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(60) Divisional application:
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(54) **Kit comprising a hand strap and a pole**

(57) A kit comprising a pole (1) and a hand strap (3), said pole (1) comprising a grip (2), a shaft (53) and a tip (51), wherein said pole has a longitudinal axis (L), said shaft, grip and tip being aligned along the same longitudi-

dinal axis (L), said hand strap (3) being connected, via coupling means (7) to said grip, characterised by the fact that the connection point (X) of said hand strap (3) to said grip (2) is located on said longitudinal axis (L).

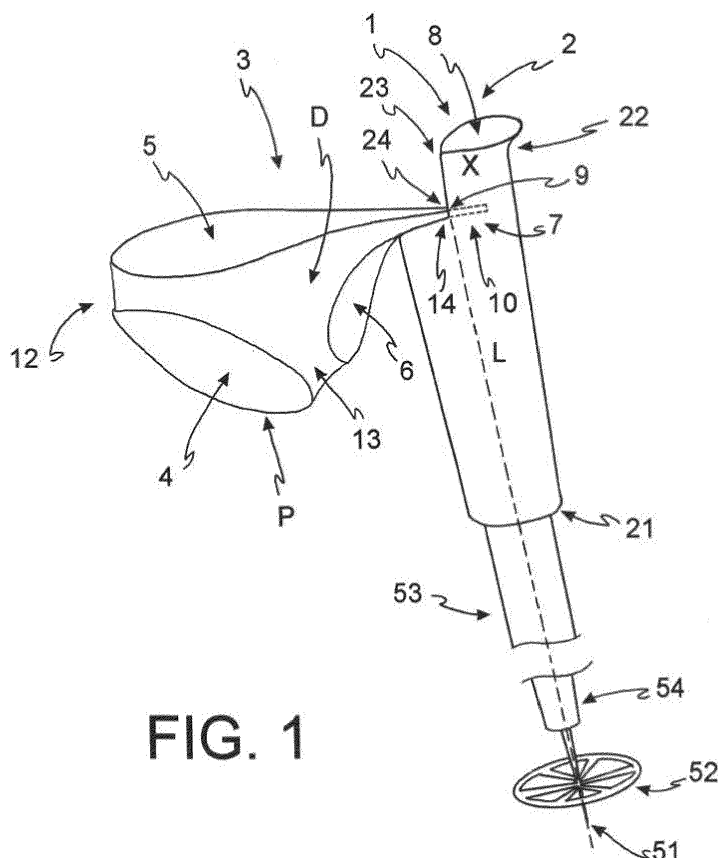


FIG. 1

Description

[0001] The present invention relates to a kit comprising:

- a pole
- a hand strap

said pole comprising a grip, a shaft and a tip, wherein said pole has a longitudinal axis (L), said shaft, grip and tip being aligned along the same longitudinal axis (L), said hand strap (3) being connected, via coupling means (7) to said grip, characterised by the fact that the connection point (X) of said hand strap (3) to said grip (2) is located on said longitudinal axis (L).

Background

[0002] Conventional handles of ski and other sports poles comprise a grip member of a substantially cylindrical shape disposed at the upper end portion of the ski pole with a hand strap in the form of a closed loop attached thereto, through which the user's hand is inserted upwardly. Usually, the point of attaching said hand strap to the grip is on the top of said grip. Such a hand strap provides a proper grip for transfer of pushing forces to the pole. The hand strap does not, however, keep the pole handle accommodated in the hand if the grip of the hand around the grip element ceases. When the hand drops the grip element while the pole is not in contact with a support surface, the pole will fall somewhat down and will hang in the strap, while will lie across the back of the hand or the wrist.

[0003] Poles having an hand strap capable to keep the hand accommodated also if the grip of the hand around the grip element ceases have been described. An elastic auxiliary strap which is fastened to the grip element and is adapted to keep the grip element in a grip position relatively to the hand even if the hand releases the grip element is described in US5248163. WO013425 describes a ski pole handle with a possibility of adjusting the effective length of the hand strap according to the hand of the users.

[0004] The disadvantage of the cited prior constructions of the grip of ski poles is that they do not provide a sufficiently effective impulse.

[0005] EP0266329 describes a ski pole handle device which comprises a laterally protruding element which forms a supporting surface for the palm of the hand. WO200707754 describes a grip handle having a main wrist strap and an additional strap in the form of a closed loop, wherein the point of attaching the additional strap to the grip handle member is disposed on the opposite side and higher in relation to the attaching point of the main wrist strap.

[0006] However, the cited ski pole handles are not capable to maximise the effectiveness of forces transmitted to the ski pole by the user. In particular, the prior art con-

structions do not direct the force exerted by the hand that holds the handle entirely on the tip of the ski pole, in this manner wasting part of the forces exerted on the ski pole. This is a particularly felt need for ski poles to be used in competitive cross-country skiing, where the maximisation of the forces transmitted from the arms and the hands of the skier to the ski pole tip is an essential requirement to optimize the results obtainable.

[0007] It is an object of the present invention to provide a kit comprising a pole and a hand strap that maximises the effectiveness of the forces transmitted by the user.

Summary of the invention.

[0008] The present invention relates to a kit comprising:

- a hand strap;
- a pole;

said pole comprising a grip, a shaft and a tip, wherein said pole has a longitudinal axis (L), said shaft, grip and tip being aligned along the same longitudinal axis (L), said hand strap (3) being connected, via coupling means (7) to said grip, characterised by the fact that the connection point (X) of said hand strap (3) to said grip (2) is located on said longitudinal axis (L).

[0009] The construction of the present invention surprisingly maximises the transfer of pushing forces from the user's hand to the pole tip, as it will become evident from the figures and description that follow. The kit of the present invention surprisingly solves the problem of entirely collecting the forces exerted by the user's hand forearm and arm and the problem of direct them entirely to the tip of the pole, without wasting part of said forces, as it commonly happens when using prior art constructions. The kit of the present invention thus allows the maximization of the boost achievable by the user.

[0010] Description of the drawings

FIG. 1 is a perspective view of the kit of the present invention.

FIG. 2 is a perspective view of the hand strap of the present invention inserted into the user's hand.

FIG. 3 is a further perspective view of the hand strap of the present invention.

FIG. 4 is a perspective of a particular of an embodiment of the grip.

FIG. 5 is a front view of an embodiment of the coupling mean.

FIG. 6 is a top view of the embodiment of FIG. 5 of the coupling mean.

FIG. 7 is a perspective view of a further embodiment of the hand strap of the present invention inserted into the user's hand.

FIG. 8 is a further perspective view of the embodiment of FIG 7 of the hand strap.

Detailed description

[0011] The kit of the present invention is schematically depicted in FIG. 1. It comprises a pole (1) and a hand strap (3). Said pole (1) comprises a grip (2), a shaft (53) and a tip (51). Preferably, said pole comprises also a basket adapter (54) and a basket (52).

[0012] By hand strap is here meant that element into which the hand user is inserted to hold the grip.

[0013] By grip element is here meant that element which is suitable to be gripped by the hand.

[0014] Said pole has a longitudinal axis (L). Said grip comprises at its bottom an hole for receiving said shaft. Grip, shaft and tip are aligned along the same longitudinal axis (L), wherein (L) is as defined above.

[0015] The kit of the present invention is characterised by the fact that the connection point (X) of said hand strap (3) to said grip (2) is located on said longitudinal axis (L). The connection between said hand strap (3) and said grip (2) is obtained through coupling means (7).

[0016] Said coupling means (7) are permanent or snap connecting elements. Permanent connecting elements are selected among the group comprising glue, screws, bolts. Snap connecting elements are selected from the group comprising clip or webbing.

[0017] The hand strap of the present invention is schematically depicted in FIG. 1, 2 and 3. Said hand strap (3, 203, 303) comprises a dorsal portion (D) and a palmar portion (P). Said dorsal portion (D) and palmar portion (P) are kept together by at least a first (12, 212), a second (13, 213) and a third (14, 214, 314) connecting portion. Said connecting portions (12, 13, 14, 212, 213, 214, 314) comprise a bending line (B), delimiting a dorsal face comprising the dorsal portion (D) and a palmar face comprising the palmar portion (P) on said hand strap (3, 203, 303). Said connecting portions define at least a palm opening (4, 204) fitting the palm of the user's hand, a fingers opening (5, 205) from which emerges the fore finger, the middle finger, the ring finger and the small finger and a thumb opening (6, 206, 306) from which emerges the thumb finger. Said palm, fingers and thumb openings comprise an hedge (204', 205', 206') along said dorsal and palmar face of said hand strap.

[0018] The user's hand is inserted into said hand strap (3, 203) to hold said grip (2). Once the user's hand is closed on the grip, the palmar portion (P) of said hand strap will enter into contact with said grip.

[0019] Suitable non-slip elements are properly applied on said palmar portion (P) of said hand strap, or said palmar portion (P) is made by a non-slip fabric.

[0020] To facilitate the insertion of the user's hand into said hand strap and to guarantee that the hand will be firmly kept into said hand strap during usage, said hand strap is preferably provided with suitable adjustable means. In a preferred embodiment, the first connecting portion (12, 212) will be conveniently adjustable to the hand size, preferably by Velcro or by any other suitable means.

[0021] Said hand strap (3, 203, 303) is provided with a tongue (9, 209, 309) to fasten said hand strap to said grip (2) via said coupling means (7, 207, 307).

[0022] Said tongue (9, 209, 309) protrudes from said hand strap from the third connecting portion (14, 214, 314).

[0023] The point from which protrudes said tongue from said third connecting portion defines said connection point (X). Once said hand strap is connected to said grip, said connection point (X) is positioned along said longitudinal axis (L).

[0024] Once the user's hand is inserted into said hand strap, as it is evident from FIG. 2, said tongue (209) sticks out between the thumb and the fore finger. The manner said tongue (9, 209, 309) protrudes from the hand strap is an essential feature of the present invention.

[0025] Said tongue (209, 309) protrudes from said third connection portion (314) at a point which is shifted with respect to said bending line (B) and is positioned on said palmar face. Preferably, said tongue (309) protrudes from said third connection portion (314) on said palmar face at least 0.7 cm below said bending line (B), preferably 0.85 cm, still more preferably about 1 cm below said bending line (B).

[0026] Positioning said palmar portion of said hand strap on a rigid flat surface (S), said tongue (309) protrudes from said third connection portion (314) in a manner essentially coplanar to said palmar portion, i.e. the lower face of said tongue is in contact with said rigid flat surface as it is the palmar portion of said hand strap, the lower face of said tongue forms an angle of about 360° with said rigid flat surface (S). Alternatively, said tongue (209, 309) protrudes from said third connection portion (314) forming an angle of about 340° with said rigid flat surface (S), or 345°, or 350°, or 352°, or 355°, or 357°, or 359°C.

[0027] To obtain the hand strap of the present invention, having said tongue protruding from said third connecting portion, the following method is followed:

- a hand strap comprising a dorsal portion (D) and a palmar portion (P) is provided, wherein said dorsal portion (D) and palmar portion (P) are kept together by at least a first (12, 212), a second (13, 213) and a third (14, 214) connecting portion. Said connecting portions (12, 13, 14, 212, 213, 214) comprise a bending line, delimiting a dorsal face comprising the palmar portion (P) and a palmar face comprising the palmar portion (P) on said hand strap (3, 203). Said connecting portions define at least a palm opening (4, 204) fitting the palm of the user's hand, a fingers opening (5, 205) from which emerges the fore finger, the middle finger, the ring finger and the small finger and a thumb opening (6, 206) from which emerges the thumb finger. Said palm, fingers and thumb openings comprise an hedge (204', 205', 206') along said dorsal and palmar face of said hand strap;
- a webbing is provided, which is preferably a nylon

or cotton webbing;

- said webbing is sewn on said hand strap and it extends through said third connecting portion (314) on both the palmar face comprising the palmar portion (P) and the dorsal face comprising the dorsal portion (D) of said hand strap. A bending line on said webbing is formed, delimiting a palmar length and a dorsal length of said webbing. Said tongue (309) drawn shifted from said bending line, on the palmar length of said webbing. Preferably, said tongue drawn at least 0.7 cm below said bending line, preferably 0.85 cm, still more preferably about 1 cm below said bending point line, on the palmar length.

[0028] In a preferred embodiment, said bending line corresponds to the median of said webbing.

[0029] The pole of the present invention comprises a grip. Said grip is substantially a circular cylinder, comprising a base portion (21) and an upper portion (22) having a top (8), wherein said upper portion forms a step (23) on said grip. The inflection point (24) of said step (23) is on said longitudinal axis (L) so that the connection point (X) of said hand strap (3), once connected via coupling means (7) to said grip (2), finds its location on said longitudinal axis (L). In a preferred embodiment, said step (423) thrust forward with respect to the base element (421) so that two opposite points of inflection (424, 425) are created between said upper portion (422) and said base element (421). Preferably, said step has a flexuous profile, so as to follow the anatomy of the hand.

[0030] Said hand strap is connected to said grip via coupling means (7, 207, 307) comprised on said tongue (9, 209, 309). Preferably, said coupling means are snap connecting elements, selected among clip elements or webbings. Said clip elements are preferably selected from block-shaped or bar-shaped element. Said webbings are preferably webbings forming a closed loop.

[0031] In a preferred embodiment, said grip is provided with a cavity (10, 410) with at least an opening towards the outside, at the inflection point (24) of said grip and which protrudes inside said grip. Said cavity (10, 410) hosts said coupling means (7). In a further preferred element, said cavity (410) is featured to alternatively host a clip or a webbing. In this embodiment, said cavity (10) has two openings towards the outside: opening (A), at the inflection point (424) and opening (B) towards the top (408) of said upper portion (422). Said coupling mean is inserted into said cavity via the opening (A), so that the connection point (X) of said hand strap is positioned along said longitudinal axis (L). When said coupling mean is a clip, said clip, inserted into said cavity (10) via the opening (A), remains entrapped into said cavity. When said coupling mean is a webbing, said webbing is inserted into said cavity (10) via the opening (A) and the terminal end of said webbing escapes from said cavity via the opening (B).

[0032] Said clip and said webbing are preferably entrapped into said grip via entrapping means known in the

state of the art. A preferred embodiment of an entrapping mean will be further described in the following paragraphs.

[0033] In a preferred embodiment, presented in FIG. 5, said coupling mean (507) on said tongue (509) is a clip which is a bar-shaped element having a core (511a) which is an extension of the webbing (511), said core being covered by a cover (507a), preferably by a plastic cover. The cover (507a) is provided on the upper face (507_{up}), on the lower face (507_{low}) and on the terminal side (507_{term}) of said core. Said bar-shaped clip has a thickness ranging from 1 to 15 mm, or ranging from 3 to 8 mm, or of about 5 mm and a length ranging from 5 to 40 mm, or from 15 to 30 mm, or of about 20 mm and a width ranging from 5 to 30 mm, or from 8 to 20 mm, or of about 13 mm.

[0034] In a further preferred embodiment, depicted in FIG. 6, said coupling mean (607) which is the bar-shaped clip above described comprises an opening (640) running through it in its thickness. Preferably, said opening (640) is circular. Said opening (604) is defined as a female element.

[0035] A clip having a core covered by a cover (507a) on the upper face (507_{up}), on the lower face (507_{low}) and on the terminal side (507_{term}) of said core offers the following advantages with respect to clip completely covered by plastic:

- to equal width of said clip, a wider webbing may be used, since there is no space used by an eventual plastic cover on the front and on the back portion of the clip itself and a wider webbing means a clip more resistant, especially when said clip comprises an opening running through it in its thickness;
- a clip only partially covered by plastic is more flexible than a clip completely covered by plastic, and to a greater flexibility corresponds a greater resistance.

[0036] Said clip comprising an opening (640) engages with said grip (402) by entering into the cavity (410) through the opening (A). An entrapping element comprising a male element hosted by said grip fixes said clip to the grip itself. Preferably, said male element is a pivot pin (430) carried by said entrapping element, wherein said entrapping element is removable and, once in use, it is inserted on the top of said grip.

[0037] In a further embodiment, said hand strap (803, 903) comprises a lateral support (780, 880) for the thumb, as depicted in FIG. 7 and 8. Said lateral support (780, 880) protrudes from the palmar hedge (706', 806') of the thumb opening (706, 806). Said lateral support (780, 880) is adjacent to the third connecting portion (714, 814), and preferably it extends in length for about a half of said palmar hedge (706', 806'). Said lateral support (780, 880) is essentially semicircular, having a diameter of about 2 - 5 cm, or about 2,5 - 4 cm, or about 3 cm. Said lateral support is realized in any kind of semi-rigid fabric or leather. The man skilled in the art will make the choice of the

proper material in order to have a lateral support flexible enough to adapt itself to the conformation of the user's thumb and rigid enough to hold up the thumb. Said lateral support, having the described feature, leaves the thumb free to exercise the necessary movement and supports it during the transmission of the thrust force to the pool, thus increasing the force transmitted.

[0038] In an embodiment of the present invention, said tip (51) is removable from said shaft (53).

[0039] The hand strap of the present invention, characterised by comprising a tongue protruding from the third connecting portion at a point which is shifted with respect to the bending line (B), wherein said bending line (B) delimits a dorsal face comprising the dorsal portion (D) and a palmar face comprising the palmar portion (P) on said hand strap, and said point is positioned on said palmar face, allows the greatest collection of the forces transmitted by the user's hand. Moreover, when the hand strap of the present invention comprises the here described lateral support for the thumb, it allows to collect an additional force generated by the user, additional force which is not collected but lost with the constructions of the prior art.

[0040] The shaft of the present invention is made in any material and has any one of the forms suitable and known to the man skilled in the art.

[0041] The kit of the present invention, comprising the here described hand strap and pole, allows a substantial increase of the intensity of the forces transmitted to the tip of said pole by the user's hand, thereby accelerating the boost effectiveness.

[0042] In a preferred embodiment, said pole is a cross country ski pole. In an alternative embodiment, said pole is a Nordic walking pole.

[0043] The location of the connection point (X) of the hand strap (3) of the present invention on said longitudinal axis (L) offers the unique opportunity that the boost operated by the user is entirely focused on the longitudinal axis (L) of said pole, thus making said boost entirely available to the tip.

[0044] Poling force effectiveness depends on positioning of the trunk, shoulder, elbow, hand and pole. Axial force is transmitted through each pole and has force components in the vertical and horizontal (propulsive) directions. The here described hand strap and grip and the manner in which they are engaged surprisingly result in a maximisation of the force in the horizontal direction, thus to a maximisation of the propulsive forces generated.

[0045] With reference to ski pole, when using the ski pole constructions of the prior art, the boost occurs in a retracted position, so that, with the same intensity of the boost, the force which is transmitted to the tip is of a lower intensity with respect to the force transmitted when using the kit of the present invention.

[0046] The kit of the present invention, comprising a pole (1) and a hand strap, wherein said pole has a longitudinal axis (L) along which are aligned the shaft (53),

the grip (2) and the tip (51), wherein the above defined connection point (X) of said hand strap is located on said grip on said longitudinal axis (L) on the tread of a step forming the upper portion of said grip, allows to obtain the maximisation of the effectiveness of the forces transmitted by the user during the boost, by directing them entirely on the tip of the ski pole and avoiding their dispersion in different direction.

Claims

1. A kit comprising a pole (1) and a hand strap (3, 203, 303), said pole (1) comprising a grip (2), a shaft (53) and a tip (51), wherein said pole has a longitudinal axis (L), said shaft, grip and tip being aligned along the same longitudinal axis (L), said hand strap (3, 203, 303) comprising a dorsal portion (D) and a palmar portion (P), said dorsal portion (D) and palmar portion (P) being kept together by at least a first (12, 212), a second (13, 213) and a third (14, 214, 314) connecting portion, said hand strap comprising a tongue (9, 209, 309) to fasten said hand strap to said grip (2) via coupling means (7, 207, 307), said tongue (9, 209, 309) protruding from said hand strap from said third connecting portion (14, 214, 314), the point from which protrudes said tongue from said third connecting portion defining a connection point (X) **characterised by** the fact that said connection point (X), when said hand strap (3) is connected, via coupling means (7), to the grip (2) is located on said longitudinal axis (L).
2. A hand strap (3, 203, 303) for sport poles comprising a dorsal portion (D) and a palmar portion (P), said dorsal portion (D) and palmar portion (P) being kept together by at least a first (12, 212), a second (13, 213) and a third (14, 214, 314) connecting portion, said hand strap comprising a tongue (9, 209, 309) to fasten said hand strap to a grip (2) via coupling means (7, 207, 307), said tongue (9, 209, 309) protruding from said hand strap from said third connecting portion (14, 214, 314), the point from which protrudes said tongue from said third connecting portion defining a connection point (X), wherein said connecting portions (12, 13, 14, 212, 213, 214, 314) comprise a bending line (B), delimiting a dorsal face comprising the dorsal portion (D) and a palmar face comprising the palmar portion (P) on said hand strap (3, 203, 303), said tongue (309) protruding from said third connection portion (314) in a manner essentially coplanar to said palmar portion, wherein positioning said palmar portion of said hand strap on a rigid flat surface (S) the lower face of said tongue forms an angle of at least 340° with said rigid flat surface (S), preferably of about 345°, or 350°, or 352°, or 355°, or 357°, or 359°, more preferably of about 360°.

3. A hand strap according to claim 2, wherein said coupling means are permanent connecting elements or snap connecting elements.
4. A hand strap according to claim 2, wherein said snap connecting elements is a clip which is a bar-shaped element having a core (511a) which is an extension of the webbing (511), said core being covered by a cover (507a), preferably a plastic cover, **characterised in that** said cover (507a) is provided on the upper face (507_{up}), on the lower face (507_{low}) and on the terminal side (507_{term}) of said core, said bar-shaped clip having a thickness ranging from 1 to 15 mm, or ranging from 3 to 8 mm, or of about 5 mm and a length ranging from 5 to 40 mm, or from 15 to 30 mm, or of about 20 mm and a width ranging from 5 to 30 mm, or from 8 to 20 mm, or of about 13 mm.
5. A hand strap according to any one of the claims from 2 to 4, wherein said bar-shaped clip comprises an opening (640) running through it in its thickness.
6. A hand strap according to any one of the claims from 2 to 5, wherein said hand strap comprises a lateral support (780, 880) for the thumb protruding from the palmar hedge (706', 806') of the thumb opening (706, 806), adjacent to the third connecting portion (714, 814), wherein said lateral support (780, 880) is essentially semicircular, having a diameter of about 2 - 5 cm, or about 2,5 - 4 cm, or about 3 cm.
7. A method to obtain a hand strap according to any of the claims 2 - 6, comprising:
 - providing a hand strap comprising a dorsal portion (D) and a palmar portion (P), wherein said dorsal portion (D) and palmar portion (P) are kept together by at least a first (12, 212), a second (13, 213) and a third (14, 214) connecting portion, said connecting portions (12, 13, 14, 212, 213, 214) comprising a bending line (B), delimiting a dorsal face comprising said dorsal portion (D) and a palmar face comprising said palmar portion (P), said connecting portions defining at least a palm opening (4, 204), a fingers opening (5, 205) and a thumb opening (6, 206);
 - providing a webbing, which is preferably a nylon or cotton webbing;
 - sewn said webbing on said third connecting portion (314) on both the palmar face comprising the palmar portion (P) and the dorsal face comprising the dorsal portion (D), wherein a bending line on said webbing delimiting a palmar length and a dorsal length of said webbing is formed, wherein shifted from said bending line, on the palmar length of said webbing drawn a tongue (309).
8. A pole (1) for sport comprising a grip (2), a shaft (53) and a tip (51), wherein said pole has a longitudinal axis (L), said shaft, grip and tip being aligned along the same longitudinal axis (L), wherein said grip is substantially a circular cylinder, comprising a base portion (21) and an upper portion (22) having a top (8), wherein said upper portion forms a step (23) on said grip and the inflection point (24) of said step (23) is on said longitudinal axis (L).
9. A pole according to claim 8, wherein said grip is provided with a cavity (10, 410) with at least an opening towards the outside, at the inflection point (24) of said grip and which protrudes inside said grip.
10. A pole according to claim 9, wherein said cavity (10) has two opening towards the outside: opening (A), at the inflection point (424) and opening (B) towards the top (408) of said upper portion (422).
11. A kit according to claim 1, wherein said pole is according to any one of the claims from 8 to 10 and said hand strap is according to any one of the claims from 2 to 6.
12. A kit according to claims 1 or 11, wherein said tip (51) is removable from said shaft (53).
13. Use of a kit according to claims 1, 11 or 12 for cross country sky.
14. Use of a kit according to claims 1, 11 or 12 for Nordic walking.

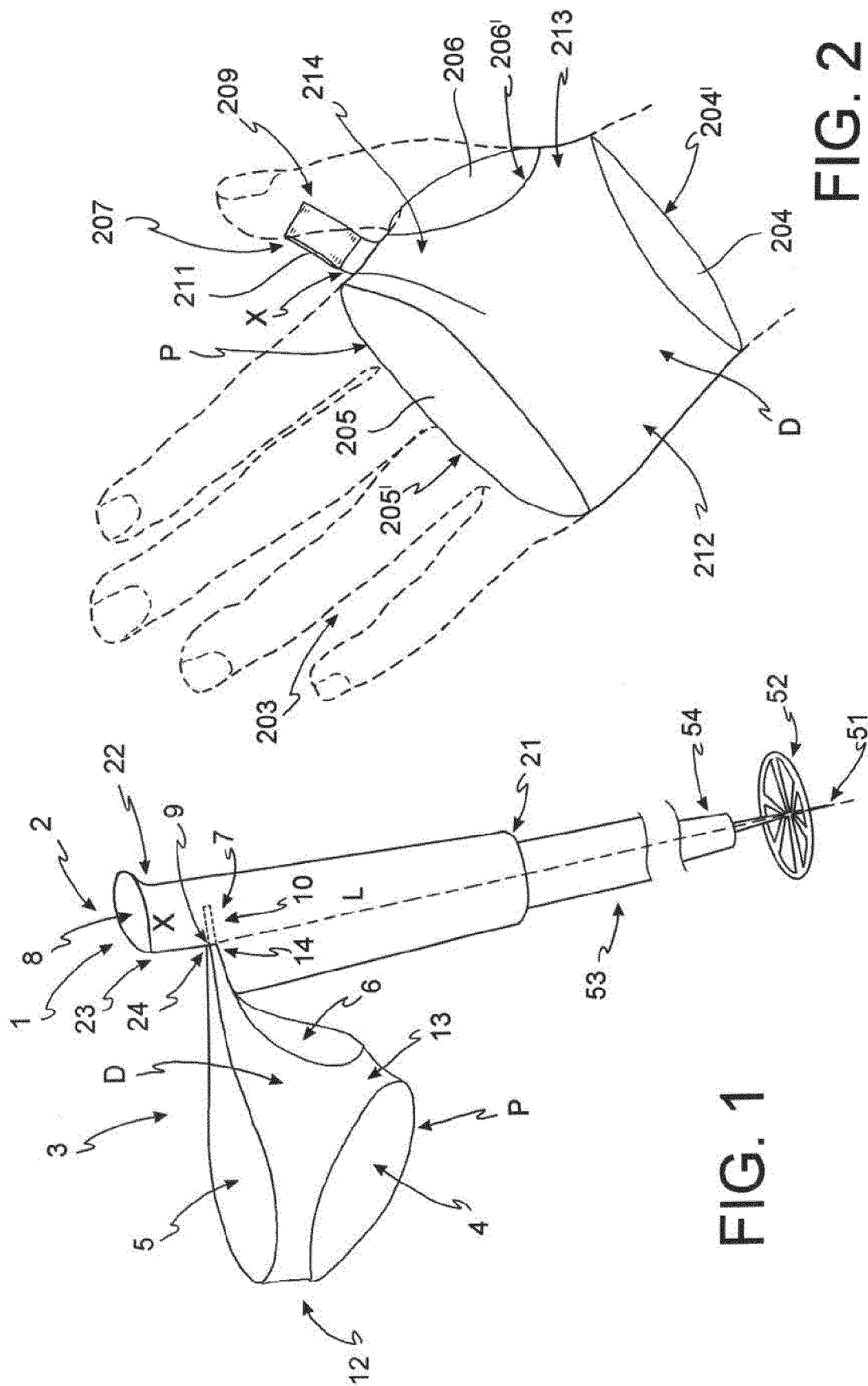


FIG. 1

FIG. 2

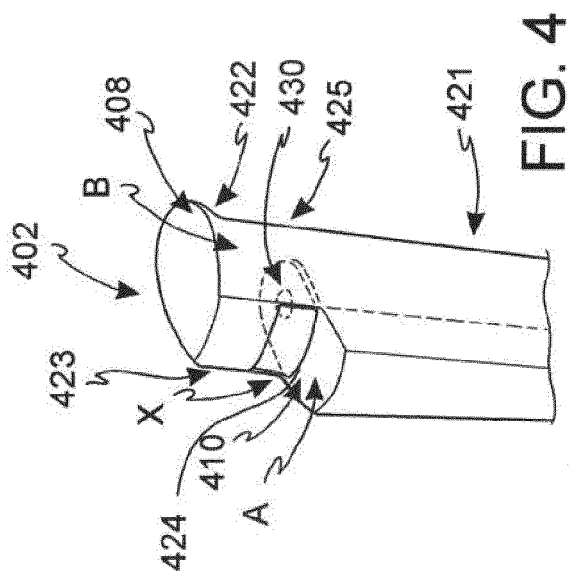


FIG. 4

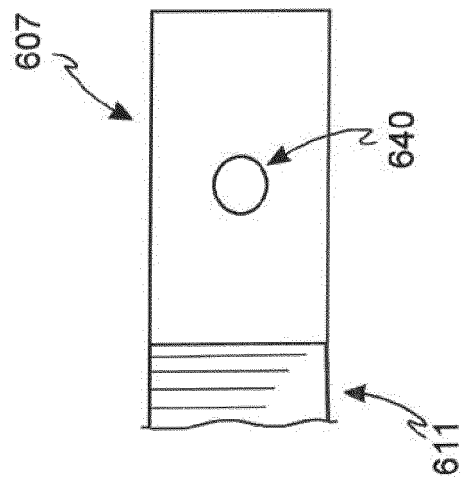


FIG. 6

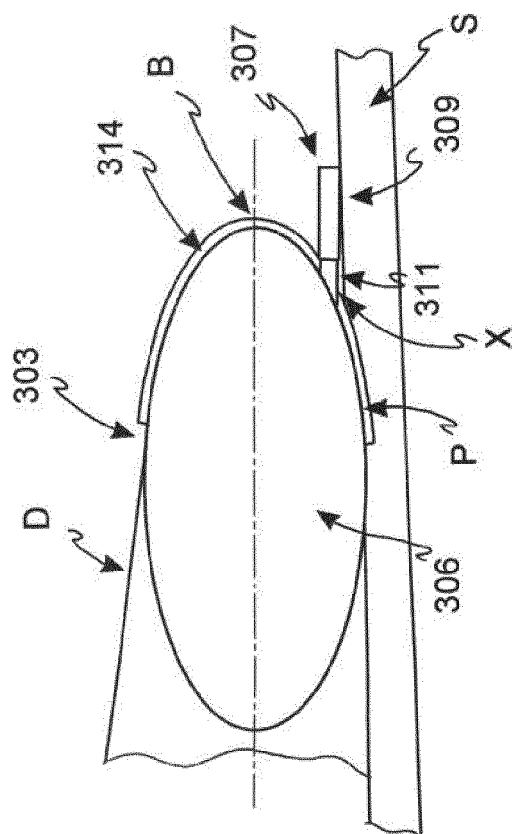


FIG. 3

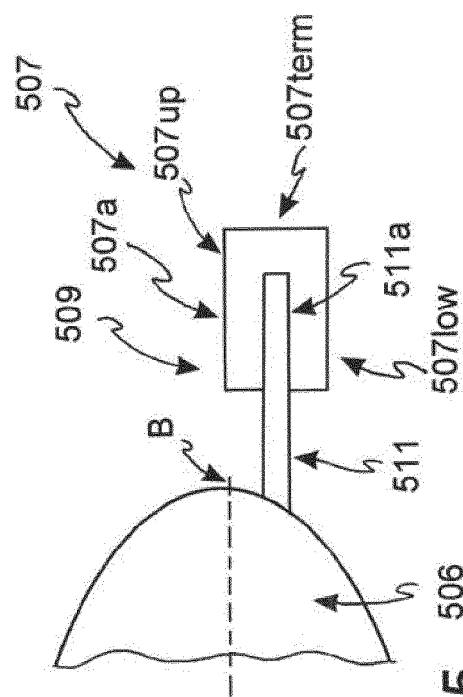


FIG. 5

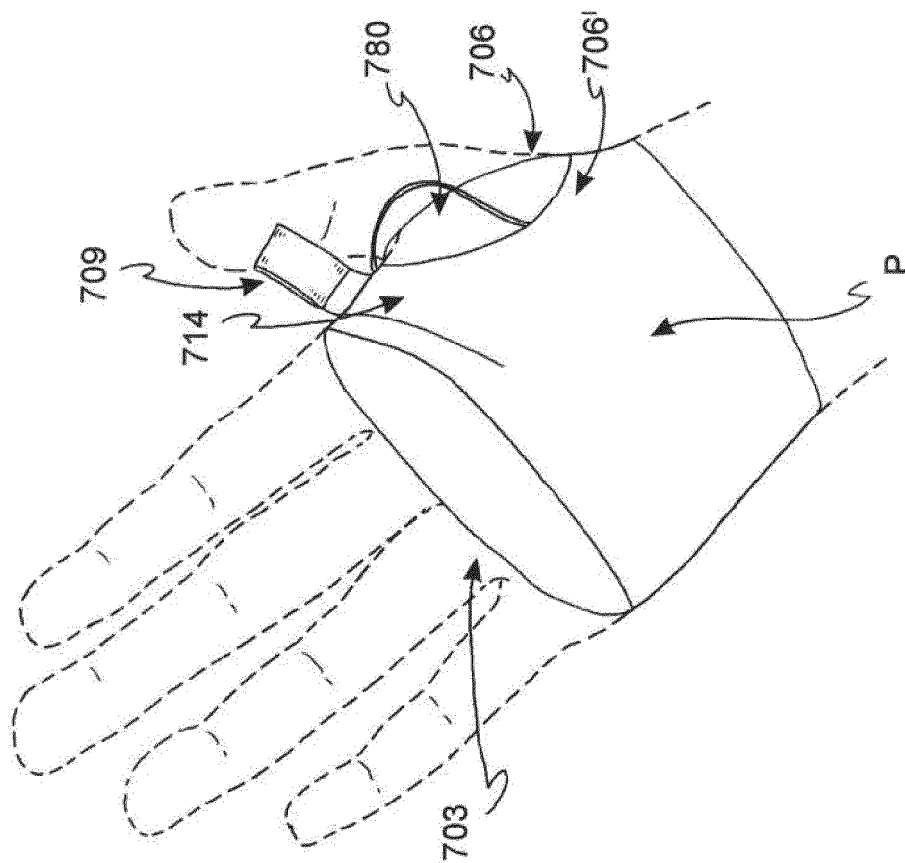


FIG. 7

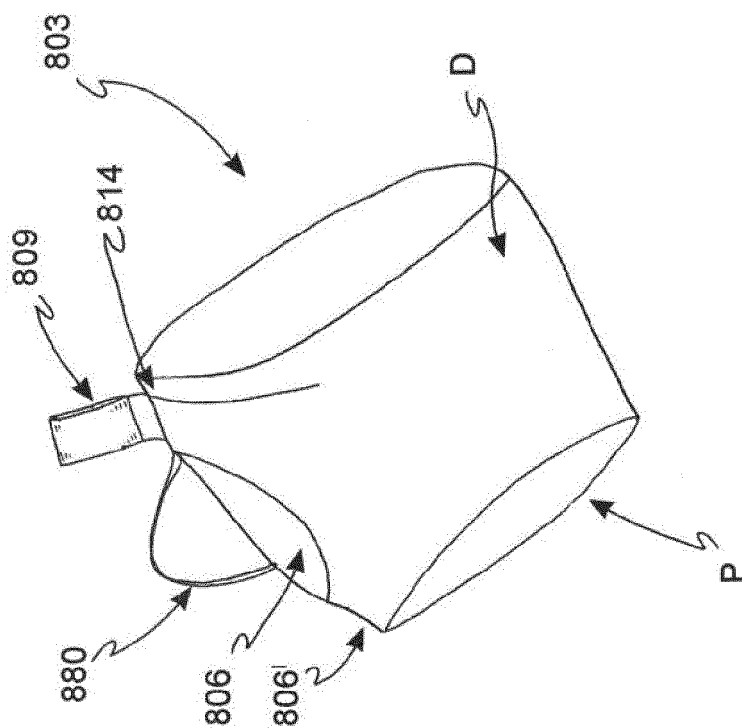


FIG. 8



EUROPEAN SEARCH REPORT

 Application Number
 EP 13 18 0110

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	DD 298 597 A5 (GAMET SARL [FR]) 5 March 1992 (1992-03-05) * the whole document *	1,11-14	INV. A63C11/22
X	EP 2 305 357 A1 (SALOMON SAS [FR]) 6 April 2011 (2011-04-06) * the whole document *	1-5, 11-14	
X	FR 2 970 625 A1 (SALOMON SAS [FR]) 27 July 2012 (2012-07-27) * the whole document *	1-3,5	
X	DE 202 03 086 U1 (BRUECKL FRANZ [DE]) 6 June 2002 (2002-06-06) * the whole document *	1-5,7, 11-14	
X	EP 0 357 517 A1 (SALOMON SA [FR]) 7 March 1990 (1990-03-07) * the whole document *	1-7, 11-14	
			TECHNICAL FIELDS SEARCHED (IPC)
			A63C
The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
Munich		12 February 2014	Haller, E
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

EPO FORM 1503 03.82 (P04C01)



Application Number

EP 13 18 0110

CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing claims for which payment was due.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☒ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

1-7, 11-14

☐ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

☐ The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).



**LACK OF UNITY OF INVENTION
SHEET B**

Application Number
EP 13 18 0110

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1, 11-14

Kit comprising a hand strap and a pole

2. claims: 2-7

Hand strap and method to obtain the hand strap

3. claims: 8-10

Pole

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 13 18 0110

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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12-02-2014

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

REFERENCES CITED IN THE DESCRIPTION

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