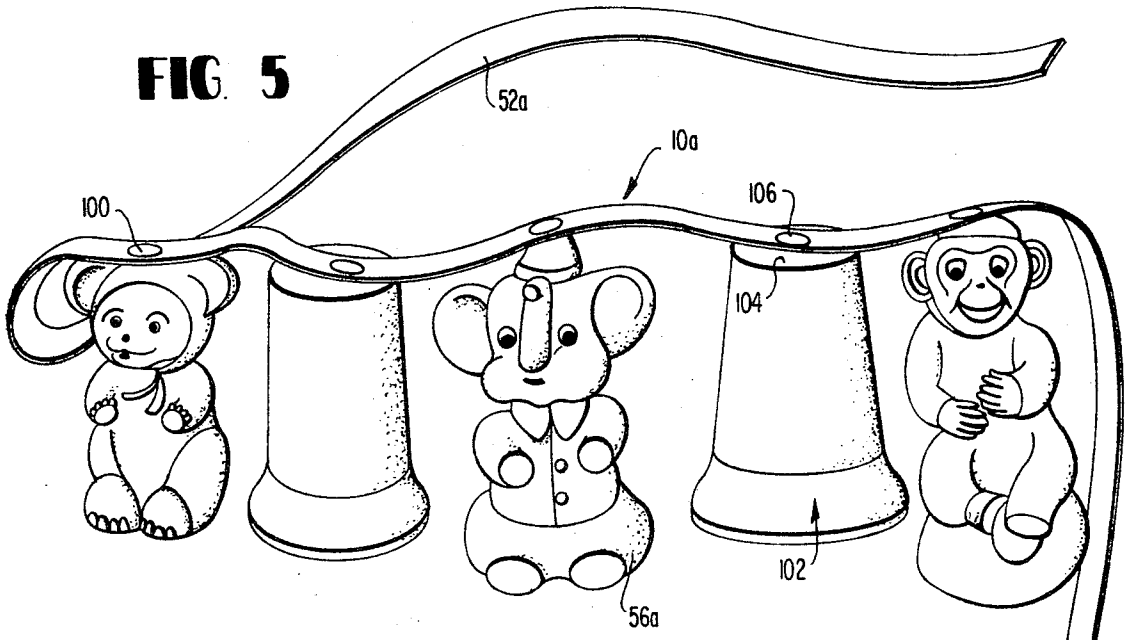


FIG. 6

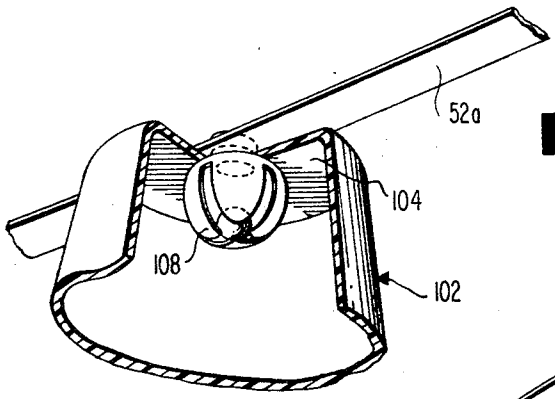
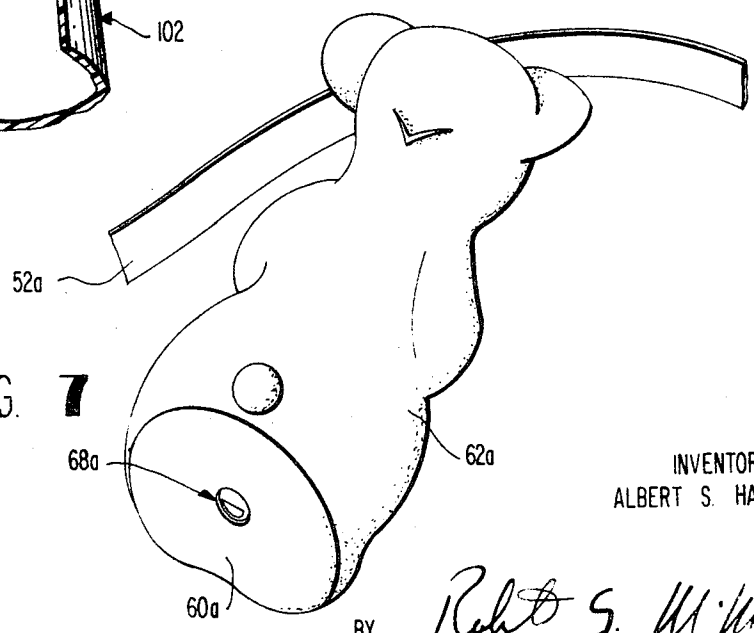


FIG. 7



INVENTOR
ALBERT S. HAKIM

BY Robert S. Williamson
ATTORNEY

AMUSEMENT AND EXERCISE DEVICE

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention pertains to infants educational and entertainment devices, particularly to toys of the type often suspended from the side rails of cribs, playpens and similar enclosures.

2. Statement of the Prior Art

Many prior art devices exist wherein rigid plastic birds, bells and similar items are mounted on cords or straps and disposed in overhead locations so that they may be viewed and/or touched by infants. Insofar as is known however, no prior attempt has been made to incorporate squeezable toys in such devices.

SUMMARY OF THE INVENTION

The present invention provides amusement and educational devices which have a hollow body cavity, and which are flexible in at least the area of said body cavity. Sound emission means, such as a small whistle, is incorporated in the device in association with the cavity and flexible wall so that, upon squeezing of the toy, a sound pleasing or interesting to infants is emitted. Thus, the invention provides an exercise means having means for encouraging its repeated use. In one form of the invention, the amusement and exercise devices are suspended in mobile form, while in a second embodiment, the devices are supported on a cross-strap with interspaced bells therebetween.

A principal objective of the invention resides in the provision of suspended squeeze toys. A related objective concerns the suspension of the toys on flexible cord means.

In the form of the invention wherein the toys are suspended in mobile form, the invention provides a new and novel demountable support assembly including a hub and a series of radial spokes. The spokes are detachable from the hub for economy of shipment and to permit replacement if broken.

Other and further objects and advantages of the invention will become apparent to those skilled in the art from a consideration of the following specification when read in conjunction with the annexed drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of an amusement and exercise device constructed and assembled in accordance with the teachings of this invention;

FIG. 2 is a further perspective view showing typical manipulation of one of the suspended toys;

FIG. 3 is a disassembled fragmentary view, on enlarged scale, showing the means for attachment of the spoke members to the hub of the support;

FIG. 4 is a sectional view on line 4—4 of FIG. 3, looking in the direction of the arrows;

FIG. 5 is a perspective view of a second embodiment of the invention;

FIG. 6 is an enlarged detail view disclosing mounting of a bell member to the flexible cord means of the second embodiment of the invention; and

FIG. 7 is another enlarged perspective view showing one of the amusement and exercise elements.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring initially to FIGS. 1 through 4 of the drawings, an amusement and exercise device in accordance with this invention and comprising a toy assembly 10 is shown therein. The assembly 10 is intended for mounting on a bracket (not shown) attached to a side rail of a crib or playpen, by means of a flexible cord 12.

The apparatus includes a support assembly 14 including a central hub 16 with a top eyelet 18 to which the cord 12 is attached, and having an opposite, centrally disposed bottom eyelet 20. The hub has a peripheral edge 22 and a skirt 24 extends about the edge. At radially spaced locations, the hub has T-form slots 26 formed therein opening on the edge 22, and the skirt has vertically disposed wedge members 28, 30 arranged on either side of vertical slits 32 which coincide with the slots 26 in location. The assembly 14 further includes a plurality of spoke members 34 mounted radially about the hub 16. Each of the spoke members includes a central body panel 36 with a peripheral flange 38, the panels 36 having openings 40 at their upturned distal end portions 42. A vertical wall 44 is provided at the proximal end of each spoke, and the flanges 38 have an extension 46 which projects forwardly of the walls 44. A front vertical connector 48 is provided on the leading edge of the flange extension 46, and a web 50 spans the distance between the connector 48 and the wall 44. The dimensioning of the web 50, connector 48 and extension 46 is such that the spokes are engaged with the hub by sliding the connector 48 into the slot 26, with the web 50 disposed in the slit 32. The wall 44 bears against the wedge members 28 and 30 thereby assuring a secure connection. The hub and spokes are preferably of plastic or the like, and the connection of the spokes to the hub is frictional, providing for disassembly when desirable.

Suitably engaged, as by tying, or with some attachment device, in each of the openings 40, is cord means in the form of an elongated elastic strand 52. The distal end portion 54 of each of the strands is engaged with an amusement and exercise element 56, the manner of attachment again being optional.

The amusement and exercise elements are of the "squeeze toy" variety. Each has a body portion 58 which resembles an animate or other figure, and each has a body cavity with an adjacent base 60 and side walls 62, the base and side walls being flexible. Similarly, a strand 64 hangs from the eyelet 20 and has an amusement and exercise device 66 thereon.

A sound producing device 68 is mounted in grommet fashion in the base 60 of each of the toys, and emits a sound, such as a whistle, upon each compression and release of the side walls or base.

The second embodiment of the invention, shown in FIGS. 5 through 7, inclusive, shows a toy assembly 10a within the concept of a suspended squeeze toy device. The support means for the invention here comprises the side rails of a crib or playpen (not shown). Flexible cord means for the invention comprises an elongated strap 52a, having a series of amusement and exercise elements 56a thereon. The elements are attached to the strap by rivets 100, or the like. As in the first form of

the invention, each element **56***a* has a base **60***a*, and side walls **62***a* about the hollow body cavity thereof. A sound producing whistle **68***a* is disposed in the base.

The entertainment value of the assembly **10***a* is further enhanced by the use of a series of plastic valves **102** disposed on the cord **52***a* in alternate relation to the elements **56***a*. The plastic bells have top walls **104**, and rivets **106** extend through the walls and also engage small metal bells **108**.

It will be observed that each form of the invention provides an entertaining and amusing form of exercise device for infants, and encompasses the concept of a suspended squeeze toy.

I claim:

1. A toy assembly for suspension from an overhead support, the toy assembly comprising:

a support assembly including a central hub, the hub having a peripheral edge and an annular skirt about said edge;

a series of radially arranged, T-form slots formed in the hub and skirt about the edge;

the skirt having a vertical slit formed therein coincident in location with each of said slots, and a wedge member on opposite sides of each slit;

a plurality of spoke members, each having a central body portion with distal and proximal ends;

a vertical wall on the proximal end of each of the body panels;

a flange extension on each panel projecting from said vertical wall;

a front vertical connector secured to the flange extension and a web interconnecting the vertical connector and the vertical wall;

the spoke members being releasably engaged with the spoke, with the vertical connectors disposed in the respective slots, the webs disposed in the slits and the vertical wall frictionally engaged against the wedge members, of the slots; and

an amusement and exercise element suspended from the distal end of each spoke.

2. The invention of claim **1**, wherein:

a plurality of amusement and exercise elements are provided; and

a series of sound producing members suspended from the cord means between the amusement and exercise elements.

3. The invention of claim **1**, and:

an elastic cord depending from the hub and having a distal end; and

a further amusement and exercise element secured to the last named elastic cord.

4. The invention of claim **1**, wherein:

the spoke elements are individually detachable from the hub.

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