(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
24 January 2019 (24.01.2019)

WIPO | PCT

(10) International Publication Number
WO 2019/014727 A1

(51) International Patent Classification:
A44B 11/25 (2006.01) *A43B 3/24* (2006.01)
A44C 5/18 (2006.01)

(21) International Application Number:
PCT/AU2018/050764

(22) International Filing Date:
23 July 2018 (23.07.2018)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2017902851 21 July 2017 (21.07.2017) AU

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(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK,

(54) Title: MAGNETIC CLASP

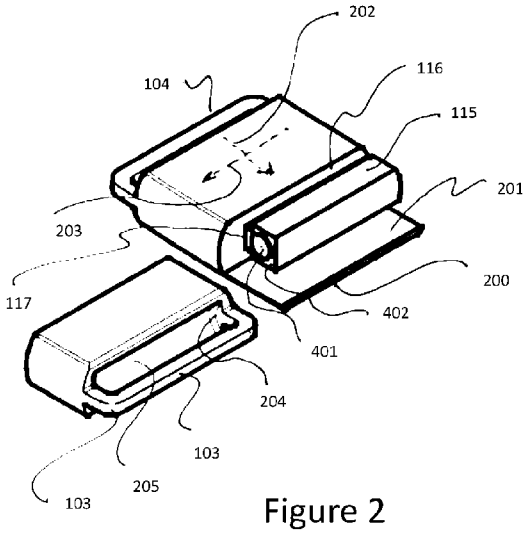

Figure 2

(57) Abstract: A magnetic clasp for connecting to items, such as straps, includes two clasp members and a magnetic connecting arrangement. One clasp member includes a recess and a slot while the other clasp member includes an insert for being received within the slot. The slot includes a pair of opposed lips. The magnetic connecting arrangement attracts the insert into the recess and through the slot into an engaged condition. When in the engaged condition, the two clasp members are positively secured against tension from the two items to be connected. An enclosing formation further encloses the lips of the slot to prevent the insert from being pulled out of the slot. An overhang further conceals one of the clasp members.

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EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

— *with international search report (Art. 21(3))*

MAGNETIC CLASP

Field of the Invention

[1] The invention relates to clasps and more particularly to a clasp with a magnetic component.

[2] The invention has been developed primarily for use in fashion accessories, and will be described hereinafter with reference to this application. However, it will be appreciated that the invention is not limited to this particular field of use.

Background of the Invention

[3] A clasp is a mechanical device, usually with two parts, that is used to connect two things together. In the context of the present technology, a clasp is used to attach two straps or strands as might be found in a shoe, bracelet, belt or other articles of clothing. In some applications, a clasp must be strong enough to withstand substantial tension. It is preferred that a clasp be easy to fasten and unfasten. Particularly in the area of clothing and footwear, it is preferred that a clasp be visually attractive and comfortable. It is also preferred the clasps be simple in construction and easy to use.

[4] Particularly in the area of footwear, clasps may be used in left and right pairs, one for each shoe or sandal etc. When clasps are provided in left and right pairs it may be an advantage that the clasps be mirror images of one another (visually and mechanically) for any one of a variety of purposes. It is also preferred that a clasp be more difficult to unfasten than to fasten. This provides a degree of security for the user and thwarts inadvertent decoupling.

[5] It is also sometimes an advantage that a clasp be adapted to be fastened to a strap or strand of the maximum practical width given the size of the clasp.

[6] It is to be understood that, if any prior art information is referred to herein, such reference does not constitute an admission that the information forms part of the common general knowledge in the art, in Australia or any other country.

Summary of the Invention

[7] The technology provides a clasp having interlocking parts. The parts couple or engage one another by sliding together. A magnet keeps the parts in engagement. Once coupled, tension through the clasp is resisted by interfering parts.

[8] In preferred embodiments each part of the clasp has an integral loop that is about as wide as the clasp is wide.

[9] In some embodiments of the technology, the clasp is provided in mirror image pairs. In further embodiments of the technology, particularly when used in proximity to the human body at least, an underside of the clasp may be curved. In particular embodiment of the technology, when the parts of the clasp are engaged, the upper surface of the clasp is continuous and conceals the engagement between the parts.

[10] In some preferred embodiments, clasp made in accordance with the teachings of the present technology are combined with sandals, preferably in mirror image pairs.

[11] In one aspect, the invention may be said to consist in a clasp for attaching two or more items together, the clasp comprising

a. a first clasp member and a second clasp member;

b. the first clasp member including an insert for insertion into the recess on the second clasp member; and

c. the second clasp member defining a recess, the recess defining a mouth for receiving the insert, the recess further defining a slot extending from the mouth, the slot being configured to prevent the transition of the insert through the slot;

d. wherein the first clasp member and the second clasp member are removably engageable with each other, and movable between an engaged condition in which the insert is at least partially received within the recess, and a disengaged condition in which the insert is not received within the recess;

e. and wherein the clasp includes a magnetic connecting arrangement configured for attracting the first clasp member and the second clasp member into their engaged condition.

[12] In one embodiment, the second clasp member includes one or more lip formations extending at least partially along at least one side of the slot.

[13] In one embodiment, the second clasp member includes a lip formation extending along each side of the slot.

[14] In one embodiment, the at least one or more lip formations defines a cross-sectional shape including a head and neck formation.

[15] In one embodiment, the first clasp member includes an enclosing formation configured for enclosing at least a part of the at least one or more lip formations.

[16] In one embodiment, one or both of the first clasp member and the second clasp member include a concealing formation.

[17] In one embodiment, the concealing formation is the enclosing formation

[18] In one embodiment, the concealing formation is an overhang.

[19] In one embodiment, the enclosing formation is an overhang configured for at least partially concealing the second clasp member.

[20] In one embodiment, the enclosing formation and insert together enclose at least a part of the one or more lip formations.

[21] In one embodiment, the enclosing formation and insert together enclose at least a part of the one or more lip formations preventing withdrawal of the lip formation from the region between the enclosing formation and the insert without plastic deformation of enclosed part of the at least one or more lip formations.

[22] In one embodiment, the recess is a blind recess.

[23] In one embodiment, the slot is a blind slot.

[24] In one embodiment, the magnetic connecting arrangement attracts the first clasp member and the second clasp member towards each other in a direction that is parallel to the slot.

[25] In one embodiment, the direction of attachment of the items to be attached is substantially transverse to the direction of movement of the insert in the recess.

[26] In one embodiment, the cross-sectional shape of the insert defines a neck portion and a head portion.

[27] In one embodiment, the magnetic connection arrangement comprises at least one magnet associated with one or more selected from the insert and the second clasp member.

[28] In one embodiment, the magnetic connection arrangement comprises at least one magnet associated with one or more selected from the insert and the second clasp member, and a complementary magnetically attractable portion in the other of the one or more selected from the insert and the second clasp member.

[29] In one embodiment, the magnetic connection arrangement comprises a magnet in each of the insert and the second clasp member.

[30] In one embodiment, the second clasp member includes a magnet located towards the end of the recess, and at an end of the slot.

[31] In one embodiment, the first clasp member includes a magnet located towards an end of the insert that is receivable within the recess in use.

[32] In one embodiment, either or both of the first clasp member and the second clasp member include one or more connecting formations for connection to the items to be attached.

[33] In one embodiment, the one or more connecting formations includes an aperture.

[34] In one embodiment, the one or more connecting formations includes a buckle.

[35] In one embodiment, the clasp includes a chain or flexible elongate member extending between first clasp member and second clasp member. This advantageously allows the clasp to be opened, for example when used in a bracelet, without the bracelet falling off a user's arm completely.

[36] In one embodiment, the second clasp member defines a C shape in cross-section.

[37] In a further aspect, the invention may be said to consist in an article of footwear, the article of footwear comprising

a. a sole,

b. an interchangeable upper portion;

c. wherein the sole and interchangeable upper portion are removably connected or connectable by at least one clasp as described.

[38] In one embodiment, the clasp is configured to be released by movement of the enclosing formation in a lateral direction relative to the sole.

[39] In one embodiment, the interchangeable upper portion comprises webbing and/or at least one or more straps.

[40] In one embodiment, the interchangeable upper portion comprises a laminar portion.

[41] In one embodiment, the interchangeable upper portion is composed of textile.

[42] In one embodiment, the article of footwear includes a toe loop extending from the sole.

[43] In one embodiment, the article of footwear includes at least one or more accessory loop extending from the sole.

[44] In one embodiment, the interchangeable upper portion includes a buckle.

[45] In one embodiment, the article of footwear is a sandal.

[46] To those skilled in the art to which the invention relates, many changes in construction and widely differing embodiments and applications of the invention will suggest themselves without departing from the scope of the invention as defined in the appended

claims. The disclosures and the descriptions herein are purely illustrative and are not intended to be in any sense limiting.

[47] Other aspects of the invention are also disclosed.

Brief Description of the Drawings

[48] Notwithstanding any other forms which may fall within the scope of the present invention, a preferred embodiment of the invention will now be described, by way of example only, with reference to the accompanying drawings in which:

[49] Figure 1 is a perspective view of a clasp having two parts;

[50] Figure 2 is an inverted perspective view of the device shown in Figure 1;

[51] Figure 3 is a side elevation of the right side of the device shown in Figures 1 and 2;

[52] Figure 4 is a cross-sectional view through lines 4-4 of Figure 3;

[53] Figure 5 is a perspective view of an assembled or coupled clasp; and

[54] Figure 6 is a schematic perspective view of two sandals, each having a clasp.

Description of Embodiments

[55] It should be noted in the following description that like or the same reference numerals in different embodiments denote the same or similar features.

[56] In a first aspect, a clasp 100 is provided for attaching two or more items together. As shown in Figure 1, the clasp 100 has two different parts in the form of a first clasp member 101 and a second clasp member102, also referenced as the first part hundred and 1 and second part 102. The first clasp member 101 and second clasp member 102 are removably engageable with each other. Each part is provided with an integral bracket or other loop 103, 104 so that each part may be affixed to a strand, strap, fixture or other point of attachment. The first clasp member or first part 101 has a slot 105 on a face 106 generally opposite the face to which the loop 103 is attached or affixed. The slot 105 lead to a recess or transverse channel 107. In this example, the slot 105 is bounded by an upper lip formation or upper lip 108 and a lower lip formation or lower lip 109. The upper left 108 and the lower lip 109 and along each side of the slot 105.

[57] One side edge 110 of the first part 101 has a generally `C_ shaped opening 111 that leads into the channel 107. Neither the channel 107 nor the slot 105 extended as far as the side 112 of the first part 101 that is opposite the side 110 with the opening 107. This is said to form a blind channel 107 and blind slot 105.

[58] Figure 1 also illustrates that the second clasp member or second part 102 has an insert in the form of a key or male component 115 that extends away from one face 116 of

the second part by a longitudinal neck 117. The cross-sectional shape of the key 115 and 117 defines a head portion and a neck portion. The neck 117 is intended to travel in the slot 105 and the key 115 travels in the channel 107. There is preferably little or no friction as the key 115 moves in the channel 107. The first clasp member 101 and second clasp member 102 are also movable between an engaged condition in which the key 115 is received within the channel 107, and a disengaged condition in which the key 115 is removed from the channel 107.

[59] As shown in Figure 2, the length of the key 115 and the length of the channel 107 are equal. The upper surface 200 of the second part forms an enclosing formation or overhang 201. The overhang 201 functions as a concealing formation, and in the embodiment shown, the overhang 201 extends past the key 115 in both the longitudinal direction 202 and the transverse direction 203. It is envisaged that in alternative embodiments, a concealing formation could be provided on either or both of the first clasp member and the second clasp member.

[60] As can be seen in Figure 2, the overhang 201 occupies the full transverse width of the second part while the key 115 only occupies a partial width. In this way, the overhang 200 is capable of concealing at least part of the joint between the two clasp parts. Preferably, the overhang conceals the entire first clasp member 101. In this way, the first clasp member can be made of less expensive material, while the second clasp member presents the overhang 201 as an outer face that is aesthetically pleasing. In a preferred embodiment, the lip formation 108, 109 will preferably extend snugly between the overhang and the key. Further, the lip formation 108, 109 that extends between the overhang and the key defines cross-sectional shape including a head and neck formation. In this way, the enclosing formation in the form of the overhang, together with the key will enclose the lip formation, and the lip formation will not be able to be pulled out from between the overhang and the lip formation in the longitudinal direction 202 without undergoing plastic deformation.

[61] Figure 2 also illustrates that each part may have a pocket 204 with a curved interior wall 205 that cooperates with the loop 103 when a strap is being fed through the loop.

[62] As shown in Figure 3, the two parts 101, 102 are interlocked by engaging the key 115 with the channel 107. This action creates mechanical de-coupling interference between the upper and lower lip 108, 109 and the key 115. This interference prevents the parts from becoming disengaged or decoupled along a longitudinal axis 300.

[63] As also shown in Figure 3, the overhang 201 is preferably integral with the second part 102, forming a continuous surface that extends the full length and full width of the upper surface 301 of the clasp 100. Viewed from above, the only visible components of the clasp

are the continuous upper surface 301 and the loops 103, 104 viewed from one side, the junction between the key 115 and the channel 107 can be seen. Because the channel and key terminate before the opposite wall is reached, neither the channel nor the key are visible from the opposite side of the clasp. The underside of the clasp reveals only the join 302 that traverses the clasp as approximately its longitudinal midline. It will be understood that the smooth and continuous upper surface 301 may be truncated, curved, distorted or ornamented for visual effect. This surface generally forms the major viewable aesthetic surface presented by the clasp.

[64] As shown in Figure 4, a magnetic connecting arrangement in the form of a pair of attractors 400 is be used to maintain the clasps in their engaged condition, or in a closed or coupled orientation. The attractors 400 may be in the form of a magnet 401 embedded in an interior end wall 402 of the key 115. The other attractant may be a steel target 403 embedded flush within the interior end wall 404 of the channel 107. It will be understood that a pair of magnets may be used and the relative position of the magnet and the steel target may be reversed. In the embodiment shown in figure 4, the first clasp member includes a magnet is located towards an end of the key 115 that is receivable within the channel 107. The magnetic connecting arrangement attracts the first clasp member and the second clasp member towards each other in a direction that is parallel to the slot, and also preferably pulls the key 115 into the channel 107. It will be apparent to a person skilled in the art that the direction of attachment of the items to be attached is substantially transverse to the direction of movement of the key 115 in the channel 107. Resistance to tension in the clasp by the pulling apart of the items that are attached by the clasp is resisted in a mechanically positive way by the key 115 acting on the lip formations, and the magnetic connection arrangement is not used to directly oppose this tension. In this way, the clasp is provided that is very strong intention, but can be easily unclasped.

[65] As shown in Figure 5, the side 501 of the clasp 100 visually reveals only the lateral seam 502 between the first and second parts 101, 102 and the seam 503 or join between the overhang 200 and the first part 101. Figure 5 also suggests that the length of the overhang is immaterial to the interworking between the key 115 and the channel 107. From Figure 5 it can also be appreciated that the entire underside 504 (see Figure 3) can be curved, for example, to conform to part of the human body or the shape of a garment, shoe or boot. An ornamental bracelet and anklet can be made by interconnecting the two loops 103, 104 with a strand, band or strap.

[66] In one embodiment (not shown), the clasp includes a chain or flexible elongate member extending between first clasp member and second clasp member. This

advantageously allows the clasp to be opened, for example when used in a bracelet, without the bracelet falling off a user˜s arm completely.

[67] In a further aspect, and as shown in Figure 6, an article of footwear is provided in the form of a sandal. The sandal 600 has a sole 601 including is an upper surface 602. The sandal 600 further includes an interchangeable upper portion 630. The sole 601 and the interchangeable upper portion 630 are removably connectable using a clasp as described above. An optional toe loop 603 preferably extends from the upper surface. Additionally a plurality of or more preferably textile accessory loops 604, 605, 606 extend from the sole. In this example, the forward accessory loop 604 carries a clasp 608 made in accordance with the teachings of the present technology. An accessory strap 609 attaches or is attachable to a clasp loop 104 and has its own clasp or buckle 610 so that the accessory strap 609 can be joined to itself near or behind the user˜s heel. The accessory strap 609 passes through both of the rear accessory loops 605, 606.

[68] In preferred embodiments, sandals are provided in left and right pairs 600, 620. J ust as there are a left sandal 621 and a right sandal 622 in a mirror image pair, the clasps 608, 623 for each sandal may also be provided in left and right mirror image pairs. This allows the left clasp to be opened by sliding the upper surface 300 laterally left 630, optionally allowed the right clasp 623 to be opened by sliding the right upper surface 300 laterally to the right 631.

[69] The use of a clasp 100 as described above in the sandal 600 is advantageous in that the clasp 100 is particularly strong intention in the longitudinal direction, and cannot be unclasped by moving the first clasp member and the second clasp member relative to each other in one of the two transverse directions. By providing a clasp that can only be opened by relative movement of the upper portion in a lateral direction, Applicant believes that it will be unlikely that the clasp will be inadvertently opened.

[70] Although the invention has been described with reference to specific examples, it will be appreciated by those skilled in the art that the invention may be embodied in many other forms.

[71] As used herein, unless otherwise specified, the use of the ordinal adjectives "first", "second", "third", etc., to describe a common object, merely indicate that different instances of like objects are being referred to, and are not intended to imply that the objects so described must be in a given sequence, either temporally, spatially, in ranking, or in any other manner. Reference throughout this specification to `one embodiment_ or `an embodiment_ or `example_ means that a particular feature, structure or characteristic described in connection with the embodiment is included in at least one embodiment of the

present invention. Thus, appearances of the phrases `in one embodiment_ or `in an example_ in various places throughout this specification are not necessarily all referring to the same embodiment or example, but may. Furthermore, the particular features, structures or characteristics may be combined in any suitable manner, as would be apparent to one of ordinary skill in the art from this disclosure, in one or more embodiments. Similarly it should be appreciated that in the above description of exemplary embodiments of the invention, various features of the invention are sometimes grouped together in a single embodiment, figure, or description thereof for the purpose of streamlining the disclosure and aiding in the understanding of one or more of the various inventive aspects. This method of disclosure, however, is not to be interpreted as reflecting an intention that the claimed invention requires more features than are expressly recited in each claim. Rather, as the following claims reflect, inventive aspects lie in less than all features of a single foregoing disclosed embodiment. Any claims following the Detailed Description are hereby expressly incorporated into this Detailed Description, with each claim standing on its own as a separate embodiment of this invention. Furthermore, while some embodiments described herein include some but not other features included in other embodiments, combinations of features of different embodiments are meant to be within the scope of the invention, and form different embodiments, as would be understood by those in the art. For example, in the following claims, any of the claimed embodiments can be used in any combination Thus, while there has been described what are believed to be the preferred embodiments of the invention, those skilled in the art will recognize that other and further modifications may be made thereto without departing from the scope of the invention, and it is intended to claim all such changes and modifications as fall within the scope of the invention. While the present invention has been disclosed with reference to particular details of construction, these should be understood as having been provided by way of example and not as limitations to the scope of the invention.

Interpretation

Markush Groups

[73] In addition, where features or aspects of the invention are described in terms of Markush groups, those skilled in the art will recognise that the invention is also thereby described in terms of any individual member or subgroup of members of the Markush group.

Embodiments:

[74] Reference throughout this specification to `one embodiment_ or `an embodiment_ means that a particular feature, structure or characteristic described in connection with the embodiment is included in at least one embodiment of the present invention. Thus, appearances of the phrases `in one embodiment_ or `in an embodiment_ in various places throughout this specification are not necessarily all referring to the same embodiment, but may. Furthermore, the particular features, structures or characteristics may be combined in any suitable manner, as would be apparent to one of ordinary skill in the art from this disclosure, in one or more embodiments.

[75] Similarly it should be appreciated that in the above description of example embodiments of the invention, various features of the invention are sometimes grouped together in a single embodiment, figure, or description thereof for the purpose of streamlining the disclosure and aiding in the understanding of one or more of the various inventive aspects. This method of disclosure, however, is not to be interpreted as reflecting an intention that the claimed invention requires more features than are expressly recited in each claim. Rather, as the following claims reflect, inventive aspects lie in less than all features of a single foregoing disclosed embodiment. Thus, the claims following the Detailed Description of Specific Embodiments are hereby expressly incorporated into this Detailed Description of Specific Embodiments, with each claim standing on its own as a separate embodiment of this invention.

[76] Furthermore, while some embodiments described herein include some but not other features included in other embodiments, combinations of features of different embodiments are meant to be within the scope of the invention, and form different embodiments, as would be understood by those in the art. For example, in the following claims, any of the claimed embodiments can be used in any combination.

Different Instances of Objects

[77] As used herein, unless otherwise specified the use of the ordinal adjectives `first_, `second_, `third_, etc., to describe a common object, merely indicate that different instances of like objects are being referred to, and are not intended to imply that the objects so

described must be in a given sequence, either temporally, spatially, in ranking, or in any other manner.

Specific Details

[78] In the description provided herein, numerous specific details are set forth. However, it is understood that embodiments of the invention may be practiced without these specific details. In other instances, well-known methods, structures and techniques have not been shown in detail in order not to obscure an understanding of this description.

Terminology

[79] In describing the preferred embodiment of the invention illustrated in the drawings, specific terminology will be resorted to for the sake of clarity. However, the invention is not intended to be limited to the specific terms so selected, and it is to be understood that each specific term includes all technical equivalents which operate in a similar manner to accomplish a similar technical purpose. Terms such as "forward", "rearward", "radially", "peripherally", "upwardly", "downwardly", and the like are used as words of convenience to provide reference points and are not to be construed as limiting terms.

[80] For the purposes of this specification, the term `plastic_ shall be construed to mean a general term for a wide range of synthetic or semisynthetic polymerization products, and generally consisting of a hydrocarbon-based polymer.

[81] As used herein the term `and/or_ means `and_ or `or_, or both.

[82] As used herein `(s)_ following a noun means the plural and/or singular forms of the noun.

Comprising and Including

[83] In the claims which follow and in the preceding description of the invention, except where the context requires otherwise due to express language or necessary implication, the word `comprise_ or variations such as `comprises_ or `comprising_ are used in an inclusive sense, i.e. to specify the presence of the stated features but not to preclude the presence or addition of further features in various embodiments of the invention.

[84] Any one of the terms: including or which includes or that includes as used herein is also an open term that also means including at least the elements/features that follow the term, but not excluding others. Thus, including is synonymous with and means comprising.

Scope of Invention

[85] Thus, while there has been described what are believed to be the preferred embodiments of the invention, those skilled in the art will recognize that other and further modifications may be made thereto without departing from the spirit of the invention, and it is

intended to claim all such changes and modifications as fall within the scope of the invention. For example, any formulas given above are merely representative of procedures that may be used. Functionality may be added or deleted from the block diagrams and operations may be interchanged among functional blocks. Steps may be added or deleted to methods described within the scope of the present invention.

[86] Although the invention has been described with reference to specific examples, it will be appreciated by those skilled in the art that the invention may be embodied in many other forms.

Industrial Applicability

[87] It is apparent from the above, that the arrangements described are applicable to the fashion and /or garment manufacturing industries.

Claims

The claims defining the invention are as follows:

1. A clasp for attaching two or more items together, the clasp comprising
    a. a first clasp member and a second clasp member;
    b. the first clasp member including an insert for insertion into the recess on the second clasp member; and
    c. the second clasp member defining a recess, the recess including a mouth for receiving the insert, the recess further including a slot extending from the mouth, the slot being configured to prevent the transition of the insert through the slot;
    d. wherein the first clasp member and the second clasp member are removably engageable with each other, and movable between an engaged condition in which the insert is at least partially received within the recess, and a disengaged condition in which the insert is not received within the recess; and
    e. wherein the clasp includes a magnetic connecting arrangement configured for attracting the first clasp member and the second clasp member into their engaged condition.
2. The clasp as claimed in claim 1, wherein the second clasp member includes one or more lip formations extending at least partially along at least one side of the slot.
3. The clasp as claimed in claim 2, wherein the second clasp member includes a lip formation extending along each side of the slot.
4. The clasp as claimed in any one of claims 2 to 3, wherein the at least one or more lip formations defines a cross-sectional shape including a head and neck formation.
5. The clasp as claimed in any one of claims 2 to 4, wherein the first clasp member includes an enclosing formation configured for enclosing at least a part of the at least one or more lip formations.
6. The clasp as claimed in any one of claims 1 to 2, wherein one or both of the first clasp member and the second clasp member include a concealing formation for concealing at least part of one or more selected from the first clasp member and the second clasp member.
7. The clasp as claimed in claim 6, wherein the concealing formation is an overhang.

8. The clasp as claimed in any one of claims 6 to 7, wherein the concealing formation is the enclosing formation

9. The clasp as claimed in any one of claims 5 to 8, wherein the enclosing formation and insert together enclose at least a part of the one or more lip formations preventing withdrawal of the lip formation from the region between the enclosing formation and the insert without plastic deformation of enclosed part of the at least one or more lip formations.

10. The clasp as claimed in any one of claims 1 to 9, wherein the magnetic connecting arrangement attracts the first clasp member and the second clasp member towards each other in a direction that is parallel to the slot.

11. The clasp as claimed in any one of claims 1 to 10, wherein the magnetic connection arrangement comprises at least one magnet associated with one or more selected from the insert and the second clasp member, and a complementary magnetically attractable portion in the other of the one or more selected from the insert and the second clasp member.

12. The clasp as claimed in any one of claims 1 to 11, wherein the second clasp member includes a magnet located towards the end of the recess, and at an end of the slot.

13. The clasp as claimed in any one of claims 1 to 12, wherein the first clasp member includes a magnet located towards an end of the insert that is receivable within the recess in use.

14. An article of footwear, the article of footwear comprising

    a. a sole,

    b. an interchangeable upper portion;

    c. wherein the sole and interchangeable upper portion are removably connected or connectable by at least one clasp as described.

15. The article of footwear as claimed in claim 14, wherein the clasp is configured to be released by movement of the enclosing formation in a lateral direction relative to the sole.

16. The article of footwear as claimed in any one of claims 14 to 15, wherein the article of footwear includes a toe loop extending from the sole.

17. The article of footwear as claimed in any one of claims 14 to 16, wherein the article of footwear includes at least one or more accessory loop extending from the sole.

18. The article of footwear as claimed in any one of claims 14 to 17, wherein the interchangeable upper portion includes a buckle.

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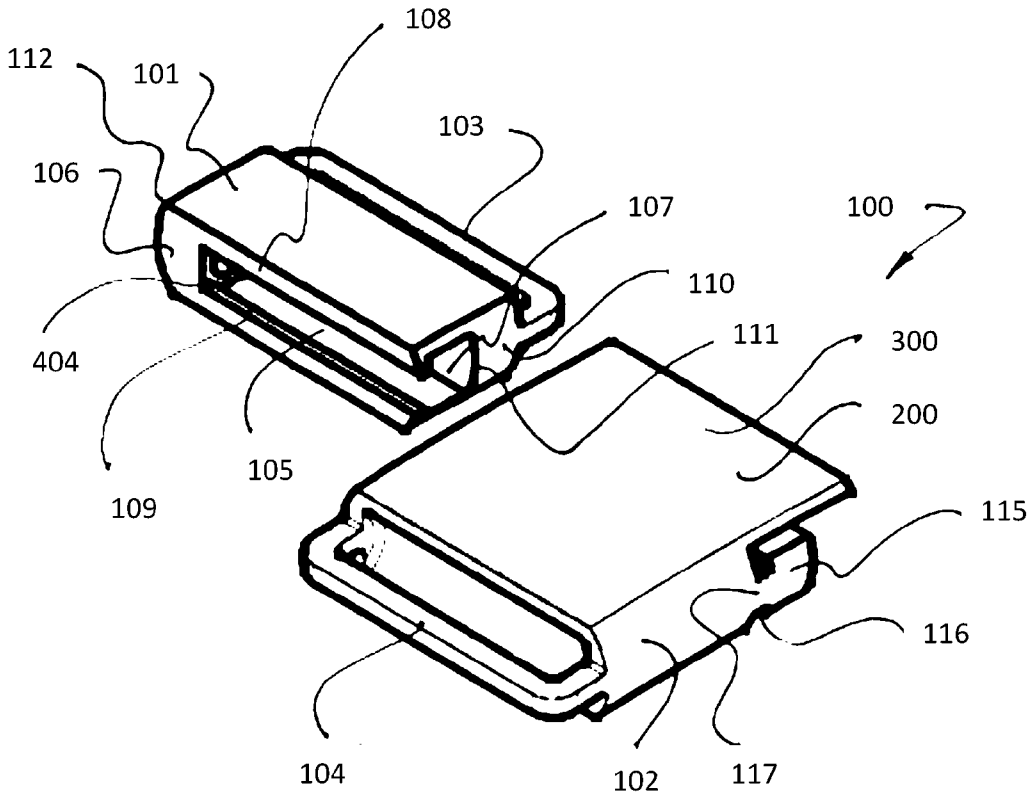
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Figure 1

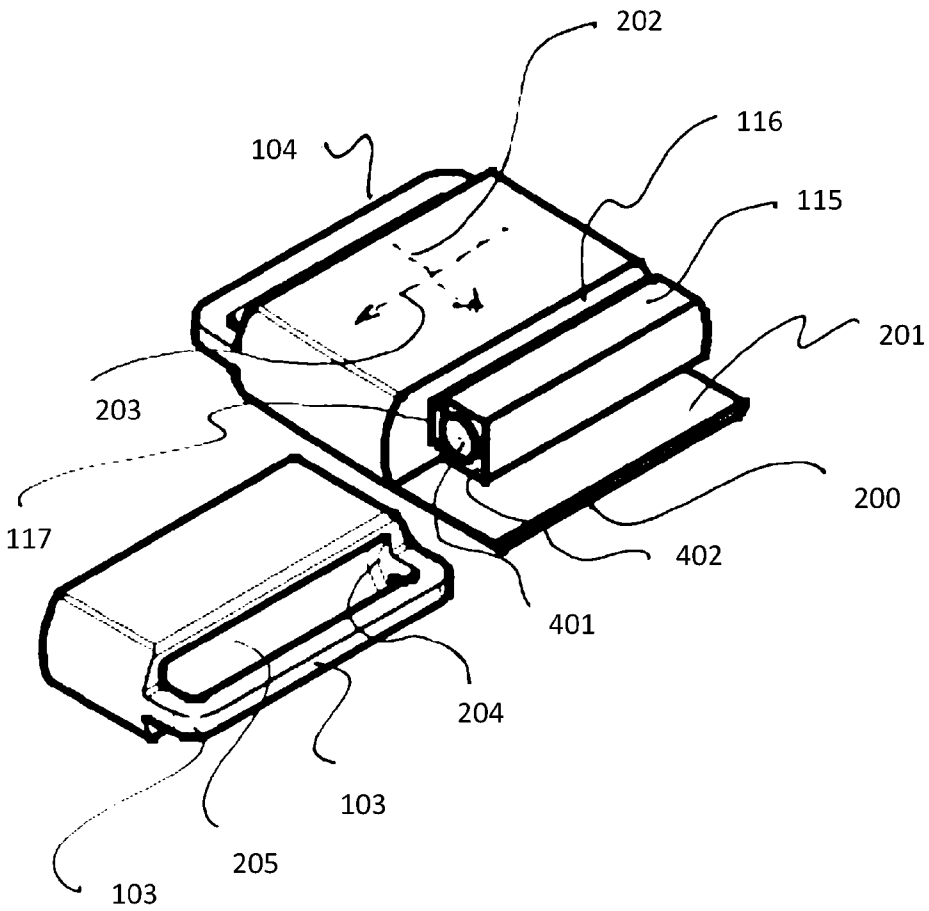

Figure 2

Figure 3

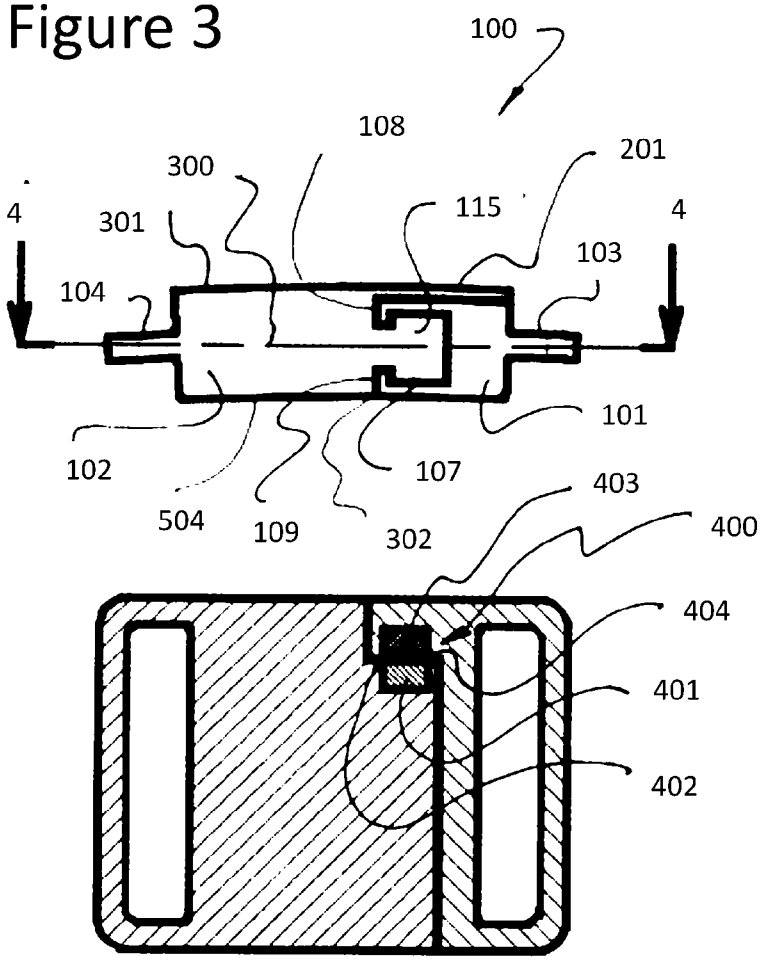

Figure 4

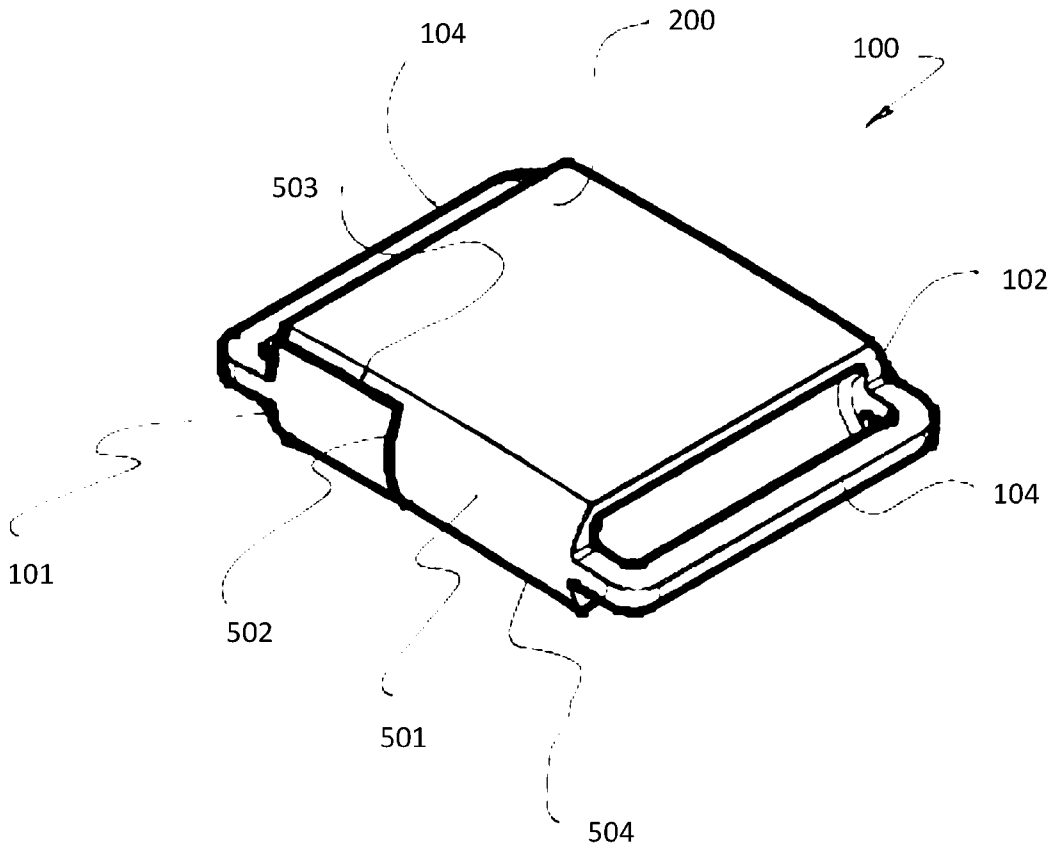

Figure 5

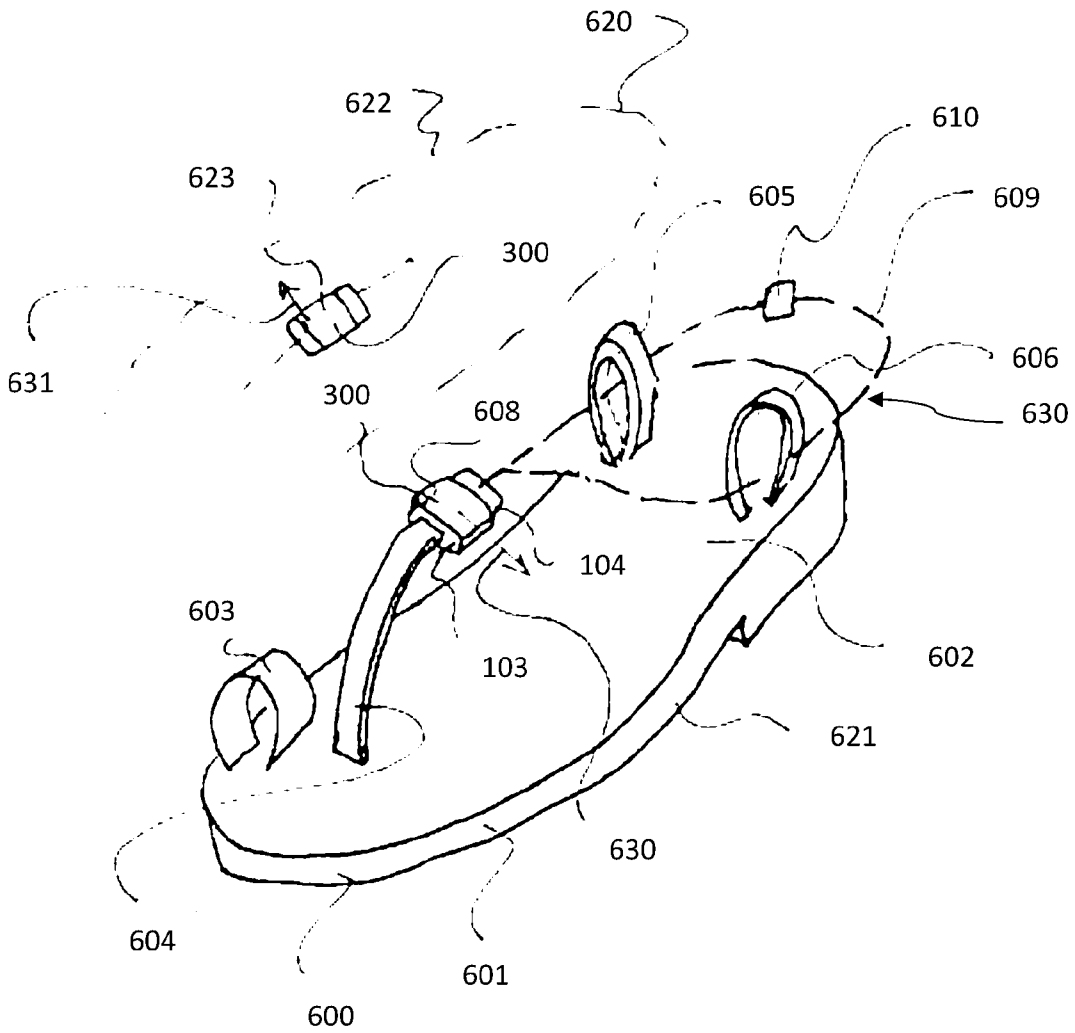
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Figure 6

INTERNATIONAL SEARCH REPORT

International application No.
PCT/AU2018/050764

A. CLASSIFICATION OF SUBJECT MATTER

A44B 11/25 (2006.01) A44C 5/18 (2006.01) A43B 3/24 (2006.01)

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WPI, EPODOC, PATENW: IPC/CPC, A43B3/122, A43B3/24, A44D2203/00, Y10S63/90, Y10T24/32, A41F1/002, A44C5/18, A44B11/2596, A44B11/25, & keywords (magnet, insert, key, protrusion, male, travel, slid, move, recess, slot, lip, groove, cavity, female, u_shaped, c_shaped, bracelet, shoe, buckle, jewellery, watch, attach, fasten, connect, secure, clasp, mouth, opening, limit, restrict, withdraw) & like terms; Citing/Cited of relevant documents; **Google Patents**: keywords (magnet, clasp, insert, slot) & like terms; Applicant/inventor name search conducted on Espacenet, AusPat, and internal databases provided by IP Australia.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
	Documents are listed in the continuation of Box C	

[X] Further documents are listed in the continuation of Box C [X] See patent family annex

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
9 October 2018	09 October 2018

Name and mailing address of the ISA/AU	**Authorised officer**
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INTERNATIONAL SEARCH REPORT C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		International application No. **PCT/AU2018/050764**
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 20150074949 A1 (HAI PIN TSAI) 19 March 2015 Figures 1-5; (para [0011]-[0012])	1-13
X	US 20160270491 A1 (MODWRAPS) 22 September 2016 Abstract; figures 1-6; para [0046]	1-11, 13
X	EP 2984961 A1 (APPLE INC.) 17 February 2016 Abstract; figures 1A-2E; para [0064], [0087]	1-4, 10-13
X	US 5367891 A (FURUYAMA) 29 November 1994 Figures 1-7c; column 4, lines 20-25	1
X	US 20060112596 A1 (CHAN) 01 June 2006 Abstract; figures 1-5; para [0044]-[0045]	1-6, 9, 14-18

INTERNATIONAL SEARCH REPORT Information on patent family members	International application No. **PCT/AU2018/050764**

This Annex lists known patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document/s Cited in Search Report		**Patent Family Member/s**	
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Due to data integration issues this family listing may not include 10 digit Australian applications filed since May 2001.

INTERNATIONAL SEARCH REPORT Information on patent family members	International application No. **PCT/AU2018/050764**

This Annex lists known patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document/s Cited in Search Report		Patent Family Member/s	
Publication Number	**Publication Date**	**Publication Number**	**Publication Date**
		JP 2008521548 A	26 Jun 2008
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		US 7219445 B2	22 May 2007
		WO 2006060038 A2	08 Jun 2006

End of Annex

Due to data integration issues this family listing may not include 10 digit Australian applications filed since May 2001.