ENHANCED SAFETY BOBBING HEAD SCULPTURAL SCULPTURES

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ABSTRACT
A bobble head sculpture comprising a base portion which is defined by an outer surface member defining an internal volume is disclosed. A spring has first and second ends. A bobbing member is mounted on the first end of the spring. A support base member is secured to the second end of the spring. The support base member is contained within the internal volume. Stuffing is contained within the internal volume. The stuffing bears against the support base member. The support base member extends to the edges of the volume at a plurality of points on the outer surface member whereby the support base member is held in a relatively stationary position by those points on the outer surface member and the stuffing. In accordance with the invention, the base portion may be the body portion of a figure and the bobbing member the head of the figure. The stuffing may comprise a mixture of plastic beads and a fibrous material. Optionally, the spring is covered by a crimped or gathered fabric sleeve. A measure of safety is provided by the inventive system by making the sculpture soft account of the nature of the stuffing disposed in the internal body.
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TECHNICAL FIELD

[0001] The present invention relates to sculptural sculptures with bobbing heads typically placed on the front or rear dashboard of an automobile.

REFERENCE TO FEDERAL FUNDING

[0002] Not applicable.

CROSS REFERENCE TO RELATED PATENT APPLICATIONS

[0003] Not applicable.

BACKGROUND

[0004] So-called bobble head or bobbing head sculptural sculptures are used by consumers primarily on the rear dashboard of automobiles, behind the rear of automobile seats. Typical subjects for such sculptures are reclining dogs and baseball players, whose heads wobble over the sculpture’s body which is secured to the dashboard.

[0005] Such bobble head sculptures may typically comprise a hard plastic body, and a hard plastic head, connected to each other by a spring.

[0006] Such wobbling is caused by the movement of the automobile, which forces movement of the body of the sculpture, allowing inertia to resist the displacement of the head of the sculpture which is secured to the body of the sculpture by a spring. Alternatively, the head of the sculpture may be attached to the body of the sculpture by another type of mounting, such as a pivot mounting, a pin and post mounting, a rubber band mounting, or any other type of mounting.

[0007] During use, the bobble head sculpture is moved about by the movement of the automobile and the head bobs, simulating the movements, for example, of a living animal or person.

SUMMARY OF THE INVENTION

[0008] Such bobble head sculptures suffer from a number of shortcomings. For example, in the event that the bobble head sculpture is used in an automobile, sudden stopping of the automobile or an accident may close the bobble head sculpture to be violently accelerated to the front of the passenger compartment, where it may hit occupants on the vehicle.

[0009] Moreover, the exposed spring may present a safety hazard, especially to children.

[0010] Finally, children are likely to pull the head of the bobble head sculpture from the money, thus stretching out the spring and disabling the bobble head’s ability to bobble.

[0011] In accordance with the invention, the above disadvantages are substantially eliminated. The same is achieved through the use of a soft skin which surrounds the surface of the bobble head sculpture. In accordance with a preferred embodiment of the invention, the soft skin is plush fabric of the type typically used in the manufacture of teddy bears and other toy animal figures. Enhanced softness is achieved by manufacturing and the bobble head sculpture with a soft stuffing, for example stuffing made of fibers, beads, feathers and so forth.

[0012] More particularly, in accordance of the present invention, the inventive bobble head sculpture comprises a base portion which is defined by an outer surface member defining an internal volume. A spring has first and second ends. A bobbing member is mounted on the first end of the spring. A support base member is secured to the second end of the spring, the support base member is contained within the internal volume. Stuffing is contained within the internal volume. The stuffing bears against the support base member. The support base member extends to the edges of the volume at a plurality of points on the outer surface member whereby the support base member is held in a relatively stationary position by those points on the outer surface member and the stuffing. In accordance with the invention, the base portion may be the body portion of a figure and the bobbing member the head of the figure.

[0013] The stuffing may comprise a mixture of plastic beads and a fibrous material. Optionally, the spring is covered by a housing. This housing may comprise a crimped or gathered fabric sleeve.

[0014] A measure of safety is provided by the inventive system by making the sculpture soft account of the nature of the stuffing disposed in the internal body. The safety feature on the invention may be enhanced by the outer surface member being made of a plush low friction fabric. Thus, in the event that a car in which they inventive bobble head sculpture is contained were to suddenly stop and the sculpture to be hurled forward, the plush nature of the sculpture would be less likely to cause injury than conventional hardshell of all head sculptures on account of the shock absorbing characteristic of the plastic and/or fibrous stuffing. Moreover, impacts with, for example, passengers in the automobile would be more likely to be glancing blows with minimal frictional abrasion on account of the low friction characteristics of certain plush fabrics.

[0015] In accordance with one preferred embodiment, a bobbing member comprises an outer shell, and an inner shell, the outer shell having a base secured to the inner shell at the base of the inner shell, and further includes a spring support member secured to the inner shell at the top of the bobbing member at a position inside the outer shell, the first end of the spring being secured to the bobbing member adjacent the top of the inner shell. Such spring support member may be flexible.

[0016] In order to secure the inventive sculpture to, for example, the rear dashboard of an automobile, a self-adhesive member is secured to the base of the base portion. A protective layer which may be removed to expose the self-adhesive member.

[0017] Optionally, a weight may be associated with the bobbing member to achieve different bobbing effects. In similar fashion, a different effect may be achieved by substituting a gravity driven pivot point arrangement for the spring. In this case the center of gravity of the head should be substantially below the pivot point.

[0018] The inventive method of making a sculptural work comprises making a base member. A bobbing member outer shell with a tubular bottom extension is also constructed. A
first end on a spring is secured to the bottom of the tubular bottom extension. A second end of the spring is secured to the bottom of the bottom extension. They tubular bottom extension is pushed into the bobbing member outer shell.

[0019] The spring ends may be secured with glue of the type which melts when it is heated and bonds when it is cool or with a silicone or other adhesive. The second end of the spring may be secured by working through a hole in the bobbing member. In accordance with the preferred embodiment, the tubular bottom extension extends from the bottom of the bobbing member outer shell and is narrower at the bottom of the bottom extension as compared to the size of the tubular bottom extension adjacent the base of the bobbing member outer shell.

BRIEF DESCRIPTION OF THE FIGURES

[0020] These and other objects advantages of the invention will become apparent from the following description taken in conjunction with the figures, in which:

[0021] FIG. 1 is a side view of the inventive bobble head sculpture;

[0022] FIG. 2 is a side view of the head and neck portion of the bobble head sculpture during assembly;

[0023] FIG. 3 is a side view of the head of the inventive bobble head sculpture during assembly;

[0024] FIG. 4 is a side view of the head and neck during assembly showing the compression of the fabric making the neck to allow attention of the head illustrated in FIG. 3;

[0025] FIG. 5 is a prospective view of the head attached to the neck of the inventive plush sculpture during assembly;

[0026] FIG. 6 is a top view of the head during the securement of the neck to the head;

[0027] FIG. 7 shows the assembled inventive plush sculpture, partially in cross-section, to illustrate its inner working parts and construction;

[0028] FIG. 8 illustrates the bobbing head function on the inventive sculpture; and

[0029] FIG. 9 illustrates a gravity operated bobbing mechanism.

[0030] FIG. 10 is an alternative embodiment of the invention illustrating a springy plastic bobbing assembly; and

[0031] FIG. 11 is an alternative embodiment of the invention illustrating a living hinge bobbing assembly.

DETAILED DESCRIPTION OF THE BEST MODE OF THE INVENTION

[0032] Referring to FIG. 1, a plush bobble head sculpture 10 constructed in accordance with the present invention is illustrated. Sculpture 10 generally comprises a body portion 12 and a head portion 14. Body portion 12 may include the features of atypical plush character, such as arms 16 legs 18 and tail 20. Similarly, head 14 may include a nose 22 and ears 24.

[0033] Referring to FIG. 2, the inventive bobble head sculpture is made by first making body portion 12 including elongated plush neck portion 24 and non-plush woven fabric portion 26. Except for portion 26 and the base 28, all portions of body 12 on made of plush fabric. Various depths of pile for the plush fabric may be used, and the conventions generally followed with 11 respect to the selection of plush fabric in the plush stuffed toy field may be employed in the manufacture of a body 12 in accordance with the method of the present invention. Similarly, body portion 12 may be made using techniques customarily employed in the plush toy field.

[0034] In accordance with the preferred embodiment, base 28 may be made of a material which provides a smooth outside surface, such as imitation leather, in order to provide a service which may securely engage another member to the use of a self-adhesive layer, as more fully appears below.

[0035] The inventive bobble head plush sculptural FIG. 10 is manufactured by first manufacturing a body portion 12 and a head portion 14 as illustrated in FIG. 3.

[0036] In accordance with the present invention, a base member 30 made of, for example, rigid or semi-rigid material, such as foam plastic, having a thickness of, for example, 2.5 millimeters is placed at the bottom of body portion 12 as illustrated in FIG. 4. Base member 30 is made to extend to at least three points on the periphery of the inside of the base of body portion 12, in order to provide a secure anchorage for a spring 32, which is placed inside body portion 12 and secured to base member 30 using an adhesive material such as a quantity of silicone glue 34.

[0037] Spring 32 may take a variety of forms depending upon the weight of the head portion 14, the length of the neck of the inventive sculpture, and the bobbing characteristic which one wishes to achieve. Spring 32, in accordance with the preferred embodiment is made of spring wire having a diameter of one millimeter and wound on a radius of approximately 15 millimeters. It may be made of spring steel, plastic with a spring characteristic or any springy material or member, such as a bamboo leaf-spring.

[0038] Any conventional material or combination of materials for stuffing a stuffed animal may be used to fill out the body portion 12 and the head portion 14 of the inventive sculpture. However, in accordance with the present invention, it is preferred that at least a portion of the stuffing comprise a made a tubular sleeve 36 filled with plastic beads 38. Tubular sleeve 36 is selling in a move so that it extends around spring 32 in the form of a doughnut. Additional stuffing material, such as synthetic fibers may be used to fill out the rest of the plush body portion 12.

[0039] Base member 30 is inserted into body 12 into the position generally illustrated in FIG. 4. Next, spring 32 is inserted into body 12. While the spring is being held in position, silicone glue 34 is applied as illustrated in FIG. 4. After silicone glue 34 has cured and hardened, tubular member 36 and beads of plastic 38, together with stuffing 40 (FIG. 7) may be inserted into body portion 12 filling out the arms 16, the legs 18 and the remaining portions of the plush sculpture.

[0040] Plush neck portion 24 and a non-plush neck portion 26 are then compressed down around spring 32, as illustrated in FIG. 4, and a rigid or semi rigid plastic plate 40 is disposed around spring 32 and non-plush neck portion 26. Plate 40 may also be made on relatively stiff home plastic and come in accordance the invention, has a thickness of approximately one millimeter, although a wide range of such
the misses will function well. Plate 40 is then adhered using a flexible adhesive, such as silicone adhesive to the bottom member 42 of head 14.

[0041] In addition, a quantity of silicone adhesive 44 is used to adhere the end of spray 32 to the end of non-plush neck portion 26 and two on a member 42 of head 14. As can be seen in FIG. 5, this operation is performed by having access to the inside of head portion 14 through hole 46. See also FIG. 6.

[0042] As can be seen in FIG. 3, head portion 14 includes a support member 48 which comprises a pair of presto conical members, one of which is on the outside of any wide illustrated in figure three and comprises a presto conical flexible member 50 made, for example, of felt. Support member 48 further comprises an inner presto conical member 52 made of a relatively stiff but still very flexible foam plastic member. Generally member 52 must be stiff enough to be inflexible under the voices applied by a head balmy on spring 32, but flexible enough to be turned inside out as abuse more fully below.

[0043] More particularly, in accordance with the preferred embodiment, members 50 and 52 may be made from strips of flexible material which are sewed to form the desired frustoconical shape.

[0044] After all the above noted glue employed in the assembly of the plush towel has cured, the inventive sculpture 10 may be put into the configuration illustrated in FIG. 7. Essentially, this is done by turning support member 46 into the scull of the head portion 14 whereby outside surface 54 of support member 48 becomes the inside surface of finished head portion 14.

[0045] The structure is completed by securing a double-sided he is as a member 56 including adhesive layers 58 and 60 to the base of any body portion 12, as illustrated in figure seven. What is desired to use the inventive bobbing head sculpture, a protective member 60 to is peeled away its buzzing adhesive layer 60 which may be adhered to a car dashboard or any other suitable location. In connection with figure seven and other figures in the application, it is noted that the thickness of the various layers of adhesive and in the support members is exaggerated for the sake of clarity of illustration.

[0046] Once secured to, for example, a car dashboard 66, movement of the car results in movement of head portion 14 on spring 32 to the positions illustrated in phantom lines as illustrated by head 14a and 14b in FIG. 8.

[0047] Turning next to FIG. 9, an alternative embodiment of the invention substantially similar to the device illustrated in, for example, FIG. 7 is illustrated. Generally, a bobble head toy 110 includes a head portion 114 mounted on a body portion 112. Optionally, weights 168 may be used to further lower the center of gravity and lend stability to the structure. In the embodiment shown in this figure, the spring is replaced by a post 132 which terminates in a tapered point 170 which supports rocking member 172 at the apex 174 of rocking member 172. The result is a gravity driven wobbling mechanism. Post 132 may be integrally formed with base 130 in a single injection molding process.

[0048] In FIG. 10, yet another alternative embodiment of the invention is illustrated. In the sculptural member 210 illustrated in FIG. 10, spring 32 has been replaced by a springy plastic member 232.

[0049] Referring to FIG. 11, yet another alternative inventive sculptural member 310 is illustrated. Sculptural member 310 as a support post 332. Support post 332 terminates in a living and 362, which is simply a short 9 length of been flexible plastic secured by an upper base 364 to head portion 314.

[0050] While an illustrative embodiment of the invention has been described, it is, of course, understood that such modifications as may be taught but not explicitly disclosed in the subject specification are within the spirit and scope of the invention which is limited and defined only by the appended claims.

1. A sculptural work, comprising:
   (a) a base portion, said base portion being defined by an outer surface member defining an internal volume;
   (b) a spring having first and second ends;
   (c) a bobbing member mounted on said first end of said spring; and
   (d) a support base member, said support base member being secured to said second end of said spring, said support base member being contained within said internal volume.

2. A sculptural work as in claim 1, for the comprising stuffing contained within said internal volume, said stuffing bearing against said support base member wherein said support base member extends to the edges of said volume at a plurality of points on said outer surface member whereby said support base member is held in a relatively stationary position by those points on said outer surface member and said stuffing.

3. A sculptural work as in claim 2, wherein said base portion is the body portion of a figure and said bobbing member is the head of said figure.

4. A sculptural work as in claim 3, wherein said stuffing comprises a mixture of plastic beads and a fibrous material.

5. A sculptural work as in claim 1 wherein said spring is covered by a housing.

6. A sculptural work as in claim 1 further comprising stuffing disposed in said internal body and wherein said outer surface member comprises a plush low friction fabric.

7. A sculptural work as in claim 1 where in said bobbing member comprises an outer shell, and an inner shell, said outer shell having a base secured to said inner shell at the base of said inner shell, and further including a spring support member secured to said inner shell at the top of said bobbing member at a position inside said outer shell, said first end of said spring being secured to said bobbing member adjacent the top of said inner shell.

8. A sculptural work as in claim 7 where in said spring support member is flexible.

9. A sculptural work as in claim 1 further comprising a self-adhesive member secured to the base of said base portion, and further comprising a protective layer which may be removed to expose said self-adhesive member.

10. A sculptural work as in claim 9 wherein said spring is covered by a housing, comprising a cramped or gathered fabric sleeve.

11. A sculptural work as in claim one, further comprising a weight associated with said bobbing member.

12. A sculptural work, comprising:
   (a) a base portion of said sculptural work;
(b) a spring having first and second ends, said first end of said spring being secured to said base portion;

(c) a bobbing member mounted on said second end of said spring; and

(d) a sleeve disposed around said spring.

13. A sculptural work as in claim 12, wherein said sleeve is disposed in a crimped configuration.

14. A sculptural work, comprising:

(a) a base portion of said sculptural work, said base portion being defined by an outer surface member;

(b) a spring having first and second ends, said first end of said spring being secured to said base portion;

(c) a bobbing member mounted on said second end of said spring; and

(d) stuffing disposed in said internal body.

15. A sculptural work as in claim 14, wherein said outer surface member comprises a plush low friction fabric.

16. A method of making a sculptural work, comprising:

(a) making a base member;

(b) making a bobbing member outer shell with a tubular bottom extension;

(c) securing a first end on a spring to the bottom of said tubular bottom extension;

(d) securing a second end of said spring to the bottom of said bottom extension; and

(e) pushing said tubular bottom extension into said bobbing member outer shell.

17. A method as in claim 16, wherein said spring ends are secured with glue.

18. A method as in claim 17 where in said glue is of the type which melts when it is heated and bonds when it is cool.

19. A method as in claim 16, where in said second end of said spring is secured by working through a hole in said bobbing member.

20. A method as in claim 16, wherein said tubular bottom extension extends from the bottom of said bobbing member outer shell and is narrower at the bottom of said bottom extension as compared to the size of the tubular bottom extension adjacent the base of said bobbing member outer shell.

21. A sculptural work, comprising:

(a) a base portion of the sculptural work defined by a flexible skin;

(b) a support member having first and second ends, the first end of said support member being secured to the base portion;

(c) a bobbing member;

(d) stuffing disposed in said flexible skin; and

22. A sculptural work as in claim 21, where in said movable joint comprises a flexible member which secures the second end on said support member to said bobbing member.

23. A sculptural work as in claim 21, whereina said movable joint is defined by said second end of said support member and a rocking member disposed on and secured to the inside of said bobbing member, said rocking member defining a concave surface, said concave surface receiving said second end of said support member, and said second end forming a tapered end on which said rocking member rocks.

24. A sculptural work as in claim 21, for the comprising a sleeve disposed around the spring, said sleeve securing said bobbing member to said base portion.

24. A sculptural work as in claim 21, further comprising a weight member disposed below said tapered end.