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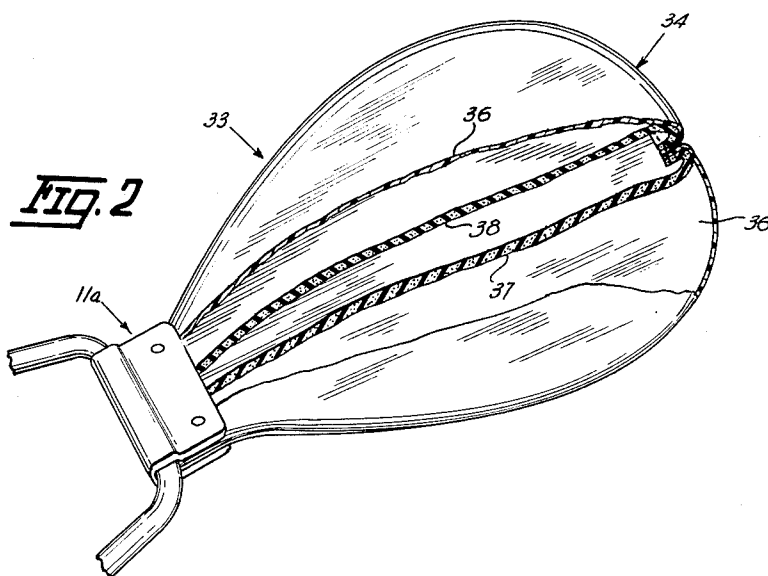
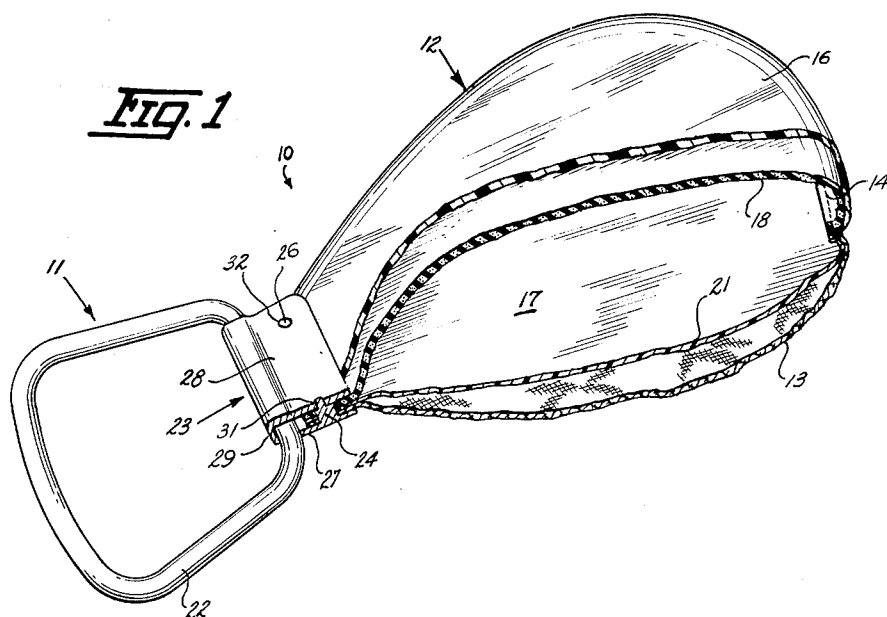
S. HETTINGA

3,221,444

CHILD'S NOISE PRODUCING PLACATER

Filed Sept. 4, 1962

2 Sheets-Sheet 1



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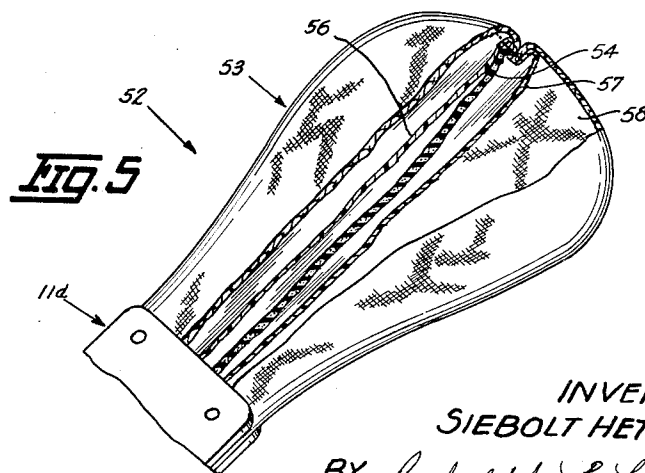
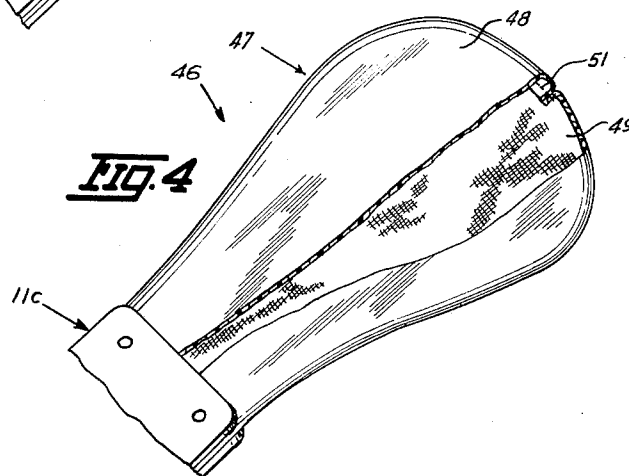
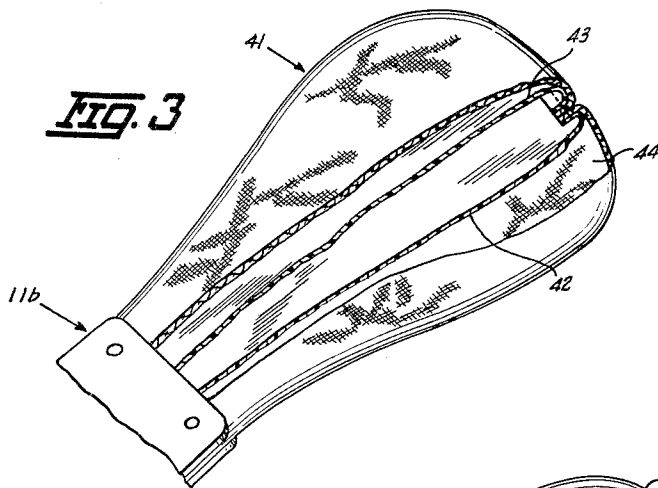
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2 Sheets-Sheet 2



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3,221,444

CHILD'S NOISE PRODUCING PLACATER

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6 Claims. (Cl. 46—175)

The present invention relates to infants' toys and more particularly to improvements in infant's toys which produce motions and sounds that amuse and appeal to the child's inquisitive sense.

It is the object of the present invention to provide a relatively inexpensive, durable, flexible and washable child's placater which when manipulated by an infant produces a novel crinkling and crushing sound which appeals to the child.

Another object of the invention is to provide an infant's toy made from lightweight and tough materials that are non-toxic, and chemical and moisture resistant.

A further object of the invention is to provide a sound producing infant's toy with a teething ring which also functions as a handle.

According to the invention, the child's placater includes a rigid handle secured to a tough and flexible body means. The body has the characteristics of producing a crinkling and crushing sound when it is distorted from its normal shape. These characteristics of the body are developed by utilizing a relatively thin, deformable tough sheet material in combination with a resilient reinforcing member. The resilient member is positioned adjacent the sheet material and functions to hold the material in its normal shape. When a child deforms the body, the sheet material produces a distinctive crinkling and crushing sound. This sound is continued after the child releases the body by the spring action of the reinforcing member. The crinkling and crushing sound amuses the child by appealing to the child's natural curiosity and destructive instincts.

The exact nature of the invention as well as other objects and advantages thereof will be readily apparent from the consideration of the following specification relating to the annexed drawing in which:

FIGURE 1 is a perspective view partly in section of a placater constructed according to the invention;

FIGURE 2 is a perspective view partly in section of a modification of the placater of FIGURE 1;

FIGURE 3 is a perspective view partly in section of a further modification of the placater of FIGURE 1;

FIGURE 4 is a perspective view partly in section of another modification of the placater of FIGURE 1; and

FIGURE 5 is a perspective view partly in section of still another modification of the placater of FIGURE 1.

Referring to the drawing, there is shown in FIGURE 1 a child's placater 10 having a handle 11 and a body 12. The body includes several juxtaposed layers, at least one of the layers being deformable and having the characteristics on being deformed of producing a crinkling and crunching sound. The layer 13 is a washable flexible fabric and is secured by means of stitches 14 to a sound-producing layer 16 to form an enclosed chamber 17. To provide the body with support and shape, a resilient reinforcing layer 18 is positioned in the chamber 17 and sandwiched between the layers 16 and 18. The reinforcing layer is soft and easily deformable and is formed from material such as foam rubber or a natural sponge.

In order to increase the intensity of the noise a second sound-producing layer 21 is positioned between the reinforcing layer 18 and the layer 13. The sound-producing layers 16 and 21 are formed from relatively thin, tough sheet material that is non-toxic, and chemical and moisture resistant.

An example of an effective sound-producing layer is the polyester film sold under the trademark "Mylar" by the

E. I. du Pont de Nemours & Company of Wilmington, Delaware. The film Mylar, between 0.0005 to 0.005 inch in thickness, produces a sharp and distinct crinkling and crunching sound when deformed as by being crushed.

This sound is accentuated after the Mylar film has been pre-wrinkled. This film is flexible, tough, resists abrasion, and is non-volatile and inert to water. In addition, Mylar has a high tensile strength, a resistance to failure by repeated flexing, and a resistance to initial tear. These properties form a body 12 which is washable in hot water and cannot be penetrated by an infant's sharp teeth.

The handle portion 11 has a rectangular shaped teething ring 22 integrally secured to a fastening clamp 23. The clamp has a pair of laterally spaced male rivet projections 24 and 26 mounted on a base plate 27 and a rotatable plate member 28 integrally secured by a thin isthmus 29 to a portion of the ring 22. The plate member 28 has a pair of bores 31 and 32 adapted to receive the projections 24 and 26.

A portion of the body 12 is placed on the base plate 27 and held thereon by rotating the plate member 28 into engagement with the projections 24 and 26. The clamping action of the plate member 28 is maintained by the coaction of the rivet projections with the edges of the bores 31 and 32.

The modified placater 33 shown in FIGURE 2 has a handle 11a which is identical in construction with the handle 11 of FIGURE 1. The body 34 has outer surface layers 36 formed from sound-producing sheet material substantially identical to the sheet material forming the layers 16 and 21 of FIGURE 1. A plurality of resilient reinforcing layers 37 and 38 are sandwiched between the surface layers and provide the body with flexibility and shape. When the body 34 is deformed the layers 37 and 38 will restore it to its initial shape.

The modified placater 39 shown in FIGURE 3 includes a handle 11b and a body 41. The handle 11b is substantially identical in construction with the handle 11 of FIGURE 1. The body 41 includes a plurality of sound-producing layers 42 and 43 formed from sheet material substantially similar to the sheet material forming the layers 16 and 21. The layers 42 and 43 are enclosed by a washable fabric cover 44. The shape of the body is maintained by the resilient characteristics of the sound-producing layers 42 and 43.

The modified placater 46 shown in FIGURE 4 has a handle 11c substantially identical to the handle 11 of FIGURE 1 and a body 47. The body 47 comprises a layer 48 formed from sound-producing material substantially similar to the material forming layers 16 and 21 of FIGURE 1 and a flexible fabric layer 49. The layers 48 and 49 are secured together along their peripheral edges by conventional means such as stitching 51.

Referring to FIGURE 5, there is shown a modified placater 52 having a body 53 secured to a handle 11d. The handle 11d is similar in construction to the handle 11 of FIGURE 1. The body 53 has a resilient reinforcing member 54 sandwiched between a pair of sound-producing members 56 and 57. The members 56 and 57 are formed from sheet material substantially identical to the sheet material forming the layers 16 and 21. A washable fabric cover 58 encloses the members 54, 56 and 57.

While there have been shown, described and pointed out the fundamental novel features of the invention, it will be understood that various omissions, substitutions, changes in form and details of the child's placater illustrated may be made by those skilled in the art, without departing from the scope of the invention as defined in the appended claims. It is intended to be limited only as indicated by the scope of the following claims.

I claim:

1. A child's placater comprising:
 - (a) handle means,
 - (b) resilient reinforcing means,
 - (c) surface layers of a deformable means which on 5
being deformed has the characteristics of producing
a crinkling and crunching sound, said layers being
positioned adjacent said reinforcing means to sand-
wich said reinforcing means therebetween and cover
the reinforcing means whereby the deformed layers 10
will resume their undeformed shape, and
 - (d) means securing the handle means to a portion of
the outer surface layers.
2. A child's placater comprising:
 - (a) resilient reinforcing means, and 15
 - (b) surface layers of a deformable means which on
being deformed has the characteristics of produc-
ing a crinkling and crunching sound, said layers be-
ing positioned adjacent but movable relative to said
reinforcing means to sandwich said reinforcing means 20
therebetween and cover the reinforcing means where-
by the resilient reinforcing means return the deformed
layers into their initial positions.
3. A child's placater comprising:
 - (a) a first layer of deformable sheet material which 25
on being deformed has the characteristics of pro-
ducing a crinkling and crunching sound,
 - (b) a second layer of washable fabric,
 - (c) resilient reinforcing means sandwiched between but
movable relative to the first and second layers to 30
hold said layers in a substantially flat position, and
 - (d) means securing the peripheral edges of said layers
together to form a unitary body.
4. The child's placater defined in claim 3 including:
 - (a) a third layer of washable fabric positioned adja- 35
cent the first layer whereby the entire body is cov-
ered with a washable fabric.
5. A child's placater comprising:
 - (a) a flexible body means including a layer of a resil- 40
ient member and at least one layer of a deformable

- means positioned adjacent to but movable relative
to the resilient member, said deformable means on
being deformed from an initial position having the
characteristics of producing a crinkling and crunch-
ing sound, and
- (b) means securing opposite adjacent peripheral por-
tions of said deformable means and said resilient
member against relative movement,
 - (c) said deformable means after deformation being re-
turned to the initial position therefor by said resilient
member.
6. A child's placater comprising:
 - (a) a first layer of deformable sheet material which
on being deformed from an initial position has the
characteristics of producing a crinkling and crunch-
ing sound,
 - (b) a second layer of a resilient reinforcing means
positioned adjacent to said first layer and in a back
to back relation therewith,
 - (c) said first and second layers surrounded and en-
closed by a third layer of washable fabric, and
 - (d) said first layer movable relative to said second and
third layers to produce a crinkling and crunching
sound and returned to the initial position therefor by
said second layer.

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DELBERT B. LOWE, *Primary Examiner*.

RICHARD C. PINKHAM, *Examiner*.