



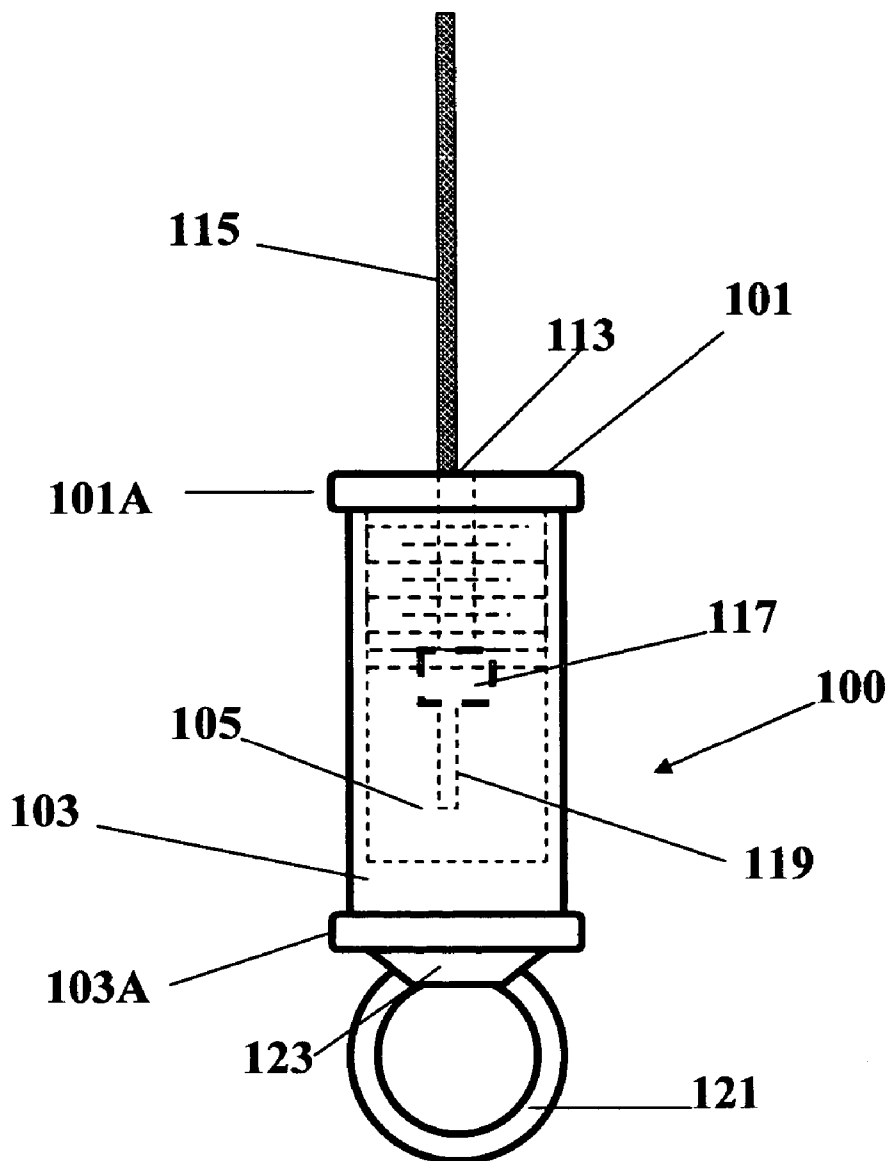
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Scharr(10) **Pub. No.: US 2005/0241336 A1**(43) **Pub. Date: Nov. 3, 2005**(54) **JEWELRY CONNECTOR****Publication Classification**(76) **Inventor: Paul R. Scharr, Scottsdale, AZ (US)**(51) **Int. Cl.⁷ A44C 5/00**(52) **U.S. Cl. 63/3.1**

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PAUL R SCHARR**6574 E. CRESTED SAGUARO LANE****SCOTTSDALE, AZ 85262-7373 (US)**(21) **Appl. No.: 10/966,656**(22) **Filed: Oct. 16, 2004****Related U.S. Application Data**(63) **Continuation-in-part of application No. 10/834,716,
filed on Apr. 28, 2004.**(57) **ABSTRACT**

A jewelry connector is provided that includes a first body member and a second body member adapted to be affixed to the first body member. The first and second body members cooperatively define a closed chamber. The closed chamber is sized to contain and restrain a finding attached to one or more jewelry wires. At least one of the first and second body members has an aperture through which one or more jewelry wires carrying said finding is extendable into the chamber. A decorative shroud is provided for said jewelry connector.



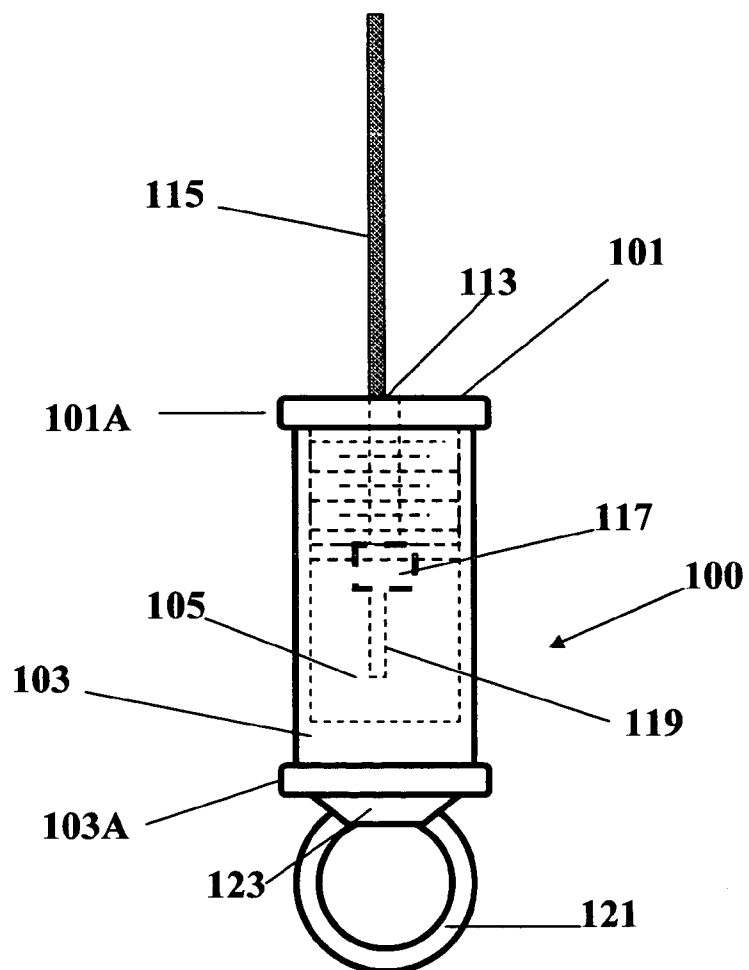


FIG. 1

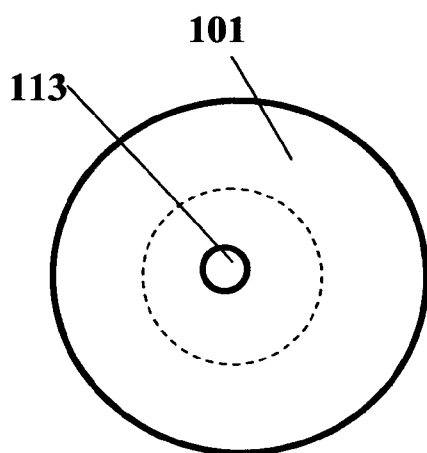


FIG. 2

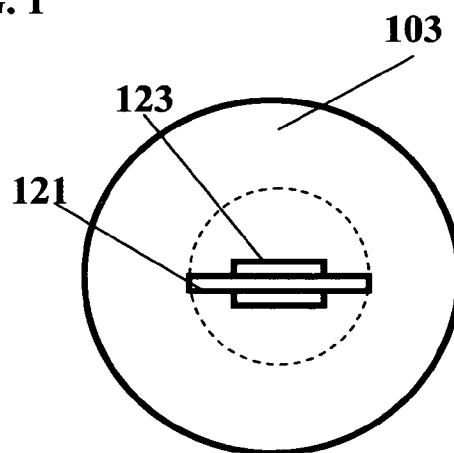


FIG. 3

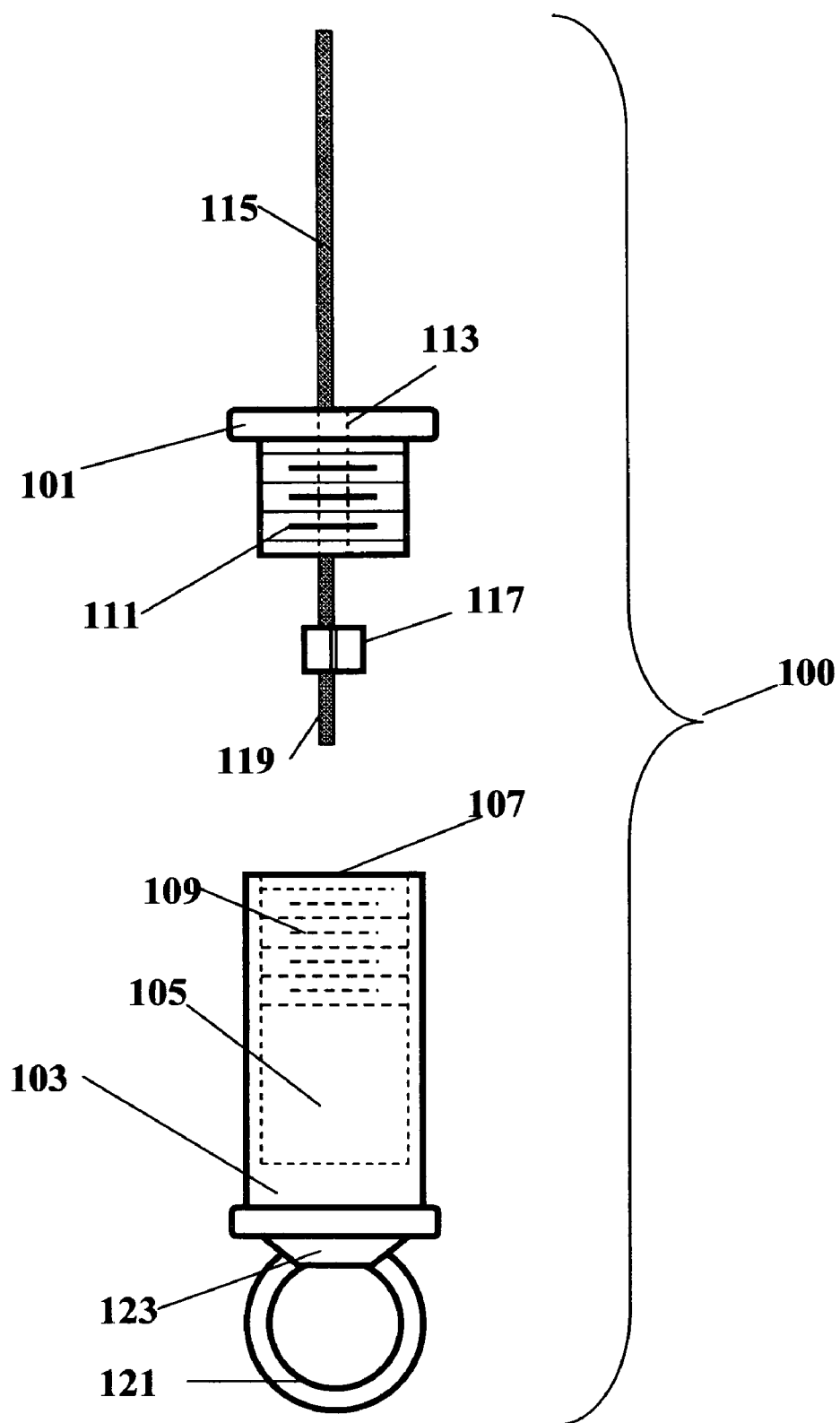


FIG. 4

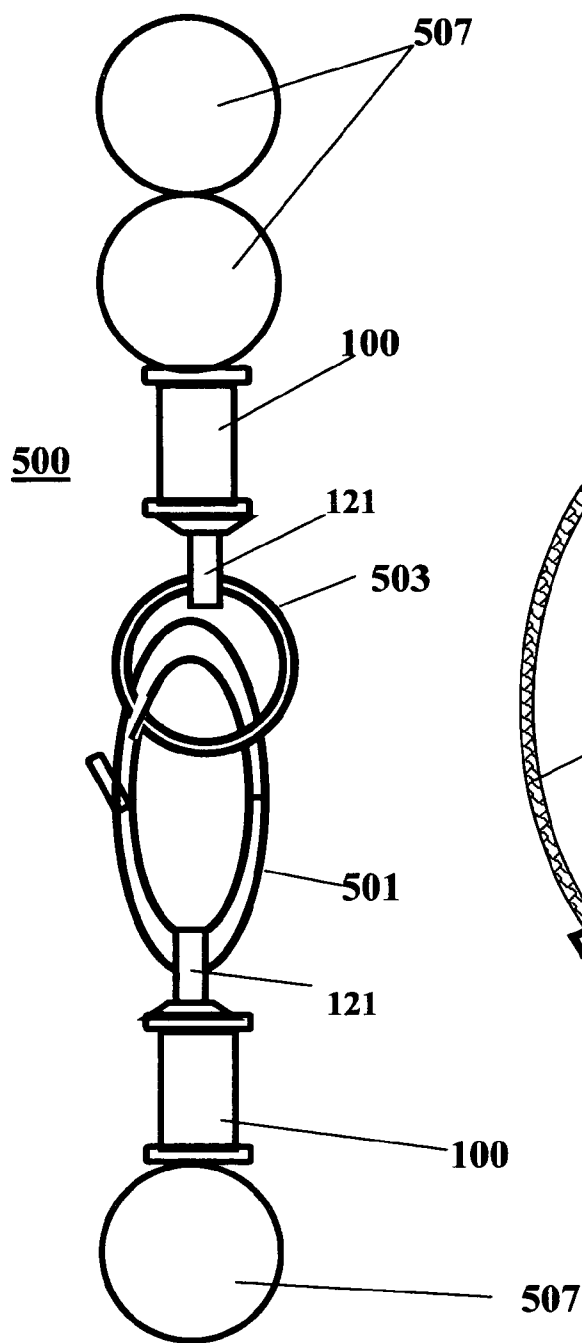


FIG. 5

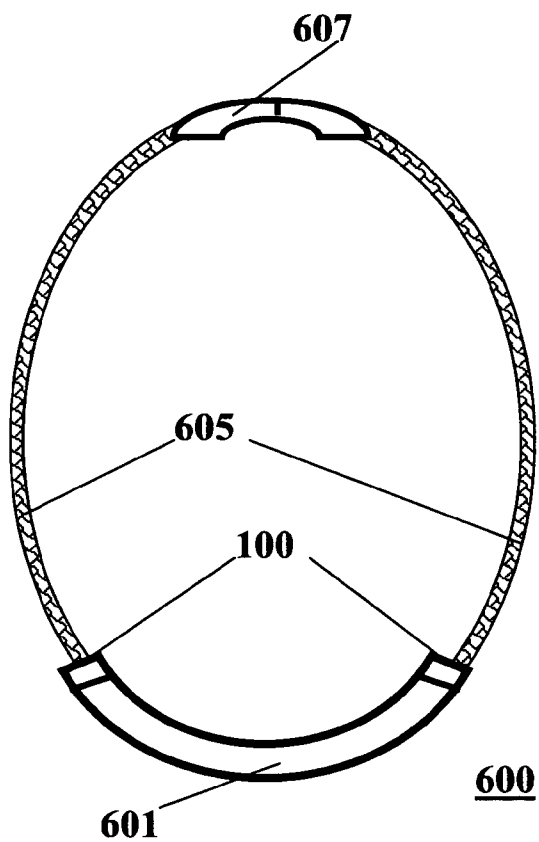


FIG. 6

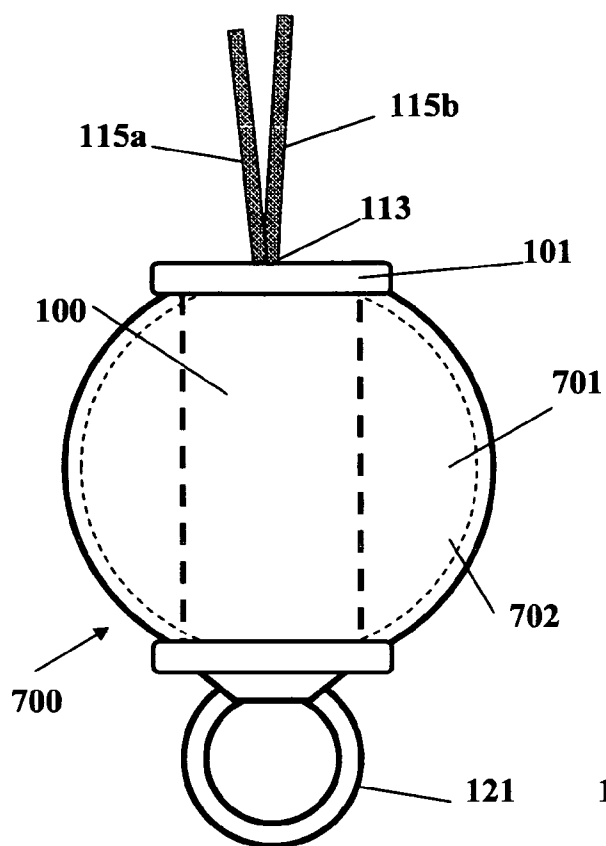


FIG. 7

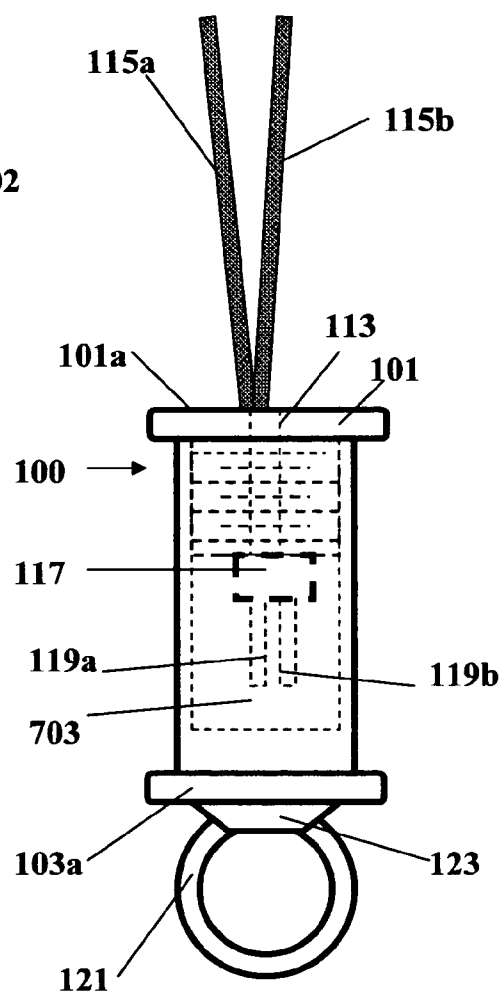
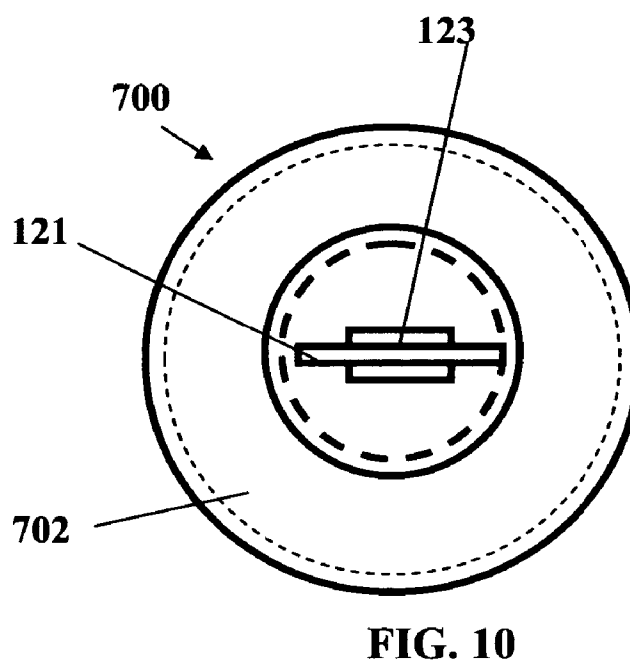
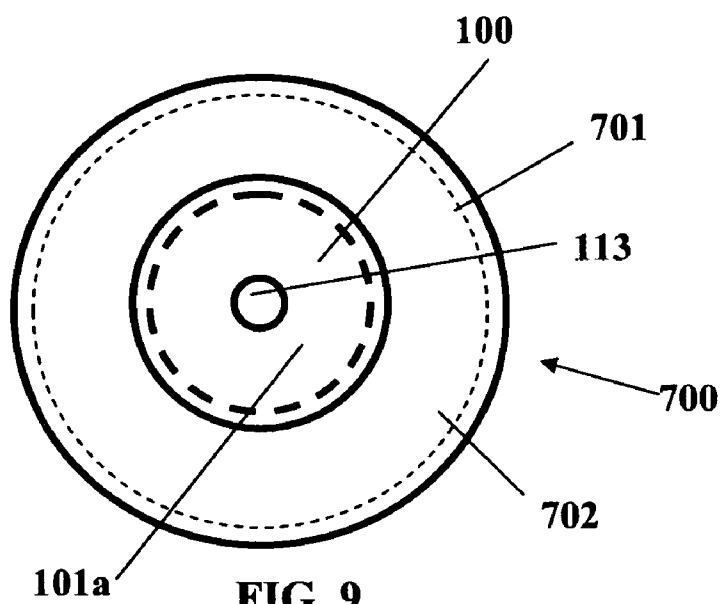


FIG. 8



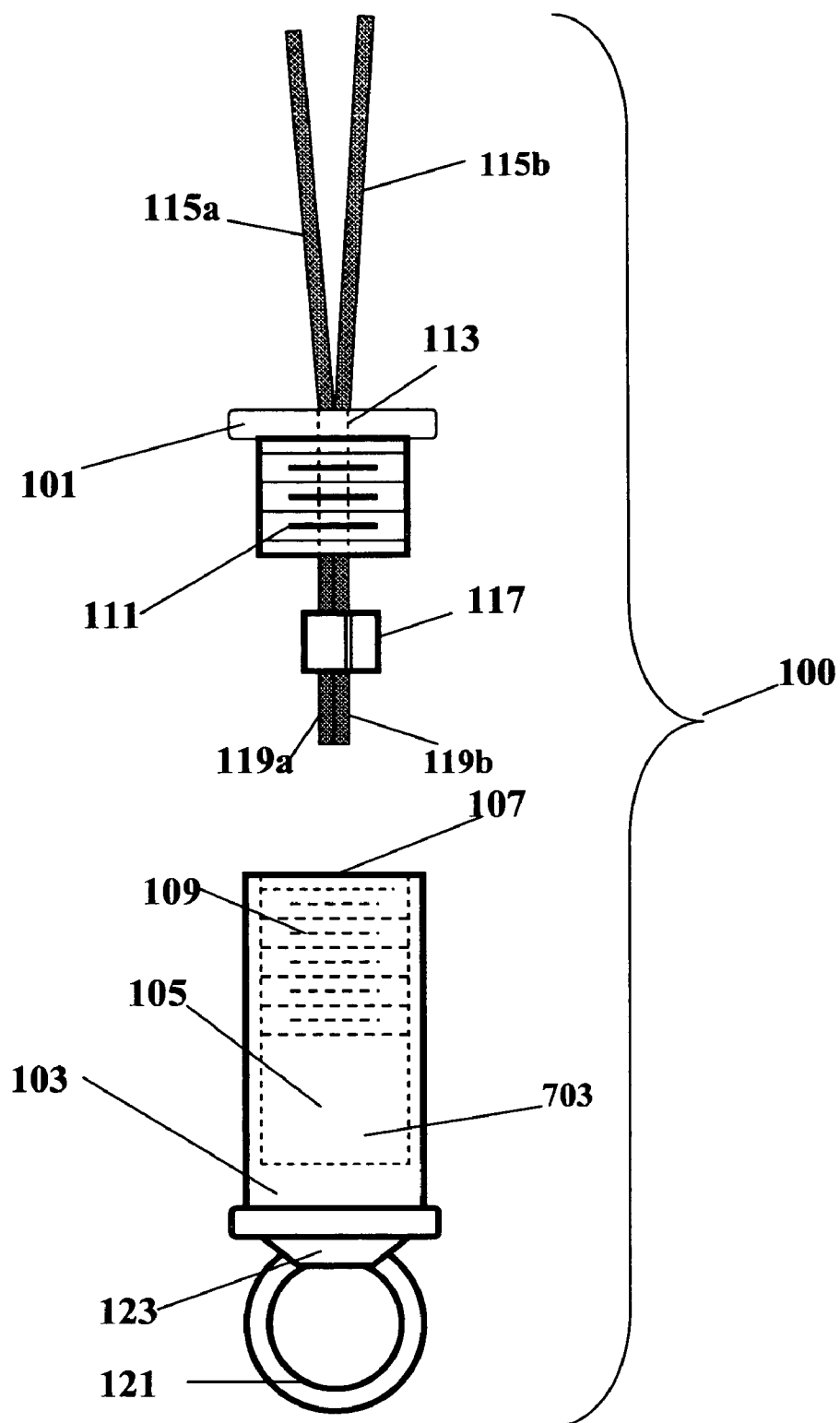


FIG. 11

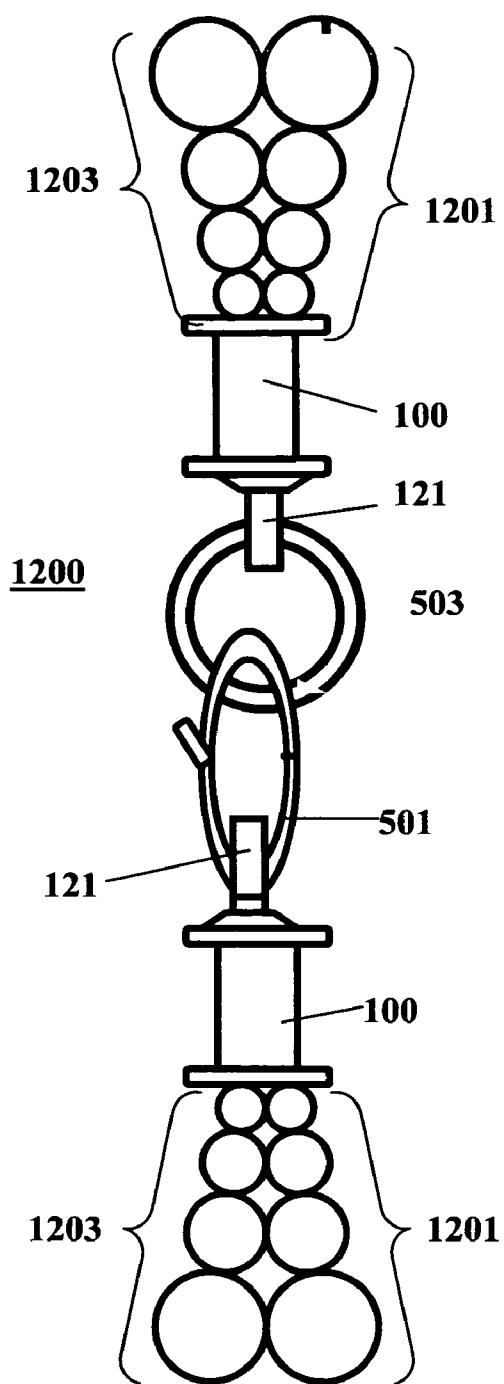


FIG. 12

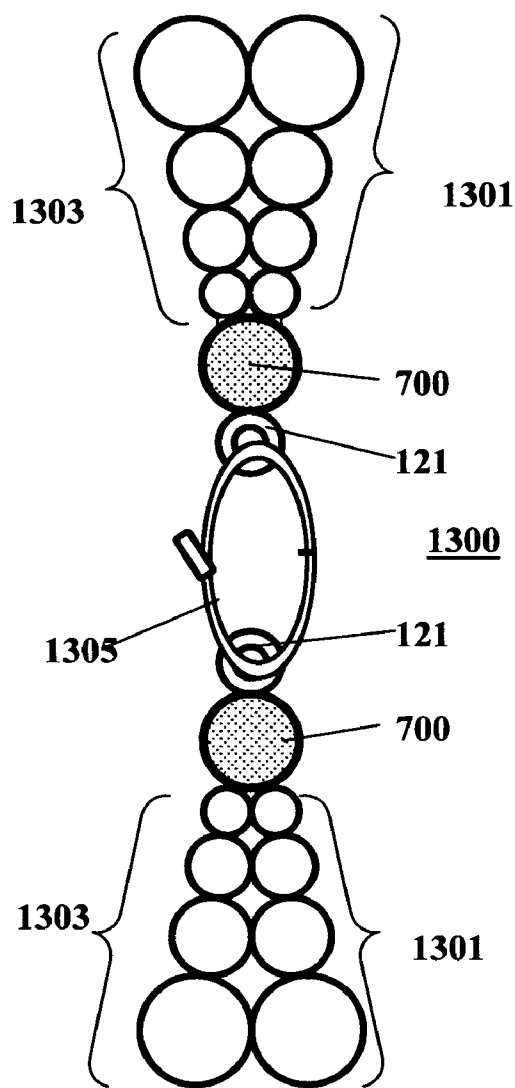


FIG. 13

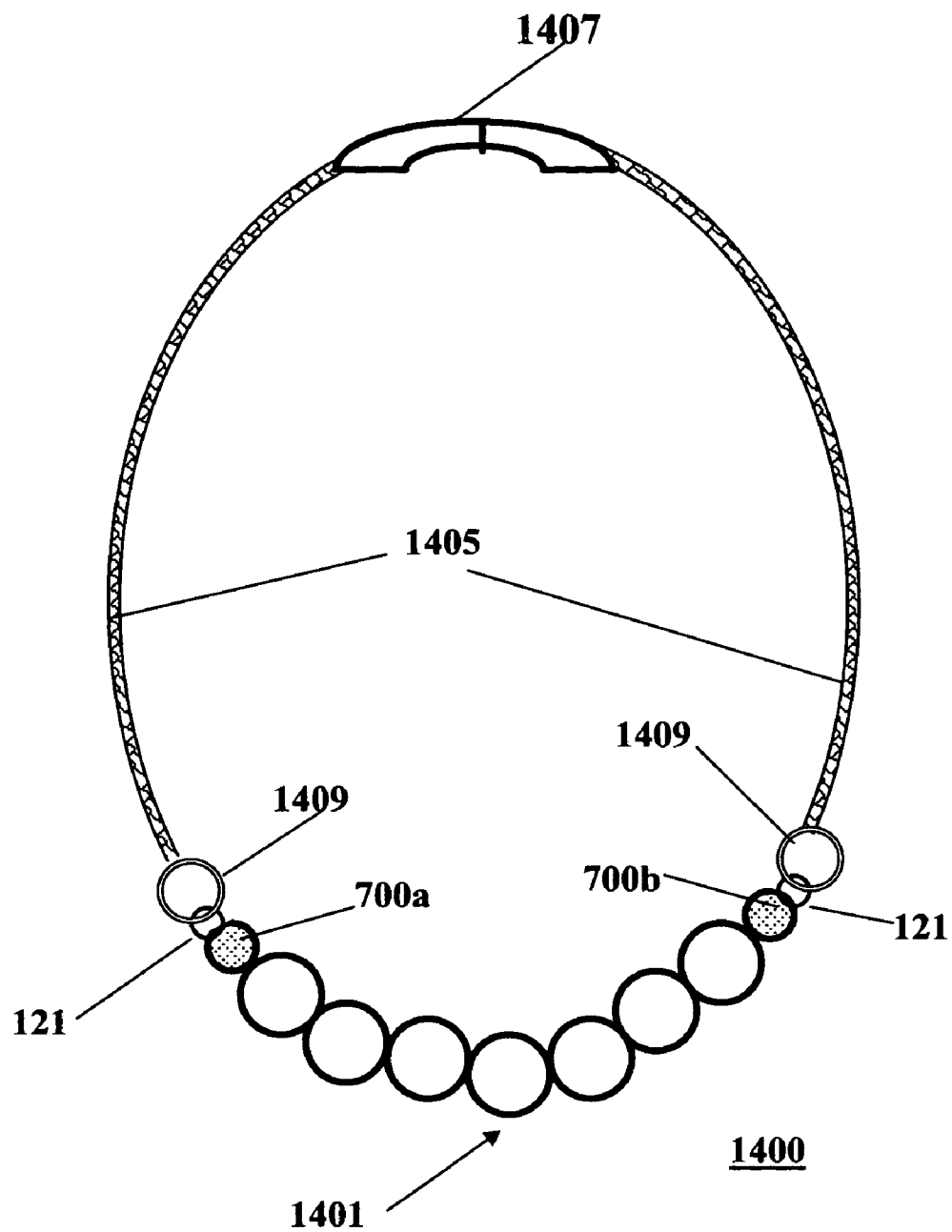


FIG. 14

JEWELRY CONNECTOR

RELATED APPLICATIONS

[0001] This application claims priority of and is a continuation-in-part of U.S. application Ser. No. 10/834,716 filed Apr. 28, 2004.

FIELD OF THE INVENTION

[0002] The invention pertains to jewelry, in general, and to jewelry connectors and jewelry utilizing such connectors, in particular.

BACKGROUND OF THE INVENTION

[0003] Jewelry has always been considered an important element of a well-dressed individual, reflecting the personalities and taste of the wearer. Beaded jewelry started in ancient times as a craft using a series of artistic stones or metal pieces placed end-to-end on a string in various formations. Today, we have factories that arrange beads on various stringing materials to form bracelets, necklaces, watch bands, ankle bracelets, belts, handbag straps, waist jewelry or the like.

[0004] Stringing materials used today are predominately string, wire or chord. The type of material, size, weight and quality of the jewelry article usually determines the stringing mechanism, be it wire, chord, string that is selected by the designers.

[0005] Bead wire, made exclusively for the jewelry trade, comes in many diameters, is usually made of stainless steel wires woven together and then coated. It is typically strong, light, and allows for a supple drape.

[0006] Beadwork assemblies are typically connected to a clasp, chain, or cable using string or wire.

[0007] String beadwork typically is finished by knotting the string and placing the end knot into some type of bead where the final bead or a metal finding holds and conceals the final knot.

[0008] Wire is preferred by designers when the application requires heavy beads and where the bead hole is abrasive. Abrasive bead holes can act like razors on the string or chord. The allure of stringing many different beads or stones and creating limitless design possibilities without having to worry about abrasive beads, makes using the bead wire versus string very attractive for jewelry assemblies by designers.

[0009] String beadwork is feasible due to the ability to knot a string. This remedy is not feasible for designs that use a wire for beadwork. Tying a knot in the bead wire weakens the wire. Consequently, wires are typically finished with metal findings, called "crimps".

[0010] Crimps are small tubes of metal that are crushed with pliers or a specific crimping tool to hold wires together. Crimps fasten the wire to itself to form a loop that attaches to the clasp, chain or cable assemblies. This is accomplished by threading the wire through the crimp tube around a clasp or other article, and then back through the crimp tube. To close the loop, the crimp is then crushed with a crimp pliers or a needle nose pliers to hold the wire securely. Crimps of varying sizes are used depending on the size of the wire, the weight and size of the beads.

[0011] Additional problems with using bead wire are that a metal finding, such as a crimp, is exposed and raw beading wire is exposed. Metal findings are typically not very strong and often times will break causing the loss of the jewelry.

[0012] Metal findings become a piece of hardware as opposed to an element of design and are typically not found in high-priced jewelry since this would be considered not appealing by those that appreciate the art since aesthetics are important factors in the value of the jewelry. One of the primary problems in trying to attach a bead wire to either a clasp, chain or cable is how to attach the wire without detracting from the overall appearance of the jewelry article.

[0013] Some jewelry designers use what is called "French wire" or bullion to cover over the raw bead wire which creates the loop. French wire is a spring-like coil of silver tint that is cut to length and placed over the exposed portion of the beading wire. French wire is a temporary solution, at best, as it soon frays and discolors and detracts from the overall appearance of the article of jewelry. The value of the pieces of jewelry often depends largely upon how the piece is "put together."

[0014] While many of the prior connector elements may be suitable for low-end jewelry, they are not desirable solutions for high-end jewelry. How it is "put together" is an important factor for success in the high-end jewelry market.

[0015] Although the relevant body of art discloses devices for use with an article of jewelry, most all are directed towards either connecting to chain, cable or an improved clasp. For instance, U.S. Pat. No. 4,219,919 refers to connecting to chain, U.S. Pat. No. 6,681,598 refers to connecting beads that are wired from eyelet to eyelet and are not a continuous wire strand. Similarly, U.S. Pat. No. 6,289,559 is a clasp appended to a knotted pearl necklace, U.S. Pat. No. 6,088,884, is still another clasp designed to be soldered to a chain. In most instances, particularly with the foregoing, the strand ends in prior art have loops that are either glued into the last bead for engagement to a clasp, or soldered to the end of a chain, or glued to a chord. None of the prior art addresses how to attach a bead wire to a clasp, chain, cable or the like and overcome the exposed metal findings and/or the exposed wire that detracts from the appearance of the article of jewelry. U.S. Pat. No. 5,398,391 refers to connecting a bead wire to a clasp. This patent eliminates the unsightly crimp, but does not eliminate the exposed raw bead wire that detracts from the appearance of the article of jewelry. None of the prior art addresses how to attach a bead wire to a clasp, chain, cable or the like without detracting from the appearance of the article of jewelry.

[0016] It is an object of the present invention to provide an improved connector, which overcomes the aforementioned inadequacies of the prior art devices and provides a significant contribution to the jewelry industry.

[0017] It is an object of this invention to provide a jewelry connector suitable for higher-end jewelry.

[0018] It is further an object of the present invention to provide a connector which is easily installed on the ends of the strands.

[0019] Another object is to provide a jewelry connector device that minimizes the need for a high level of manual dexterity in assembly.

[0020] Still another object of the present invention is to provide a jewelry connector that may incorporate a variety of styles, shapes, designs, decorative features. The shape of the connector may be of any jewelry type shape including cubical, spherical, cylindrical and other geometric shapes.

[0021] It is yet another object of this invention to provide a jewelry connector that can be sized to allow for different amounts of holding power.

[0022] It is also an object of the present invention to provide a device that is easily manufactured and simple to use.

[0023] These and other objects of the invention are provided by a jewelry connector in accordance with the principles of the invention.

SUMMARY OF THE INVENTION

[0024] In accordance with the principles of the invention, a jewelry connector is provided that includes a first body member and a second body member adapted to be affixed to the first body member. The first and second body members cooperatively define a closed chamber. The closed chamber is sized to contain and restrain a metal finding attached to at least one jewelry wire. At least one of the first and second body members has an aperture through which a jewelry wire carrying said metal finding is extendable into the chamber.

[0025] A jewelry connector in accordance with the principles of the invention comprises a body, the body having a chamber and the body is adapted to receive a cap. The connector includes a cap adapted to be affixed to the body to close the chamber. The said cap includes an aperture sized to receive the free end of a wire. The chamber is sized to contain the wire free end and a metal finding affixed to the wire free end.

[0026] In one embodiment of the invention a loop or ring is carried by the body for carrying a jewelry component.

[0027] Still further in accordance with the principles of the invention, a jewelry connector body is a substantially cylindrical member having at least a partially threaded bore. The cap includes a threaded portion for engaging the partially threaded bore and securing the cap to the body.

[0028] In another embodiment of the invention a linking attachment is carried by the body. The linking attachment is adapted to attach to a jewelry component. The jewelry component may be one of a jewelry clasp, jewelry chain, jewelry cable or the like.

[0029] In accordance with the principles of the invention the cap and the body each have an exterior shape and finish that match such that the cap and body appear as a single unit when assembled together. In one embodiment of the invention, the cap and the body member are each comprised of precious metal.

[0030] The aperture is selected to be large enough such that the wire can pass there through and small enough to prevent the crimp attached to the wire from passing there through.

[0031] The cap includes a portion facilitating being gripped by an assembler's fingers.

[0032] In accordance with another aspect of the invention jewelry comprises a first section comprising a plurality of wired together elements and at least one jewelry connector disposed at one end of the first section. The jewelry connector includes a first connector member and a second connector member adapted for secure affixation to the first connector member. One of the first or second members has an aperture for receiving a wire extending through the first section. The first and second members cooperate to form a closed chamber for capturing a crimp affixed to a wire extending through the aperture into the chamber.

[0033] In accordance with another aspect of the invention jewelry includes a first jewelry section of a plurality of wired together elements. A first jewelry connector is disposed at one end of the first section. The jewelry connector includes a first connector member; and a second connector member adapted for secure affixation to said first connector member. One of the first or second members has an aperture for receiving a wire extending through the first jewelry section. The first and second members cooperate to form a closed chamber for capturing a crimp affixed to a wire extending through the aperture into the chamber. A second jewelry connector is disposed at the other end of the first jewelry section. The second connector includes a third connector member; and a fourth connector member adapted for secure affixation to the third connector member. One of the third or fourth members has an aperture for receiving a wire extending through the first jewelry section. The third and fourth members cooperate to form a closed second chamber for capturing a second crimp affixed to the wire extending through the second aperture into the second chamber.

[0034] In accordance with another aspect of the invention, a jewelry connector comprises a body having a chamber, and an end portion having an aperture in communication with the chamber. The aperture is sized to receive the free ends of a plurality of wires. The chamber is sized to contain the free ends of the plurality of wires. A finding is affixed to said wires free ends.

[0035] In an embodiment of the invention, the jewelry connector includes one of a hook or a loop coupled to the body for carrying a jewelry component.

[0036] In accordance with another aspect of the invention the jewelry connector body comprises a decorative shroud, and a chambered portion, the shroud covering the chambered portion.

[0037] In one aspect of the invention the shroud comprises a decorative shell.

[0038] Still further in accordance with another aspect of the invention, the jewelry connector end portion comprises a cap and the end portion is adapted to be secured to the body to close the chamber. In an illustrative embodiment, the end portion comprises one threaded portion, and the body comprises another threaded portion for engaging said one threaded portion.

[0039] A jewelry connector in accordance with the invention may include a linking attachment carried by the body. The linking attachment is adapted to attach to a jewelry component. The jewelry component may comprise one of a jewelry clasp, jewelry chain, or jewelry cable. The linking attachment may comprise one of a hook or a loop.

[0040] In accordance with the invention the aperture is selected to be large enough such that the free ends of the plurality of wires can pass there through and small enough to prevent the finding from passing there through.

[0041] Still further in accordance with the principles of the invention jewelry comprises a plurality of jewelry sections. Each jewelry section includes a plurality of wired together elements and having a free end extending therefrom. A jewelry connector as described above is disposed at one end of the plurality of jewelry sections.

BRIEF DESCRIPTION OF THE DRAWING

[0042] The invention will be better understood from a reading of the following detailed description in conjunction with the drawing figures in which like reference designations are utilized to designate like elements, and in which:

[0043] FIG. 1 illustrates a device in accordance with the principles of the invention;

[0044] FIG. 2 is a top view of the device of FIG. 1;

[0045] FIG. 3 is a bottom view of the device of FIG. 1;

[0046] FIG. 4 is an exploded view of the device of FIG. 1 along with a wire and metal finding;

[0047] FIG. 5 is a portion of a piece of jewelry in accordance with the principles of the invention;

[0048] FIG. 6 illustrates a second piece of jewelry in accordance with the principles of the invention;

[0049] FIG. 7 illustrates a second embodiment of a device in accordance with the principles of the invention;

[0050] FIG. 8 illustrates a portion of the second embodiment of the invention;

[0051] FIG. 9 is a top view of the device of FIG. 7;

[0052] FIG. 10 is a bottom view of the device of FIG. 7;

[0053] FIG. 11 is an exploded view of the portion shown in FIG. 8;

[0054] FIG. 12 illustrates a multi-strand jewelry piece utilizing the device of FIG. 1;

[0055] FIG. 13 illustrates a multi-strand jewelry piece utilizing the device of FIG. 7; and

[0056] FIG. 14 illustrates a piece of jewelry utilizing the device of FIG. 7.

DETAILED DESCRIPTION

[0057] The present invention has substantial advantages over the jewelry connection schemes previously utilized. The jewelry connector of the present invention becomes an element of design as opposed to a deformed piece of hardware or wire used to forcefully grip ends of wires.

[0058] The jewelry connector of the invention is sturdy and structurally as strong as the necklace, bracelet or other piece of jewelry in which it is used.

[0059] Turning now to the drawing, FIGS. 1 through 4 show an embodiment of a jewelry connector 100 in accordance with the principles of the invention. Jewelry connector 100 includes a first member or body 103 and a second member or cap 101. Body 103 includes a chamber 105.

Chamber 105 is formed by a blind bore 107 in body 103. Blind bore 107 includes threads 109 that extend partially along the length of bore 107.

[0060] Cap 101 includes a threaded portion 111 that is adapted to engage threads 109. Cap 101 includes an aperture 113 that is sized to receive at least one jewelry wire 115.

[0061] In utilizing the connector, jewelry wire 115 is extended through aperture 113 and a crimp 117 is affixed to the free end 119 of wire 115.

[0062] First member or body 103 includes a jewelry loop 121 that is affixed thereto by solder 123. Loop 121 is utilized to attach to a jewelry component such as a clasp 501, loop 503, chain 605 or other jewelry elements as shown in FIGS. 5 and 6.

[0063] First member or body 103 includes a portion 103A that more easily permits an assembler to hold first member or body 101. Similarly, second member or cap 101 includes a portion 101A that permits the assembler to hold second member or cap 101 for assembly.

[0064] In assembling jewelry connector 100, a drop of adhesive or glue may be provided on the threaded portions to permanently affix body 103 and cap 101.

[0065] FIG. 5 illustrates a portion of a beaded piece of jewelry 500 having beads 507. At each end of the string of beads a jewelry connector 100 is connected. One jewelry connector 100 carries a loop 503 and the other carries a clasp 501 for coupling to loop 503. The particular details of loop 503 and clasp 501 are not shown. Clasp 501 may be any well known clasp.

[0066] FIG. 6 illustrates another piece of jewelry 600 in accordance with the principles of the invention. Jewelry 600 includes a first jewelry portion 601 that is terminated at both ends with jewelry connectors 100 and couples first jewelry portion 601 to chains or second jewelry portions 605. Jewelry portions 605 terminate in a hook and clasp assembly 607 that is shown schematically.

[0067] Connectors 100 are preferably formed of a metal that corresponds to the jewelry in which the connectors 100 are to be used. In one preferred embodiment of the present invention, the connector has been designed in a generally cylindrical shape, has one hole for passageway for receiving at least one free end of a wire, and a loop is permanent attached at the end of the main member. It is understood that the connector may take any decorative form or finish, additional holes for the passage of more than one wire, and another form of engagement, like a hook instead of a loop, to an article of jewelry without departing from the novel scope of the present invention.

[0068] FIGS. 7-14 show alternate embodiments of the invention in which a jewelry connector is shown that connects a plurality of jewelry wires. The jewelry connector 700 comprises a body 701 that includes a chamber 703 into which the ends of a plurality of wires 115a, 115b extend and are secured by a finding 117. Jewelry connector body 701 includes an aperture 113 in one end portion 101 through which the plurality of wires 115a, 115b extend.

[0069] Jewelry connector body 701 includes a decorative shroud or shell portion 702 and a chambered portion 100. Chambered portion 100 is identical to jewelry connector 100.

described above, with the exception that aperture **113** is sized to permit a plurality of wires **115a**, **115b** to extend into chamber **703** of chambered portion **100** and further sized such that finding **117** that is crimped onto wires **115a**, **115b** can not pass through aperture **113**.

[0070] **FIG. 12** illustrates a jewelry connector **100** utilized with two strands of beads **1201**, **1203**. Connecting jewelry components **501**, **503** are utilized to connect the two ends of the strands **1201**, **1203** via jewelry connectors **100**.

[0071] **FIG. 13** illustrates a two strand piece of jewelry **1300** that utilizes two connectors **700**, one at each end of two strands of beads **1301**, **1303**. A jewelry clasp **1305** is utilized to connect the two ends of the bead strands **1301**, **1303**. The two ends of the strands of beads **1301**, **1303** may be coupled together utilizing any known jewelry component such as a hook and loop or a jewelry clasp, a jewelry chain, or a jewelry cable.

[0072] **FIG. 14** illustrates a jewelry piece **1400** that utilizes two shrouded connectors **700a**, **700b** at either end of a strand of beads **1401**. Each connector **700a**, **700b** carries a loop **121** that engages a corresponding chain loop **1409** of a chain portion **1405**. Jewelry chain portions **1405** terminate in a hook and clasp assembly **1407** that is shown schematically.

[0073] In accordance with aspects of the invention the connector body encases a chamber and is adapted to receive a cap. The size of the connector body is determined by the size of the cap or end portion, or to be compatible with adjacent components. The cap, in turn, is sized by the number of strands and size of the adjacent beads. The cap or end portion is adapted to be affixed to the body to close the chamber.

[0074] In other embodiments of the invention, a plurality of apertures is provided, with the number of apertures being dependent on the number of strands and the size of the adjacent beads.

[0075] In some applications, connectors that are required to be large in diameter have a shroud around the body. The outer surface of the shroud may be decorated to enhance the appearance of the jewelry article. On connectors without a shroud, the body may have a decorated outer surface.

[0076] It will be understood by those skilled in the art that the term "wire" as utilized herein includes not only jewelry wire but also is intended to include substitutes and equivalents for wire, such as string of various types, utilized in jewelry making.

[0077] The invention has been described in conjunction with illustrative embodiments. It will be appreciated by those skilled in the art that various changes and modifications to the embodiments shown may be made without departing from the spirit or scope of the invention. It is not intended that the invention be limited by the embodiments shown and/or described. It is intended that the invention be limited only by the claims that follow.

What is claimed is:

1. A jewelry connector comprising:

a body, said body having a chamber;

an end portion having at least one aperture in communication with said chamber, said at least one aperture sized to receive the free ends of a plurality of wires; and

said chamber being sized to contain said free ends of said plurality of wires and a finding affixed to said wires free ends.

2. A jewelry connector in accordance with claim 1, comprising:

one of a hook or a loop coupled to said body for carrying a jewelry component.

3. A jewelry connector in accordance with claim 1, wherein:

said body comprises a decorative shroud, and a chambered portion, said shroud covering said chambered portion.

4. A jewelry connector in accordance with claim 3, wherein:

said shroud comprises a decorative shell.

5. A jewelry connector in accordance with claim 3, wherein:

said end portion comprises a cap; and

said end portion is adapted to be secured to said body to close said chamber.

6. A jewelry connector in accordance with claim 5, wherein:

said end portion comprises one threaded portion, and said body comprises another threaded portion for engaging said one threaded portion.

7. A jewelry connector in accordance with claim 1, comprising:

a linking attachment carried by said body, said linking attachment being adapted to attach to a jewelry component.

8. A jewelry connector in accordance with claim 7, wherein:

said jewelry component comprises one of a jewelry clasp, jewelry chain, or jewelry cable.

9. A jewelry connector in accordance with claim 7, wherein:

said linking attachment comprises one of a hook or a loop.

10. A jewelry connector in accordance with claim 1, wherein:

body comprises metal.

11. A jewelry connector in accordance with claim 1, wherein:

said at least one aperture is selected to be large enough such that said free ends of said plurality of wires can pass there through and small enough to prevent said finding from passing there through.

12. A jewelry connector comprising:

a first connector member; and

a second connector member adapted for secure affixation to said first connector member;

one of said first or second members having at least one aperture for receiving a plurality of wires;

said first and second members cooperating to form a closed chamber for capturing a crimp affixed to said plurality of wires extending through said at least one aperture into said chamber.

13. A jewelry connector in accordance with claim 12, comprising:

a coupling element carried by the other of said first or second members for coupling to a jewelry component.

14. A jewelry connector in accordance with claim 13, wherein:

said coupling element comprises a loop.

15. A jewelry connector in accordance with claim 12, comprising:

a decorative shroud containing at least a portion of said first and second members

16. Jewelry comprising:

a plurality of jewelry sections each comprising a plurality of wired together elements and having a free end extending therefrom; and

a jewelry connector disposed at one end of said plurality of jewelry sections;

said jewelry connector comprising:

a body, said body having a chamber;

an end portion having at least one aperture in communication with said chamber; said at least one aperture sized to receive the free ends of said plurality of wires;

said chamber being sized to contain said free ends of said plurality of wires and a finding affixed to said wires free ends; and

said at least one aperture being further sized such that said finding cannot pass therethrough.

17. Jewelry in accordance with claim 16, comprising:

a coupling element carried by the other of said first or second members for coupling to a jewelry component.

18. Jewelry in accordance with claim 17, wherein:

said coupling element comprises one of a hook or a loop.

19. Jewelry comprising:

a first section comprising a plurality of wired together elements a second section comprising a second plurality of wired together elements a first jewelry connector disposed at one end of said first section and at one end of said second section;

said jewelry connector comprising:

a first connector member; and

a second connector member adapted for secure affixation to said first connector member;

one of said first or second members having at least one aperture for receiving a first wire extending through said first section and for receiving a second wire extending through said second section;

said first and second members cooperating to form a closed chamber for capturing a crimp affixed to said first and second wires extending through said aperture into said chamber;

a second jewelry connector disposed at the other end of said first and said second sections;

said second connector comprising a third connector member; and

a fourth connector member adapted for secure affixation to said third connector member;

one of said third or fourth members having at least one second aperture for receiving said first and said second wires;

said third and fourth members cooperating to form a closed second chamber for capturing a crimp affixed to said first and said second wires extending through said at least one second aperture into said second chamber.

20. Jewelry in accordance with claim 19, comprising:

a first coupling element carried by the other of said first or second members for coupling to a jewelry component; and

a second coupling element carried by the other of said first or second members for coupling to a jewelry component.

21. A jewelry connector comprising:

a first body member;

a second body member adapted to be affixed to said first body member;

said first and said second body members cooperatively defining a closed chamber;

said closed chamber being sized to contain and restrain a metal finding attached to a jewelry wire;

at least one of said first and second body members having an aperture through which a plurality of jewelry wires carrying said metal finding are extendable into said chamber.

22. A jewelry connector in accordance with claim 21, comprising:

a decorative shroud.

23. A jewelry connector comprising:

a first body member;

a second body member adapted to be affixed to said first body member;

said first and said second body members cooperatively defining a closed chamber;

said closed chamber being sized to contain and restrain at least one finding attached to a plurality of jewelry wires;

at least one of said first and second body members having a plurality of apertures through which corresponding ones of said plurality of jewelry wires carrying said metal finding are extendable into said chamber.

24. A jewelry connector in accordance with claim 23, comprising:

a decorative shroud.