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(54) **SEGMENTED BELT ASSEMBLY**

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(57) **ABSTRACT**

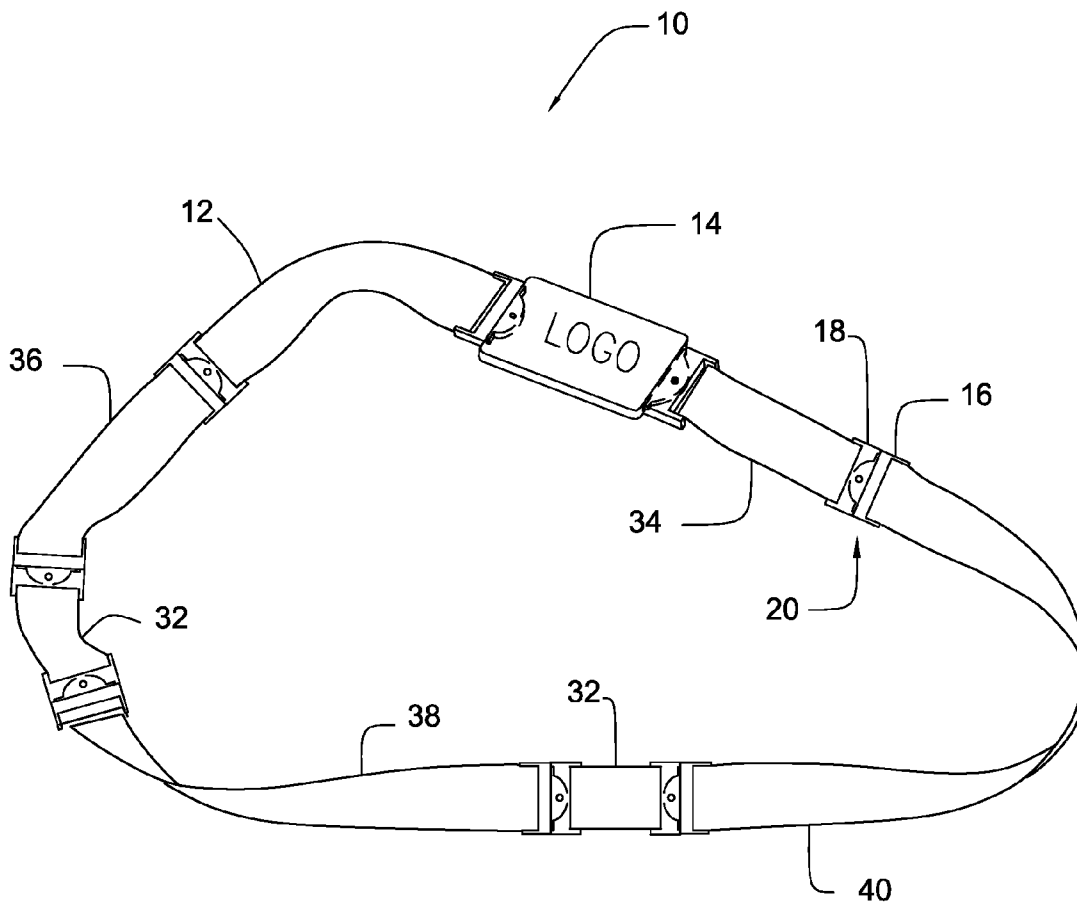
A circumferential band which circumnavigates a portion of the human body. The band has a number of band segments with a first and second band segment and a number of intermediate band segments. Each band segment has a membrane, a first end and a second end. A male clip is attached to the first end; a female clip is attached to the second end. The male and female clips are operable to interlock and form a band couple. The male clip has a first insert; the female clip has a first slot. A locking mechanism enables the male clip and female clip to lock together. A first rigid coupling can be inserted between the male clip and the female clip. The band segments can be interchanged to fit the circumference of the particular body appendage.

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Related U.S. Application Data

(60) Provisional application No. 60/803,353, filed on May 27, 2006.



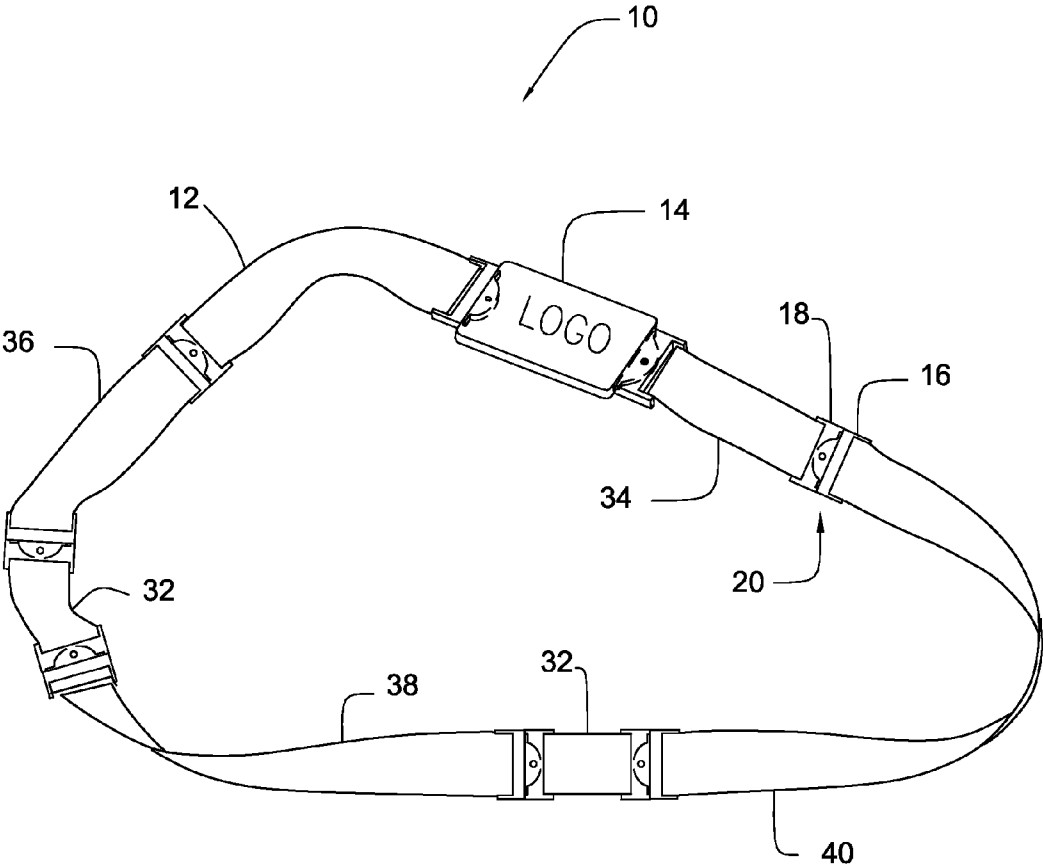


FIG. 1

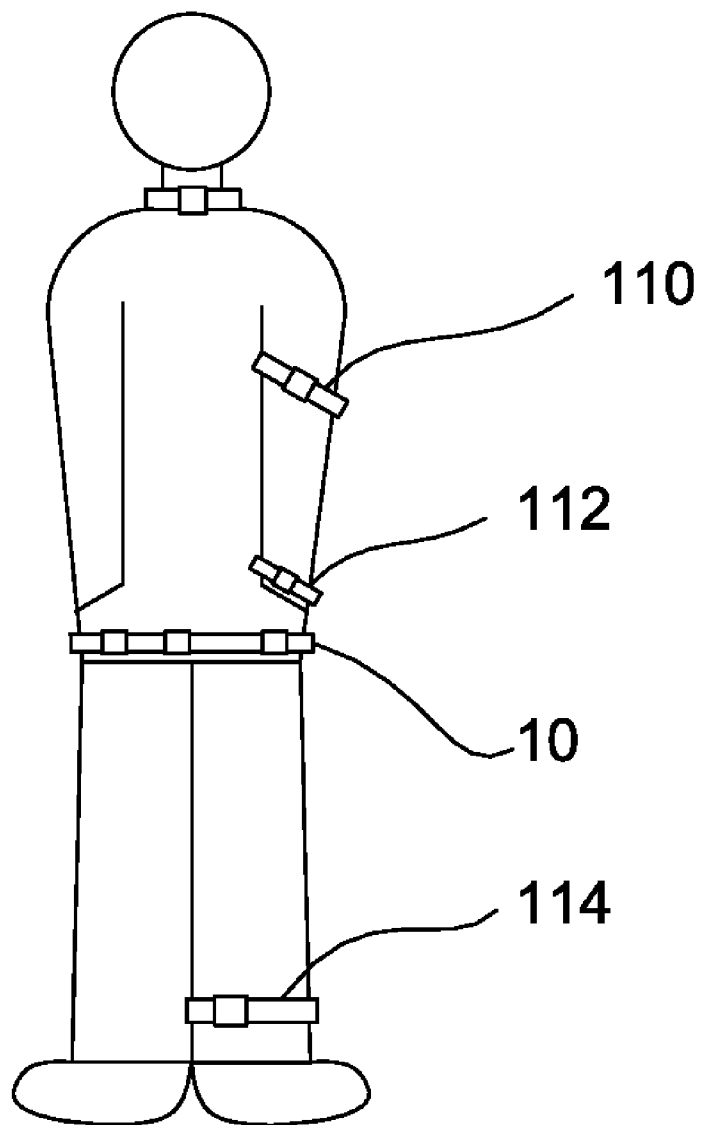


FIG. 1A

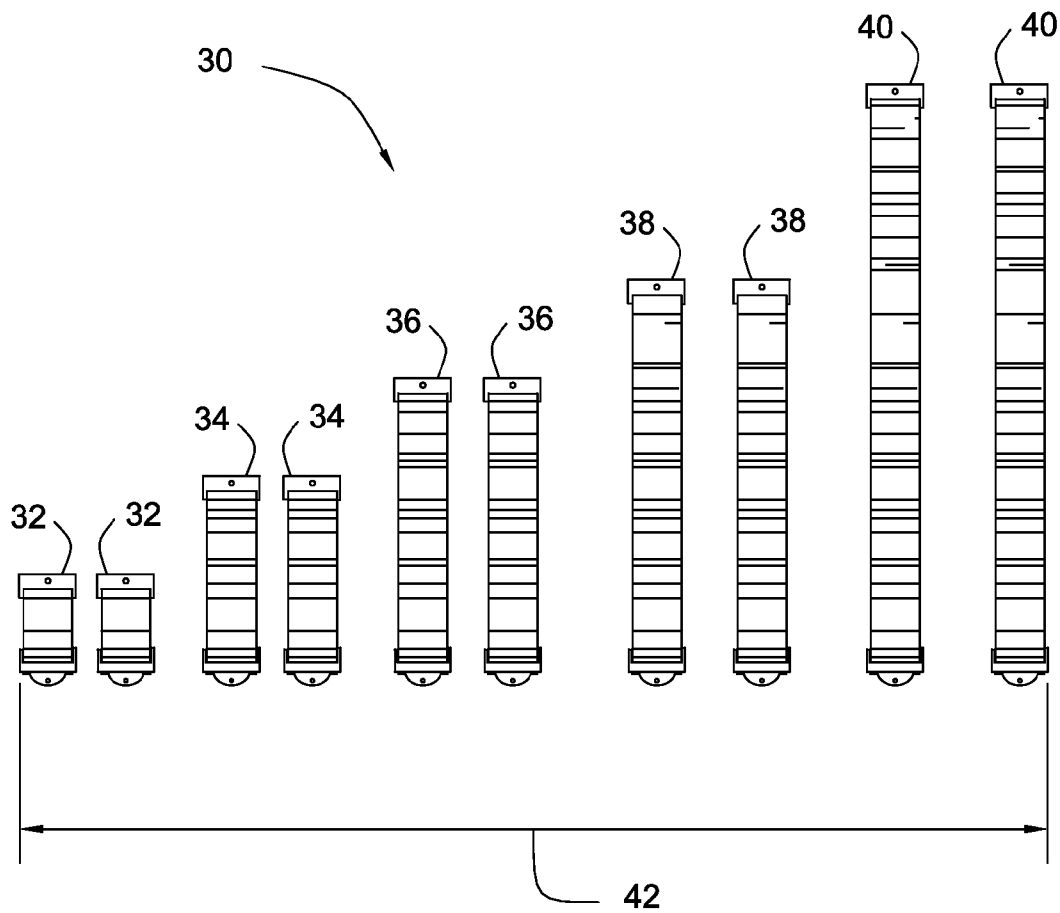


FIG. 2

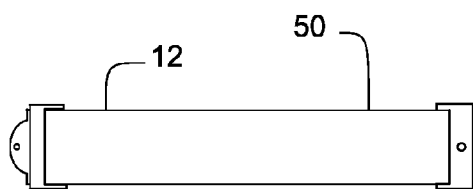


FIG. 3

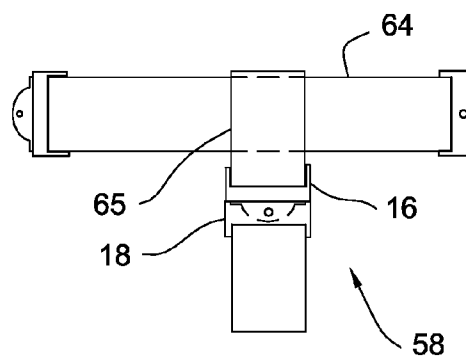


FIG. 6

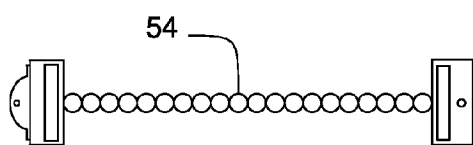


FIG. 4

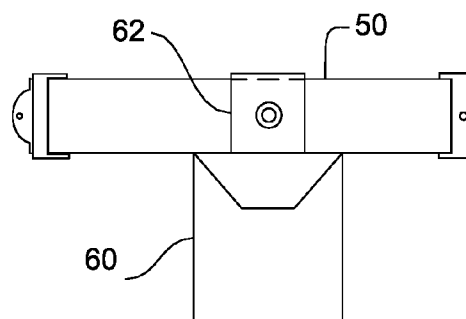


FIG. 7

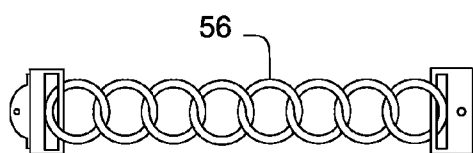


FIG. 5

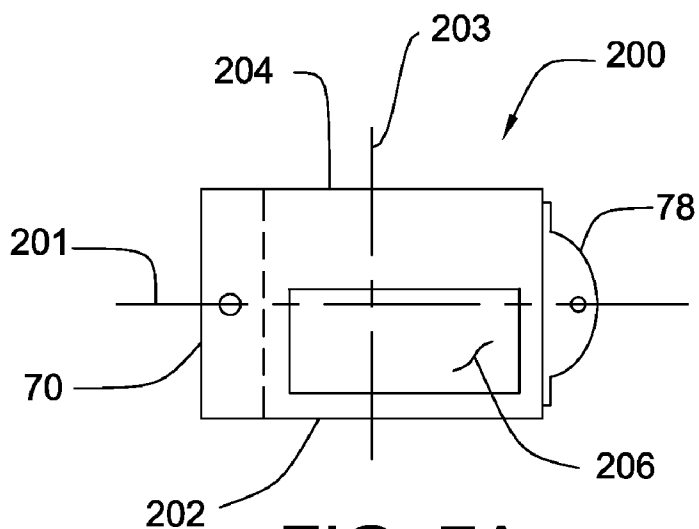


FIG. 7A

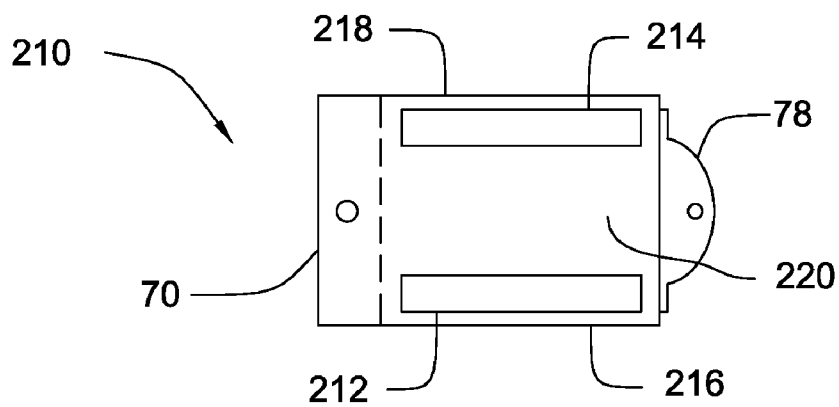


FIG. 7B

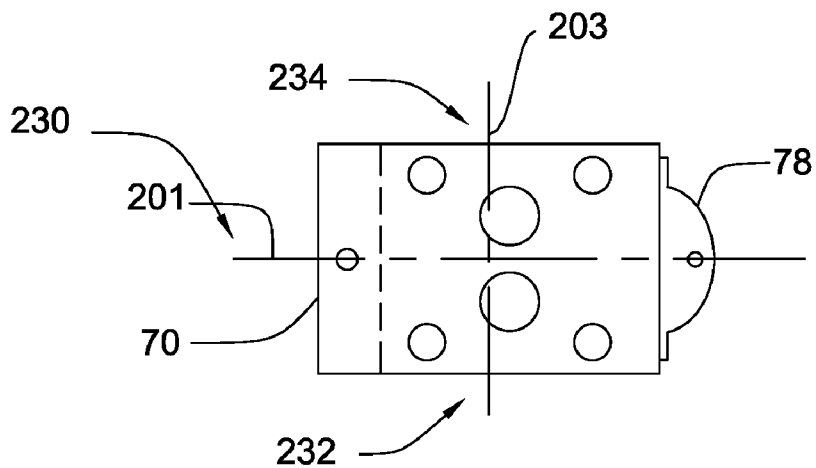


FIG. 7C

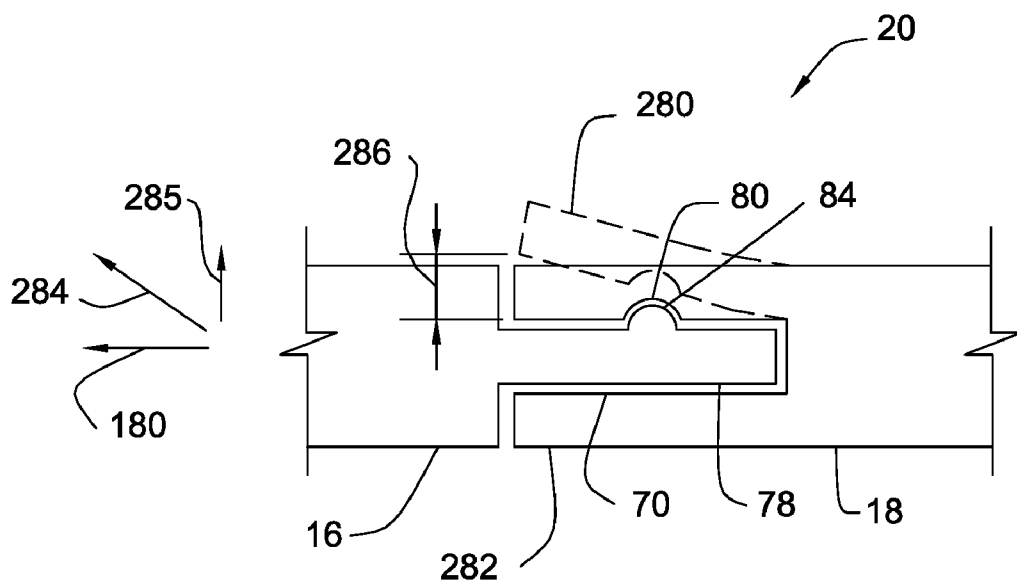


FIG. 7D

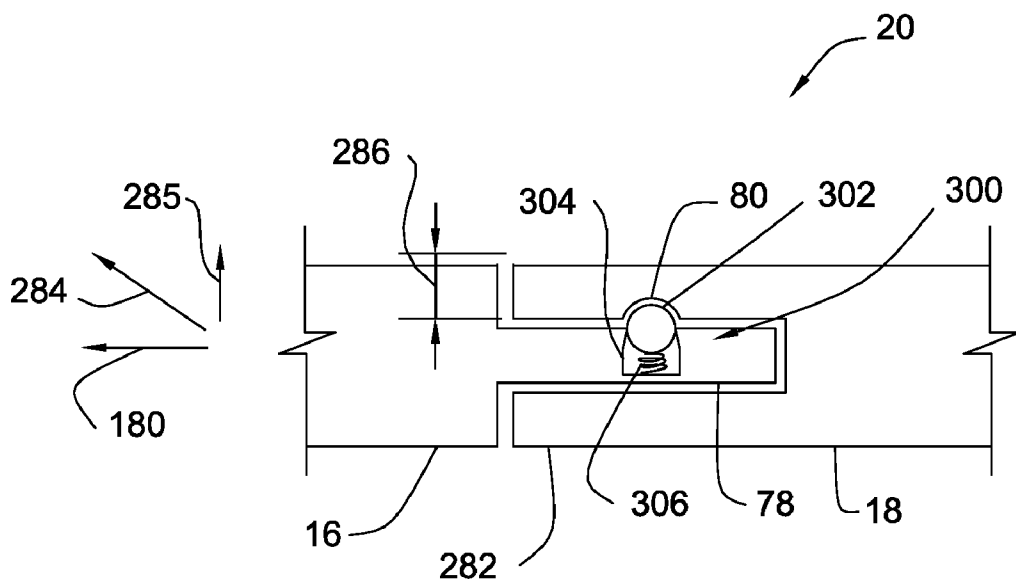


FIG. 7E

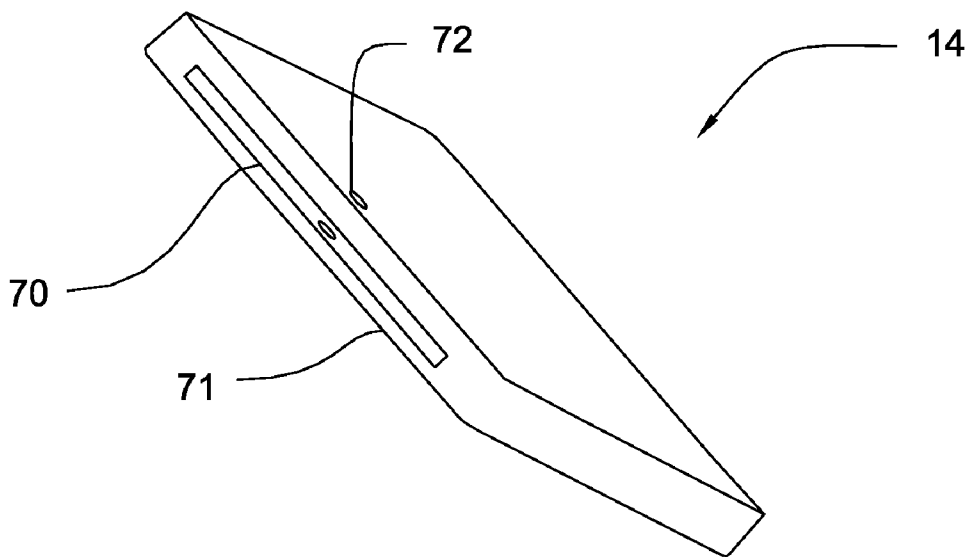


FIG. 8

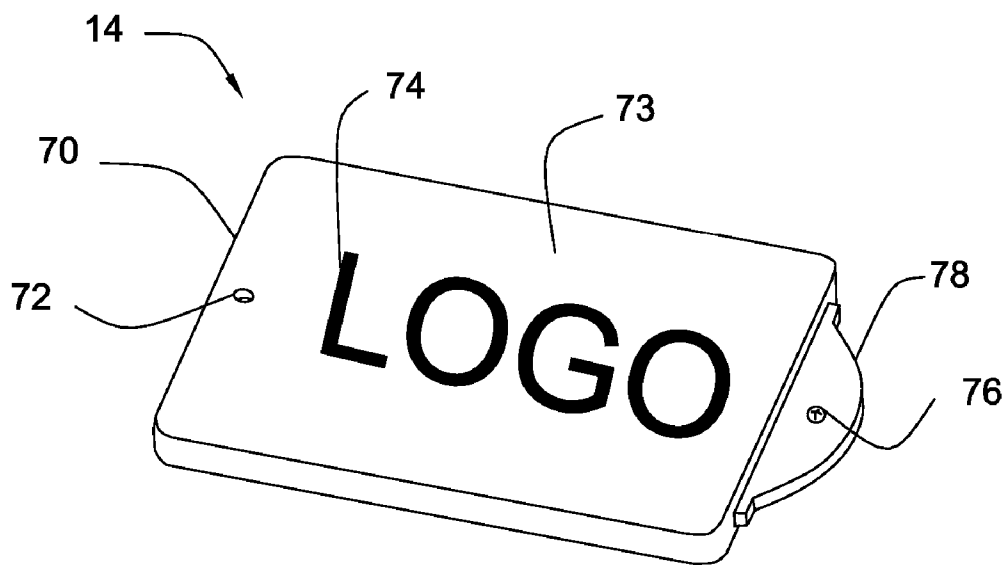


FIG. 9

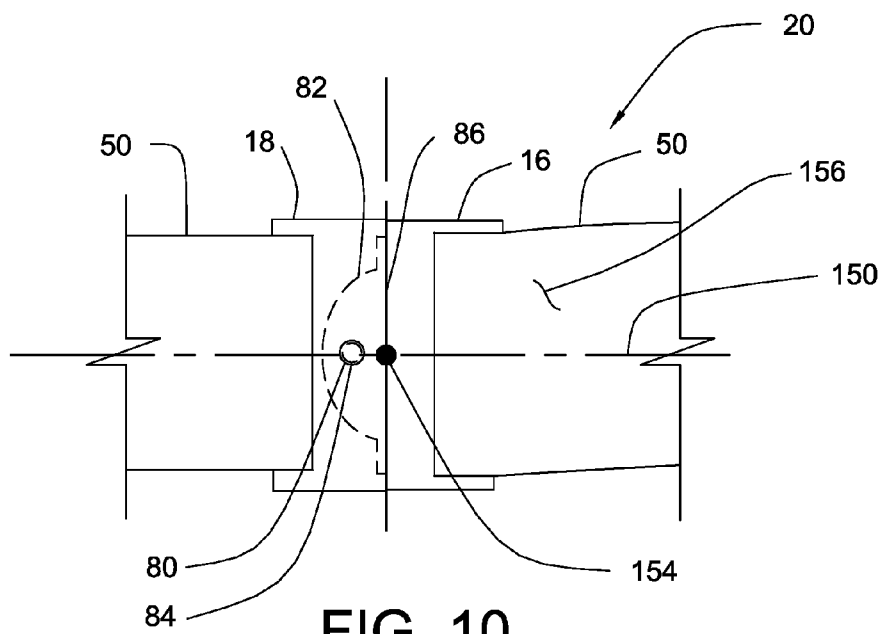


FIG. 10

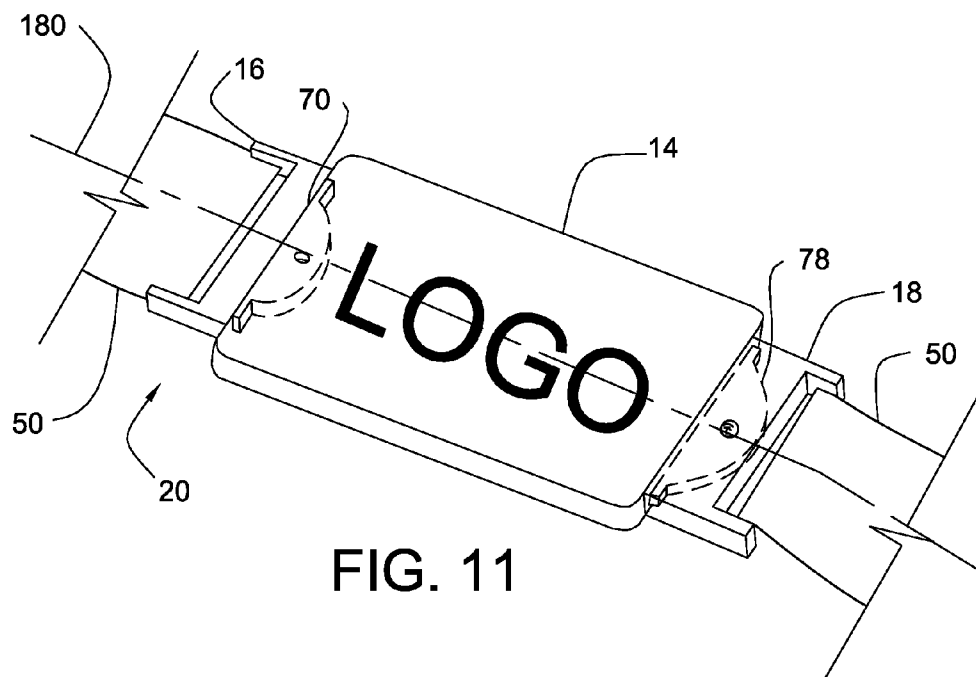


FIG. 11

SEGMENTED BELT ASSEMBLY

RELATED APPLICATIONS

[0001] This application claims priority benefit of U.S. Ser. No. 60/803,353, filed May 27, 2006.

BACKGROUND

[0002] U.S. Pat. No. 6,298,650 (Amundsen) discloses an easily adjustable snap link designed to interconnect jewelry and watches. The link is shown for the design of a bracelet, and utilizes a bar and spring system.

[0003] U.S. Pat. No. 5,852,829 (Relaford) discloses a belt with changeable decorative strips, the belt includes a body encircling member for fastening around the torso of the wearer and a series of decorative strips which can be attached to the outer side of the body encircling member.

[0004] U.S. Pat. No. 4,639,948 (Adell) discloses a hip belt which has a number of substantially similar pieces which are successively connected by snap fasteners. Each piece is a pliant construction of substantially uniform thickness and has a perimeter edge; the side edge portions of the perimeter edge of each piece impart a taper to the piece.

[0005] U.S. Pat. No. 3,855,637 (Luger) discloses a belt reversing mechanism; the mechanism uses two clamping sections which are rotatably connected to each other by a rivet or an eyelet. The clamping sections are connected to the belt buckle and the other may be rotated with respect to the belt buckle. The two clamping sections may also be identical and serve to connect two belt sections and they may be rotated with respect to one another so that either side of the belt section may be visible when worn.

[0006] U.S. Pat. No. 3,848,270 (Rand) discloses a belt having interchangeable decorative strips, where the decorative strips are detachably fastened to the outside belt and can be readily removed to be replaced by other strips in a coordinated fashion.

[0007] U.S. Pat. No. 2,885,684 (Dye) discloses an interchangeable belt, where the belt has a sheathing portion which is included in the construction and has an inner and outer surface with different color patterns for being selectively turned inside out to change the appearance of the belt. Referring to column 2 at line 10, the combined layers of the belt define an inside passage which slidably receives an insert of more rigid material which adds to the body of the belt and provides one way of turning the sheath inside out.

[0008] U.S. Pat. No. 2,427,119 (Carr) discloses a garment belt which has a means of enabling the appearance of the belt can be changed at will to match the person to outfit. The belt has a number of different color display members or inserts which can be inserted or removed to produce color harmony with the ensemble.

[0009] U.S. Pat. No. 1,792,158 (Gleckner) discloses a belt with a flexible link which has a series of links attached to one another and each link has a single traverse slit while the opposite end of the link is formed with a pair of traverse slits and the byte portion of any link passes through the opposed slits of the adjacent links.

[0010] U.S. Pat. No. D344,624 (Schnel) discloses a belt which appears to be designed with a plurality of holes

equidistantly spaced around the center of the belt enabling the user to attach various emblems and ornamental objects.

[0011] FR 2,677,227 (Sylvie) discloses a flexible modular band for use as a clothing accessory; the band is made of a plurality of interchangeable units connected together by a rapid fastening system which enables the elements to rotate with respect to one another about an axis perpendicular to the plane of the surface of the units.

[0012] DE 3,720,857 (Braun) discloses a universal belt having exchangeable belt covering parts which can be varied quickly in color and shape to create different decorative elements.

BRIEF DESCRIPTION OF THE DRAWINGS

[0013] FIG. 1 is a perspective view of the segmental belt assembly;

[0014] FIG. 2 is a plan view of the belt segment reservoir;

[0015] FIG. 3 is a detailed plan view of a belt segment;

[0016] FIG. 4 is a detail plan view of an alternative embodiment of a belt segment;

[0017] FIG. 5 is a detail plan view of an alternative embodiment of a belt segment;

[0018] FIG. 6 is a detail plan view of an alternative embodiment of a belt segment;

[0019] FIG. 7 is a detail plan view of an alternative embodiment of a belt segment;

[0020] FIG. 7A is a plan view of an alternative embodiment of a rigid insert;

[0021] FIG. 7B is a plan view of an alternative embodiment of a rigid insert;

[0022] FIG. 7C is a plan view of an alternative embodiment of a rigid insert;

[0023] FIG. 7D is a cross-sectional detail view of a locking mechanism within a coupling unit;

[0024] FIG. 7E is a cross-sectional detail view of a spring-loaded bullet-locking mechanism;

[0025] FIG. 8 is a perspective detail view of the insert buckle;

[0026] FIG. 9 is a perspective detail view of the insert buckle front face;

[0027] FIG. 10 is a detail view of a coupling;

[0028] FIG. 11 is a detail view of an insert buckle installed between couplings.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0029] The following embodiments represent some of the concepts which can be enabled utilizing the segmented assembly system. The system can be designed for circumnavigating various body portions such as the neck, waist, arms, wrists, legs, ankles, toes, fingers and the like.

[0030] The system provides for somewhat of an ornamental type segmented circumnavigation system where the

present system can be configured for a utilitarian type segmented circumnavigation system/assembly.

[0031] Discussion will be provided with a first embodiment which consists in one form of colored segments having different segment lengths. The segments have clips at either end, allowing a coupling unit to be formed thus connecting belt segment ends together. Furthermore, solid inserts can be placed between the clips or belt segments enabling the user to add to the particular embodiment. Users can mix and match, creating various configurations of the belt segments to fit the circumferential distance of the particular appendage such as the waist.

[0032] Referring to FIG. 1, a segmental belt assembly is shown in an assembled arrangement. In this first embodiment, an insert buckle 14 (also known as a rigid coupling insert 14), is installed between a male clip 16 and a female clip 18, which then form a coupling unit 20. The belt segments 12 include various links which have been chosen by the user for the assembly.

[0033] Before discussing the size and combination arrangements of the belt segments 12, a detailed description of coupling units 20 will be provided.

[0034] In order to enable the segmental belt assembly 10 to operate within pre-existing clothing requirements such as belt loops arranged around the waist of the user, the coupling unit 20 is provided with a height which substantially matches the belt webbing 50 as seen in FIG. 10. To functionally match belt webbing, a relatively thin coupling unit 20 is provided with a slender thickness. This slenderness of the coupling keeps it substantially in line with the webbing 50. The height of the coupling 20 matches the webbing height, allowing the belt assembly to easily thread through the belt loops.

[0035] The coupling unit 20 is arranged within a substantially circumferential plane 156. The circumferential plane 156 is aligned along the circumferential axis 150 of the belt webbing 50 as it is looped about the appendage of the user, as well as a cylindrical axis 152 which is substantially perpendicular to the circumferential axis 150. The thickness of the belt webbing 50 and the coupling unit 20 is arranged in the radial axis direction 154 perpendicular to the circumferential plane 156. The coupling unit 20 forms into a generally rectilinear shape. In other words the coupling unit 20 may be formed into any geometric shape desired by the manufacturer.

[0036] Still referring to FIG. 10, the coupling unit 20 is composed of a male clip 16 which in this particular embodiment has a semicircular insert 82. Other suitable geometric arrangements. The insert 82 can be provided such as rectilinear, oval, triangular etc. The insert 82 can utilize any particular design which will adequately provide the desired function for insertion into the slot. The insert 82 is configured to slide into a female slot 86 of the female clip 18. The semicircular insert and the slot closely match in thickness so that there is little play between the two clips. The slot 86 may be any suitable geometric arrangement. To keep the male clips 16 from detaching from the female clip 18, the semicircular insert 82 has a vertically protruding knob 84 which frictionally engages a semispherical receptor 80 within the vertical plane of the female clip 18 located within the top or bottom wall of the slot. Because little vertical play

is allowed between the two coupling clips, frictional force required to pull apart the coupling pieces after they are seated together is usually greater than the circumferential tensioning force 180 as seen in FIG. 11, required to tighten the belt about the users waist and hold the users clothing in the desired position.

[0037] The coupling male and female segments may be constructed out of various materials such as polyoxymethylene, die cast stainless steel, composite fiber materials, plastic, PVC, graphite, and the like. With a thin profile height, the coupling material needs a certain amount of ductility to provide for adequate detaching force to remove the male clip 16 from the female clip 18 without cracking the coupling unit 20 slot walls.

[0038] Referring to FIGS. 7D and 7E, a discussion of the coupling unit 20 with regard to the desired resultant detachment force 284 needed to uncouple the male clip 16 from the female clip 18 will now be provided. Depending upon the material the coupling unit 20 is made out of, the flexural capacity of the female clip top wall 280 or the female clip bottom wall 282 will vary. If the flexural capacity of the female clip top wall 280 is relatively high, then the flexural distance 286 may increase. The leverage force is the vertical component 285 of the resultant detachment force 284. For ornamental type configurations, the coupling unit 20 can be made of the previously mentioned polyoxymethylene, which has the desired flexural capacity to enable the coupling unit 20 to separate when the detachment resultant force 284 is applied to the unit. This arrangement is very suitable for children to use in snapping the belt together into the desired arrangement.

[0039] For more utilitarian functions, a higher desired locking capacity may be required to resist a stronger circumferential tensioning force 180 (as seen previously in FIGS. 10 and 11). The coupling unit 20 can be made out of a die cast stainless steel material. Here at the flexural capacity of the female clip top wall 280 would be significantly more rigid thus limiting the flexural distance 286 and creating a greater locking force where the vertically spherical protruding knob 84 is rigidly seated within the semi-spherical receptor 80. To regulate the amount of force required to overcome the locking force, in lieu of a vertically protruding knob 84 relying upon the flex and capacity of the top 280 and bottom 282 walls, an additional spring-loaded bullet vertically protruding knob 300 may be provided. Here a ball bearing 302 sits within a recessed slot 304 of the male insert 78 and is pressed against the circular edge of the recessed slot by a spring 306. The adequate detachment resultant force 284 will depress the ball bearing spring thus enabling the male insert 78 to be removed from the female slot 70.

[0040] Various spring constants can be provided to regulate the amount of force required to decouple the coupling unit 20.

[0041] While the male clip 16 and the female clip 18 can fit into any of the other male or female belt segment clips as designed, the couple unit 20 can also connect to an insert buckle 14 or rigid coupling insert 14 as seen in FIG. 11. Here the rigid insert 14 has a male insert 78 which is configured to connect to the slotted female clip 18 of a coupling unit 20. In a similar manner, the rigid insert has a female slot 70 which allows the male clip 16 from a coupling unit 20 to connect to the rigid insert 14.

[0042] Thus various rigid attachments can be inserted between the male clip 16 and female clip 18 of the couple unit 20. Multiple design configurations of the rigid inserts 14 are provided such as an insert buckle to be positioned at the front of the belt. Also, smaller rigid attachments or inserts enabling the user to attach peripheral items such as key chains, pocket knives and the like to the rigid inserts as will be discussed below.

[0043] In the current embodiment (referring to FIG. 9), the insert buckle 14 provides a beginning and end for the segmental belt assembly 10 and allows the user to place the rigid insert 14 arranged as an ornamental buckle having a logo 74 or other ornamental graphic design as the user desires into the assembly. Referring to FIGS. 3-7, along the same lines, in lieu of an insert buckle 14, the user can use a pocket 60 which is configured with an insert buckle portion 14 to fit between the two male and female clip pieces allowing for the user to customize various utilitarian features for the belt assembly. A more robust utility belt provides for various inserts 14 allowing the user to attach work tools and similar items on the belt assembly 10 as desired.

[0044] A brief discussion of the sizes and ranges of the current embodiment belt segments will now be provided.

[0045] Referring to FIG. 2, a belt segment reservoir 30 is provided with a range of belt segments 42. The segment unit differentials range from as small as a 1/4-inch unit differential to as much as a 4-inch unit differential depending on the particular design requirements. For example, a unit differential range of 1 inch between belt segments sizes provides variety of belt segment sizes to adequately fit various waist sizes.

[0046] Still referring to FIG. 2, another unit differential is provided. The low end of the belt segment range 42 is 2-inch waist belt segment length 32. Moving up in size, the current embodiment provides for increments of 2-inch belt segment lengths or unit differentials. A 4-inch belt segment length 34 is provided followed by a 6-inch belt segment length 36. The next size up is an 8-inch belt segment length 38 followed by in this particular embodiment a jump in size to a 12-inch belt segment length 40.

[0047] The 12-inch belt segment length 40 is adjustable to provide users with a tighter fit where the users may have an odd size waist (such as a 31-in waist) which does not conform to the unitary even numbered measurements. Furthermore, as an ornamental effect, users may wish to have a portion of the belt hanging below the beltline in somewhat of a hanging belt end arrangement.

[0048] Another example of the kit of belt segments allows for two of each of the previous mentioned belt segment lengths to be provided in an initial starter kit. The starter kit provides for an overall length of 64 inches for users to mix and match different belt sizes, colors and designs for their desired unique configuration.

[0049] In addition to the varying lengths, the current embodiment provides various ornamental patterns 52 on the faces of the belt segment webbing 50. For example, the ornamental patterns 52 can be provided for various seasonal designs such as for Christmas, New Year's, Easter, Fourth of July, etc. . . .

[0050] Referring to FIG. 3, the webbing 50 of the belt segment 12 can be made of various materials commonly

provided for belts. These include leather, nylon, and fabric, such as knitting, and other types of mesh material.

[0051] In an alternative embodiment, FIG. 4 shows a beaded belt segment webbing arrangement 54. Also, in FIG. 5, a belt segment webbing having a plurality of stainless steel rings arranged between the male and female couple portions is provided. Various add-on components 58 as seen in FIG. 6 can be connected either as the inserts as previously discussed and FIGS. 11 and 1, or over a rigid webbing portion 64. Still referring to FIG. 6, the belt segment webbing loop 65 is inserted over one end of a belt segment, the webbing loop 65 having a male clip 16 which enables other inserts or add-on components having female clip segments 18 to be attached to the belt assembly. Other ways of adding on to the belt assembly include providing snapped portions 62 for connecting objects 60 such as purses, knives, watches, wallets, pockets and other similar objects.

[0052] Further discussing the rigid insert 14 as seen in FIG. 8, the current embodiment has a rectilinear insert buckle 14 having a female clip slot 70 as well as semispherical knob receptor 72 placed longitudinally inset from the outer face 71 of the female side of the insert buckle 14.

[0053] Referring to FIG. 9, the rigid insert 14 has a front face 73 which is provided with a logo 74 or graphic detail of some sort. At the opposite end of the female clip slot 70 is the male clip insert 78 which will interface with other female clip slots 18 either from another rigid insert 14 or a couple unit 20 as previously discussed in FIG. 10 and FIG. 11. The male clip 78 has a semispherical knob 76 which interfaces with a semispherical knob receptor 72 from another rigid insert 14 or a receptor 80 from a female couple 18 (FIG. 10).

[0054] The buckle 14 can be flipped over and attached in a clockwise or counterclockwise direction about the circumference of the users waist, conforming itself to right hand or left-hand users.

[0055] Referring to FIGS. 7A-7C, additional embodiments of the rigid insert 14 will now be provided. Referring to FIG. 7A, an intermediate rigid insert 200 is provided where the rigid insert is arranged along a longitudinal axis 201 and a transverse axis 203. The intermediate rigid insert has the standard female slot insert 70 as well as a male clip insert 78. To enable additional ornamental objects to be attached to this intermediate rigid insert 200, in this particular embodiment a wide open window 206 is provided as a rectilinear opening within the main body portion of the intermediate rigid insert 200. In order for key chains, and other clip-type items to attach to the intermediate rigid insert 200, a bottom bar 202 maintains the material continuity of the intermediate rigid insert 200 while a top bar 204 provides the majority of the structural rigidity of the main body of the intermediate rigid insert 200.

[0056] Additionally, as seen in FIG. 7B, an intermediate rigid insert with narrow window openings 200 is provided. Here for example two rectilinear windows are arranged along the longitudinal axis and aligned transversely offset from one another at the upper and lower portions of the rigid insert between the male and female portions of the clips. The first rectilinear window 212 is located at the transversely lower portion of the insert body, and the second rectilinear window 214 is located at the upper transversely offset

portion of the rigid insert body. These rectilinear windows are provided so that in one embodiment belt webbing can be threaded through the rectilinear openings to provide for attachment of additional objects.

[0057] Lastly, referring to FIG. 7C, an intermediate rigid insert with circular windows 230 is provided. Here a first group of circular windows 232 is located in the bottom portion of the rigid insert body, and a second group of circular windows 234 is positioned at the upper transversely offset location of the rigid insert body. These window or opening sizes can be uniform or varied depending on the desired configuration and customization for attachment of various ornamental objects or utilitarian objects as desired.

Therefore I claim:

1. A coupling for a band segment said coupling comprising:

- a. a male clip and a female clip, said male clip comprising a male clip plane, said female clip comprising a female clip plane, said male clip and said female clip interoperable to form said couple within a couple plane, said couple plane aligned along a circumferential axis, along which an insertion force, a detachment force, or a circumferential band force may substantially be applied;
- b. said male clip comprising a male membrane end and a first insert extending along said male clip plane;
- c. said female clip comprising a female clip material thickness substantially perpendicular to said female clip plane, a female clip membrane end, a first slot defined by a top wall and a bottom wall, said first slot extending along said female clip plane, said top wall and said bottom wall parallel with said female clip plane;
- d. a locking mechanism comprising:
 - i. a first protrusion arranged on either said first insert or said first slot and arranged substantially perpendicular to said male clip plane or female clip plane;
 - ii. a first recess arranged on either said first insert or said first slot and arranged substantially perpendicular to said male clip plane or said female clip plane and positioned when couple is formed to operably fit with said first protrusion;
 - iii. said locking mechanism further comprising a locking spring force maintained substantially perpendicular to said coupling plane, said locking spring force applied substantially perpendicular to said top wall or said bottom wall of said female clip;
- e. said detachment force applicable to overcome said locking spring force in combination with said first protrusion seated in said first recess;
- f. said insertion force applicable to overcome said locking spring force in combination with said first protrusion seated in said first recess;
- g. said circumferential band force applied during normal wear of a belt utilizing said coupling, which will not substantially overcome said locking spring force in combination with said first protrusion seated in said first recess.

2. The coupling according to claim 1 wherein said locking mechanism further comprises:

- a. said first protrusion comprising a semispherical shape extending into said first recess;
- b. said first recess comprising a semispherical recess.

3. The coupling according to claim 1 wherein said locking mechanism further comprises:

- a. said first protrusion comprising a spring-loaded bullet catch;
- b. said first recess comprising a semispherical recess.

4. The coupling according to claim 1 wherein said male clip and said female clip are further comprised of a rigid material.

5. The coupling according to claim 4 wherein said rigid material further comprises at least one of the following materials: polyoxymethylene, die cast stainless steel, composite fiber material, plastic, PVC, graphite.

6. The coupling according to claim 1 wherein said male clip further comprises:

- a. said first insert comprising a semi circular profile;
- b. said female clip further comprising said first slot and comprising a semi circular profile to match said first insert.

7. The coupling according to claim 1 wherein said male clip further comprises:

- a. said first insert comprising a rectilinear profile;
- b. said female clip further comprising said first slot and comprising a rectilinear profile to match said first insert.

8. The coupling according to claim 1 wherein said locking mechanism further comprises:

- a. a second protrusion arranged on either said first insert or said first slot and arranged substantially perpendicular to said male clip plane or female clip plane.

9. The coupling according to claim 8 wherein said locking mechanism further comprises:

- a. a second recess arranged with either said first insert or said first slot and arranged substantially perpendicular to said male clip plane or said female clip plane and positioned when couple is formed to operably fit said second protrusion.

10. The coupling according to claim 1 wherein said locking mechanism further comprises:

- a. said top wall applying said locking spring force to maintain said first protrusion in position with said first recess.

11. The coupling according to claim 1 wherein said locking mechanism further comprises:

- a. said spring-loaded bullet catch applying said locking spring force to maintain said first protrusion in position with said first recess.

12. A rigid coupling insert comprising:

- a. a body section configured to maintain a position within a circumferential band segment, said body section comprising a female slot and a male insert;
- b. said body section further comprising a geometric profile arranged along a circumferentially aligned lon-

itudinal axis and transverse axis forming a section plane; a substantially rigid material comprising a material thickness substantially perpendicular to said section plane;

- c. said male insert extending along said section plane;
- d. said female slot arranged opposite said male insert along said section plane, said female slot comprising a top wall and a bottom wall, said top wall and said bottom wall parallel to said section plane and forming said female slot;
- e. a first protrusion arranged on either said male insert or said female slot and substantially perpendicular to said section plane to interoperate with a second recess on either a male clip or a female clip;
- f. a first recess arranged on either said male insert or said female slot without said first protrusion, said first recess substantially perpendicular to said section plane and arranged to receive a second protrusion on either a male clip or a female clip.

13. The rigid coupling insert according to claim 12 wherein said geometric profile further comprises at least one of following: a rectilinear profile, a circular profile, an oval profile, a triangular profile, a non-symmetrical profile.

14. The rigid coupling insert according to claim 12 wherein said geometric profile further comprises: a rectilinear profile comprising a first window region maintained substantially within the body section between said female slot and said male insert.

15. The rigid coupling insert according to claim 14 wherein said first window region further comprises one or more following arrangements: a rectilinear opening, a circular opening, an oval opening, a semicircular opening, a triangular opening, a nonsymmetrical opening.

16. The rigid coupling insert according to claim 14 wherein said geometric profile further comprises a second window region.

17. The rigid coupling insert according to claim 14 wherein said first window region further comprises a rectilinear opening maintained between said female slot and said male insert within said body section along a first longitudinal edge of said rigid coupling body section.

18. The rigid coupling insert according to claim 16 wherein said second window region further comprises a rectilinear opening maintained between said female slot and said male insert within said body section along a second longitudinal edge of said rigid coupling body section.

19. The rigid coupling insert according to claim 12 wherein said geometric profile further comprises a group of circular openings, said group of circular openings comprising a first opening, a second opening, and a third opening.

20. A circumferential band segment comprising:

- a. a first membrane section configured to circumnavigate a portion of a human body part, said human body part aligned along a central axis;
- b. said first membrane section having a first end and a second end, a first membrane section length interposed between said first end and said second end;
- c. a male clip attached to said first end, a female clip attached to said second end, said male and female clips operable to interlock to form a band couple;

d. said first membrane section configured to couple with a plurality of intermediate membrane sections, each of said plurality of intermediate membrane sections comprising:

- i. an intermediate membrane section length;
 - ii. a first intermediate end and a second intermediate end;
 - iii. an intermediate male clip attached to said first intermediate end;
 - iv. an intermediate female clip attached to said second intermediate end;
- e. said intermediate male clips interoperable with said intermediate female clips; said intermediate female clips interoperable with said male clip; said intermediate male clips interoperable with said female clip; all to form said circumferential band segment.

21. A circumferential band for circumnavigating a portion of the human body, said circumferential band comprising:

- a. a plurality of band segments comprising a first band segment, a second band segment, and a plurality of intermediate band segments;
- b. each of said plurality of band segments comprising:
 - i. a first membrane section comprising a first end and a second end, a first membrane section length interposed between said first end and said second end, a male clip attached to said first end, a female clip attached to said second end, said male and female clips operable to interlock and form a band couple;
 - ii. said band couple comprising: said male clip comprising a first insert, said female clip comprising a first slot defined by a top wall and a bottom wall, a locking mechanism comprising a first protrusion arranged with either said first insert or said first slot;
 - iii. a first recess arranged with either said first insert or said first slot where said first protrusion is not, and said first recess positioned to operably fit with said first protrusion when said band couple is formed;
 - iv. a locking spring force maintained substantially perpendicular to said top wall or said bottom wall of said female clip holding said first protrusion and said first recess together;

c. a first rigid coupling insert comprising: a body section configured to maintain a position between said male clip and said female clip of said plurality of band segments.

22. The circumferential band according to claim 21 wherein said first rigid coupling insert further comprises:

- a. said body section comprising a female slot and a male insert;
- b. said body section further comprising a geometric profile arranged along a circumferentially aligned longitudinal axis and transverse axis forming a section plane; a substantially rigid material comprising a material thickness substantially perpendicular to said section plane;
- c. said male insert extending along said section plane;

- d. said female slot arranged opposite said male insert along said section plane, said female slot comprising a top wall and a bottom wall, said top wall and said bottom wall parallel to said section plane and forming said female slot;
- e. a first rigid insert protrusion arranged on either said male insert or said female slot and substantially perpendicular to said section plane to interoperate with a second recess on either said male clip or said female clip;
- f. a first rigid insert recess arranged on either said male insert or said female slot without said first protrusion, said first rigid insert recess substantially perpendicular to said section plane and arranged to receive a second protrusion on either said male clip or said female clip.

23. A method of forming a circumferential band about a portion of the human appendage, said method comprising:

- a. accessing a plurality of band segments from a band segment reservoir;
- b. said band segment reservoir comprising a range of band segment sizes, said range of band segment sizes comprising a first unit differential between band segment sizes;
- c. each of said plurality band segments comprising: a membrane section comprising a first end and a second end, a membrane section length interposed between said first end and said second end, a male clip attached to said first end, a female clip attached to said second end; said male clip comprising a first insert, said female clip comprising a first slot defined by a top wall and a bottom wall, a locking mechanism comprising a first protrusion arranged with either said first insert or said first slot, a first recess arranged with either said first insert or said first slot where said first protrusion is not located;
- d. choosing one or more band segments from said band segment reservoir;
- e. coupling said one or more band segments together by inserting said male clip from one of said plurality of

band segments into said female clip from one of said plurality of band segments;

- f. locking said male clip into said female clip by engaging a locking spring force maintained substantially perpendicular to said top wall or said bottom wall of said female clip holding said first protrusion and said first recess together;
- g. optionally inserting a first rigid coupling between a male clip and a female clip of said plurality of band segments;
- h. optionally attaching one or more attachment devices to said first rigid coupling;
- i. adjusting said circumferential band to fit said portion of human appendage by removing a band segment and replacing it with a replacement band segment;
- j. wearing said circumferential band on said portion of the human appendage.

24. A circumferential band to fit about a portion of the human appendage, said circumferential band comprising:

- a. means for accessing a plurality of band segment's from a band segment reservoir;
- b. means for choosing one or more band segments from said band segment reservoir;
- c. means for coupling said one or more band segments together;
- d. means for inserting a male clip into a female clip;
- e. means for locking said male clip into said female clip by overcoming a locking spring force, said locking spring force maintained substantially perpendicular to a top wall or a bottom wall of said female clip;
- f. means for optionally inserting a first rigid coupling between a male clip and a female clip of said plurality of band segments;
- g. means for optionally attaching one or more attachment devices comprising: a purse, a pocketknife, a key chain.

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