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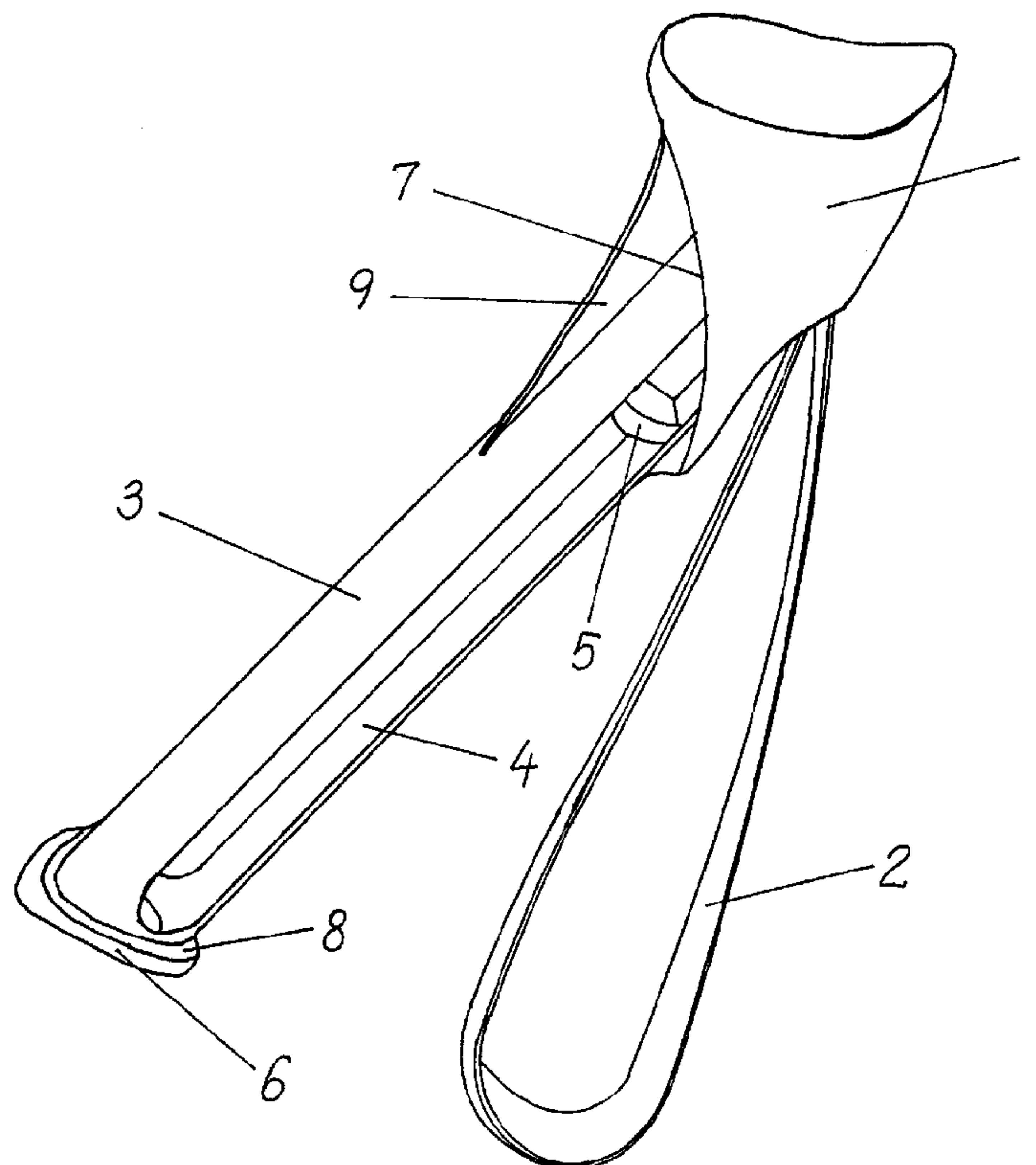
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(54) Titre : DISPOSITIF DE POIGNEE DE BATON DE SKI

(54) Title: SKI POLE HANDLE DEVICE



(57) Abrégé/Abstract:

A ski pole handle device comprising an external liner material fastened to an elongated handle stem which comprises an upper head (1) for attachment of a strap and which is adapted to the internal shape of the liner material. The stem mainly covers only the in the use-position of the pole forward and rearward portion along the gripping area of the handle, whereby the stem along the gripping area of the handle comprises two elongated portions (3, 4) having internal surfaces adapted to the shape of the pole, and whereby two longitudinal openings in the stem are defined between these portions (3, 4).

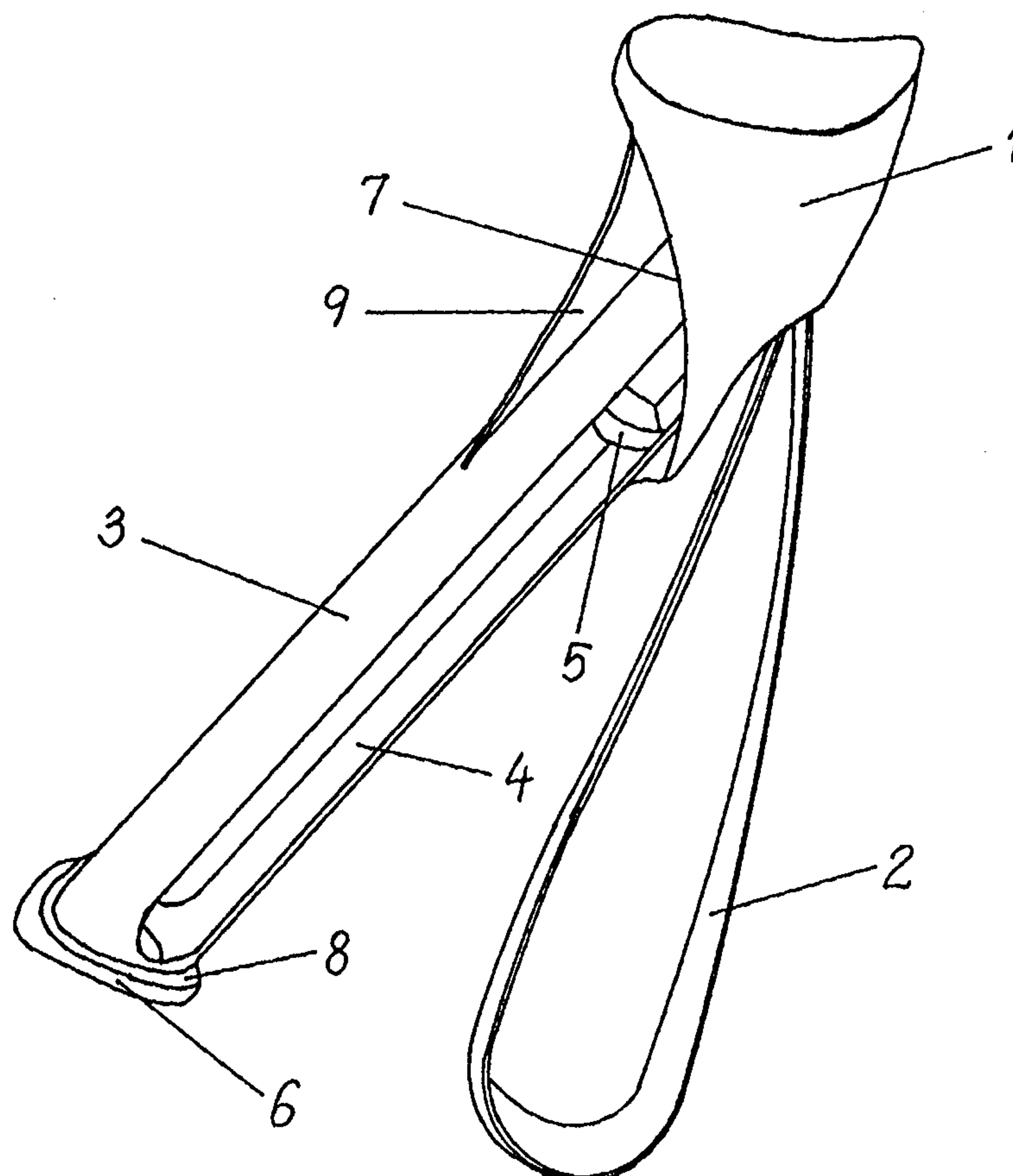
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(21) International Application Number: PCT/NO00/00009 (22) International Filing Date: 12 January 2000 (12.01.00) (30) Priority Data: 19990224 18 January 1999 (18.01.99) NO (71) Applicant (for all designated States except US): SWIX SPORT AS [NO/NO]; Hagevn. 8, N-2600 Lillehammer (NO). (72) Inventor; and (75) Inventor/Applicant (for US only): VOLD, Per, Erik [NO/NO]; Bøhmersgt. 4, N-2615 Lillehammer (NO). (74) Agent: J.K. THORSENS PATENTBUREAU A/S; P.O. Box 9276 Grønland, N-0134 Oslo (NO).		(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i> <i>In English translation (filed in Norwegian).</i>

(54) Title: SKI POLE HANDLE DEVICE**(57) Abstract**

A ski pole handle device comprising an external liner material fastened to an elongated handle stem which comprises an upper head (1) for attachment of a strap and which is adapted to the internal shape of the liner material. The stem mainly covers only the in the use-position of the pole forward and rearward portion along the gripping area of the handle, whereby the stem along the gripping area of the handle comprises two elongated portions (3, 4) having internal surfaces adapted to the shape of the pole, and whereby two longitudinal openings in the stem are defined between these portions (3, 4).



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Ski Pole Handle Device

The present invention relates to a ski pole handle device comprising an external liner material fastened to an elongated handle stem which comprises an upper head for
5 attachment of a strap and which is adapted to the internal shape of the liner material.

Prior art.

Soft liner materials such as cork for use on pole handles are usually shaped for accommodation to the users hand. Hitherto it has been common to form unitary cork
10 handles (in one piece) by cutting and to attach the cork handles directly to the poles themselves, in that the cork handles are formed with a circular cylindrical bore and are glued directly to the upper end of the poles.

As known, cork is a material well suited for ski pole handles, because it is light, feels
15 soft, provides good friction and is heat insulating.

Further, it is known to use a handle top of plastics, which forms attachment for a strap, whereby the handle top is glued to the pole tube and is shaped such that smooth transitions to the cork handle are provided. The manufacture of a pole having such a
20 handle is carried out in that the cork handle initially is threaded down on the pole tube, to a preliminary position lower than that where the cork handle finally is to be situated. Thereupon the handle top is glued to the upper end of the pole tube, with melting adhesive. Epoxy adhesive is applied on the portion of the pole tube and the handle top which will be covered by the cork handle when it is brought into position, and the cork
25 handle is shifted upwardly to its final position and fastened by adhesive. The use of melting adhesive on the pole tube and the handle top is not convenient. By a possible replacement of such a cork handle upon wear or damage the handle must be cut loose, by destruction of it, and the pole must be "cleaned" of cork material before a new handle can be fitted. This is a cumbersome and time consuming process, and the pole may be
30 damaged, in particular when the pole is of another material than metal.

In order to simplify replacement of the cork handle it may be glued externally on a handle stem of plastics, which surrounds or is to surround the upper end of the pole tube and which comprises a handle top for attachment of a strap. Replacement can be
35 performed by replacing both the handle stem and the cork handle.

For cross-country skiers it is of importance that the pole handle has as little width as possible in the gripping area. The smallest achievable width is the diameter of the upper end of the pole tube. It is, however, desirable to have a coating of a soft liner material, such as cork, externally on the handle. The coating must have a certain minimum
5 thickness in order to have some effect or in order not to burst. Another wish is that the handle should have as low weight as possible.

The invention.

With the present invention it is provided a device which is characterized in that the stem
10 mainly covers only the in the use-position of the pole forward and rearward portion along the gripping area of the handle, whereby the stem along the gripping area of the handle comprises two elongated portions having internal surfaces adapted to the shape of the pole, and whereby two longitudinal openings in the stem are defined between these portions.

15

Thus, the stem is shaped so that it can accommodate members of a soft liner material which forms the external surface of the stem in the area below the head of the handle. The stem has openings along each side, whereby the pole tube is exposed in these openings. Thus, the liner material lies directly against the pole tube in these openings,
20 and the width of the handle corresponds to the diameter of the pole tube in addition to twice the thickness of the liner material. Relatively to a more or less sleeve shaped, totally covering stem the weight is reduced.

Besides cork the liner material may also be skin, plastics or rubber.

25

Because the stem will have an non-circular exterior cross sectional shape, the use of a unitary sleeve of cork is not convenient, because no circular bore is to be drilled therein. A bore having a non-circular cross section will have to be machined in a different manner than by drilling. In order to avoid this, two halves of liner material can be used.

30

Cutting of two such halves can be avoided in that, instead of common cork material, members formed by pressing and glueing together of cork granules are used. This may be performed by a process similar to sintering of metal. Such a process makes it simpler to provide cork parts having a desired shape than by cutting of solid cork.

35

Whether common cork material or pressed and glued cork granules are used, cork

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members having a desired shape can be formed, which are attached to the stem. It is convenient to provide two cork members, which are fitted on either side of the stem, and preferably such that the cork members adjoin each other in a dividing plane on the front and rear of the stem. The cork members may be glued to the stem in the portions where
5 they cover it, i.e. to the exterior of the elongated portions of the stem.

Thus, the stem has a front and a rear elongated portion in the gripping area of the handle, and these portions may have an approximately sickle shaped cross section. Between these portions, which form a pair of bars, the stem has a continuous, elongated
10 opening along each side.

Brief explanation of the drawing.

The invention will in the following be explained more detailed, with reference to the accompanying drawing, showing a stem adapted to be fastened to a ski pole and to be
15 fitted with a soft cover in the gripping area.

Description of an embodiment.

The drawing shows in perspective a stem which can be fitted on the upper end of the pole tube of a ski pole, and to which stem can be fastened a soft liner material, which in
20 the following will be referred to as being cork, even if it can be other materials.

At the top the stem has a head 1, to which a strap 2 can be attached. The head 1 may be formed with a not shown, throughgoing opening, through which the strap 2 can be threaded from below so that the ends of the strap protrude upwardly from the head.
25 When the strap has a suitable effective length for the user in question, the strap is locked by a wedge which is inserted in the head 1 from above. For fitting the wedge it is pressed down into the opening. The strap will be extending down from the head 1 from the lower right part thereof, as shown in the drawing. For adjustment of the effective length of the strap the wedge can be pulled up from the opening. The wedge may have
30 spikes or ribs for locking of the strap. It will, however, be appreciated that the stem does not have to comprise a head with means for adjustment of the strap length. The strap may be permanently fastened and have a constant effective length or be adjustable by other means than a locking wedge, for instance a buckle on the strap. Of course, another type of strap than the one shown can be used, for instance a strap with a wide
35 band, which may be divided and is joined by for instance a hook and loop fastener.

The strap and the fitting thereof does not comprise anything substantial of the present invention.

The head 1 is in the lower part delimited by a curved edge 7, against which the cork members are to lie. From the head 1 extend two elongated portions 3 and 4, which in the lower part pass into a somewhat oval end portion 6 delimited upwardly by an edge 8 against which the cork members will be lying. Thus, elongated openings between the portions 3 and 4 are defined. The interior of the portions 3 and 4 and the end portion 6 will after fitting on a pole tube be lying against the exterior of the pole tube. For correct fitting on a pole tube the stem has a transverse wall 5, being in abutment against the top of the pole tube when the stem has been pushed down on it. In order to simplify correct fitting of two not shown cork members on the stem, one elongated portion 3 has an external rib 9 integral with the head 1, and the cork members, having recesses for accommodating the rib, are fitted against a respective side of this rib, whereby the cork members will be lying in mutual abutment outside of the rib 9. The stem is symmetrical about a middle plane through the rib 9, and the cork members are mirror images of each other. The rib 9 will during use of the pole be facing in the direction of movement.

15

Because the elongated portions 3 and 4 delimit openings where the pole tube is exposed, the cork members will be lying directly against the pole tube in these openings. Thus, the elongated portions 3 and 4 form "linings" between the pole tube and the cork members. The elongated portions 3 and 4 may be bar shaped, having an approximately sickle shaped cross section, whereby their longitudinal edges are pointed in order to form a smooth transition between the elongated portions 3 and 4 and the surface of the pole tube which is exposed in the openings therebetween. When the cork members have an approximately constant wall thickness along most of the portions 3 and 4, the gripping portion as a whole will have an oval cross section.

25

It will also be appreciated that the soft liner material does not need to be cork or cork granules, but that another material having similar properties can be used.

THE EMBODIMENTS OF THE INVENTION IN WHICH AN EXCLUSIVE
PROPERTY OR PRIVILEGE IS CLAIMED ARE DEFINED AS FOLLOWS:

1. A handle for a ski pole comprising:

an elongate handle stem configured and dimensioned to be secured axially to a top
5 portion of a ski pole, said handle stem including a head portion configured to
accommodate and secure a strap thereto, and a longitudinal portion extending from below
the head portion axially along a ski pole, said longitudinal portion having opposed,
elongate through slots extending along at least a portion of the length thereof; and

hand gripping material secured to said handle stem at a position beginning below
10 the head portion of the handle stem and substantially extending therefrom along the
length of said longitudinal portion, wherein the hand gripping material engages and
extends through the slots.

2. The handle according to claim 1, wherein the longitudinal portion is divided into
discrete first and second opposed, solid elongated portions delimited by the slots, each
15 portion defining a generally crescent shaped cross-sectional section with a thickness that
decreases from a center portion to opposed end portions thereof.

3. The handle according to claim 1 or 2, wherein the hand gripping material
comprises pressed and bonded cork granules.

4. The handle according to claim 1 or 2, wherein the handle stem includes a rib
20 extending longitudinally from said head portion to said longitudinal portion.

5. The handle according to claim 3, wherein the handle stem includes a rib extending
longitudinally from said head portion to said longitudinal portion.

6. The handle according to claim 1, further comprising a strap secured to the head
portion of the handle stem.

- 25 7. The handle according to claim 1, wherein said handle includes a rearward side
configured to generally face towards a user using a ski pole with the handle attached
thereto and a forward side opposite the rearward side, the slots defined along lateral sides
of the handle stem relative to the forward and rearward sides.

8. A handle for a ski pole comprising:

an elongate handle stem configured and dimensioned to be secured axially to a top portion of a ski pole, said handle stem including a head portion configured to accommodate and secure a strap thereto, and a longitudinal portion extending from below
5 the head portion axially along a ski pole, said longitudinal portion having opposed, elongate through slots extending along at least a portion of the length thereof; and

hand gripping material secured to said handle stem at a position beginning below the head portion of the handle stem and substantially extending therefrom along the length of said longitudinal portion, wherein the hand gripping material engages and
10 extends through the slots and defines an inner periphery of the handle such that said hand gripping material is directly adjacent to a ski pole when the handle is provided thereon.

