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SIT-UP TRAINER FOR BABIES

Filed Oct. 3, 1967

FIG.1

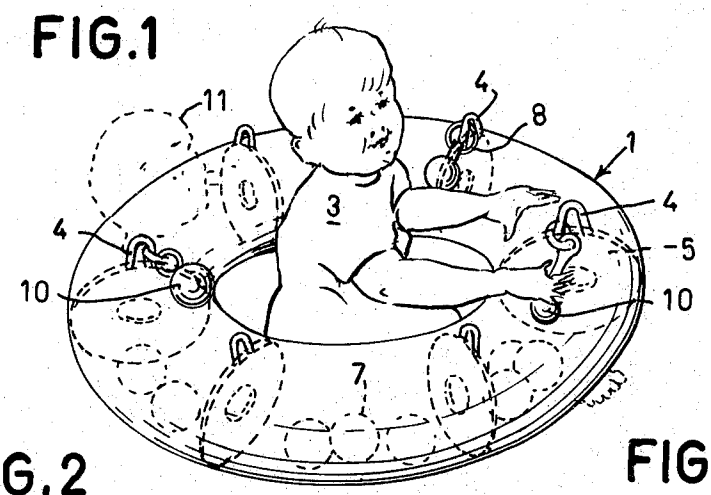


FIG.2

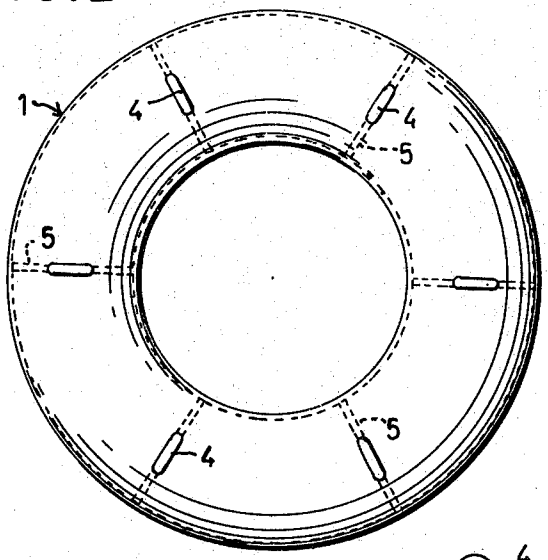


FIG.3

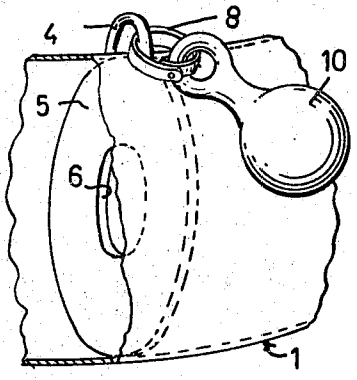


FIG.4

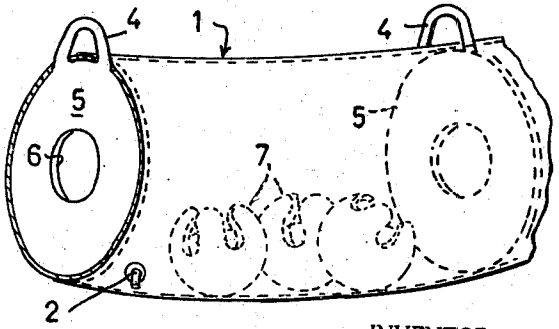
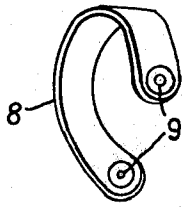


FIG.5



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SIT-UP TRAINER FOR BABIES

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ABSTRACT OF THE DISCLOSURE

A sit-up trainer for babies, in which an annular soft ring is provided of an inside diameter to loosely encircle the body of a seated baby and extend across its lap in front and to the floor or ground at the back, and of uniform cross-sectional contour and diameter at any point therearound, to prevent the baby from injuring its head upon its toppling or falling over, and to prevent toppling to a degree that it cannot right itself, and which tube includes means associated therewith for the attachment of toys and which tube may also enclose toys.

BACKGROUND OF THE INVENTION

Babies at an early age, when seated on the floor, fall over backward and to the side and are unable to restore themselves to upright position, and they frequently suffer head injury by striking the floor with their heads upon falling over, particularly backward falling.

Activity of movement of the arms and hands at an early age is desirable, and to promote such activity, as well as to gain and to maintain the interest of babies, it has heretofore been customary to provide a baby with toys or other articles. However, where these are loose, the baby usually throws them beyond reach, and injurious falls occur in an attempt to retrieve them, or if they are attached to a crib or playpen, the baby may fall against the sides of the crib or pen in its play, thus injuring itself.

In order to avoid the foregoing accidents, it has been customary for the mother to seat the baby on the floor and to surround it with pillows. However, the pillows quickly become disarranged and toys or articles given to the baby for its amusement become lost in the pillows or thrown beyond reach, requiring frequent attention on the part of the mother to replace the pillows and recover the toys.

The present invention provides, in one device, a means for preventing injury to the baby from falling in any direction and at the same time places toys and other articles of interest within access of the hands of the baby, and maintains them in accessible positions, thus stimulating the desired activity of the hands, arms and body, without danger of the baby falling and injuring itself, yet permitting free falling to a degree in which the baby is able to recover its upright position, thus learning to do so to the extent that within a short time it is able to control its balance and to learn the movements required for restoring its body to a normal upright position.

Another object of the invention is the provision of a device, as above described, that is sufficiently light in weight to be no burden on a baby when in use, and in this connection, it should be noted that the device is adapted for use in a pool in which the baby may be placed, to float in the water, in approximately the same position as when used where the baby is seated on the floor, thus giving added interest to the baby, as well as insuring its safety.

Other advantages and objects will appear in the drawings and description.

In the drawings:

FIG. 1 is a perspective view of the invention in a position around a seated baby;

FIG. 2 is a top plan view of the basic element of the invention;

FIG. 3 is an enlarged, fragmentary perspective, part sectional view showing a portion of the invention including a toy attached thereto;

FIG. 4 is an enlarged fragmentary perspective view, partly in section, of a section of the trainer showing sound-making toys loose therein;

FIG. 5 is an enlarged perspective view of a flexible band adapted to releasably connect toys to the basic element shown in FIG. 2.

DESCRIPTION OF THE INVENTION

An annular tube **1** is preferably of relatively thin, but tough, waterproof, resilient and transparent plastic that may be permanently inflated with air, or provided with an air valve **2** (FIG. 4) which valve is conventional and is preferably in a position around the outer periphery of the tube and out of the sight of the baby and where it is not accessible to the latter.

The central opening in the tube is of adequate size to freely encircle the body of the baby **3**, and when one portion of the tube is resting on the lap of the baby, the opposite side may rest on the floor or ground behind the baby.

The tube is also preferably of uniform cross-sectional contour at all points therearound, and the portion that is adapted to rest on the floor behind the baby is sufficiently close to the body of the latter, at its maximum permitted distance from said body, and is of sufficient diameter to prevent the baby from falling over and striking the floor with its head. Also, the diameter of the tube at any point therearound is such that the baby, if fallen over, will be supported sufficiently so it may recover its original position without the help of another person.

Secured to the tube and in a position at the upper side of the latter when the tube is generally horizontal in body encircling relation, are flexible loops or eyes **4**, each of which may be inseparably secured to the tube **1** in any suitable manner. Each loop is preferably of plastic material and sufficiently soft, flexible and resilient so as not to injure or bruise the baby should they be struck by the latter.

At the position of each eye **4**, an annular disc **5** of semi-rigid transparent plastic material that is preferably integral with or fused to the tube and with each eye, to form a partition within the tube having an opening **6** therein. The openings **6** provide for passage of air for inflating the tube. The partitions also function to provide a means for securely holding the eyes against being torn from the tube inasmuch as the partitions, tube and eyes are substantially integrally united.

Said partitions **5** divide the interior of the tube into a plurality of compartments, in sufficient number so that one or more is always in front of, or within view of the baby irrespective of how the tube is initially positioned, and irrespective of whether or not the tube is rotated by the baby about its body.

Within each compartment is one or more lightweight colorful toys or elements **7** (FIG. 4) that may be of the sound producing kind, when shaken, such as small rattles or bells in which an outer shell encloses a loose ball or the like, or the articles may be merely colorful lightweight loose articles that will not pass through holes **6**.

The loops or eyes **4** are each adapted to be releasably connected with a band or elongated flexible piece **8** (FIGS. 1, 5), having snap fastener elements **9** at its ends for releasably securing said ends together after the piece **8** is inserted through an eye **4** and through a similar eye or opening in a toy **10**.

Obviously, the toys **10** of any desired shape or contour or characteristic may be permanently or releasably connected with eyes **4**, but preferably they are releasable and removable from the toys to enable quick replacement of the same or different articles whenever desired. The connector **8** should also be of the type that is quickly connected to any toy having an opening through which the piece may be inserted.

The plastic of tube **1**, as heretofore mentioned, is waterproof and tough, therefore the tube may be placed around the baby when it is in a tub or pool, and preferably all exposed parts of the device are also of plastic so as not to rust or corrode.

The partitions **5** prevent the pieces **7** from shifting to the lowest point in the tube when the latter is in use, which lowest point would be behind the baby and out of its range of vision. The purpose of the pieces **7** is to keep the baby's interest, and when the tube is shaken, the pieces will not only move but will create a sound.

The toys **10** are readily accessible to the baby at its front and sides and one or more will always be readily viewable by the baby and accessible to its hands for examination and for play.

The underside of the tube **1** and its lateral inner sides are free from any projections that would engage the body of the baby, hence the tube may be readily moved circumferentially or up and down without snagging on clothing or body, and the baby may shift it around its body in play.

Normally, when the tube encircles the body of a baby seated on the floor, the baby will grasp the toy or articles it faces and may draw the tube onto its lap or close to the forward side of its body, in which case the portion of the tube crossing the rear side of its body must not be spcaced so far that the head of the child will strike the floor, and preferably it should not be so distant that the head is snapped forward. Preferably, the diameter of the tube should be such that the tube will engage the body at about the junction between the head and shoulders when the baby falls over. The broken lines **11** (FIG. 1) generally indicate the position of the head of a baby when it falls rearwardly.

If the tube is pushed forward so that the tube is close to the back of the body, it will offer almost immediate support against toppling.

However, too small a central opening in the angular tube will restrict the movement of the baby and its activities are limited.

The diameter of the tube is important in that it provides the desired support for the body of the seated baby under any condition, and also supports the toys or articles thereon at the most accessible positions, and will support the body comfortably in a semi-reclined position when the baby is resting.

The articles within the transparent tube provide a constant source of interest in that they are not only inaccessible to the baby, thus stimulating the interest of the baby, but will roll around and create sound as the tube is shaken. Being enclosed, there is no restriction on the type of material from which they are made. They will not become wet, nor can the baby strike them in falling and cause injury to the baby.

As an example of the dimensions of a tube that is adapted to accomplish the desired results, the cross-sectional diameter of the tube at any point therearound may be from approximately four inches. The diameter of the central opening may be from approximately ten inches to fourteen inches, thus the outside diameter may be from approximately eighteen to twenty-six inches. With such a tube, the portion behind a baby that is seated on the floor, when the tube is in body encircling relation with the tube extending across the lap of the baby, is of sufficient height to provide the required support for preventing the baby from falling backward and striking its head on the floor, yet supporting the body to the extent that the baby may, by itself, recover its seated position.

From the foregoing it is believed evident that the benefits of the invention are fully realized where the baby is quite young and before it has developed its sense of balance and control of its movements, and the device should be sufficiently light in weight so as to be no burden on a baby, and the weight is such that the baby may readily shake it to cause movement of the articles within and outside the tube.

The annular, or substantially annular, shape of the tube enables it to be rotated about the body of the baby, and the distribution of toys or other articles of interest thereon and therein, is such as to always provide a toy or article within easy access to the hands of the baby, or within its normal range of vision, so as to maintain the interest of the baby at all times and to promote activity of the baby to either of its sides as well as at the front.

The partitions themselves are resilient and are not sufficiently stiff and hard as to cause any hurt or injury to the baby in falling against the tube. Their principal functions are to prevent the articles in each section from all working their way to the rear side of the baby when the device is in use and to provide a strong attachment for the loops **4**. The central opening enables air communication between all sections from one inlet. The air within the tube maintains its shape.

It is to be understood that the scope of the invention is not intended to be limited by the detailed description, but only by the scope of the claims appended hereto, and that modifications, substitutions and changes may be made that come within the spirit of the invention and the scope of the claims.

We claim:

1. A trainer for developing the balance and activity of a baby, in safety, comprising:

(a) a generally annular tube of transparent, flexible, resilient, rubber-like material having a central opening for positioning said tube in a position loosely encircling the body of a baby seated on the floor or ground with one section thereof extending across the legs of the baby and with the sections opposite to said one section behind the baby and resting on the floor or ground,

(b) articles loosely positioned within said tube for attracting the attention of said baby,

(c) said tube being inflated with air, and the inner and lower sides of said tube being smooth to enable rotation thereof about the body of said baby, free from snagging on the clothing or body of the baby.

2. In a trainer as defined in claim **1**.

(d) the cross-sectional diameter of said tube at any point therearound being approximately four to six inches, and the diameter of said opening being approximately ten to fourteen inches, whereby said oppositely positioned sections will coact with the floor and body of said baby to support the baby aaginst falling and striking its head on the floor, and to support said body in a position to enable the baby to recover its upright seated position, by itself, when said tube is in body encircling relation around the body of a baby seated on the floor.

3. In a trainer as defined in claim **1**.

(d) a plurality of adjacent pairs of partitions within said tube providing a plurality of compartments within said tube around the circumferential length thereof, and at least one of said articles being within each compartment.

4. In a trainer as defined in claim **3**,

(e) said partitions each being formed with an opening to provide for free passage of air between compartments, each opening being less than the thickness of said articles to prevent passage of an article from one compartment to another,

(f) a valved inlet for inflating said tube with air.

5. In a trainer as defined in claim 3,

(e) separate means at each partition on the upwardly facing side of said tube for attaching toys or other articles thereto for observation and manipulation by said baby, each of said means being secured to a partition and to said tube, and

(f) means for releasably securing such toys or articles to said separate means.

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