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(54) **Mounting system for removably mounting a flexible sheet on a pole**

(57) The present disclosure relates to a connection member (1) for removably mounting a flexible sheet (93) on a pole (92). The connection member (1) comprises a tubular body (2) which can be associated with the flexible sheet (93) and has a tubular cavity (20) that has a passage cross-section and is adapted to receive a length (921, 922) of the pole (92). The connection member (1) has an interference portion (21) which forms a narrowing or an occlusion of said passage cross-section of the tubular cavity (20). The interference portion (21) is intended to go resting on a transverse region (925) of the pole (92). In a mounted condition, the interference portion (21) interferes with the pole (92) to block a relative movement of the connection member (1) with respect to the pole (92) along a first direction and to allow a relative movement along a second direction opposite the first direction. The disclosure refers also to an assembly (10) comprising a flexible sheet (93) and a connection member (1), to a gate (9) for a skiing sport and to a method for making a gate (9) for a skiing sport.

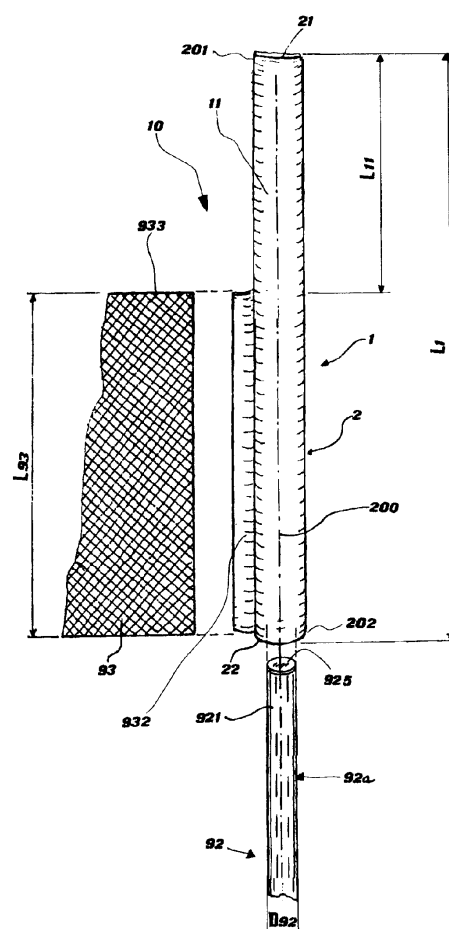


FIG. 7

Description

[0001] The present disclosure generally relates to the field of connections between a flexible element and a pole. In particular, the present disclosure relates to the skiing sport field and to gates for slalom, specifically for giant slalom, Super G or downhill. The use of a plurality of gates, that define a path that should be followed by a skier, is provided in the slalom skiing sport. A slalom gate, in particular a half-gate for giant slalom, is customarily made by a couple of poles that are driven into the snow and are joined together by a flexible sheet that is fastened to the poles.

[0002] The poles are flexible or articulated, so as to elastically bend when a skier goes against them and then to return to the original position.

[0003] The flexible sheet, in addition to the function of signaling the gate, has an advertising purpose as well, thanks to its surface that can be printed with sponsor logos or other advertising messages.

[0004] Therefore, it is important that the flexible sheet stays stretched so that its surface is always clearly visible.

[0005] However it should be considered that, during a slalom race, the skiers often hit against the gate pole that they pass near. The movement of the poles as a result of the hit and their return to the original position give rise to a stress acting on the flexible sheet, increased by the hit pole carrying out a movement that is much larger than the movement of the other pole of the same gate.

[0006] As a consequence, if the opposite edges of the flexible sheet are simply slipped on the respective poles without any additional constraint or fastening, the flexible sheet tends to move, to slide along the poles or to place itself obliquely between the poles instead of horizontally; thus, the flexible sheet is not clearly visible any more.

[0007] In order to prevent this drawback, several modes have been proposed and used to fasten the flexible sheet to the poles in such a way that the flexible sheet stays in place even after the impact of a skier against a gate pole. For example, rubber bands that pull the sheet towards the pole, or connecting clips, or tapes with Velcro, or pockets for insertion of the pole that are made of an elastic fabric and are sewn so tight that the flexible sheet is held steady on the pole, have been used.

[0008] At the same time, however, during a slalom race it may happen that the skier takes the wrong way and "enters" the gate, i.e. he sticks an arm between the two poles or even goes between the two poles instead of going at the side of the gate. In this case, the flexible sheet is likely to get caught in the skier, causing him to fall and to suffer a possible injury.

[0009] In order to prevent this, the ski regulations have provided for the flexible sheet to be detached from the poles when the sheet is subjected to a certain force. In particular, the recent amendments to the regulations of the International Ski Federation have lowered the threshold value of this force, requiring that the sheet should be detached when it is pulled by a force of 6 kg-force.

[0010] The known fastening modes, that are mentioned above, have shown not to be able to effectively ensure both the keeping of the flexible sheet in a stretched condition in the case of an impact without entering, and the detachment of the sheet in the case of entering.

[0011] An additional difficulty is related to the commonly used slalom poles, that are available with a variety of different diameters; thus, it is further required that the fastening system should effectively work, ensuring what mentioned above, even on poles having different diameters.

[0012] Therefore, the present disclosure starts from the technical problem of providing a mode for mounting a flexible sheet on a pole, that allows to overcome the drawbacks mentioned above with reference to the known and / or to achieve further advantages.

[0013] This is achieved by providing a connection member according to independent claim 1. The technical problem is also solved by an assembly according to claim 4, by a gate for a skiing sport according to claim 8 and by a method for making a gate for a skiing sport according to claim 12.

[0014] Specific embodiments of the subject of the present disclosure are defined in the corresponding dependent claims.

[0015] The present disclosure starts also from an observation made by the inventor, i.e. that the flexible sheet tends to move upwards along the inner pole (that is the pole closer to the skier, i.e. the hit pole) and downwards along the outer pole (that is the pole farther from the skier) when a skier hits the gate without entering it.

[0016] The inventor has then observed that a fastening, which prevents the movement of the flexible sheet upwards along the inner pole (i.e., which holds downwards the edge of the sheet) and the movement of the sheet downwards along the outer external (i.e., which supports upwards the edge of the sheet), is required.

[0017] The inventor has further observed that, in order to prevent accidents to the skier when he enters the gate, it is sufficient that the flexible sheet gets detached from only one of the poles; in particular, it is sufficient that the flexible sheet gets detached from the outer pole. None of the systems known so far seems to provide for a detachment of the flexible sheet just from the outside pole.

[0018] The connection member according to the present disclosure is useful for mounting the flexible sheet on the outer pole in such a way that the sheet is prevented from a downward movement along said outer pole (as it is required in case of an impact without entering), but at the same time letting the sheet free to move upwards along the outer pole, i.e. in the direction of slipping off (as it is required in case of entering).

[0019] This is substantially achieved by providing a connection member comprising a tubular body or sheath, which can be fastened or is fastened to the outer side edge of the flexible sheet. The tubular body has a tubular cavity that forms a channel in which a length of the pole

(which, in particular, is the outer pole of the gate) is inserted. The connection member further includes an interference portion that is configured to interfere with the pole: when the connection member is mounted on the pole, such interference allows to block a relative movement of the connection member with respect to the pole along a first direction, and to allow a relative movement of the connection member with respect to the pole along a second direction opposite the first direction.

[0020] In particular, the interference portion forms a narrowing or an occlusion of the passage cross-section of the tubular cavity; such a narrowing or occlusion is intended to go resting on a transverse region of the pole, thus providing both a support for the weight of the connection member and of the flexible sheet, and a counterforce that opposes the force acting on the sheet in case of an impact without entering. For example, such a transverse region can be a top face of the pole, or an enlargement of the cross-section of the pole.

[0021] Therefore, the interference between the connection member and the transverse region of the pole blocks a movement of the connection member and of the outer edge of the flexible sheet towards the bottom of the pole (i.e., towards the ground), as it is required for the outer pole in case of an impact of the skier against the inner pole without entering the gate; at the same time, a slipping off of the tubular body and of the flexible sheet from the outer pole is allowed when the skier enters the gate.

[0022] The connection member according to the present disclosure is useful for implementing a system for fastening a flexible sheet on a pole, in particular for a gate for a ski race, the system allowing to keep the flexible sheet in the desired position during the race, thus preventing a displacement of the sheet when the skier hits the door, and at the same time not offering a relevant resistance to the slipping off of the sheet from the pole in case of interference between the skier and the flexible sheet, i.e. in the case of entering.

[0023] The connection member according to the present disclosure is useful for allowing a use with poles of different diameter. For example, the poles available on the market have a diameter between 25.5 and 32 mm. If a tubular cavity with an adequate cross-section is provided, the connection member can be applied to a range of pole diameters. In fact, it is sufficient that a length of the pole is housed in the tubular cavity in such a way that the interference portion of the connection member rests on a region of the pole, for example on its transverse top face.

[0024] Further advantages, characteristic features and the mode of use of the subject of the present disclosure will be made evident in the following detailed description of an embodiment thereof, given by way of example and not for limitative purposes. However, it is evident that each embodiment of the subject of the present disclosure may have one or more of the advantages listed above; in any case, it is not required for each embodiment to

concomitantly have all the listed advantages.

[0025] Reference will be made to the figures of the annexed drawings, wherein:

- 5 - Figure 1 shows a perspective view of a prior-art gate for a skiing sport and of a skier during a slalom race;
- Figure 2 shows a perspective view of a portion of a prior-art gate for a skiing sport;
- 10 - Figure 3 shows an enlarged view of a detail III of Figure 2;
- Figure 4 shows a perspective view of a gate for a skiing sport according to the present disclosure and of a skier during a slalom race;
- 15 - Figure 5 shows a perspective view of a portion of the gate of Figure 4;
- Figure 6 shows an enlarged view, partially in section, of a detail VI of Figure 5;
- Figure 7 shows an exploded perspective view of a mounting system for a flexible sheet in a gate of Figure 4;
- 20 - Figure 8 shows a bottom perspective view of a connection member according to the present disclosure;
- Figure 9 shows a sectional view, according to section line IX-IX, of the connection member of Figure 8;
- 25 - Figure 10 shows a fastening element that can be used for an inner pole of the gate of Figure 4.

[0026] In some skiing sports, in particular slalom, giant slalom, super G or downhill, the use of a plurality of gates that define a path that should be followed by a skier is provided for. Figure 1 shows a prior-art gate 9 for slalom, in particular a half-gate for giant slalom, which is formed by a couple of poles 91, 92 driven into the ground 90 (in particular into the snow) in a spaced-apart relationship, i.e. with a certain distance between them. The poles 91, 92 are joined together by a flexible sheet or cloth 93, fastened to the poles 91, 92 themselves so as to extend between them. The tops 91 a, 92a of the poles 91, 92 protrude for a certain length from the top edge 933 of the flexible sheet 93.

[0027] The flexible sheet 93, which for example is made of synthetic fabric, substantially is a signaling element that, in addition to its function of joining together the poles 91, 92, signals the presence of the gate 9. Furthermore, the surface of the flexible sheet 93, which stays stretched between the poles 91, 92 in normal conditions, is used to show logos, sponsor or other messages, which are printed on the surface itself.

[0028] The sheet 93 subtends an open region 94 between the two poles 91, 92.

[0029] The poles 91, 92 are flexible and / or are connected to the ground 90 by an articulated joint, so as to bend elastically when a skier 99 impacts against them and to return to the upright position after the impact.

[0030] A skier 99, during a slalom skiing race, has to go about the gates 9, following the race path. An inner pole, i.e. the pole 91 that is closer to the path of the skier 99, and an outer pole, i.e. the pole 92 that is farther from

the path of the skier 99, are defined for each gate 9 with respect to the race path. Thus, the flexible sheet 93 has an inner side edge 931 at the side of the inner pole 91 and an outer side edge 932 at the side of the outer pole 92.

[0031] During a race it is frequent that the skier 99 hits, for example with an arm, against the inner pole 91, causing it to bend. In order to prevent this bending from moving the flexible sheet 93 along the poles 91, 92 or even from slipping off the flexible sheet 93 from the pole 91, a proper connection between the poles 91, 92 and the flexible sheet 93 is required, such that this connection prevents the movement of the sheet 93 along the poles 91, 92 in case of impact of the skier 99 against the inner pole 91.

[0032] It may also happen that the skier 99, due to the high speed, makes a wrong movement or loses control and consequently he sticks an arm in the open region 94 between the two poles 91, 92, or even he enters with the whole body into the open region 94 instead of going at a side of the gate 9. In these cases, the skier 99 is likely to get caught in the sheet 93, resulting into a fall and injury of the skier 99.

[0033] For this purpose, in order to mostly limit the injuries to the skier 99 in case he "enters" the gate 9 (that is, the region 94 between the two poles 91, 92), the ski regulations of the FIS (Fédération Internationale de Ski) provide for the sheet 93 to be detached from the poles 91, 92 when the sheet 93 is subjected to a force of 6 kg. In fact, the detachment of the sheet 93 sets the skier 99 free, allowing him to go on without falling.

[0034] An example of a known-art solution to achieve this, is shown in Figure 2 and in the enlarged detail of Figure 3: the flexible sheet 93 is fastened to the inner pole 91 by Velcro strips 935 or clips 936 that are disengaged when the flexible sheet 93 is pulled with a certain force.

[0035] This type of solution, however, does not allow to accurately calibrate the disengaging force for the sheet 93: therefore, it may happen that the sheet 93 is disengaged when it is not required, for example under the action of the wind, or that it is not promptly disengaged when it is required. Moreover, this solution does not allow to have a fastening system that works in the same way on poles of different diameters; therefore, it would be necessary to have more fastening systems, each specific for a particular diameter of the pole.

[0036] Figure 4 and the enlarged details of Figures 5 and 6 show a gate 9 in which the flexible sheet 93 is removably fastened to the outer pole 92 by a connection member according to the present disclosure, which is denoted by the reference number 1.

[0037] In particular, as it will be described in greater detail below, the inventor has noticed that the connection member 1 can be advantageously applied for mounting the flexible sheet 93 on the outer pole 92, while the connection of the flexible sheet 93 to the inner pole 91 may employ a clip or another prior-art fastening.

[0038] The connection member 1 comprises a tubular body 2 that has a tubular cavity 20, which is adapted to

receive a length 921 of the outer pole 92. In practice, the tubular body 2 defines a channel (i.e., the tubular cavity 20) that is adapted to receive a length 921 of the pole 92. In other words, the tubular body 2 has a substantially sleeve-like shape, which forms a sheath adapted to be slipped on the pole 92.

[0039] The tubular cavity 20 has a passage cross-section that is transverse to a longitudinal axis 200 of the tubular cavity 20. For example, the passage cross-section is circular and has a diameter D20 that is slightly greater than the diameter D92 of the pole 92. Just as an indication, the tubular cavity 20 has a diameter D20 of 45 - 50 mm.

[0040] The tubular cavity 20 extends longitudinally between a first end 201 and a second end 202 of the tubular body 2. The second end 202, or bottom end, has an opening 22 to access the tubular cavity 20. In other words, the opening 22 allows the insertion of the pole 92 into the tubular cavity 20 through the opening 22 itself, in such a way that the length 921 of the pole 92 is housed in the tubular cavity 20 along the longitudinal axis 200.

[0041] The first end 201, or top end, has an interference portion 21 that is intended to go resting on a transverse region of the pole 92, i.e. on a surface or face of the pole 92 that is positioned transversely with respect to the longitudinal development of the pole 92 (and thus it is transverse also to the longitudinal axis 200 of the tubular cavity 20). In particular, this transverse region is a transverse top face 925 of the pole 92, i.e. the top end of the pole 92. The interference portion 21 forms a narrowing or an occlusion of the passage cross-section of the tubular cavity 20, so as to interfere with the pole 92 and to block a further advancing of the pole 92 into the tubular cavity 20 itself.

[0042] In the embodiment shown, the interference portion 21 is formed by a closure (for example a seam, properly reinforced) of the first end 201. In this case, a complete occlusion of the passage cross-section of the tubular cavity 20 is made and then the interference portion / closure 21 rests against or abuts on the top end 925 of the pole 92.

[0043] In a variant embodiment, the interference portion 21 can be a narrowing or constriction of the tubular cavity 20 that does not completely occlude the passage cross-section. In this case, the top of the pole 92 can partially protrude from the first end 201, while the interference portion 21 rests on an enlargement of the transverse cross-section of the pole or on a collar or a ring fastened to the pole so as to determine a cross-section enlargement.

[0044] In both the variant embodiments, the connection member 1 has an interference portion 21 that is configured to interfere with the pole 92. When the interference portion 21 is resting or abutting on the pole 92, i.e. in the mounted condition, the interference blocks a relative movement of the connection member 1 with respect to the pole 92 along a first direction, i.e. along a direction corresponding to the insertion of pole 92 into the tubular

cavity 20. At the same time, the resting interference allows a relative movement along a second direction opposite the first direction, i.e. along a direction corresponding to the drawing of the pole 92 out from the tubular cavity 20. Thus, the interference implements a connection with a unidirectional locking between the connection member 1 and the pole 92. Furthermore, this is a removable locking, since the movement along the drawing direction is not prevented.

[0045] In the embodiment shown, the tubular body 2, and then the connection member 1, is made of a flexible material. For example, the tubular body 2 is made of the same material of the sheet 93, of a synthetic fabric or of a plastic foil.

[0046] The connection member 1 can be associated with the flexible sheet 93, in particular to a side edge 932 of the latter, to obtain an assembly 10 comprising the sheet 93 and the connection member 1 that extends along the side edge 932.

[0047] For example, the connection member 1 is fastened by sewing to the side edge 932 of the sheet 93.

[0048] In a variant embodiment, the connection member 1 is made in a single piece with the flexible sheet 93, i.e. there is continuity of material from the flexible sheet 93 to the connection member 1. Said assembly 10 is then obtained from a foil of fabric or other material, which is cut to the size of the sheet 93 increased by the size of the connection member 1. The cut foil is tube-like folded at a side edge 932, thereby defining the tubular body 2 and the tubular cavity 20, and it is fastened (for example, by sewing) to obtain the connection member 1. The top end 201 is closed and / or sewn to make the interference portion 21.

[0049] In any case, an assembly 10 comprising a flexible sheet 93 and a connection member 1 is obtained, wherein the tubular body 2 is positioned along a side edge 932 of the flexible sheet 93. The assembly 10 is intended to be mounted on a pole 92. The connection member 1 is a part of a mounting system for mounting the flexible sheet 93 on the pole 92, in particular for implementing a removable mounting that allows the disconnection of the sheet 93 from the pole 92.

[0050] In the embodiment shown, the connection member 1 extends beyond a top edge 933 of the flexible sheet 93, forming an appendix or extension of the side edge 932 beyond the top edge 933. In other words, the tubular body 2 is positioned along at least a portion of the side edge 932 of the flexible sheet 93 and also protrudes from the top forming a sleeve-shaped appendix 11. The interference portion / closure 21 is at the top 201 of the sleeve-shaped appendix 11.

[0051] In particular, the length L1 of the connection member is greater than the length L93 of the edge 932 of the flexible sheet 93. For example, the sheet has a height L93 (i.e., the length of edge 932) which is of 50 cm, while the sleeve-shaped appendix 11 protrudes from the top edge 933 with a length L11 of about 30 cm. Due to the standard height of the poles of the gates, this caus-

es the bottom edge 934 of the sheet 93 to be at a height of about 1 m above the ground / snow blanket 90.

[0052] When mounting the flexible sheet 93 on the pole 92, the top 925 of the pole 92 is inserted into the tubular cavity 20 of the connection member 1 through the access opening 22. The connection member 1 and the flexible sheet 93 are slid towards the bottom of the pole 92 as far as the interference portion 21 (in particular, the top end 21 of the connection member 1) abuts or rests on a section of the pole 92 (in particular, its top 925). In this condition, a length 921 of the pole 92 is housed in the tubular cavity 20 and the interference between the parts (i.e., between the top closure 21 of the tubular cavity 20 and the top face 925 of the pole 92) blocks a further movement of the connection member 1 towards the bottom of the pole 92. Therefore, the side edge 932 of the flexible sheet 93 is fastened to the pole 92 so that a downward movement of the side edge 932 itself, i.e. a movement towards the bottom of the pole 92, is prevented. At the same time, since the interference between the parts implements a unidirectional constraint, an upward movement of the side edge 932, i.e. a movement towards the top of the pole 92, is allowed.

[0053] In other words, a removable connection between the pole 92 and the flexible sheet 93 has been obtained: the flexible sheet 93 can be removed from the pole 92 by simply pulling the flexible sheet 93 upwards, i.e. towards the top of the pole 92, along a direction opposite to that of insertion.

[0054] A gate 9 for skiing sports (especially for slalom, giant slalom, super G or downhill) according to the present disclosure comprises at least one pole 92, a flexible sheet 93 and a connection member 1 that is associated with an edge 932 of the flexible sheet 93. The tubular body 2 of the connection member 1 is slipped on the pole 92 to a resting position that prevents a downward displacement of the connection member 1 and of the flexible sheet 93.

[0055] In the embodiment shown, the connection member 1 forms a sleeve-shaped appendix 11 that extends beyond a top edge 933 of the flexible sheet 93.

[0056] This is useful to make a gate 9 in which the flexible sheet 93 is at a lower level than the top of the pole 92, i.e. wherein a portion of the pole 92 extends above the top edge 933 of the flexible sheet 93. The sleeve-shaped appendix 11 of the connection member 1 covers the pole length that protrudes from the top edge 933, and rests on the top 925 of the pole.

[0057] In particular, a giant-slalom gate 9 comprises an inner pole 91 and an outer pole 92. The outer side edge 932 of the flexible sheet 93 is mounted on the outer pole 92 by the connection member 1. The inner side edge 931 of the flexible sheet 93 is mounted on the inner pole 91, in such a way that the flexible sheet 93 extends between the inner pole 91 and the outer pole 92.

[0058] For example, the connection between the inner side edge 931 and the inner pole 91 may be a permanent fastening or a prior-art removable fastening; in particular,

it is required that a movement of the inner side edge 931 towards the top 915 of the inner pole 91 is prevented. For example, a removable fastening is implemented by a clip 98 of a known type (shown for example in Figure 10), which is snap fastened on the pole 91 and is released from the pole 91 when the sheet 93 is pulled with a certain force; the fastening on the inner pole 91 can otherwise be made by an elastic band or other known modes.

[0059] The inventor of the present disclosure has observed that, in the prior-art gates, when the skier 99 hits against the inner pole 91 without entering but forcing the inner pole 91 to bend, the flexible sheet 93 (in particular its inner edge 931) tends to move upwards along the inner pole 91, in the direction of drawing, whereas the same flexible sheet 93 (in particular its outer edge 932) tends to move downwards along the outer pole 92, in the direction of the ground 90.

[0060] The inventor has realized that, for a gate 9 according to the present disclosure, the flexible sheet 93 can be fastened to the inner pole 91 by a known system (in particular, by a clip 98) which prevents the upward slipping off, and can be fastened to the outer pole 92 by a connection member 1 that, as discussed above, prevents the downward movement thanks to the resting interference of the interference portion 21 of the connection member 1 on a transverse region of the pole 92. Thanks to this, the flexible sheet 93 stays stretched and extended between the poles 91, 92 also after impacts (without entering) of the skier 99 against the inner pole 91.

[0061] In the case of entering, when the skier 99 sticks an arm or goes through the region 94 between the poles 91, 92, the skier 99 goes against the flexible sheet 93 and, due to the force exerted, the poles 91, 92 are bent forward along the direction of movement of the skier 99. Since the movement of the connection member 1 towards the top of the outer pole 92 is free, the tubular cavity 2 slides along the outer pole 92 and slips off from it. As the surface of the pole 92 is smooth and even, the sliding is without obstacles and without stoppage between the tubular cavity 2 and the pole 92.

[0062] Therefore, the outer side 932 of the flexible sheet 93 is disconnected from the outer pole 92, thereby releasing the skier 99 from the hindrance of the flexible sheet 93. In fact, the detachment of the flexible sheet 93 from only one of the poles 91, 92 is sufficient for setting the skier 99 free; in particular, the present inventor has realized that the detachment of the sheet 93 from the outer pole 92 is sufficient.

[0063] The subject of the present disclosure has been hereto described with reference to embodiments thereof. It is understood that other embodiments might exist, all relating to the same inventive core and falling within the protection scope of the claims hereinafter.

Claims

1. A connection member (1) for removably mounting a

flexible sheet (93) on a pole (92), comprising a tubular body (2) which can be associated with the flexible sheet (93) and has a tubular cavity (20), the tubular cavity (20) having a passage cross-section and being adapted to receive a length (921, 922) of the pole (92), wherein the connection member (1) has an interference portion (21) which forms a narrowing or an occlusion of said passage cross-section of the tubular cavity (20), the interference portion (21) being intended to go resting on a transverse region (925) of the pole (92) and being configured for interfering with the pole (92), in a mounted condition, to block a relative movement of the connection member (1) with respect to the pole (92) along a first direction and to allow a relative movement along a second direction opposite the first direction.

2. The connection member (1) according to claim 1, wherein the tubular body (2) has a first end (201) and a second end (202), which the tubular cavity (20) extends between, the first end (201) having a closure (21) which forms said interference portion and the second end (202) having an opening (22) to access the tubular cavity (20), the pole (92) being insertable into the tubular cavity (20) through said access opening (22) as far as it abuts against said closure (21).

3. The connection member (1) according to claim 1 or 2, wherein the tubular body (2) is made of a flexible material.

4. An assembly (10) comprising a flexible sheet (93) and a connection member (1) according to any one of claims 1 to 3, wherein the connection member (1) is positioned along a side edge (932) of the flexible sheet (93).

5. The assembly (10) according to claim 4, wherein the connection member (1) extends beyond a top edge (933) of the flexible sheet (93), the connection member (1) forming an appendix or extension (11) of said side edge (932) beyond said top edge (933).

6. The assembly (10) according to claim 5, wherein said appendix or extension (11) has a length of about 30 cm.

7. The assembly (10) according to claim 4, 5 or 6, wherein the connection member (1) is made in a single piece with the flexible sheet (93).

8. A gate (9) for a skiing sport, giant slalom skiing, Super G slalom skiing or downhill skiing, comprising a pole (92) driven into a ground (90) and an assembly (10) according to any one of claims 4 to 7, wherein a length (921) of the pole (92) is housed in the tubular cavity (20) and the interference portion (21) rests on

a transverse region (925) of the pole (92), the resting of the interference portion (21) on said transverse region (925) of the pole (92) preventing a sliding of the connection member (1) and of said side edge (932) of the flexible sheet (93) towards the ground (90).

9. The gate (9) according to claim 8, wherein the length of the pole (92) housed in the tubular cavity (20) is a top length (921) of the pole (92) and wherein the interference portion (21) rests on a transverse top face (925) of the pole (92), the connection member (1) extending beyond a top edge (933) of the flexible sheet (93) and forming an appendix or extension (11) of the side edge (932), the appendix or extension (11) extending to the top (925) of the pole (92).
10. The gate (9) according to claim 8 or 9, comprising a first pole (91) and a second pole (92), said first pole (91) and second pole (92) being driven into the ground (90) in a spaced-apart relationship with each other, the flexible sheet (93) extending between the first pole (91) and the second pole (92), wherein the flexible sheet (93) is mounted on the second pole (92) by said connection member (1).
11. The gate (9) according to claim 10, wherein said first pole is an inner pole (91) of the gate (9) and said second pole is an outer pole (92) of the gate (9), said second pole (92) being intended to be at a greater distance than the first pole (91) from a path of a skier (99).
12. A method for making a gate (9) for a skiing sport, giant slalom skiing, Super G slalom skiing or downhill skiing, comprising the steps of:
 - providing a first pole (91) and a second pole (92), driven into a ground (90) in a spaced-apart relationship with each other, the first pole being an inner pole (91) of the gate (9) and the second pole being an outer pole (92) of the gate (9), said second pole (92) being intended to be at a greater distance than the first pole (91) from a path of a skier (99);
 - providing a flexible sheet (93) having a first side edge (931) and a second side edge (932);
 - fastening the second side edge (932) to the outer pole (92), in such a way that a movement of the second side edge (932) towards the ground (90) is prevented and a movement of the second side edge (932) towards the top (925) of the outer pole (92) is allowed;
 - fastening the first side edge (931) to the inner pole (91) in such a way that a movement of the first side edge (931) towards the top (915) of the inner pole (91) is prevented.

13. The method according to claim 12, wherein the second side edge (932) of the flexible sheet (93) is provided with a connection member (1) having a tubular cavity (20), which is adapted to receive a length (921) of the outer pole (92), the tubular cavity (20) having an access opening (22) in a bottom region (202) and a narrowing or occlusion (21) in a top region (201), wherein the step of fastening the second side edge (932) to the outer pole (92) provides for inserting the top (921) of the outer pole (92) into the tubular cavity (20) through the access opening (22), as far as said narrowing or occlusion (21) rests on a transverse region (925) of the outer pole (92), so blocking a movement of the connection member (1) towards the bottom of the outer pole (92).

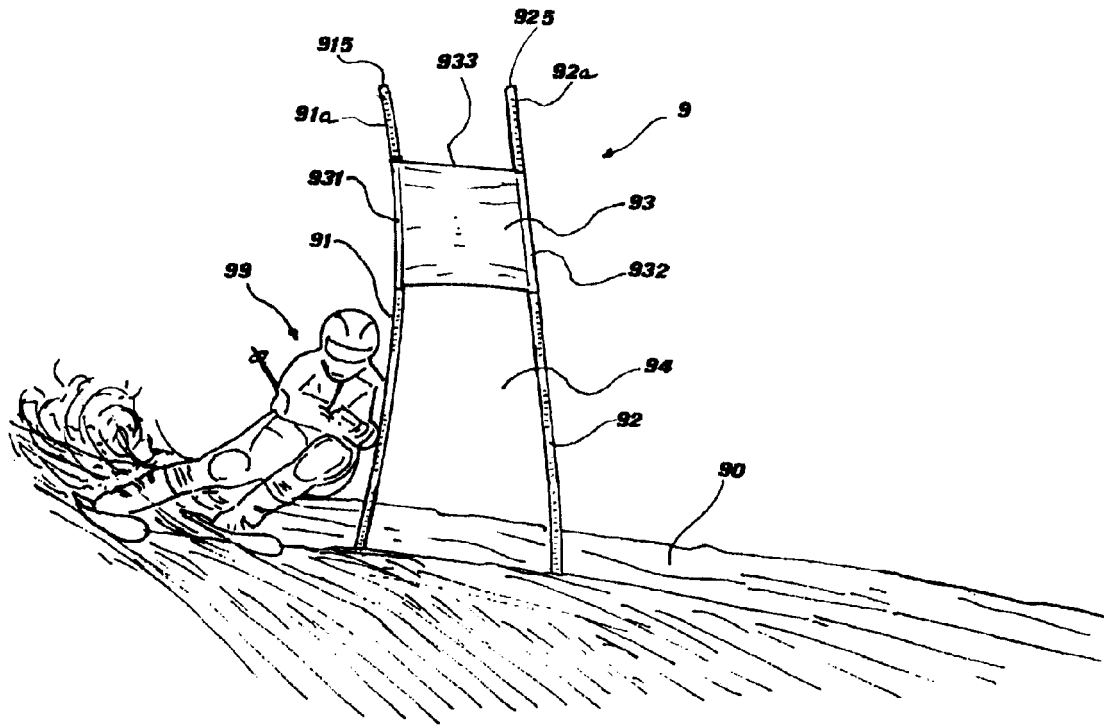


FIG. 1
(prior art)

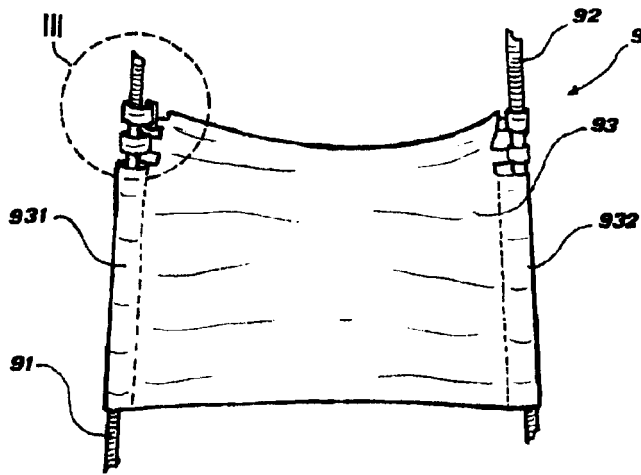


FIG. 2
(prior art)

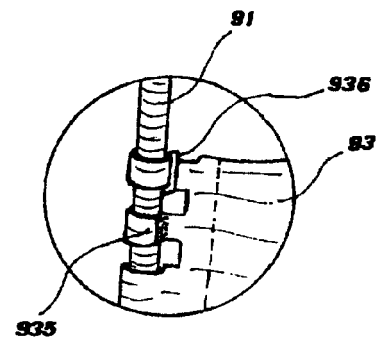


FIG. 3
(prior art)

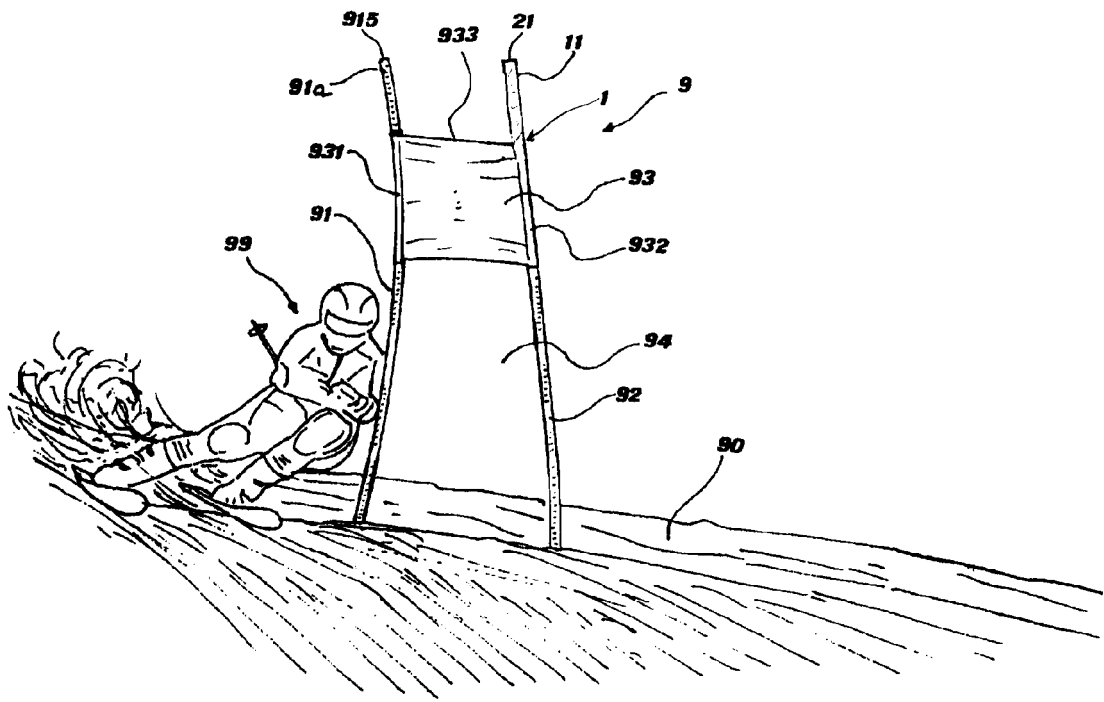


FIG. 4

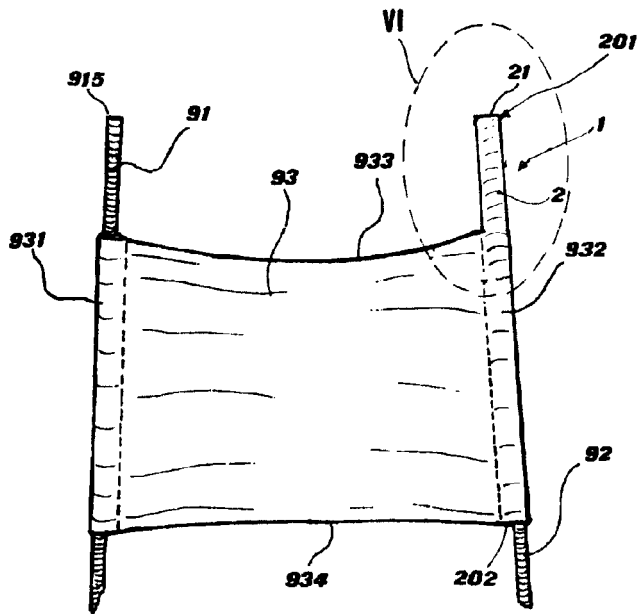


FIG. 5

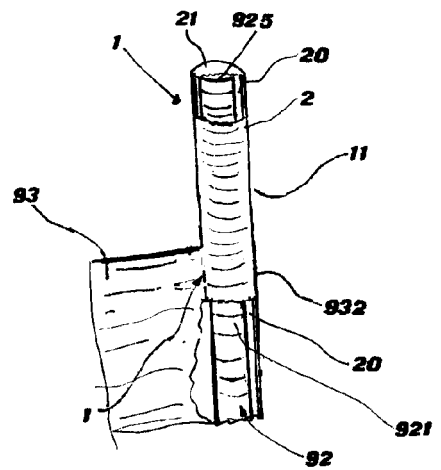


FIG. 6

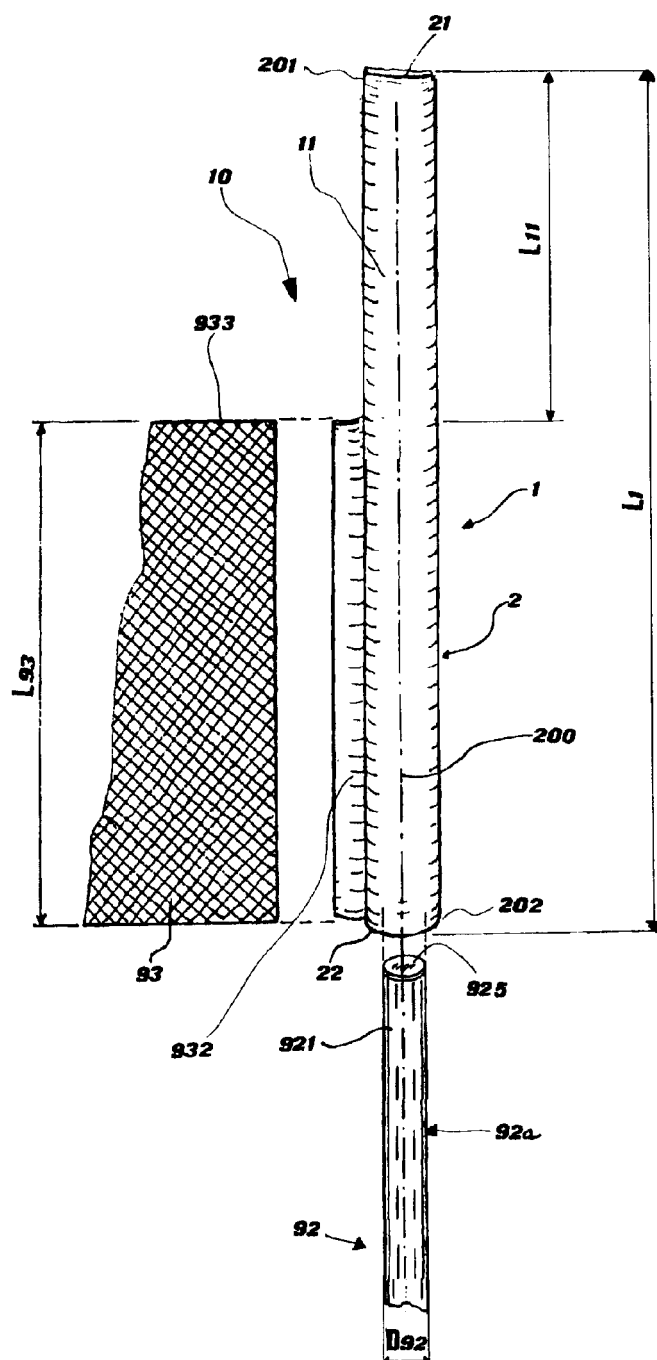


FIG. 7

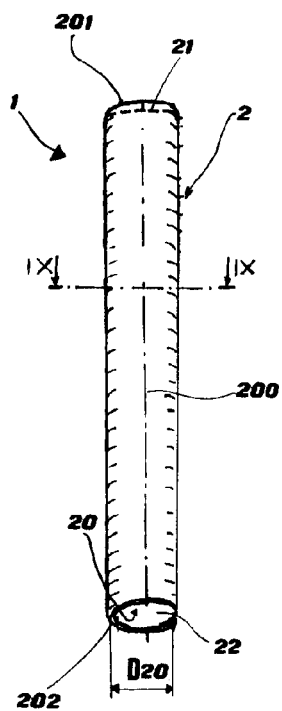


FIG. 8

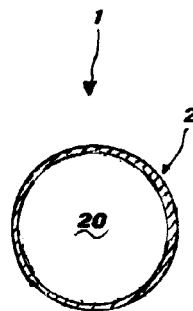


FIG. 9

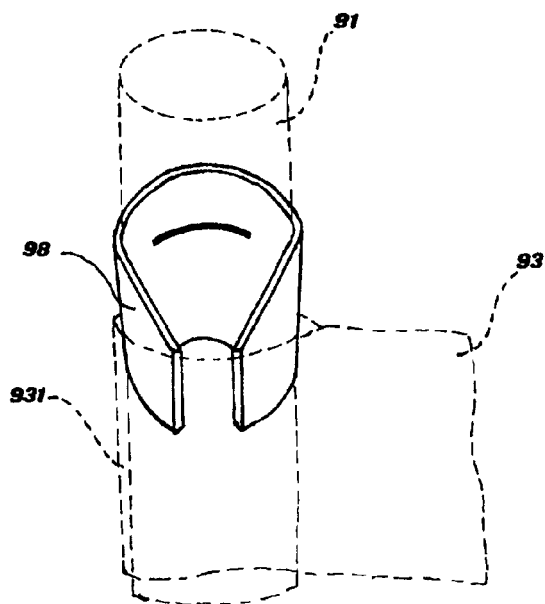


FIG. 10



EUROPEAN SEARCH REPORT

Application Number
EP 13 17 0035

| 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 | US 2006/163552 A1 (JACOBS JOHN F [US]) 27 July 2006 (2006-07-27) * paragraphs [0031] - [0034]; figure * * | 1-13 | INV. A63C19/06 |
| X | EP 0 702 985 A1 (HINTERHOLZER HANS [NO]) 27 March 1996 (1996-03-27) * the whole document * | 1-13 | |
| X | WO 2010/103205 A1 (COSTA ANTOINE [FR]) 16 September 2010 (2010-09-16) * pages 4,5; figure * * | 1-6,8-13 | |
| A | AT 5 066 U2 (HINTERHOLZER HANS [NO]) 25 March 2002 (2002-03-25) * the whole document * | 1 | |
| The present search report has been drawn up for all claims | | | TECHNICAL FIELDS SEARCHED (IPC) |
| | | | A63C |
| Place of search | | Date of completion of the search | Examiner |
| Munich | | 19 September 2013 | Haller, E |
| <p>CATEGORY OF CITED DOCUMENTS</p> <p>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</p> <p>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</p> | | | |

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EPO FORM 1503 03.82 (P04C01)

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

EP 13 17 0035

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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19-09-2013

| Patent document cited in search report | Publication date | Patent family member(s) | Publication date |
|---|---------------------|--|--|
| US 2006163552 A1 | 27-07-2006 | NONE | |
| EP 0702985 A1 | 27-03-1996 | AT 190859 T DE 59508037 D1 EP 0702985 A1 | 15-04-2000 27-04-2000 27-03-1996 |
| WO 2010103205 A1 | 16-09-2010 | FR 2942971 A1 WO 2010103205 A1 | 17-09-2010 16-09-2010 |
| AT 5066 U2 | 25-03-2002 | NONE | |