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## (54) CHANGEABLE BASKET FOR A POLE

(57)The invention relates generally to a basket of a pole used for skiing, walking, or running, for example. Poles are used for various sports, like skiing, walking, and running with small variations in the pole. Usually, a basket and a tip of the pole vary depending on the meant use. Problem of changeable baskets are the fixing of the basket to a shaft of the pole. A changeable basket (100) for a pole according to the present invention comprises a ring (102) arrangeable around a shaft (104) of the pole, a basket part (106) connectible to the ring (102), an upper closing ring (108) for fixing the ring (102) and the basket part (106) together, wherein the ring (102) comprises a number of pins (116) and the shaft (104) comprises complementary openings (112), wherein the pins (116) are arranged to be against the shaft (104) and to fit into the openings in the shaft (104) for fixing the ring (102) onto the shaft (104).

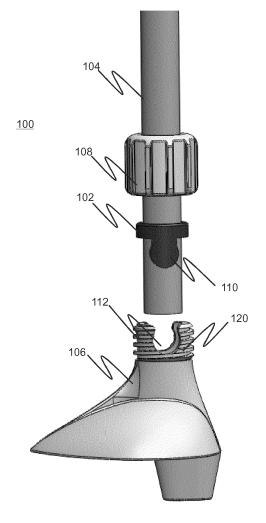


FIG. 1

# Technical field

**[0001]** Generally, the invention relates to a pole and more specifically to a basket of a pole used for skiing, walking, or running, for example.

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#### **Background technology**

**[0002]** Poles are used for various sports, like skiing, walking, and running with small variations in the pole. In addition to various sports, some skiers, especially active skiers, want to use a suitable basket for different snow conditions. Due to this, users may have several sets of poles for different purposes. Naturally, it is expensive to purchase many sets of poles, and it requires space to store them.

**[0003]** Usually, a basket and a tip of the pole vary depending on the meant use. Prior art knows some solutions, which provide a changeable basket. Problem of these solutions is that the basket is difficult to fix to a shaft firmly. Impacts and torsions caused by usage may break the basket's fixing in the shaft, or the fixing loosens up over time.

#### Summary of the invention

**[0004]** It is an object of the present invention to implement such a solution, that previously mentioned drawbacks of the prior art could be diminished. In particular, the invention is implied to solve how to change a basket in a fast and easy way, and fix it into a shaft firmly.

**[0005]** The objective of the invention is met by the features disclosed in the independent patent claims.

**[0006]** A changeable basket according to the present invention is characterized by the features of claim 1.

**[0007]** According to an embodiment of the invention, a changeable basket for a pole comprises a ring arrangeable around a shaft of the pole, a basket part connectible to the ring, an upper closing ring for fixing the ring and the basket part together, wherein the ring comprises a number of pins and the shaft comprises complementary openings, wherein the pins are arranged to be against the shaft and to fit into the openings in the shaft for fixing the ring onto the shaft.

**[0008]** One or more pins in the ring with the corresponding openings in the shaft can enable the ring to be fixed around to the shaft firmly, even in situation, where a twist or torsion is directed to the basket part.

**[0009]** In an embodiment, the ring is made of elastic material, and in another embodiment, ring comprises a cutting for helping to set said ring around to the shaft. These embodiments may enable to manufacture a ring that sits very firmly on the shaft, which, however, may be easy to set in its place onto the shaft.

**[0010]** In another embodiment, the ring comprises a number of flaps and the basket comprises corresponding

openings. By means of these flaps and openings the ring the basket may be connected together in a way that may be able to endure the torsion directed to the basket part, when in use.

**[0011]** In an embodiment, the pins are arranged under said flaps. The embodiment in question may improve the firm fixing of the ring around the shaft by fixing especially the flap part onto the shaft. This embodiment may also help the basket part to stay in its place in a situation when torsion is directed to the basket part. It may be possible to make a bigger pin bigger in size, which may improve the fixing of the basket.

**[0012]** In one embodiment, the ring and the basket part are separate parts, which may enable to manufacture them from different material, for example. This embodiment may help the user to set the basket onto its place by enabling first to set the ring firmly on the shaft, and after this to connect the basket part to the ring. This embodiment may also enable changing of the basket, but still keep the ring in its place. Vice versa, if the ring needs to changed, the basket may still be good for use.

**[0013]** Yet, in one embodiment, the upper closing ring and said basket part comprise interconnectable threads for fixing parts together. This embodiment may enable easy, but firm fixing of the ring and the basket together and onto the shaft. It may also enable easy opening and changing of the basket and/or the ring.

**[0014]** Some preferable embodiments of the invention are described in the dependent claims.

**[0015]** Significant advantages can be achieved with the present invention when compared to the prior art solution. The changeable basket according to the present invention may be easy to manufacture and use. Parts of the changeable basket may be manufactured from material that suits the best for the part in question.

**[0016]** The invention may enable using different kinds of baskets with one shaft, which may decrease the number of poles a user may need for different purposes and help changing the equipment, when changing sport or for different circumstances.

**[0017]** The changeable basket of the present invention may provide easy and fast changing of a basket, but still enabling firm fixing of the basket onto the shaft.

**[0018]** In the present document, the term "ski pole" has been used widely for referring ski poles made for skiing, walking and/or running, for example.

**[0019]** The expression "a number of" refers herein to any positive integer starting from one (1), e.g. to one, two, or three.

**[0020]** The terms "a" and "an", as used herein, are defined as one or more than one.

#### Short description of the drawings

[0021] Next, the invention is described in more detail with reference to the appended drawings, in which

Fig. 1 depicts a side view of an embodiment of the

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invention,

Fig. 2 depicts a perspective view of the ring according to an embodiment of the invention,

Fig. 3 depicts a side view of the ring set around a shaft according to an embodiment of the invention.

#### Detailed description of the embodiments

**[0022]** Fig. 1 is a side view of an embodiment of the invention. A changeable basket 100 for a pole comprises a ring 102, which can be arranged around a shaft 104 of the pole, a basket part 106 connectible to the ring 102, an upper closing ring 108 for fixing the ring 102 and the basket part 106 together. In the figure, the ring 102 is set to its place onto the shaft 104, but the basket part 106 and the upper closing ring 108 are shown detached, but near to their place in the shaft.

**[0023]** In the embodiment shown in Fig 1, the ring 102 and the basket part 106 are separate parts. In another embodiment, they can be connected together by some means, form example with a string. However, in that embodiment, the connection of the ring and the basket part is made in a way that it does not hinder placing the ring onto its place in the shaft.

[0024] In the embodiment shown in Fig 1, the ring 102 comprises a number of flaps 110 and the basket part comprises openings 112 complementary to the flaps 110. The number of the flaps in the ring may vary, but preferably the ring has two flaps arranged in the opposite side of the ring. The size and the shape of the flap 112 may vary, but preferably it has a bit rounded shape, which enables the connection of the flap with the opening. The size of the flap is selected so that it protrudes long enough to the basket part, for example about 2-5 cm.

**[0025]** The opening 112 formed into the basket part has an essentially complementary shape to the flap 110. Naturally, the number of the openings in the basket part corresponds the number of the flaps.

[0026] In the embodiment shown in Fig 1, the upper closing ring 108 and the basket part 106 comprise interconnectable threads 114 for fixing the upper closing ring 108 and the basket part 106 together. In other embodiments, the upper closing ring 108 and the basket part 106 comprise some other means to connect the parts together, such as locking means, which can be set over the ring and the basket part. The upper closing part 108 is preferably formed in a way that it extends over the ring and/or flaps of the ring covering it totally.

[0027] The basket part 106 comprises a hollow upper section essentially complementary to the lower end of the shaft 104. The depth of the upper section can vary depending on the embodiment, but preferably it is at least as deep as the threads at the outside of the upper section.

[0028] Fig. 2 is a perspective view of the ring according to an embodiment of the invention, and Fig. 3 is a side view of the ring set around a shaft according to an em-

bodiment of the invention. In the embodiment shown in Figs. 2 and, the ring 102 is a separate from the basket part. As described above, in an embodiment, the ring 102 comprises a number of flaps 110.

[0029] The ring 102 also comprises a number of pins 116, which are arranged to be against the shaft 104 and to fit into corresponding openings in the shaft (not shown) for fixing the ring 102 onto the shaft 104. The ring 102 is attached onto the shaft 104 by means of these pins 116. In an embodiment, the pins 116 are arranged partly or totally under the flaps 110, which may enable to form bigger pins. Like mentioned above, the shape and size of openings in the shaft 104 correspond the shape and size of the pins 116.

**[0030]** In one embodiment, the ring 102 is made of elastic material. In an embodiment shown in Figs. 2 and 3, the ring 102 comprises a cutting 118 for helping to set the ring 102 around to the shaft 104. Elastic material enables users to open the ring a little from the cutting 118, so that it can be set onto the shaft 104.

[0031] In a preferable embodiment, when connecting a basket 100 to a shaft 104, the upper closing ring 108 is first set onto the shaft 104. After that the ring 102 is set onto the shaft 104 and the pins 116 in the ring 102 are set into the openings in the shaft 104. The cutting 118 of the ring 102 can be used by opening the ring 102 a little bit, when setting it onto its place. Then, the hollow upper section 120 of the basket part 106 is pushed onto the end of the shaft 104. The openings 112 in the basket part 106 are connected to the flaps 110 of the ring 102. Finally, the upper closing ring 108 is connected to the basket part by using the threads.

[0032] The scope of the invention is determined by the attached claims together with the equivalents thereof. The skilled persons will again appreciate the fact that the explicitly disclosed embodiments were constructed for illustrative purposes only, and the scope will cover further embodiments, embodiment combinations and equivalents that better suit each particular use case of the invention.

#### **Claims**

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- 45 **1.** A changeable basket (100) for a pole comprising
  - a ring (102) arrangeable around a shaft (104) of the pole,
  - a basket part (106) connectible to said ring (102),
  - an upper closing ring (108) for fixing said ring (102) and said basket part (106) together, wherein said ring (102) comprises a number of pins (116) and the shaft (104) comprises complementary openings, wherein said pins (116) are arranged to be against the shaft (104) and to fit into said openings in the shaft (104) for fixing said ring (102) onto the shaft (104).

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2. A changeable basket (100) according to Claim 1, wherein said ring (102) comprises a cutting (118) for helping to set said ring (102) around to the shaft (104).

3. A changeable basket (100) according to any of preceding claims, wherein said ring (102) and said basket part (106) are separate parts.

**4.** A changeable basket (100) according to any of preceding claims, wherein said ring (102) is made of elastic material.

**5.** A changeable basket (100) according to any of preceding claims, wherein said ring (102) comprises a number of flaps (110) and said basket part (106) comprises complementary openings (112).

**6.** A changeable basket (100) according to any of preceding claims, wherein said pins (116) are arranged under said flaps (110).

7. A changeable basket (100) according to any of preceding claims, wherein said upper closing ring (108) and said basket part (106) comprise interconnectable threads (114) for fixing said upper closing ring (108) and said basket part (106) together.

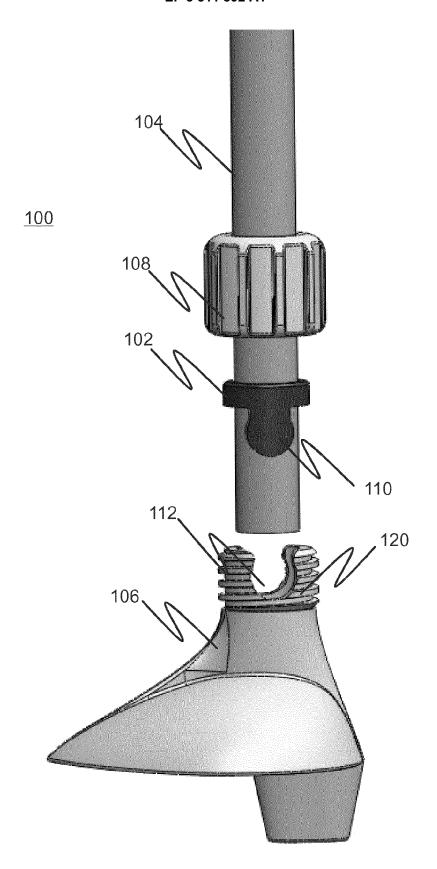


FIG. 1

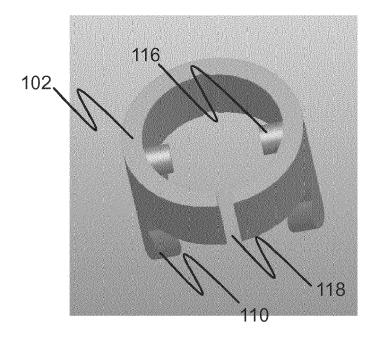


FIG. 2

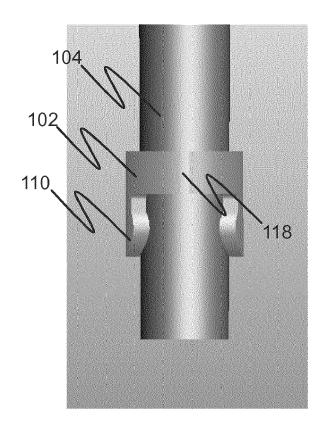


FIG. 3

**DOCUMENTS CONSIDERED TO BE RELEVANT** 

Citation of document with indication, where appropriate,

\* paragraph [0030] - paragraph [0102]; figures 1-7 \*

of relevant passages

EP 2 762 212 A1 (SALOMON SAS [FR]) 6 August 2014 (2014-08-06)



Category

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#### **EUROPEAN SEARCH REPORT**

**Application Number** 

EP 16 19 4962

CLASSIFICATION OF THE APPLICATION (IPC)

INV. A63C11/24

Relevant

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	Place of search			
34C01)	Munich			

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  A: technological background
  O: non-written disclosure
  P: intermediate document

- L: document cited for other reasons
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## ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

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