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(54) **JEWELRY ASSEMBLY**

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(57) **ABSTRACT**

A jewelry assembly has a receiving segment having a first and second end, and a removable segment having a first and second end. The first and second ends of the receiving segment each have a magnetically attracted surface. The first end and the second end of the removable segment each have a magnetically attracted surface. The first and second ends of the receiving segment are removably joined to the respective first and second ends of the removable segment by the magnetically attracted surfaces.

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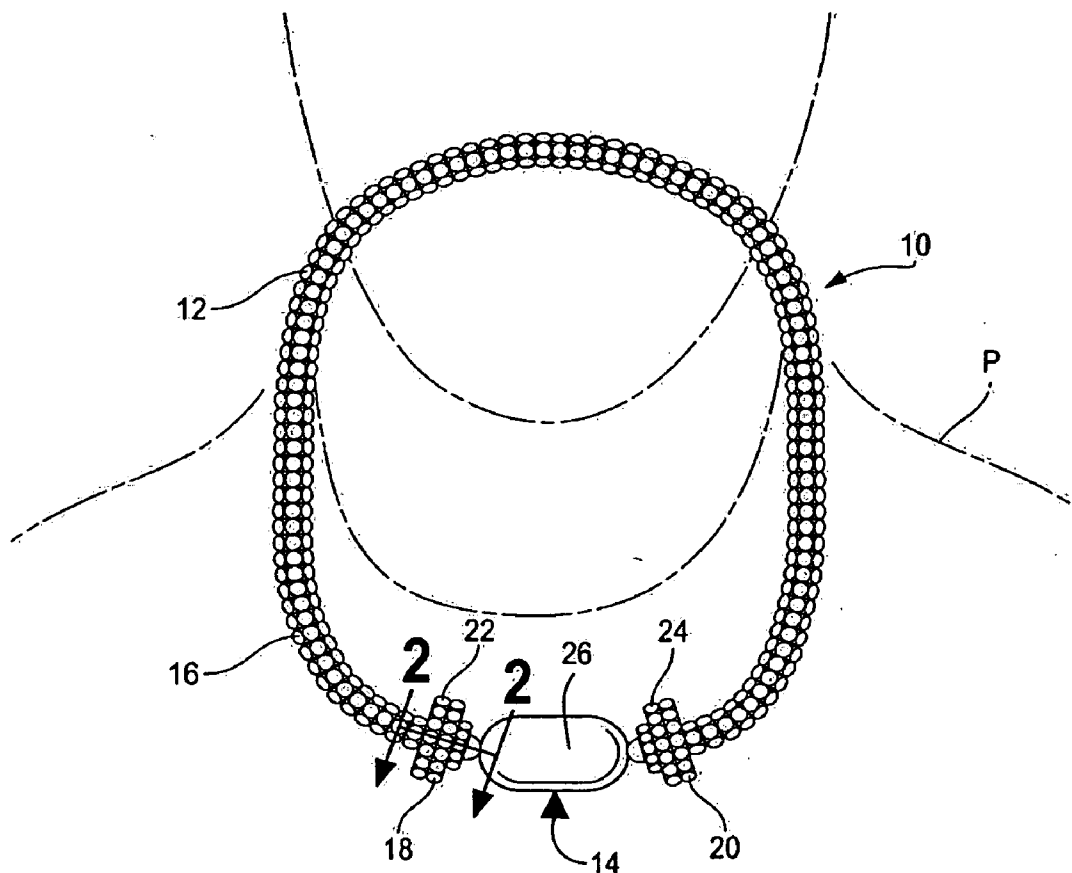


FIG. 1

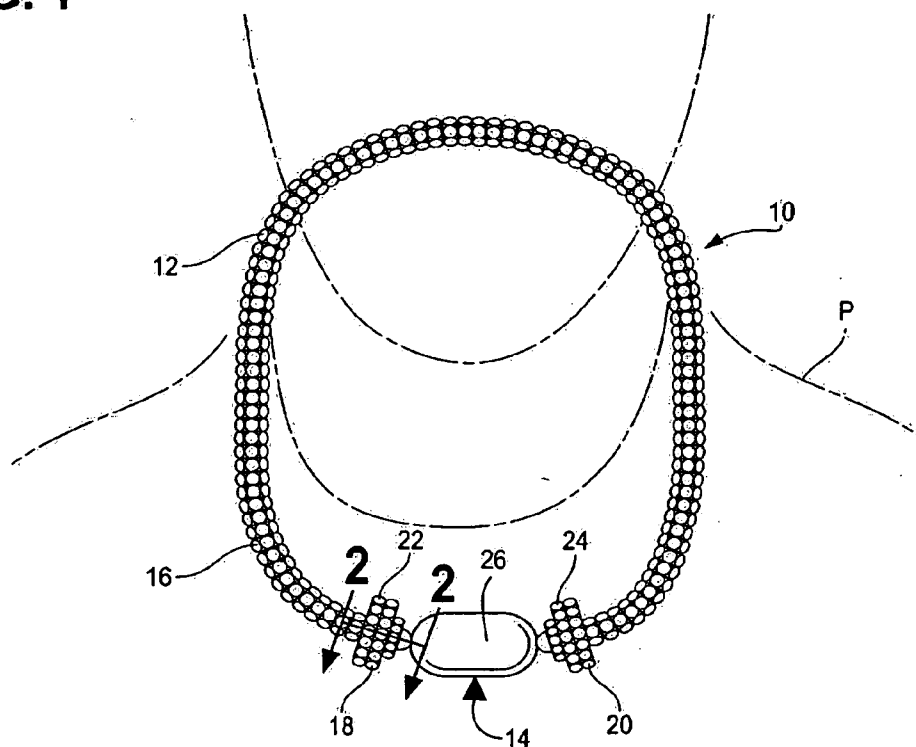


FIG. 2

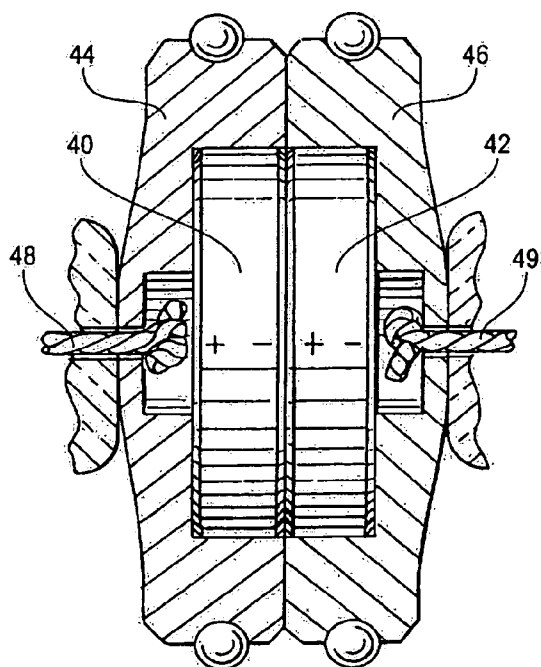
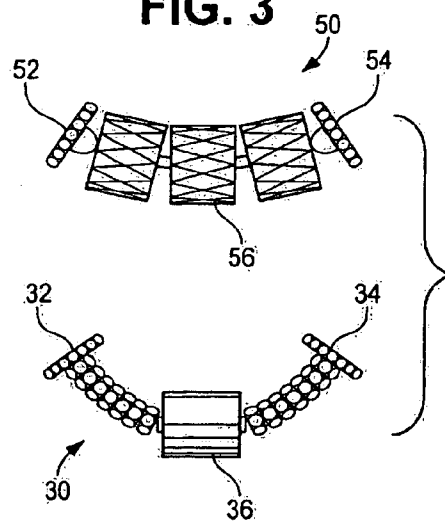


FIG. 3



JEWELRY ASSEMBLY

TECHNICAL FIELD

[0001] The present invention relates to jewelry, and more particularly to jewelry with a removable segment attached using magnets.

BACKGROUND OF THE INVENTION

[0002] Jewelry is considered desirable but is often expensive. People wish to have multiple pieces of jewelry to wear with different outfits and for different occasions. Typically, jewelry cannot be recast or modified. Importantly, the decorative portion of jewelry cannot be easily altered or substituted. For example, a beaded necklace with a diamond pendant may be beautiful, but not be very versatile. A need exists for a jewelry assembly that contains a removable portion to permit the interchange of various jewelry sub-components.

[0003] In order for a removable portion to be practical, it must be easy to attach and detach. It is known to use a mechanical clasp to secure a piece of jewelry on a person. It is also known to use magnets to clasp opposing ends of a jewelry chain together. For example, U.S. Pat. No. 6,640,398 to Hoffman discloses using magnets displaced in channels on opposed ends of a single piece of jewelry. In Hoffman, the magnets help clasp a single piece of jewelry together. However, nothing in Hoffman discloses a removable jewelry portion or attaching a removable jewelry portion to a receiving jewelry portion with magnets. A need exists for a jewelry assembly that contains an easily attachable removable portion. A need also exists for a jewelry assembly that uses magnets to attach a removable portion.

SUMMARY OF THE INVENTION

[0004] The present invention is a jewelry apparatus with a removable portion. The removable portion is attached to a receiving portion using magnets. By use of magnets, the removable portion can be easily attached and detached. The invention permits a person to swap between multiple removable portions onto a single receiving portion. By doing so, a person will be able to transform a smaller jewelry collection into a seemingly larger one.

[0005] In accordance with one aspect of the present invention, a jewelry assembly is provided. The jewelry assembly has a receiving segment with a first and a second end; and a removable segment with a first and a second end. The first and second ends of the receiving segment each have a magnetically attracted surface. The first end and the second end of the removable segment each have a magnetically attracted surface. The first and second ends of the receiving segment are removably joined to the respective first and second ends of the removable segment by the magnetically attracted surfaces.

[0006] According to another aspect of the present invention, a necklace assembly is provided. The necklace assembly comprises a first segment having opposed ends; a second segment having opposed ends; a first connection assembly; and a second connection assembly. Both the first and second connection assemblies each have at least two magnets. The two magnets of the first connection assembly removably join a first end of the first segment with a first end of the second

segment. The two magnets of the second connection assembly removably join a second end of the first segment with a second end of the second segment.

[0007] According to yet another aspect of the present invention, a removable segment of a necklace assembly is provided. The removable segment comprises a first end; a second end; and an ornamental portion positioned between the first and second ends. The first end has a magnet that removably connects to a first end of a receiving segment of a necklace assembly. The second end has a magnet that removably connects to a second end of the receiving segment of a necklace assembly.

[0008] Other features and advantages of the invention will be apparent from the following specification taken in conjunction with the following drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0009] FIG. 1 is a perspective view of a necklace of the present invention.

[0010] FIG. 2 is a sectional view of the magnetic connection assembly of the present invention taken along line 2-2 of FIG. 1.

[0011] FIG. 3 is a perspective view of two removable segments of the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0012] While this invention is susceptible of embodiments in many different forms, there is shown in the drawings and will herein be described in detail a preferred embodiment of the invention with the understanding that the present disclosure is to be considered as an exemplification of the principles of the invention and is not intended to limit the broad aspect of the invention to the embodiment illustrated.

[0013] As shown in FIGS. 1-3, a jewelry assembly is provided. The present invention is preferably used with necklaces, although it can also be used with bracelets, anklets, earrings and other items of jewelry. The length of the jewelry assembly determines whether a particular assembly is suited to be used as a necklace, bracelet or other item. By jewelry, applicant is also including belts with removable buckles, and the present invention is easily adaptable to be used with belts.

[0014] Referring to FIG. 1, jewelry assembly 10 is shown on person P. Jewelry assembly 10, in this case a necklace assembly, includes receiving segment 12 and removable segment 14.

[0015] Receiving segment 12 is typically a flexible curvilinear item. It can be made of cord, thread, metal (i.e., gold or silver) or any other material as known to those in the art. As illustrated in FIG. 1, ornament designs such as beads 16 can be part of receiving segment 12. Preferably, receiving segment 12 is continuous and uninterrupted.

[0016] Receiving segment 12 has a first end 18 and a second end 20. In the illustrated embodiment, first end 18 and second end 20 appear in the form of portions of a bead. At first end 18 and second end 20, there is a magnetically attracted surface such as a magnet.

[0017] In FIG. 1, removable segment 14 is removably joined to receiving segment 12. Removable segment 14 has a first end 22 and a second end 24. In the illustrated embodiment, first end 22 and second end 24 appear in the form of complementary portions of the beads from ends 18 and 20. At first end 22 and second end 24, there is a magnetically attracted surface such as a magnet. Removable segment 14, in one embodiment, includes a decorative element 26 such as a precious or semi-precious stone, pendant or other jewel or item. Decorative element 26 is positioned between opposed ends 22 and 24.

[0018] First and second ends 18 and 20 are capable of being joined (and subsequently detached) to first ends 22 and 24 respectively by the magnetically attracted surfaces. When joined, the jewelry assembly looks seamless and as if it were one integral piece to a casual viewer. As shown in FIG. 2, magnet 40 attaches to magnet 42. The magnets may physically touch each other or at least be sufficient close (i.e., a thin film may be separating the magnets) to keep the segments joined to each other. Magnet 40 is within housing 44 and magnet 42 is within housing 46, which may be a mirror-image of housing 44. Magnets 40 and 42 are connected to cords 48 and 49, respectively, of the removable segment. Magnets 40 and 42 may have a circular, square, rectangular, triangular or other fixed cross-sectional shape. Magnets 40 and 42 may be of identical shape and dimensions. The magnetically attractive surfaces of the receiving segment are cooperatively dimensioned to mate with the magnetically attractive surfaces of the removable segment.

[0019] The magnetically attractive surfaces of the receiving segment may be set such that one of them is of positive polarity and one of them is of negative polarity. Similarly, the magnetically attractive surfaces of the removable segment may be set such that one of them is of positive polarity and one of them is of negative polarity. In this configuration, the magnetically attractive portions of the removable segment may connect to each other and form a smaller necklace, bracelet, anklet or other jewelry. Along the same lines, the magnetically attractive portions of the receiving segment may connect to each other to form a bracelet or anklet. The polarity of the magnetically attractive surfaces may be set up such that the removable segment must align with the receiving segment in a way that the decorative element is always facing out from the wearer. Said another way, the polarity of the magnetically attractive surfaces of the removable segment would only join with the receiving segment while the decorative element was facing the right direction.

[0020] Alternatively, both ends of the receiving segment may be of one polarity while both ends of the removable segment may be of the other polarity. In such a setup, the receiving segment and the removable segment cannot close on themselves because both ends of each segment contain magnets of the same polarity. However, it would be possible for a person to mistakenly connect the removable segment to the receiving segment with any decorative element facing the wrong direction.

[0021] The magnetically attractive surfaces may have strong enough magnetic qualities to sufficiently prohibit lateral movement between the receiving segment and the removable segment. Using such a strong magnet has the advantage of making the joining of the segments particularly easy. Alternatively, lateral movement of the magnetically

attractive surfaces when the receiving segment is attached to the removable segment may be limited by stopping means. These stopping means may include the magnetically attractive surfaces being oriented with respect to each other in a tongue and groove configuration or an intermeshing teeth configuration, or with one surface having a divot and the opposing surface having a complementary dimple.

[0022] Turning now to FIG. 3, there is illustrated two different removable segments 30 and 50 of a necklace assembly. Removable segment 30 has ends 32 and 34 and an ornamental portion 36 positioned between ends 32 and 34. Removable segment 50 has ends 52 and 54 and an ornamental portion 56 positioned between ends 52 and 54. Ornamental portions 36 and 56 may include multiple stone or decorative items, and, if desired, each being of different colors. Ornamental portion 56 is illustrated with one jewel and multiple beads of different diameters. Having different ornamental portions permits the jewelry assembly to have a different look and feel when the removable segments are swapped. Ends 32, 34, 52 and 54 each have a magnet that removably connects to a magnet on a necklace receiving segment. The magnets of ends 32, 34, 52 and 54 may be wholly or partially encased by a decorative housing. For example, ends 32 and 34 may be partially covered by roughly half of a bead, the other half of the bead encasing the magnet on the necklace segment. While beads have been used as an example, the decorative housing may be of any aesthetically pleasing ornamental design.

[0023] Multiple removable segments 30 may be joined together, and then removably attached to a receiving portion. For instance, end 32 of a segment 30 may be joined to end 54 of a segment 50. End 34 may be joined to one opposed end of a necklace segment and end 52 joined to the other opposed end of the necklace segment. Alternatively, a jewelry assembly may be formed using multiple removable segments and no necklace segment. For example, seven removable segments may be joined to form a necklace assembly.

[0024] In an alternative embodiment, the jewelry assembly is a belt. The buckle of the belt is decorative and included within the removable segment.

[0025] While the specific embodiment has been illustrated and described, numerous modifications come to mind without significantly departing from the spirit of the invention, and the scope of protection is only limited by the scope of the accompanying claims.

1-2. (canceled)

3. The necklace assembly of claim 17 wherein the second segment has a length for use as a bracelet.

4. The necklace assembly of claim 17 wherein the first segment has a plurality of ornamental beads.

5. (canceled)

6. The necklace assembly of claim 17 wherein the non-magnetic stone comprises a precious stone.

7. The necklace assembly of claim 17 wherein the non-magnetic stone comprises a semi-precious stone.

8. The necklace assembly of claim 17 wherein the non-magnetic stone comprises a pendant.

9. (canceled)

10. The necklace assembly of claim 4 wherein one of the magnets of the first connection assembly is of positive

polarity and the other of the magnets of the first connection assembly is of negative polarity.

11-14. (canceled)

15. The necklace assembly of claim 4 wherein one opposed end of the first segment and one opposed end of the second segment are complementary portions of an aesthetically pleasing ornamental design.

16. The necklace assembly of claim 4 wherein the magnets of the first connection assembly are cooperatively dimensioned, and wherein the magnets of the second connection assembly are cooperatively dimensioned.

17. A necklace assembly having an open and closed position, the assembly comprising:

- a first segment having opposed ends;
- a second segment having opposed ends and a nonmagnetic stone positioned between the opposed ends;
- a first connection assembly having a first and second side and at least two magnets, wherein the two magnets of the first connection assembly removably join a first end of the first segment with a first end of the second segment; and
- a second connection assembly having a first and second side and at least two magnets, wherein the two magnets of the second connection assembly removably join a second end of the first segment with a second end of the second segment, and wherein when the necklace assembly is in the closed position at least a portion of the first segment is positioned between the first side of the first connection assembly and the first side of the second connection assembly, and at least a portion of the second segment is positioned between the second side of the first connection assembly and the second

side of the second connection assembly, and wherein when the necklace assembly is in the open position, the two magnets in the first connection assembly are separated and the two magnets in the second connection assembly are separated.

18. The necklace assembly of claim 17 wherein at least one of the first connection assembly and the second connection assembly is in the general shape of a bead.

19. In a necklace assembly having first and second magnetically attracting receiving ends of a receiving segment, a removable segment of the necklace assembly provided for being positioned between the first and second receiving ends of the receiving segment, comprising:

- a first end having a magnet provided for magnetic attachment to the first receiving end of the receiving segment;
- a second end having a magnet provided for magnetic attachment to the second receiving end of the receiving segment; and
- an ornamental portion positioned between the first and second ends.

20. The removable segment of the necklace assembly of claim 19, wherein the magnets of the first and second ends are at least partially encased by a decorative housing.

21. The necklace assembly of claim 17 wherein the magnets of the first connection assembly are at least partially encased by a first decorative housing and the magnets of the second connection assembly are at least partially encased by a second decorative housing.

22. The necklace assembly of claim 21 wherein the first decorative housing is a single bead, and the second decorative housing is the single bead.

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