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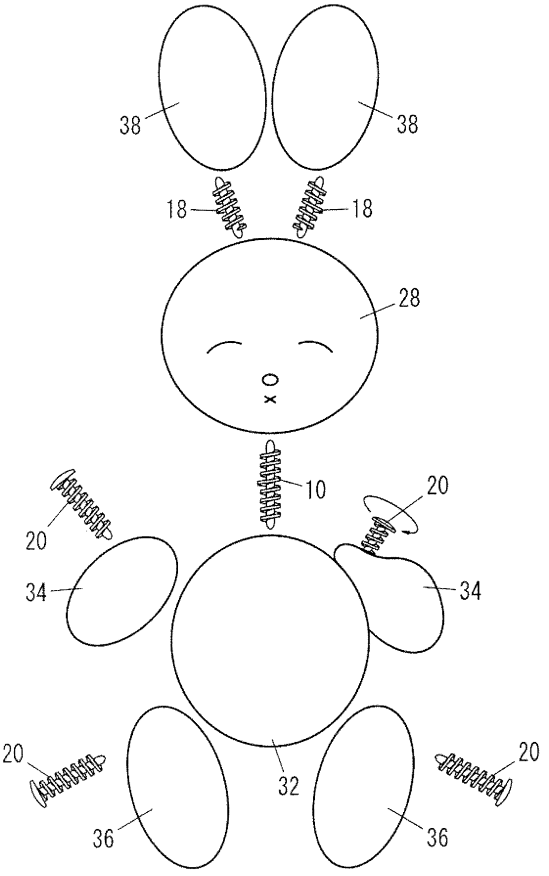
(54) Toy

(57) There are provided joint members which can join a plurality of figure forming parts 28, 32, 34, ... which are each formed into a bag-like shape of a net-like fabric with each other in any positions the user desires, a toy played by assembling figure forming parts using the joint member and a method for assembling the figure forming parts into a specific figure. An assembly toy is made up of the plurality of figure forming parts 28, 32, 34, ... and the joint members 10, 18, 20, ... , and the figure forming parts are each formed into the bag-like shape of the net-like fabric so that a stuffing material is stuffed in the interior thereof so as to provide flexibility, while the joint members are each formed into a rod-like shape which tapers at least at one end portion thereof and has a spiral thread-like portion formed on a side thereof in such a manner as to extend spirally along an axial direction thereof, whereby the figure forming parts are joined together by the joint members.

FIG. 2



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Description

[0001] The present invention relates a figure forming parts assembling joint member for joining together a plurality of figure forming parts which are formed into bag-like shapes of a net-like fabric, a toy played by assembling figure forming parts using the joint members and a method for assembling the figure forming parts into a figure.

[0002] Conventionally, joint members are used to join parts together such as a body portion and limb portions of a stuffed toy made of a fabric or a doll or figure made of a vinyl resin.

[0003] For example, as with a joint member described as a "joint tool for a stuffed toy or the like " in the Japanese Unexamined Patent Publication No. 2006-034652, there has existed a joint tool which is made up of a shaft with a base in which a shaft portion having a plurality of engagement projections protrudes from a base portion which is made up of a concaved disc-like element, a washer having a hole portion through which the shaft portion of the shaft with a base, and a locking nut made of an elastically deformable synthetic resin and having a constricted hole which can be brought into engagement with any of the plurality of engagement projections that the shaft portion has when the shaft portion of the shaft with a base is passed therethrough, and this joint tool functions as a joint member which can improve the external appearance of a stuffed toy and stabilize a pose of the stuffed toy.

[0004] With the conventional joint member, however, part of the joint member needs to be embedded in the interior a part of the stuffed toy or figure such as a body portion or a limb portion thereof in advance. Because of this, positions where the parts of the figure are joined together are predetermined, and hence, using the joint members prevents the parts from being joined together in free positions, and the resulting figure is not such that the user can enjoy playing with it by joining the parts in positions he or she desires to cause the figure to take any pose the user wants.

[0005] Then, the invention was made in view of the situations related to the problem inherent in the related art, and an object thereof is to provide a figure forming parts assembling joint member which can join together a plurality of figure forming parts which are formed into bag-like shapes of a net-like fabric in any position the user desires, a toy played by assembling the figure forming parts using the joint members, and a method for assembling the figure forming parts into a figure.

[0006] According to a first aspect of the invention, there is provided a toy played by assembling figure forming parts including a plurality of figure forming parts and a joint member, wherein the figure forming parts are each formed into a bag-like shape of a net-like fabric, so that a stuffing material can be stuffed in an interior thereof to provide flexibility, and the joint member is formed into a rod-like shape which tapers at least at one end portion thereof and has a spiral thread-like portion formed on a side thereof to extend spirally along an axial direction thereof, whereby the figure forming members are joined with each other by the joint member.

[0007] The plurality of figure forming parts may include parts which imitate, respectively, the shapes of a head portion, a body portion, an arm portion, and a leg portion, and wherein the parts which imitate, respectively, the shapes of the head portion, the body portion, the arm portion and the leg portion are joined rotatably with each other by the joint members so as to be formed into the shape of a figure.

[0008] Further, the plurality of figure forming parts may include further two parts which each imitate the shape of an ear portion, and the two parts which each imitate the ear portion are joined to the part which imitates the shape of the head portion by the joint members. For example, a rabbit figure could be made.

[0009] According to a second aspect of the invention, there is provided a figure forming parts assembling joint member for joining a plurality of figure forming parts which are each formed into a bag-like shape of a net-like fabric, the joint member being formed into a rod-like shape which tapers at least at one end portion thereof and which has a spiral thread-like portion formed on a side thereof in such a manner as to extend spirally along an axial direction thereof, wherein a length which constitutes a pitch between threads of the spiral thread-like portion, a length which constitutes the height of the thread of the spiral thread-like portion and a length which constitutes the diameter of the rod-like shape are substantially the same.

[0010] Thus, a distal end of the one end portion of the joint member can be screwed into any mesh position on any of the plurality of figure forming parts which are each formed into the bag-like shape of the net-like fabric, whereby the plurality of figure forming parts can be joined with each other at any positions desired by the user.

[0011] Typically, substantially a center of the spiral thread-like portion swells in such a manner as to protrude therefrom.

[0012] Since substantially the center of the spiral thread-like portion swells in such a manner as to protrude therefrom, the protruding portion can be made to be a guide when the joint member is screwed into the figure forming part to the center thereof in attempting to screw the joint member into the figure forming part, whereby the joint member is allowed to be screwed into each of the figure forming parts by the same length.

[0013] A disc-like collar portion may be formed at one end of the joint member.

[0014] This enables the joint member to be passed through one figure forming part so as to be screwed into the other figure forming part so that the two figure forming parts are joined with each other by the joint member.

[0015] Preferably, a shaped element which is formed into a shape which imitates part of an animal, a figure or a character is secured to one end of the joint member.

[0016] This enables the shaped element which constitutes part of the animal toy, the figure or the character to

be easily be joined to the main body portion of the figure.

[0017] According to a third aspect of the invention, there is provided a figure assembly method in which a woolen yarn is knitted into a tubular shape, a stuffing material is stuffed in an interior of the knitted tubular shape, and both ends of the knitted tube so stuffed with the stuffing material are closed, whereby a plurality of figure forming parts are produced which are formed substantially into a spherical shape, an oval shape or a rod-like shape, and one end or both ends of a joint member which is formed into a rod-like shape which tapers at least at one end portion thereof and which has a spiral thread-like portion formed on a side thereof in such a manner as to extend along an axial direction thereof are screwed into the figure forming parts so as to join the figure forming parts with each other. Thus many different forms of figure can be assembled as desired by a user.

[0018] Some examples of toys and methods according to the invention will now be described with reference to the accompanying drawings, in which:-

Fig. 1 is an external view of an assembly toy which adopts a toy played by assembling figure forming parts;
Fig. 2 is an exploded view of the toy;
Fig. 3 is a sectional view of the toy shown in Figure 1;
Figs. 4A and 4B show joint members having different lengths which are used to assemble the toy;
Fig. 5 shows a joint member having a collar portion at one end thereof;
Fig. 6 shows a joint member having a shaped element at one end thereof;
Fig. 7 is an external view of another toy which is assembled by another assembling method; and;
Fig. 8 is an exploded view of the toy of Figure 7.

[0019] An assembly toy according to the invention is an assembly toy which is made up of pluralities of figure forming parts and joint members, and the figure forming parts are each formed into a bag-like shape of a net-like fabric, so that a stuffing material is stuffed in the interior thereof so as to provide flexibility, while the joint members are each formed into a rod-like shape which tapers at least at one end portion thereof and has a spiral thread-like portion formed on a side thereof in such a manner as to extend spirally along an axial direction thereof. Then, the figure forming parts are joined together by the joint members. The figure forming parts are made up of parts which imitate, respectively, the shapes of a head portion, a body portion, an arm portion, a leg portion and an ear portion, and the parts which imitate, respectively, the shapes of the head portion, the body portion, the arm portion, the leg portion and the ear portion are rotatably joined together by the joint members so as to be formed into the shape of a figure, whereby a toy played by assembling figure forming parts is provided.

[0020] In addition, the joint member is formed into the rod-like shape which tapers at least at the one end portion and has the spiral thread-like portion formed on the side thereof in such a manner as to extend spirally along the axial direction thereof. In the joint member so configured, a length which constitutes a pitch between threads of the spiral thread-like portion, a length which constitutes a height of the thread of the thread-like portion, and a length which constitutes a diameter of the rod-like shape are made substantially the same. In addition, the joint member may be formed in such a manner that a center of the thread-like portion swells in such a manner as to protrude therefrom. Furthermore, the joint member may be formed in such a manner that a disc-like collar portion is formed at one end thereof. Moreover, the joint member may be formed in such a manner that a shaped element which imitates part of an animal, a figure or a character is secured to one end thereof.

[0021] In addition, the figure forming parts are each formed by knitting a woolen yarn into a tubular shape, stuffing a stuffing material in the interior of the tubular shape so knitted, and closing ends of the tubular shape so stuffed with the stuffing material, so as to produce a plurality of figure forming parts which are formed substantially into a spherical shape, an oval shape or a rod-iike shape. Then, one end or both ends of the joint member which is S formed into the rod-like shape which tapers at least at the one end portion thereof and has the spiral thread-like portion formed on the side thereof in such a manner as to extend spirally along the axial direction thereof are screwed into the figure forming parts, so that the figure forming parts can be joined with each other by the joint member, so as to be assembled into a figure.

[0022] Hereinafter, referring to the accompanying drawings, an embodiment to which the invention is applied will be described in detail.

[0023] Among Figs. 1 to 3, Fig. 2 will mainly be used to describe a toy played by assembling figure forming parts. Fig. 1 is an external view of the toy played by assembling figure forming parts which is assembled into an animal figure. Fig. 2 is an exploded view of the toy played by assembling figure forming parts shown in Fig. 1. Fig. 3 is a sectional view of the toy played by assembling figure forming parts shown in Fig. 1.

[0024] An assembly toy main body 40 is made up of a plurality of figure forming parts and a plurality of joint members, and makes up an assembly toy which is played by screwing the joint members into arbitrary positions on the figure forming parts at one end or both ends thereof so as to join the figure forming parts with each other into a specific figure. The figure forming parts are made up of a figure forming part 28 which imitates a head portion of the figure, a figure forming member 32 which imitates a body portion of the figure, figure forming parts 34 which imitate arm portions of the figure, figure forming parts 36 which imitate leg portions of the figure, and figure forming parts 38 which imitate ear portions of the figure. The joint members are made up of a long joint member 10, a short joint member 18, a joint member 20 having a collar portion 22 at one end thereof and a joint member 24 having a

shaped element 26 at one end thereof.

[0025] Each figure forming part is formed by knitting a woolen yarn into a tubular shape, stuffing a stuffing material in the interior of the tubular shape and closing both ends of the tubular shape stuffed with the stuffing material, and the resulting tubular-shaped figure forming part is then formed substantially into a spherical shape, an oval shape or rod-like shape so as to provide flexibility. Either manual knitting or machine knitting may be used to form the knitted tubular shape. Stitch work is provided on a side of the figure forming part 28 which imitates the head portion of the figure so as to produce eyes, nose and mouth thereon. In the embodiment, while the stitch work is provided to intimate the eyes, nose and mouth of the figure, appliques which intimate the eyes, nose and mouth may be stitched to the side of the relevant figure forming part, or, as will be described later on, joint members having shaped elements which imitate the eyes, nose and mouth may be used. In addition, seals which imitate the eyes, nose and mouth may be affixed to the side of the figure forming part which makes up the head portion of the figure.

[0026] Next, the joint members will be described. Fig. 4 shows external views of two joint members which have different lengths, in which Fig. 4A shows a long joint member 10 and Fig. 4B shows a short joint member 18. These joint members 10 and 18 are members for joining the plurality of figure forming parts which are formed of a meshed net-like fabric substantially into the spherical shape, the oval shape or the rod-like shape with each other, and specifically, ends of the joint member are screwed into arbitrary positions on the figure forming parts, respectively, so as to join them together.

[0027] The joint members 10 and 18 are formed of a hard resin into a rod-like shape, and distal end portions 12 which constitute ends of each of the joint members are tapered, and a spiral thread-like portion 14 is formed on a side of the rod-like shape. In addition, a swelling portion 16 is formed substantially at a center or a center thread of the thread-like portion 14 in such a manner as to protrude radially further outwards than the other threads. When screwing the joint members 10 and 18 into meshes on the figure forming parts, this swelling portion 16 can constitute a guide for allowing the joint members to be screwed into the figure forming parts substantially by one half the lengths thereof.

[0028] In addition, the thread-like portion 14 is formed such that a length A which constitutes a pitch between threads of the thread-like portion 14, a length B which constitutes a height of the thread of the thread-like portion 14 and a length C which constitutes a diameter of the rod-like shape are made substantially the same. For example, the thread-like portion 14 is formed such that the length A which constitutes the pitch between the threads of the thread-like portion 14 is 6mm, the length B which constitutes the height of the thread of the thread-like portion 14 is 4 mm, and the length C which constitutes the diameter of the rod-like shape of the joint member 10 is 5 mm. These lengths A, B and C are such as to be changed according to the size of the mesh of the net-like fabric used for the figure forming parts and the thickness of the woolen yarn used for the figure forming parts, and with a small mesh and a thin yarn, the lengths A, B and C are made shorter.

[0029] Figs. 5 and 6 show modified examples of the joint member. Fig. 5 shows a joint member having a collar portion at one end thereof. Fig. 6 shows a joint member having a shaped element at one end thereof.

[0030] Firstly, a joint member 20 shown in Fig. 5 which has a collar portion 22 at one end thereof will be described. Similar to the joint members 10 and 18, the joint member 20 is formed of a hard resin into a rod-like shape. In addition, a distal end portion 12 which makes up an end of the joint member 20 is tapered, and the collar portion 22, which is formed into a disc-like shape, is formed at the other end. In addition, a spiral thread-like portion 14 is formed on a side of the rod-like shape.

[0031] The joint member 20 having the collar portion 22 is a joint member which is screwed into one figure forming part in such a manner as to pass it through so as to be screwed into one other figure forming member, so as to joint the figure forming parts together.

[0032] Next, a j oint member 24 shown in Fig. 6 which has a shaped element 26 at one end thereof will be described. Similar to the joint members 10 and 18, the joint member 24 is formed of a hard resin into a rod-like shape. In addition, a distal end portion 12 which makes up an end of the joint member 24 is tapered, and the shaped element 26, which imitates part of a shaped object or figure, is formed at the other end. In addition, a spiral thread-like portion 14 is formed on a side of the rod-like shape.

[0033] This joint member 24 having the shaped element 26 is a joint member which is used to secure the shaped element 26 to an arbitrary position on the figure forming part, and the shaped element 26 is formed in such a manner as to imitate part of an animal, a figure or a character, specifically, to imitate, for example, eye, nose, ear, tail and the like. In addition, this joint member 24 is such as to be secured to an arbitrary position on each of the figure forming parts.

[0034] Similar to the joint members 10 and 18, in these joint members 20 and 24, the thread-like portion 14 is formed such that a length A which constitutes a pitch between threads of the thread-like portion 14, a length B which constitutes a height of the thread of the thread-like portion 14 and a length C which constitutes a diameter of the rod-like shape are made substantially the same.

[0035] Referring to Figs. 2 to 3, an example of an assembling method will be described in which the figure forming parts 28, 32, 34, 36 and 38 are joined together using the joint members 10, 18, 20 and 24 so as to assemble the assembly toy main body 40.

[0036] The long joint member 10 is used to join the figure forming part 28 which imitates the head portion of the figure with the figure forming part 32 which imitates

the body portion of the figure, and the long joint member 10 is screwed into the figure forming part 28 and the figure forming part 32 through meshes thereon by one half the length thereof, respectively, using the swelling portion 16 provided on the joint member 10, so as to join the relevant figure forming parts together. In addition, the figure forming parts are joined with each other through screwing the joint member thereinto, and therefore, the figure forming part 28 which imitates the head portion of the figure can be rotated both clockwise and counterclockwise.

[0037] Next, the short joint member 18 is used to join the figure forming member 28 which imitates the head portion of the figure with the figure forming part 38 which imitates the ear portion of the figure, and the joint member 18 is screwed into the figure forming part 28 and the figure forming part 38 through meshes thereon by one half the length thereof, respectively, using the swelling portion 16 provided on the joint member 18, so as to join the relevant figure forming parts together.

[0038] In addition, the joint member 20 having the collar portion 22 is used to join the figure forming part 32 which imitates the body portion of the figure with the figure forming part 34 which imitates the arm portion of the figure. Firstly, the joint member 20 is screwed into the figure forming part 34 in such a manner as to pass therethrough so as to be screwed further into one other figure forming part, that is, the figure forming part 32, so that the two figure forming parts are joined together. In addition, similar to the figure forming part 28 which imitates the head portion of the figure, these two figure forming parts are joined together through screwing the joint member through and into the figure forming parts, and therefore, the figure forming part 34 which imitates the arm portion of the figure can be rotated freely.

[0039] In addition, as with the figure forming part 34 which imitates the arm portion of the figure, the joint member 20 having the collar portion 22 is used to join the figure forming part 36 which imitates the leg portion of the figure with the figure forming part 32 which imitates the body portion of the figure. Firstly, the joint member 20 is screwed into the figure forming part 36 in such a manner as to pass therethrough so as to be screwed further into one other figure forming part, that is, the figure forming part 32, so that the two figure forming parts are joined together.

[0040] In this way, the respective figure forming parts 28, 32, 34, 36 and 38 are joined together using the respective joint members 10, 18 and 20, whereby a rabbit stuffed toy as is shown in Fig. 1 can be assembled. Since the assembly toy main body 40 which is so assembled up is formed of the net-like fabric knitted using the woolen yarn and is stuffed with the stuffing material, the assembly toy results which is highly flexible and soft. In addition, the head portion, the arm portions and the leg portions of the rabbit stuffed toy which is assembled by utilizing the assembly toy main body 40 can be assembled in any orientations the user desires. Additionally, since the figure forming parts are formed of the woolen yarn and hence the friction between the figure forming parts is increased, the posture of the assembly toy main body 40 or the rabbit stuffed toy which is so assembled can be maintained.

[0041] In addition, as is shown in Figs. 7 to 8, since the figure forming parts can be assembled together in arbitrary positions, the posture of the stuffed toy which imitates a rabbit can easily be transformed into a seated posture. In addition, a tail can be assembled to the rabbit stuffed toy by screwing the joint member 24 having the shaped element 26 which imitates a tail into the figure forming part 32 which imitates the body portion of the figure.

[0042] While in the embodiment, the invention is described as being applied to the rabbit stuffed toy, the invention can be applied to toys which can be assembled into other figures than the rabbit, and according to the invention, the toy played by assembling figure forming parts into any shape the user desires can be provided. In addition, with the toy played by assembling figure forming parts of the invention, no specific mechanical element is required when joining one figure forming part with one other figure forming part, and therefore, the figure forming parts can be joined and assembled together only by screwing the joint member thereinto with the fingers, whereby even infants can play with the toy by joining and assembling together the involved figure forming part relatively easily. In addition, the joined and assembled figure forming parts can easily be disassembled by removing the respective joint members, so as to join and assemble them into another figure.

[0043] By the configuration that has been described heretofore, there can be provided the joint members which can join the plurality of figure forming parts which are each formed into the bag-like shape of the net-like fabric with each other in any positions the user desires, the toy played by assembling the figure forming parts using the joint members and the method for assembling the figure forming parts into a specific figure.

Claims

1. A toy played by assembling figure forming parts comprising a plurality of figure forming parts and a joint member, wherein the figure forming parts are each formed into a bag-like shape of a net-like fabric, so that a stuffing material can be stuffed in an interior thereof to provide flexibility, and the joint member is formed into a rod-like shape which tapers at least at one end portion thereof and has a spiral thread-like portion formed on a side thereof to extend spirally along an axial direction thereof, whereby the figure forming members are joined with each other by the joint member.

2. A toy played by assembling figure forming parts as

set forth in claim 1, wherein the plurality of figure forming parts comprise parts which imitate, respectively, the shapes of a head portion, a body portion, an arm portion, and a leg portion, and wherein the parts which imitate, respectively, the shapes of the head portion, the body portion, the arm portion and the leg portion are joined rotatably with each other by the joint members so as to be formed into the shape of a figure.

3. A toy played by assembling figure forming parts as set forth in claim 2, wherein the plurality of figure forming parts comprise further two parts which each imitate the shape of an ear portion, and the two parts which each imitate the ear portion are joined to the part which imitates the shape of the head portion by the joint members.

4. A figure forming parts assembling joint member for joining a plurality of figure forming parts which are each formed into a bag-like shape of a net-like fabric, the joint member being formed into a rod-like shape which tapers at least at one end portion thereof and which has a spiral thread-like portion formed on a side thereof in such a manner as to extend spirally along an axial direction thereof, wherein a length which constitutes a pitch between threads of the spiral thread-like portion, a length which constitutes the height of the thread of the spiral thread-like portion and a length which constitutes the diameter of the rod-like shape are substantially the same.

5. A figure forming parts assembling joint member as set forth in claim 4, wherein substantially a center of the spiral thread-like portion swells in such a manner as to protrude therefrom.

6. A figure forming parts assembling joint member as set forth in claim 4 or claim 5, wherein a disc-like collar portion is formed at one end of the joint member.

7. A figure forming parts assembling joint member as set forth in claim 4, wherein a shaped element which is formed into a shape which imitates part of an animal, a figure or a character is secured to one end of the joint member.

8. A toy according to any of claims 1 to 3, wherein the or each joint member is constructed according to any of claims 4 to 7.

9. A figure assembly method in which a woolen yarn is knitted into a tubular shape, a stuffing material is stuffed in an interior of the knitted tubular shape, and both ends of the knitted tube so stuffed with the stuffing material are closed, whereby a plurality of figure forming parts are produced which are formed substantially into a spherical shape, an oval shape or a rod-like shape, and one end or both ends of a joint member which is formed into a rod-like shape which tapers at least at one end portion thereof and which has a spiral thread-like portion formed on a side thereof in such a manner as to extend along an axial direction thereof are screwed into the figure forming parts so as to join the figure forming parts with each other.

FIG. 1

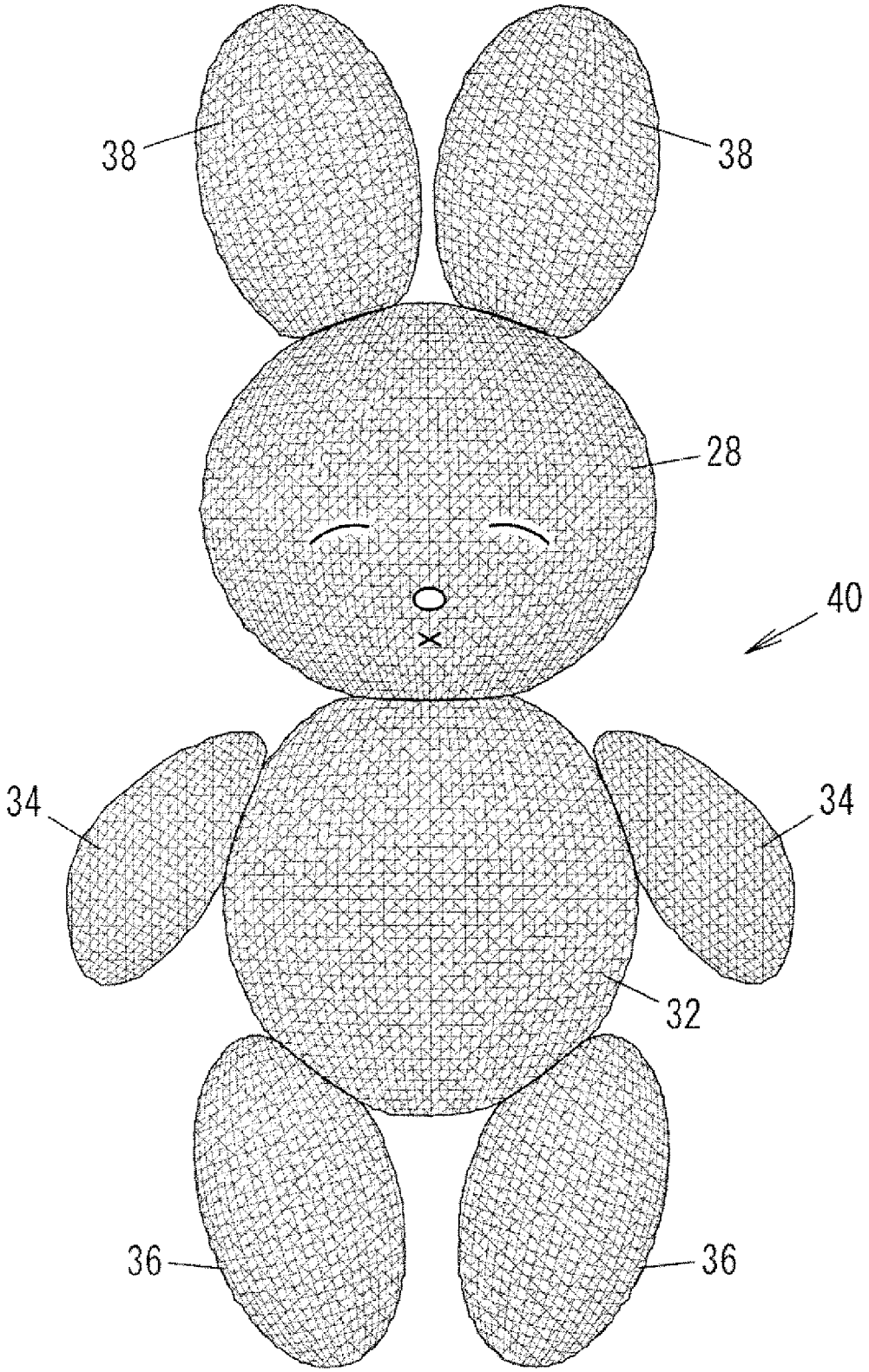


FIG. 2

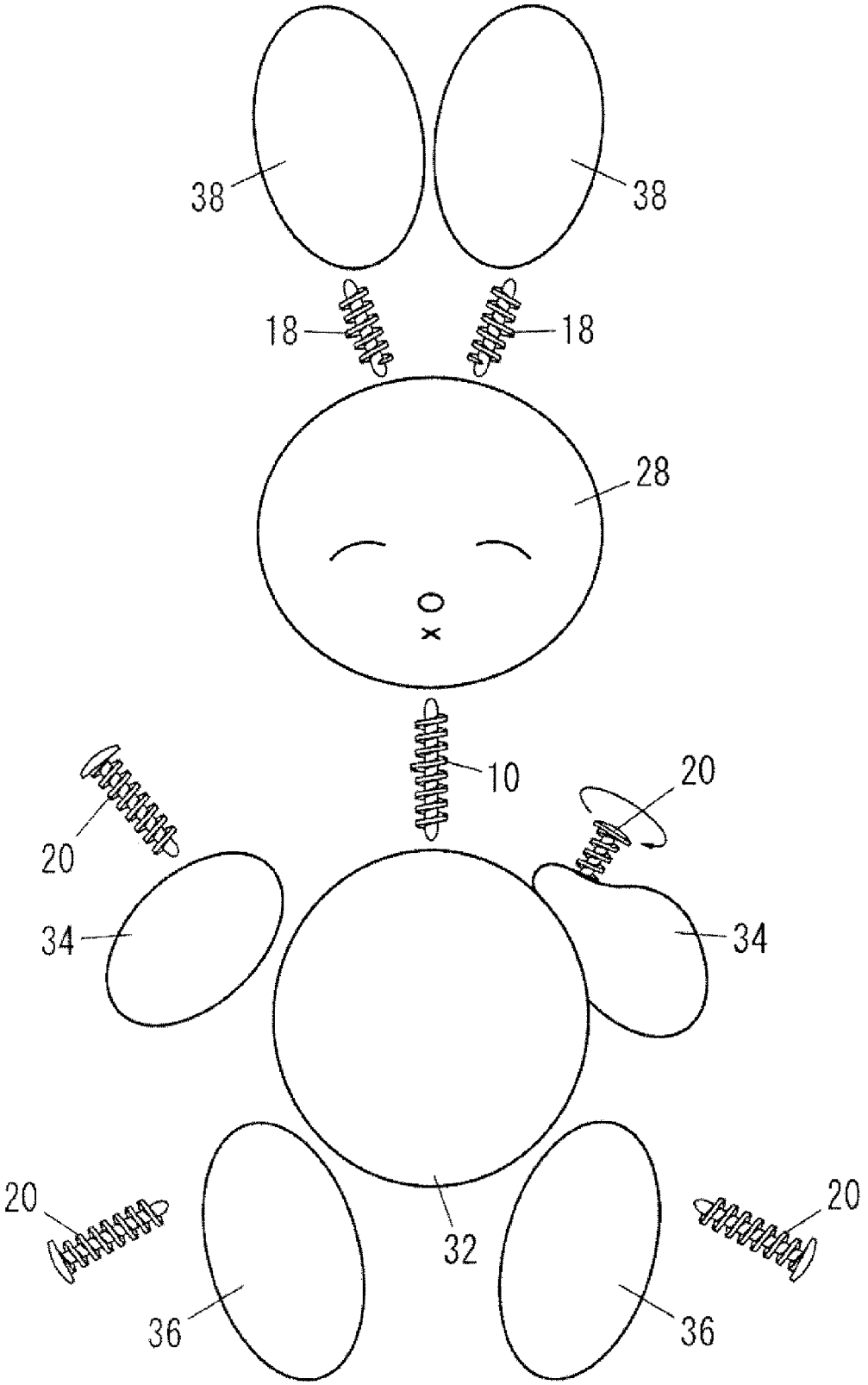


FIG. 3

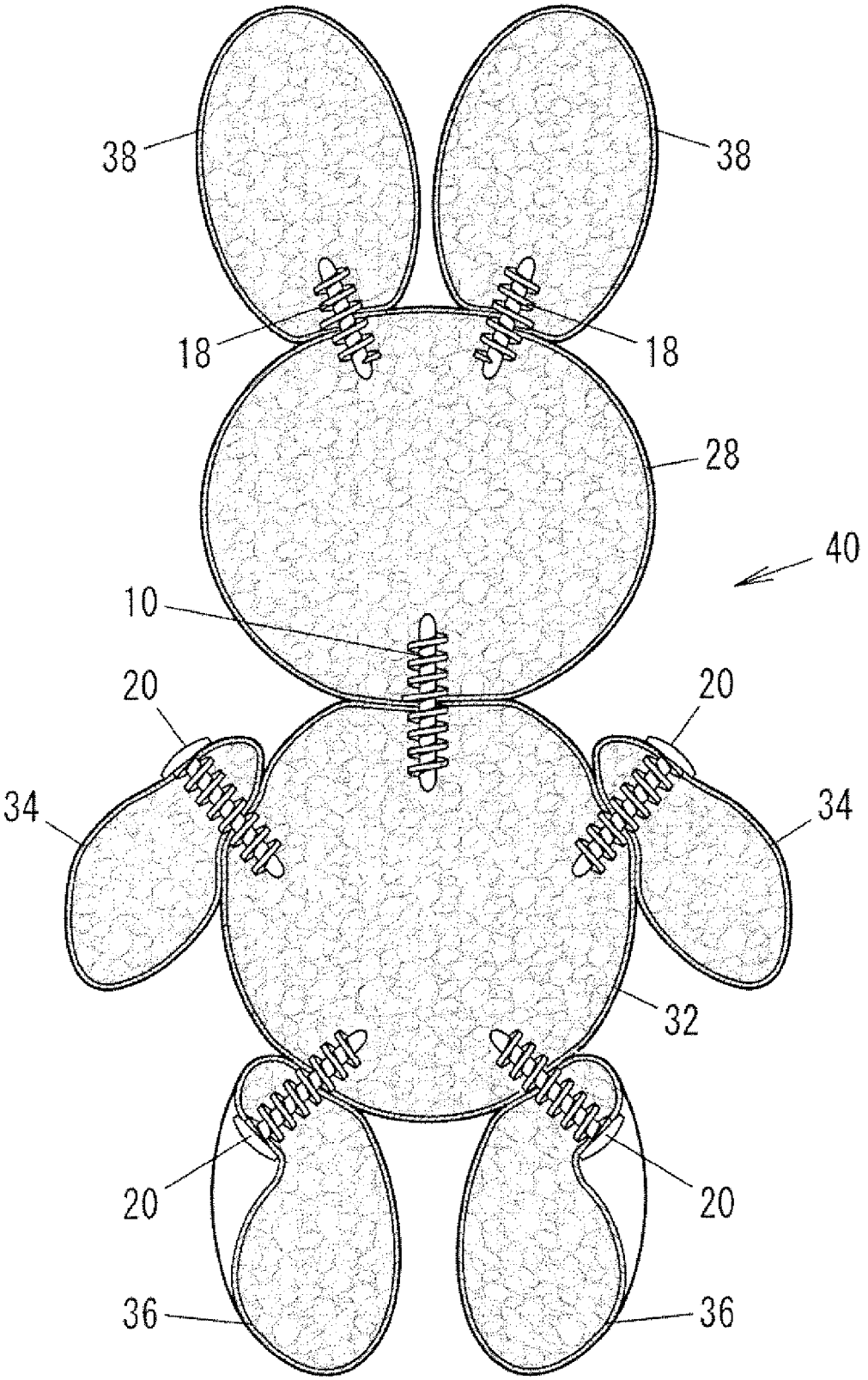
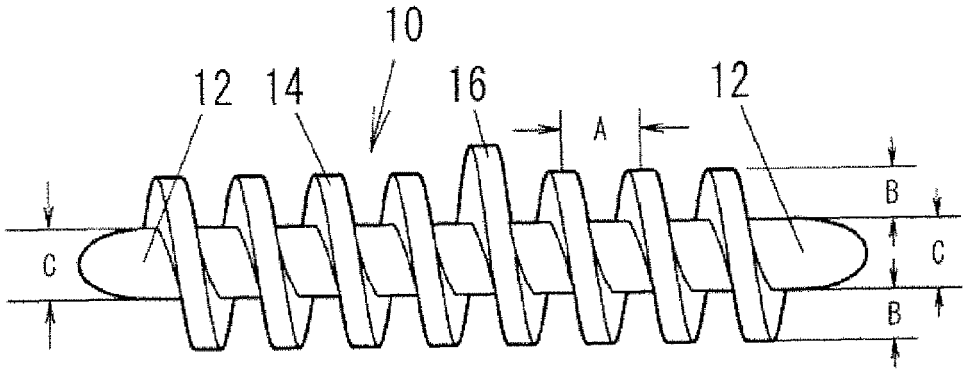


FIG. 4

(A)



(B)

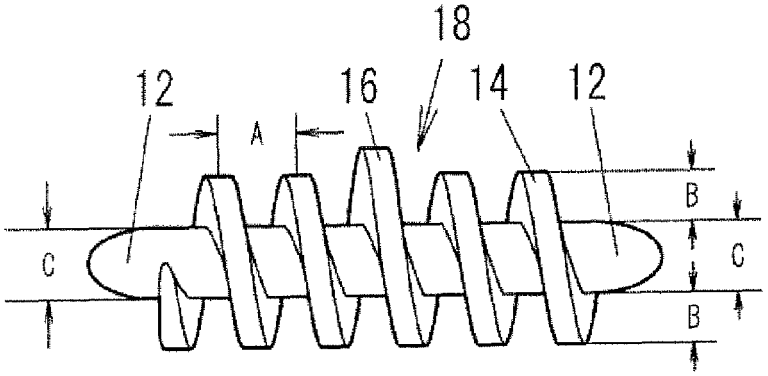


FIG. 5

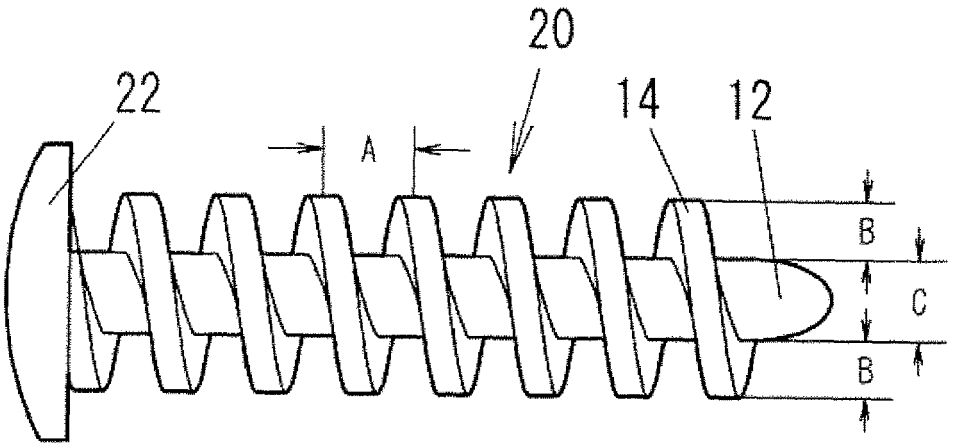


FIG. 6

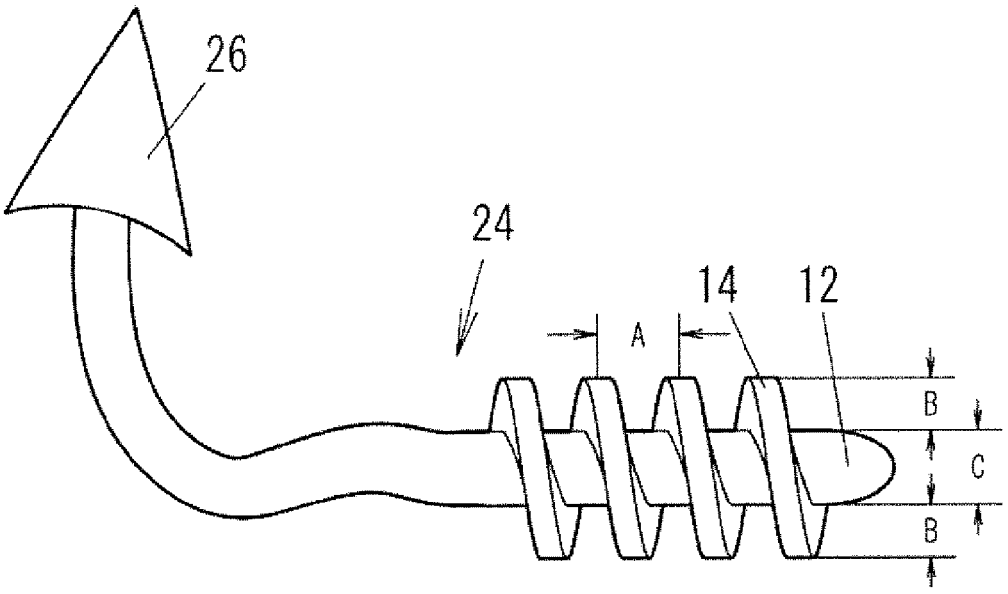


FIG. 7

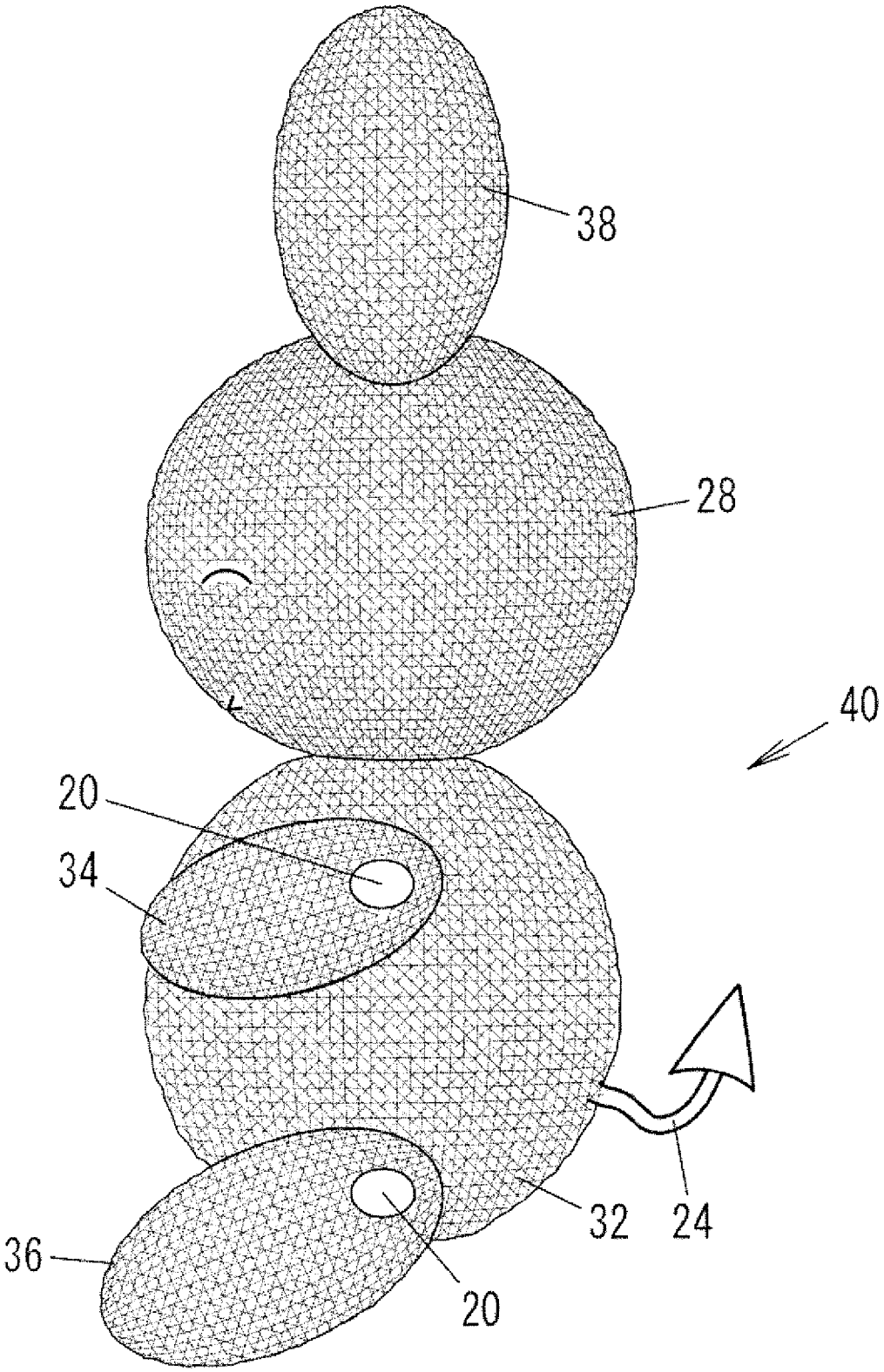
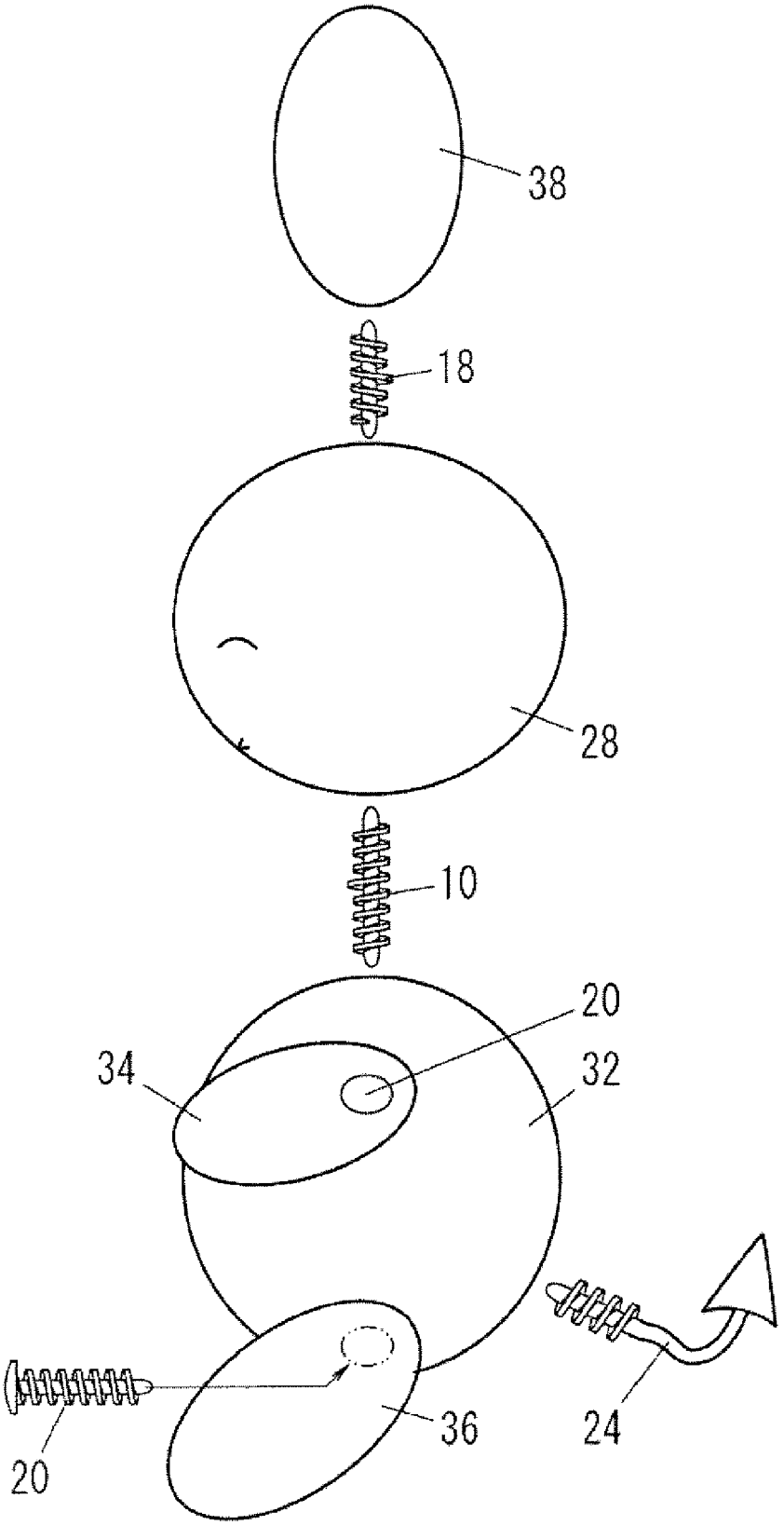


FIG. 8



European Patent Office

EUROPEAN SEARCH REPORT

Application Number
EP 07 10 8410

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	WO 00/23161 A (GOLDEN KIDS TOYS & ENTERTAINME [US]; BERGER HOWARD H [US]) 27 April 2000 (2000-04-27) * page 5, line 11 - page 7, line 17; figures *	1-9	INV. A63H3/02 A63H3/16
A	US 2002/108231 A1 (DAMON ERIN ELISE [US]) 15 August 2002 (2002-08-15) * paragraphs [0019] - [0030]; figures *	1-9	
A	CA 2 229 094 A1 (RAFFLER ALOIS A [CA]) 9 August 1999 (1999-08-09) * page 10, line 17 - line 19; figure 2 *	1-9	
A	US 2004/192158 A1 (KIM IK SUNG [KR]) 30 September 2004 (2004-09-30) * paragraphs [0017] - [0019]; figures *	1-9	
			TECHNICAL FIELDS SEARCHED (IPC)
			A63H

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	26 September 2007	Lucas, Peter

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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