ABSTRACT: An infant's toy in the form of a ball-like structure and comprised of a pair of meridional ring members intersecting each other at the north and south poles of the ball-like structure at substantially right angles and joined by spaced latitudinal ring members disposed above and below the equator of the ball-like structure, the outside diameter of all of said ring members being such as to be readily graspable by an infant. A noise producing means may be disposed within the confines of the ball-like structure defined by the ring members, or noise producing elements, moveable or otherwise, may be disposed within the confines of the ring members per se.
3,633,587

INFANT'S TOY

BRIEF SUMMARY OF THE INVENTION

This invention relates to toys and, more particularly, to an improved toy particularly adapted for use by infants and young children in early childhood.

An object of the invention is to provide an improved toy particularly adapted for use by infants and young children and incorporating in a single structure, means for satisfying the principle interests of an infant or young child including sound, visual excitement through color and motion, manipulative experience through reaching and grasping, and oral gratification through chewing and sucking.

Another object of the invention is to provide an improved toy which lends itself readily to the grasping instinct of an infant or relatively young child.

Another object of the invention is to provide an improved toy that embodies and proposes uses not heretofore included in a single infant's toy.

Another object of the invention is to provide an improved toy that tolerates chewing or "teething" without damage to the toy and without danger to an infant or child.

Another object of the invention is to provide an improved toy that is not only initially entertaining for an infant or child but which promotes continued interest on the part of the infant or child.

Another object of the invention is to provide an improved infant's toy that is relatively simple in construction, economical to manufacture and assemble, and durable.

The above as well as other objects and advantages of the present invention will become apparent from the following description, the appended claims and the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of an infant's toy embodying the present invention.

FIG. 2 is a top plan view of the structure illustrated in FIG. 1.

FIG. 3 is a side elevational view of the structure illustrated in FIG. 1.

FIG. 4 is a sectional view of the structure illustrated in FIG. 3, taken on the line IV—IV thereof.

FIG. 5 is a sectional view of the structure illustrated in FIG. 2, taken on the line V—V thereof.

FIG. 6 is a fragmentary, sectional view of another embodiment of the invention, illustrating one meridional ring member and one latitudinal ring member; and

FIG. 7 is a fragmentary, sectional view of the embodiment illustrated in FIG. 6, illustrating the other meridional ring member and the other latitudinal ring member.

DETAILED DESCRIPTION

Referring to the drawings, one embodiment of the invention is illustrated in FIGS. 1 through 5 thereof and is comprised of a ball-like structure, generally designated 10, which is particularly adapted for use by infants and young children in early childhood, although it will be understood that the present invention is applicable to other uses. As shown in the drawings, the toy 10 is comprised of a pair of meridional ring members 12 and 14 which are integrally joined to each other and the axes of which are disposed in substantially perpendicular planes whereby the axes of the ring members 12 and 14 intersect each other at the north and south poles 16 and 18, respectively, of the ball-like structure 10 at substantially right angles.

A pair of spaced latitudinal ring members 20 and 22 are provided which are integrally joined to each of the meridional ring members 12 and 14, the latitudinal ring members 20 and 22 being disposed above and below the equator of the ball-like structure 10 with the axes of the latitudinal ring members 20 and 22 lying in spaced substantially parallel planes normal to each of the planes of the axes of the meridional ring members.

In the embodiment of the invention illustrated in FIGS. 1 through 5, each of the ring members 12, 14, 20 and 22 is circular in cross section and of solid construction, as distinguished from tubular construction, the diameter of each of the ring members being such that each of the ring members may be readily grasped by an infant or young child. Each of the ring members 12, 14, 20 and 22 is formed of a material such that chewing or teething can be tolerated without damage to the material itself and without danger to the users. Such materials may include, for example, rubber, plastics, silastic and other resilient, elastic materials which are nonpoisonous and which may be chewed without detriment by an infant and without damage to the material itself. It is preferred that the ring members 12, 14, 20 and 22 be formed of different colored materials although it will be understood that any combination of colors as well as a single color may be utilized, if desired. The coloring may either be externally applied to the ring members or may be incorporated into the structural material forming the ring members.

In order to provide pleasing acoustical effects, a noise producing element such as a conventional sleigh bell 24 is provided which is disposed within the confines of the ring members 12, 14, 20 and 22, the noise producing element being of such size that it can not escape through the spaces such as 26 and 28 between the ring members. In the embodiment of the invention illustrated in FIGS. 1 through 5, the noise producing element is in the form of a conventional sleigh bell having a body 30 in which a clapper 32 is disposed to produce a bell tone acoustical effect when an infant shakes the toy 10 or when the toy 10 is rolled, as for example on the floor. It will be understood that, if desired, other forms of noise producing elements may be disposed within the confines of the ring members 12, 14, 20 and 22.

Another embodiment of the invention is illustrated in FIGS. 6 and 7, this embodiment of the invention being comprised of a ball-like structure, generally designated 110, having substantially the same configuration as the structure 10 previously described. However, in this embodiment of the invention the meridional ring members 112 and 114 and the latitudinal ring members 120 and 122 are of tubular construction, as distinguished from solid construction, and defined passageways 125 in which noise producing elements in the form of shot or BB's 127 are disposed, the noise-producing elements 127 providing acoustical effects when the toy 110 is rolled or shaken by an infant. The meridional ring members 112 and 114 and the latitudinal ring members 120 and 122 are also formed of material such as rubber, plastics, silastic or other resilient materials which are nonpoisonous so that chewing and teething can be tolerated without detriment to the users and without damage to the material itself. The outside diameter of each of the members 112, 114, 120, 122 and 125 is also such that each of the ring members may be readily grasped by an infant or young child and, if desired, such ring members may also be colored as previously described.

From the foregoing description, it will be apparent that because of the nature of the design of the toys 10 and 110, the toys will display only a limited ability to roll on a flat surface. This limited rolling capacity is vital to the entertainment of the infant or child and its limitation is essential to promote continued interest on the part of such user. In other words, the toys 10 and 110 will roll in an entertaining fashion but will not roll so far as to go beyond the reach of an infant whose mobility is limited by the nature of his age and development. From the foregoing it will also be apparent that the present invention provides, in a single structure, a means of satisfying the principle interests of an infant or young child including sound, visual excitement through color and motion, manipulative experience through reaching and grasping, and oral gratification through chewing and sucking.

It will be understood that the outside diameter of the ring members may be varied to suit the grasping abilities of infants of various ages and that the overall diameter of the toys 10 and 110 may also be varied for infants of various ages, it being un-
derstood that the spaces such as 26 and 28 between the ring members should be sufficiently large to permit grasping of the ring members by an infant and that the noise-producing element 24 should be of a size such that it can not escape through the spaces between the ring members.

While the present invention has been illustrated and described primarily as a toy for infants and young children, other uses of the present invention are possible. For example, larger versions of the same construction may be adapted for playground use and, if made sufficiently buoyant, for beach or water use.

It should also be understood that the number of rings, meridional or latitudinal, may be varied from the number illustrated in the preferred embodiments.

While preferred embodiments of the invention have been illustrated and described, it will be understood that various other changes and modifications may also be made without departing from the spirit of the invention.

What is claimed is:

1. An infant's toy in the form of a ball-like structure and comprised of a plurality of meridional ring members integrally joined to each other with the axes thereof disposed in substantially perpendicular planes, and a plurality of spaced latitudinal ring members integrally joined to each of said meridional ring members, each of said ring members being circular in transverse cross section, all of said ring members having substantially the same diameter in transverse cross section, the axes of said latitudinal ring members being disposed in spaced substantially parallel planes normal to each of the planes defined by the axes of said meridional ring members, the axes of said meridional ring members intersecting each other and the axes of said latitudinal ring members intersecting the axes of said meridional ring members.

2. The combination as set forth in claim 1, including acoustical means disposed within the confines of the space defined by said ring members.

3. The combination as set forth in claim 1, wherein said ring members are of tubular form, and acoustical means disposed within the confines of said tubular members.

4. The combination as set forth in claim 1, wherein said ring members are of different colors.

5. In an infant's toy, the combination including a pair of meridional ring members formed of resilient material, said meridional ring members intersecting each other at substantially right angles, a plurality of spaced latitudinal ring members integrally joined to each of said meridional ring members, each of said ring members being circular in transverse cross section, all of said ring members having substantially the same diameter in transverse cross section, the axes of said latitudinal ring members being disposed in spaced substantially parallel planes normal to the planes of the axes of said meridional ring members, the axes of said meridional ring members intersecting each other and the axes of said latitudinal ring members intersecting the axes of said meridional ring members.

6. The combination as set forth in claim 5, including acoustical means disposed within the confines of the space defined by said ring members, the maximum transverse dimensions of the interstices defined by said ring members being less than the minimum transverse dimensions of said acoustical means whereby movement of said acoustical means is limited to within the confines of the space defined by said ring members.

7. The combination as set forth in claim 5, wherein said ring members are of tubular form, said ring members defining passageways, and sound producing means disposed within the passageways defined by said ring members.

8. The combination as set forth in claim 7, wherein said ring members are of different colors.

9. The combination as set forth in claim 8, wherein said ring members are formed of silastic.

10. An infant's toy in the form of a ball and comprised of a pair of meridional members intersecting each other at the north and south poles of said ball at substantially right angles and joined by a space latitudinal ring members disposed above and below the equator of said ball, each of said ring members being circular in transverse cross section, all of said ring members having substantially the same diameter in transverse cross section, the axes of said meridional ring members intersecting each other and the axes of said latitudinal ring members intersecting the axes of said meridional ring members, the outside diameter of all of said ring members being such as to be readily grasped by an infant.

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