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(54) **ELASTIC BEADS FOR HAIR**

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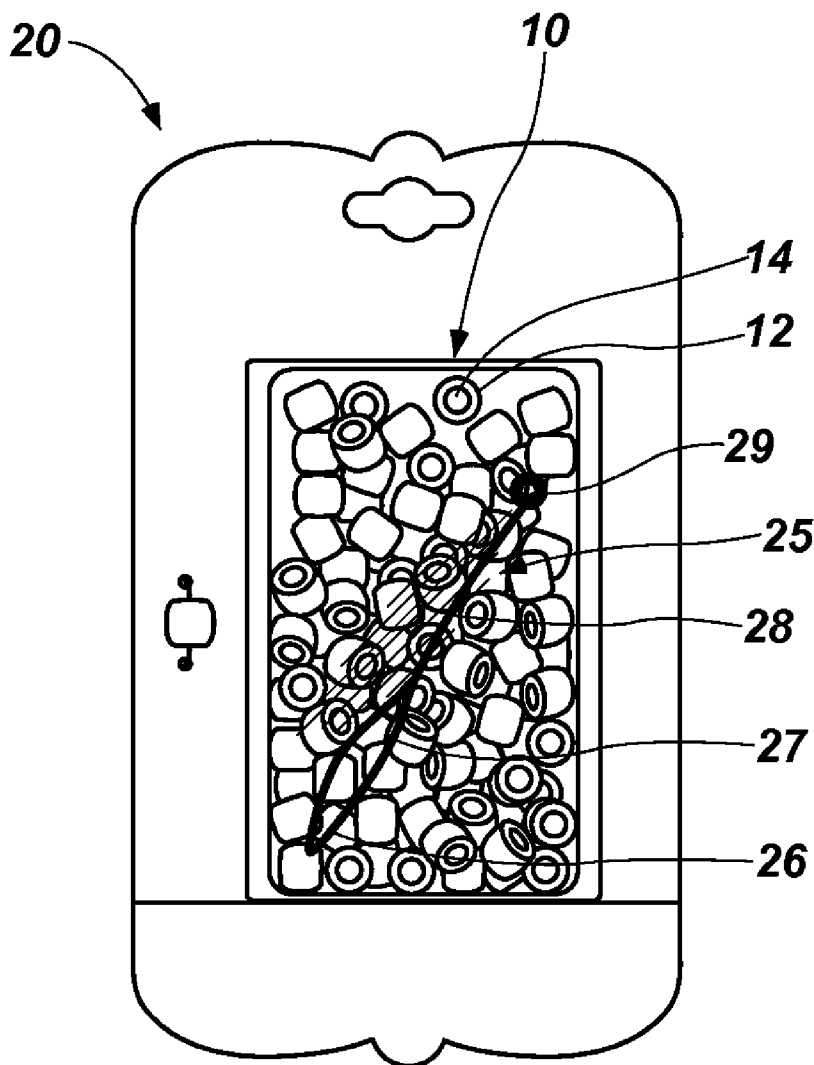
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(57) **ABSTRACT**

An elastic bead includes a body and a channel extending through the body. The channel may be expanded to receive an object, such as a tuft or braid of hair. Once placed over the object, the body may be configured to resiliently engage the object. Such resilient engagement may be effected without doubling, tripling or otherwise twisting and wrapping the elastic bead around the object. Methods for applying and removing the elastic beads are disclosed, as are assemblies that provide ready access to and ready storage for elastic beads.

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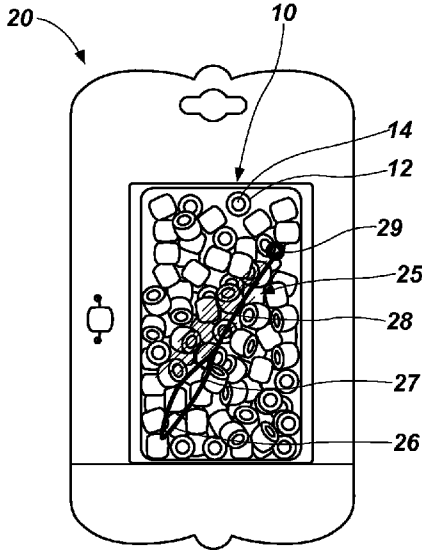


FIG. 1

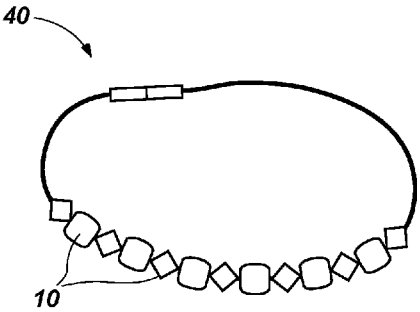


FIG. 3

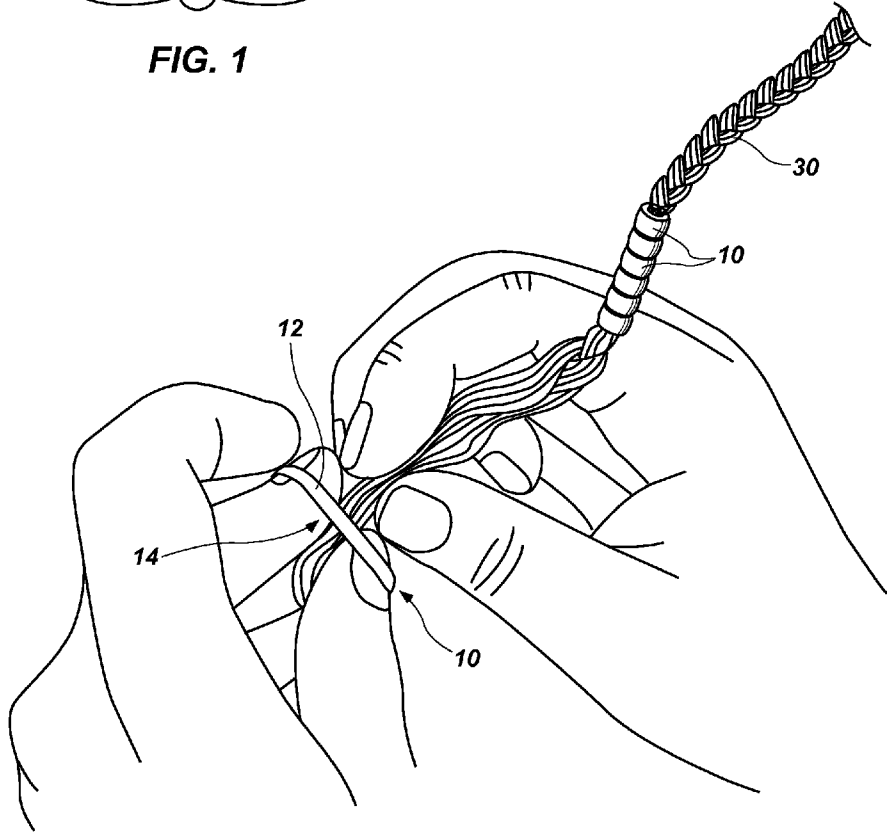


FIG. 2

ELASTIC BEADS FOR HAIR

TECHNICAL FIELD

[0001] This disclosure relates generally to decorative beads and, more specifically, to decorative beads for use in an individual's hair. In particular, this disclosure relates to elastic beads and to uses for elastic beads.

RELATED ART

[0002] Elastic bands, which are often referred to as "rubber bands," have long been used to hold an individual's hair in place. Typically a portion of the individual's hair is gathered (e.g., into a tuft, such as a ponytail or pig tail, at the end of a braid, etc.), and an elastic band is placed over the gathered hair at a location near the individual's scalp. Placement of the elastic band typically includes stretching the elastic band to expand an opening therethrough, placing the elastic band over the gathered hair and moving it to a desired location over the gathered hair, twisting the elastic band to decrease the size of the opening, pulling the gathered hair through the smaller opening until the elastic band holds the gathered hair in a desired manner, and repeating the acts of twisting and pulling as needed to hold the individual's hair in the desired manner.

[0003] The process of holding hair with an elastic band can be difficult and time consuming, and sometimes has to be redone.

[0004] When an elastic band is doubled over, tripled over or otherwise twisted and wrapped around an individual's hair, strands of hair are often entangled in the elastic band. In addition, when an elastic band has been placed in a way that enables it to remain in place for prolonged periods of time and throughout any of a variety of activities (e.g., exercise, sleep, typically daily activities, etc.), it is often difficult to remove from the individual's hair. Removal of an elastic band from hair usually involves rolling the elastic band along a length of the individual's hair. This process usually entangles strands of hair. As the elastic band is removed, it pulls strands of entangled hair from the individual's head, which can be painful and have a detrimental effect on how the individual's hair looks.

[0005] Decorative beads are also incorporated into many girls' and women's hairstyles—particularly in cornrow hairstyles. When incorporated into a cornrow hairstyle, the beads are often placed on tufts of hair as the hair is braided, and held in place by the braiding. Removal of beads that are placed on the hair in this manner typically requires undoing the braid, which necessitates some amount of restyling.

[0006] Conventionally, the decorative beads that are used in styling hair are made of plastic, wood, metal or other relative hard materials. When hard beads are worn in hair, if they are forced toward the wearer's head (e.g., if she falls and hits her head, as she places her head against another object, such as while lying down or sleeping, etc.), they may apply localized pressure to parts of the wearer's head, which may cause the wearer some discomfort, harm and/or pain, and may even cause headaches. Furthermore, when an individual who has a long hairstyle that incorporates hard beads moves her head or her hair, the hard beads often contact, or knock against, one another, generating potentially disruptive noise. When the individual moves her head and/or hair in a sudden manner, the hard beads may impact the individual (e.g., her face, head, neck, shoulders, etc.) and cause pain or injury. Sudden head or hair movements may also cause the hard beads to hit other

people or objects, which may cause harm to the person or object, and may damage the hard beads.

SUMMARY

[0007] An elastic bead according to this disclosure includes a body and a channel. The body may be formed from an elastomeric material that is easily stretched under tensile forces and, when such forces are released, resiliently returns to its original, relaxed state, or substantially returns to its original, relaxed state. Upon stretching an elastic bead, its channel may be enlarged.

[0008] The elastic bead may be used to hold tufts of hair in place, or otherwise placed on tufts or braids of an individual's hair (e.g., for decorative purposes, etc.). In use, the elastic bead may be stretched (i.e., a tensile force may be applied to it) in one or more directions that are transverse to a length of its channel. By stretching the elastic bead in this manner, a dimension across the channel (e.g., its diameter, etc.), or its width, may be enlarged. Enlargement of the width of the channel may facilitate placement of the elastic bead over a tuft or braid of hair. Thus, with the width of the channel enlarged, a tuft or braid of hair may be inserted through the channel until the elastic bead is at a desired location relative to that tuft or braid of hair (e.g., at or near the individual's scalp, at the end of a braid, etc.). Once the elastic bead has been positioned at the desired location, the tensile forces may be released, enabling the elastic bead to engage the tuft or braid of hair, and to remain in place at the desired location.

[0009] An elastic bead may be repositioned on or removed from a tuft or braid of an individual's hair in a similar manner, by reversing the foregoing process elements. Stated another way, an elastic bead that is to be removed from a tuft or braid of an individual's hair may be stretched, pulled off of the tuft or braid of hair while the elastic bead's channel remains enlarged and until the elastic bead has been repositioned or removed from the individual's hair, and released, enabling the elastic bead to return or substantially return to its original, relaxed configuration.

[0010] The elasticity of the elastic bead may enable its use in hairstyles (e.g., cornrows, etc.) where hard beads have conventionally been used, but without the requirement that the elastic bead be incorporated (e.g., by braiding, etc.) into the hairstyle. Thus, an elastic bead may be removed from the hair without necessitating that any part of the hairstyling be removed. As a result, elastic beads may be added to or removed from the hair after it has been styled, enabling an individual to change her look without requiring that her hair be restyled.

[0011] In another aspect, assemblies for storing elastic beads are disclosed. Such an assembly may include a bracelet or necklace that carries one or more elastic beads. The elastic bead(s) may impart the bracelet or necklace with a decorative quality. In addition, a bracelet or necklace may be configured to accessorize (i.e., match) with one or more elastic beads in an individual's hair. Elastic beads may be easily removed from and/or replaced on an assembly of this type, enabling an individual to retain one or more elastic beads on her person for when use is desired, and providing a readily available place for the individual to place one or more elastic beads once she no longer wants to wear them.

[0012] Other aspects, as well as features and advantages of various aspects, of the present invention will become appar-

ent to those of ordinary skill in the art through consideration of the ensuing description, the accompanying drawings and the appended claims.

BRIEF DESCRIPTION OF THE DRAWINGS

[0013] In the drawings:

[0014] FIG. 1 illustrates an embodiment of an elastic bead that incorporates teachings of the present invention;

[0015] FIG. 2 shows the elastic beads in an individual's hair; and

[0016] FIG. 3 provides a schematic representation of an assembly for carrying one or more elastic beads.

DETAILED DESCRIPTION

[0017] With reference to FIG. 1, an embodiment of an elastic bead 10 is illustrated. The elastic bead 10 includes a body 12 and a channel 14 extending through the body 12.

[0018] The body 12 of an elastic bead 10 may be configured (e.g., have a thickness, be formed from a material, etc.) to enable expansion of the distance across (e.g., diameter, etc.), or width, of the channel 14.

[0019] The channel 14 of an elastic bead 10 may be configured to engage an object, of a particular size or range of sizes, or an object of a particular configuration. In various embodiments, the width of the channel 14 may be a function of the size or sizes of the objects with which the elastic bead 10 is intended to be used. As a non-limiting example, when the elastic bead 10 is configured to be placed over a small tuft or braid of hair, the channel 14 may have a relatively small width, which enables the elastic bead 10 to engage, or "grab onto," the hair when it is released and allowed to relax (or at least to relax more than when it was stretched). The width of the channel 14 of an elastic bead 10 configured for use in gathering hair into a large ponytail or a bun may be larger. The width of the channel 14 (e.g., its diameter, etc.) may be configured to enable the elastic bead 10 to remain in place on a tuft or braid of hair or other appropriately sized object without requiring that the elastic bead be doubled up, tripled up, or otherwise twisted and wrapped around that object.

[0020] In the illustrated embodiment, the elastic bead 10 is cylindrical in shape, and that includes a body 12 with relatively thin walls. A channel 14 that extends through the body 12, and is centered relative to the body 12, is also cylindrical in shape. The body 12 has a thickness that is less than a distance across (i.e., diameter of, or width of) the channel 14. In a more specific embodiment, a cylindrical elastic bead 10 may have a length of about 6 mm and a diameter (or width) of about 7 mm, while a distance across (i.e., diameter of) its channel 14 may be about 4 mm and the thickness of its body 12 may be about 1.5 mm.

[0021] While FIG. 1 depicts a particular embodiment of elastic bead 10, an elastic bead 10 according to this disclosure may have any of a wide variety of different configurations. As an example, while the body 12 of the elastic bead 10 in the illustrated embodiment is generally cylindrical in shape, the body 12 of an elastic bead 10 may have virtually any other configuration. Without limitation, the shape of the body 12 of an elastic bead 10 may be spherical, spheroid, a prism, another regular three-dimensional shape, an irregular three-dimensional shape, etc. The color(s), shape(s) and other features (e.g., the material, coatings, fillers, etc.) of the body 12 of an elastic bead 10 may impart it with a decorative appearance.

[0022] Further, the relative proportions of an elastic bead 10 may vary from the relative proportions illustrated by FIG. 1. For example, instead of a channel 14 with a length that only slightly exceeds a width (e.g., diameter, etc.) of the channel 14, the length of the channel 14 may be substantially greater than the width of the channel 14. Stated another way, the channel 14 may have a greater height-aspect ratio than that illustrated by FIG. 1. A volume of the body 12 of such an elastic bead 10 may exceed a volume of the channel 14 of that elastic bead 10. In some embodiments, the relative sizes of the body 12 and the channel 14 may impart the elastic bead with a more bulbous appearance, or a more bead-like appearance, than that depicted by FIG. 1.

[0023] Alternative configurations of channels 14 may also be included in an elastic bead 10 according to this disclosure, so long as the channel 14 extends completely through a portion of the elastic bead 10; i.e., it is open-ended, or does not terminate at a location within the body 12 of the bead. The channel 14 need not be centered relative to the body 12 of the elastic bead 10. The channel 14 need not have a circular cross-sectional shape, taken transverse to a length of the channel 14. The channel 14 may be linear, non-linear (e.g., curved, bent at one or more angles, etc.) or it may include linear and non-linear sections.

[0024] With continued reference to FIG. 1, and added reference to FIG. 2, a material from which the body 12 of an elastic bead 10 is formed enables body 12 of the elastic bead 10 to be stretched from a relaxed state (FIG. 1) to a state under tension (see, e.g., FIG. 2), or a stretched state, and to resiliently return or substantially return from the stretched state to the relaxed state. Some non-limiting examples of elastic materials from which elastic beads 10 may be formed include, but are not limited to, plasticizer-extended block copolymers (e.g., oil extended styrene-butadiene-styrene (SBS) tri-block copolymers, etc.), silicone, natural rubber and the like.

[0025] In addition to enabling the configuration of the body 12 to be manipulated, the elasticity of the material from which the body 12 of an elastic bead 10 is formed enables a configuration of the channel 14 of the elastic bead 10, which extends through the body 12, to be changed. The body 12 of an elastic bead 10 may be stretched in directions that enable the channel 14 of the elastic bead 10 to receive hair (e.g., a tuft of hair, a braid, a ponytail, a bun, etc.). When the hair is in place within, or extends through, the channel 14 the tension that has been applied to the body 12 to expand the channel 14 may be released, and the interior walls of the body 12 that define the channel 14 may engage, or "grab onto," the hair within the channel 14—provided that the distance across the hair is about the same as or exceeds a distance across (e.g., diameter, etc.) the channel 14. Such engagement may be the result of tension that the hair continues to exert on the body 12 of the elastic bead 10. Additionally, in some embodiments, a surface of the channel 14 may be configured or imparted with a texture that enhances the ability of the elastic bead 10 to remain in place around another object, such as a tuft or braid of hair.

[0026] Because the elastic beads 10 are made from a soft material, they may be worn on hair without the noise typically associated with hard beads. When they are formed from a compressible material, the elastic beads 10 may apply significantly less localized pressure to the wearer's head as they are forced toward her head (e.g., if her head impacts a surface, as may occur if the wearer stumbles or falls; as the wearer sleeps; etc.). They may also be less likely to cause pain or

injury to the wearer or another person, or to cause damage to themselves or to another object.

[0027] In addition to illustrating an embodiment of elastic bead **10** that incorporates teachings of this disclosure, FIG. **1** also shows packages **20** that hold a plurality of elastic beads **10**. Such a package may include an application tool **25**, which is configured to facilitate placement of one or more (e.g., simultaneously, etc.) of the elastic beads **10** on a tuft or braid of a wearer's hair.

[0028] The application tool **25** may comprise an elongated element that receives one or more elastic beads **10** and facilitates their expansion (e.g., the expansion of their channels **14**, etc.) to facilitate their introduction onto another object, such as a tuft or braid of hair. In the embodiment depicted by FIG. **1**, the application tool includes a threading end **26**, a bead-holding section **28** and a channel-expansion end **29**. The threading end **26**, which is located at one end of the application tool **25**, is configured to receive one or more elastic beads **10** so that they may be positioned on the bead-holding section **28**. In some embodiments, the application tool **25** may include a retention element **27** between the threading end **26** and the bead-holding section **28**. The retention element **27** may be configured to collapse as the threading end **26** is introduced into the channel **14** of an elastic bead **10** and the elastic bead **10** is forced across the retention element **27** and onto the bead-holding section **28**. Once the elastic bead **10** has moved beyond the retention element **27**, the retention element **27** may re-expand to prevent the elastic bead **10** from unintentionally sliding off of the bead-holding section **28** and the threading end **26** of the application tool **25**. An expansion end **29** is located at or adjacent to an opposite end of the application tool **25** from the threading end **26**. A distance across, or width, of the expansion end **29** may exceed a width of the channel **14** of an elastic bead **10** with which the application tool **25** is configured to be used, and may be sufficient to enable an individual to easily introduce a finger or an expansion tool into the channel **14** for further expansion. The expansion end **29** may be rounded or tapered in a manner that enables an elastic bead **10** to be forced thereover with relative ease. A rigidity of the expansion end **29** may exceed the rigidity of an elastic bead **10** by an amount that enables expansion of the width of a channel **14** of an elastic bead **10** as the elastic bead **10** is forced over the expansion end **29**, and off of the application tool **25**.

[0029] Turning now to FIG. **2**, an embodiment of a manner in which an elastic bead **10** may be used is depicted. Without limitation, the elastic bead **10** may be stretched by pulling opposite sides of its body **12** away from one another. Such pulling may be initiated manually (e.g., by way of an individual's thumbs and/or fingers, etc.) or with an application tool, such as the application tool **25** illustrated in and described with reference to FIG. **1**. With the elastic bead stretched, the channel **14** is enlarged. In some embodiments, an individual may place two or more of her phalanges (e.g., a finger and a thumb, as shown, etc.) partially through the enlarged channel **14**, enabling her to grasp a tuft of hair **30** over which the elastic bead **10** is to be positioned. Once the elastic bead is at a desired location over the tuft or braid of hair **30** (e.g., near an end of the tuft or braid of hair **30**; at a more distant location from the end of the tuft or braid of hair **30**, along a mid-section of the tuft or braid of hair **30**; etc.), the individual who is placing the elastic bead **10** in the hair may remove her phalanges from the channel **14**, enabling the body

12 of the elastic bead **10** to resiliently collapse around the tuft or braid of hair **30** and to remain in position along the tuft or braid of hair **30**.

[0030] The elastic bead **10** may be repositioned along the tuft of hair **30** or removed from the tuft of hair **30** in a similar manner.

[0031] FIG. **3** depicts an assembly **40** for storing and/or retaining one or more elastic beads **10**. The assembly **40** may include an elongate element on which one or more elastic beads **10** may be placed and from which the one or more elastic beads **10** may be removed. The assembly **40** may be configured to be worn or otherwise carried by an individual. Such an assembly **40** may provide the individual with ready access to one or more elastic beads **10** and/or with a place to readily store one or more elastic beads **10**.

[0032] In the depicted embodiment, the assembly **40** comprises a bracelet with which one or more elastic beads **10** may be readily assembled and from which one or more elastic beads **10** may be readily removed for use. In such an embodiment, as well as in a variety of other embodiments, the assembly **40** may serve both a utilitarian purpose (e.g., providing ready access to and storage for one or more elastic beads **10**, etc.), as well as an aesthetic purpose (e.g., as a decoration, etc.). An assembly **40** that is configured as an accessory may be tailored to complement other features of an individual's appearance, including, but not limited to, one or more elastic beads **10** worn in the individual's hair.

[0033] The disclosed embodiments should not be deemed to limit the scope of any of the claims that follow. The scope of each claim should be limited merely by its plain language, and should be deemed to include the full complement of available equivalents.

1. An elastic bead, comprising:

a body configured to provide hair with a decorative appearance, the body comprising an elastic material that expands under a tensile force and resiliently returns to shape or substantially returns to shape when a tensile force is released; and

a channel extending through the body, the channel being configured to expand and contract, enabling the body to engage a tuft or braid of hair,

the body and the channel having dimensions that impart the elastic bead with an appearance of a bead.

2. The elastic bead of claim 1, wherein the channel is configured to enable the body to engage the tuft or braid of hair without requiring the body to be twisted and repeatedly wrapped around the tuft or braid of hair.

3. The elastic bead of claim 1, wherein the channel is cylindrical in shape, with a length that exceeds its width.

4. The elastic bead of claim 3, wherein the body is cylindrical in shape.

5. The elastic bead of claim 4, wherein a diameter of the channel exceeds a thickness of the body.

6. The elastic bead of claim 1, wherein a volume of the body exceeds a volume of the channel.

7. A method of holding a tuft or braid of hair, consisting of: providing an elastic bead with a body and a channel; applying tensile force to the body at two or more locations of the channel to increase a width of the channel; inserting the tuft or braid of hair through the channel while applying the tensile force to the body; and releasing the tensile force to enable the body to engage the tuft or braid of hair.

- 8. The method of claim 7, wherein providing the elastic bead consists of providing a decorative elastic bead.
- 9. The method of claim 7, wherein:
 - inserting comprises inserting a tuft or braid through the channel to a location over a mid-section of the tuft or braid of hair; and
 - releasing enables the body to engage the tuft or braid of hair at a location along the mid-section of the tuft or braid of hair.
- 10. The method of claim 9, further comprising:
 - removing the elastic bead from the tuft or braid of hair without undoing the tuft or braid of hair.
- 11. The method of claim 10, wherein removing includes:
 - applying tensile force to the body at two or more locations of the channel to increase a width of the channel to disengage the body from the tuft or braid of hair; and
 - with the width of the channel increased, moving the elastic bead over the tuft or braid of hair, toward an end of the tuft or braid of hair and beyond the end of the tuft or braid of hair.
- 12. The method of claim 7, wherein applying tensile force includes:
 - initially increasing the width of the channel with an application tool; and
 - further increasing the width of the channel manually.
- 13. An assembly, comprising:
 - a package;
 - a plurality of elastic beads carried by the package; and
 - an application tool carried by the package and configured to facilitate application of one or more of the plurality of elastic beads to an object.
- 14. The assembly of claim 13, wherein the application tool includes:
 - a threading end configured to be introduced into a channel of an elastic bead of the plurality of elastic beads;
 - a bead-holding section adjacent to the threading end and configured to receive a plurality of elastic beads in series; and

- an expansion end on an opposite side of the bead-holding section from the threading end, the expansion end having a width that exceeds a width of the channel of the elastic bead, a rigidity that exceeds a rigidity of a body of the elastic bead and a shape that facilitates:
 - movement of the elastic bead onto and over the expansion end; and
 - expansion of the width of the channel of the elastic bead as the elastic bead is moved over the expansion end.
- 15. The assembly of claim 14, wherein the application tool further includes:
 - a retention element between the threading end and the bead-holding section, the retention element:
 - having a width that exceeds a width of the channel of the elastic bead;
 - being compressible as the elastic bead is moved onto the retention element to enable the elastic bead to move across the retention element and onto the bead-holding section; and
 - configured to re-expand as the elastic bead is moved onto the bead-holding section to prevent the elastic bead from being inadvertently moved back over the threading end.
- 16. An assembly, comprising:
 - an elongate element configured to retain a plurality of beads; and
 - at least one elastic bead on and removable from the elongate element, the elongate element extending through a channel through the at least one elastic bead.
- 17. The assembly of claim 16, wherein the elongate element is configured to be carried by an individual.
- 18. The assembly of claim 17, wherein the elongate element is configured to be worn by an individual.
- 19. The assembly of claim 18, wherein the elongate element comprises a bracelet or a necklace.

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