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(54) **Ski carrier**

(57) A ski carrier (10) for carrying a pair of skis (36) is described. The ski carrier (10) comprises a pair of ski poles (12), each having an elongated shaft (16) and a handle (22) that can be attached in a first and a second orientation relative to the shaft. The first orientation is suitable for skiing. Each ski pole further has a wheel (24)

with an axis of rotation (26) that is transverse to the shaft in the second orientation. The ski carrier further has a lock (46) for releasably locking the handles together so that they can support the pair of skis and functions as a rolling cart.

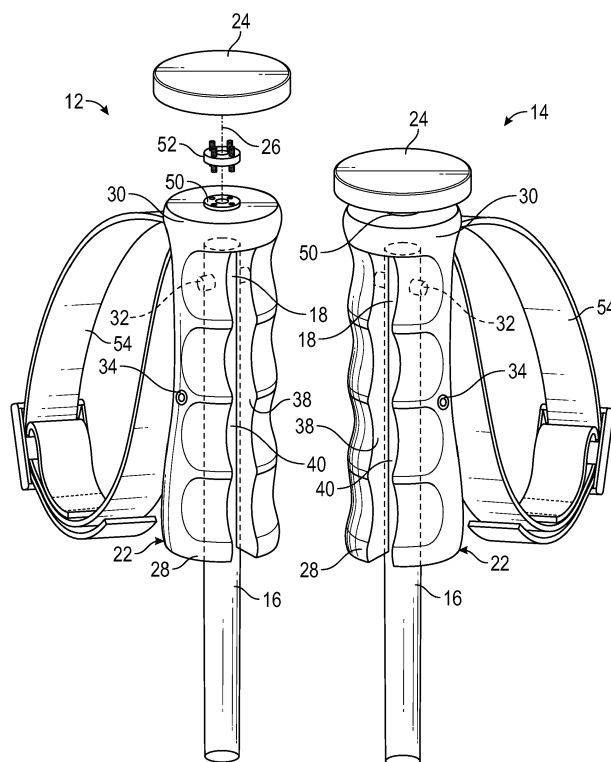


FIG. 2A

Description

TECHNICAL FIELD

[0001] The present invention relates to ski poles for skiing. The present invention further relates to manual systems for carrying skis. In particular, the present invention relates to a ski carrier composed of a pair of ski poles.

BACKGROUND

[0002] A common situation when skiing is that ground has to be passed that is not suitable for gliding on with skis. This particularly the case in recreational downhill or alpine skiing, for example in gondola lifts and across or along roads that are cleared from snow. In these situations, the skis have to be carried to prevent the bottom sides of the skis from being ruined. For some people, a pair of skis is a heavy burden, and there is a need for some kind of aid for carrying a ski or a pair of skis.

[0003] It is an object of the present invention to provide an aid for carrying a ski or a pair of skis. Another object is to make an easy access to such an aid possible. A further object is to minimize the load on a user when carrying such an aid. An additional object is to make the aid easy to use.

GENERAL DESCRIPTION

[0004] One or more of the above objects, and further possible objects that can be construed from the disclosure below, are met by a first aspect of the invention constituted by a ski pole comprising: an elongated shaft having a top end and a bottom end, and a handle for being attached to the shaft at the top end of the shaft in a first orientation relative to the shaft and in a second orientation relative to the shaft, the first orientation being suitable for using the ski pole for skiing. The ski pole further comprises: a wheel rotatably attached to the handle and having an axis of rotation that is transverse to the shaft in the second orientation of the handle.

[0005] Transverse may here to be understood in a more general meaning, i.e. it encompasses both a cross-wise relationship and a perpendicular relationship between axis of rotation and the shaft. Transverse may here be understood to encompass a minimum angle between the axis of rotation and the shaft that is in the closed intervals 60-70°, 70-80°, and/or 80-90°, and/or in the closed intervals 60-90°, 70-90°, and/or 80-90°.

[0006] The above objects and further possible objects are further met by a second aspect of the invention constituted by a ski carrier for carrying a ski or a pair of skis positioned with their respective bottom sides together. The ski carrier comprises: a first ski pole according to the first aspect of the present invention, and a second ski pole according to the first aspect of the present invention. The ski carrier further comprises: a lock for releasably

locking the handle of the first ski pole and the handle of the second ski pole together for positioning and orienting the wheel of the first ski pole and the wheel of the second ski pole for allowing the ski carrier to roll on the ground.

[0007] The lock may further orient the handle of the first ski pole and the handle of the second ski pole for allowing the ski or the pair of skis positioned with their respective bottom sides together to rest on the handle of the first ski pole and/or the handle of the second ski pole.

[0008] The ski carrier according to the second aspect constitutes an aid for carrying a ski or a pair of skis, since it can support the ski or the pair of skis and roll on the ground. Ski poles are commonly used when skiing, which makes the aid easily accessible. The ski carrier comprises a pair of ski poles, and each ski pole therefore contributes to make the ski carrier accessible. Furthermore, if a ski pole is a part of the aid for carrying a ski or pair of skis, it only contributes to an increased load by the components that are not common to a ski pole. The ski pole according to the first aspect differs from a typical ski pole by the wheel attached to the handle. The wheel is limited in weight and the ski pole therefore contributes only to a small increase in the load for the user. Thus, an aid for carrying a ski or a pair of skis is achieved that is easily accessible and minimizes the extra load on a user.

[0009] If the back ends of a pair of skis curves upward, they can be positioned with their respective bottom sides together so that the back ends diverge from one another. If the skis are held together in this position, for example by a strap, the handles of the above aspects may be placed between the back ends of the skis, thus holding them in place. Similarly, if a pair of skis are positioned with their respective bottom sides facing one another and held together, the curving front ends diverge from one another and the handles of the above aspects can be positioned between the tips of the skis for holding them in place.

[0010] Additional or alternative features of the first aspect are described below.

[0011] The handle may be aligned with the shaft in the first orientation and transverse to the shaft in the second orientation. This allows the shafts to be placed alongside and pulled together with the ski or pair of skis when the ski poles form parts of a ski carrier, thus making the ski carrier easier to use.

[0012] The shaft, in the second orientation of the handle relative to the shaft, may protrude from the handle on the half of the handle that the wheel is attached to, and the shaft, in the first orientation of the handle relative to the shaft, may protrude from the handle on the other half of the handle. This has the effect that when using the ski carrier to pull a ski or a pair of skis, the two shafts are positioned far apart, which contributes to an improved stability when pulling the ski carrier, without influencing the performance when using the ski poles for skiing, i.e. when the handles are in their first positions relative to the shafts.

[0013] The handle may have a first end and a second

end, the shaft may protrude from the first end of the handle in the first orientation of the handle relative to the shaft, and the wheel may be attached at the second end. This has the effect that the wheel is located so that it does not hinder the use of the ski pole while skiing, i.e. the ski pole can be used as an ordinary ski pole. The shaft may protrude from a location at the second end of the handle in the second orientation of the handle relative to the shaft. This has the effect that when using the ski carrier to pull a ski or a pair of skis, the two shafts are positioned far apart, thus contributing to an improved stability when pulling the ski carrier.

[0014] The handle may be pivotally attached to shaft for allowing the handle to be pivoted from its first orientation relative to the shaft to its second orientation relative to the shaft. This has the effect of a quick and easy change from the first orientation to the second orientation, which means that the ski carrier is quicker and easier to assemble. The handle may be pivotally attached to shaft by a pivot joint. The pivot joint may be located at the second end of the handle. This allows for a non-rigid attachment of the handle to the shaft in the second orientation relative to the shaft. Thus, when a pair of ski poles are locked to one another to form a ski carrier, the orientation of the shafts can be changed when they are in their respective second orientations, e.g. from a the shafts being parallel to the shafts converging, or even crossing one another. This allows for flexibility in the relative orientation of the shafts and the skis, which can contribute to an easier handling of the ski carrier.

[0015] The ski pole may further comprise a first releasable lock for releasably locking the handle in its first orientation relative to the shaft. The first releasable lock may be a click-fit. The ski pole may further comprise a second releasable lock for releasably locking the handle in its second orientation relative to the shaft. The second releasable lock may be a click-fit. The locks will prevent an unwanted change in orientation, which contributes to improve the security when using the ski poles for skiing or as parts of a ski carrier.

[0016] The handle may have a groove for receiving a top portion of the shaft in the first orientation of the handle relative to the shaft and for releasing the handle from the top portion of the shaft in a pivoting of the handle to the second orientation of the handle relative to the shaft. This has the effect that the shaft is firmly held in place in the first orientation of the handle, which means that the dual function of the ski pole does not reduce its strength or performance when used for skiing. The groove may be adapted to receive the back end of a ski having flat back end or the back ends of a pair of skis having flat back ends and positioned with their respective bottom sides together. This has the effect that the ski or the pair of skis can be firmly supported by the handle or handles, which contributes to an easier use of the ski carrier. The groove may be open ended at the first end of the handle.

[0017] The handle may have a first end and a second end, the shaft may protrude from the first end of the han-

dle in the first orientation of the handle relative to the shaft, and the wheel may be attached at the first end. This has the effect that the wheel is located so that does not hinder the use of the ski pole when used for skiing, i.e. the ski pole can be used as an ordinary ski pole. The shaft may pass through the wheel and/or an axle of the wheel in the first orientation of the handle relative to the shaft. This integrates the wheel with the ski pole so that it is not in the way when skiing.

[0018] The wheel may be releasably attached to the handle for allowing the wheel to be removed from the handle for allowing the handle to be attached at its first end to the shaft. This has the effect that the wheel is not present on the ski pole when it is used for skiing. Instead, the wheel can be carried in a pocket or backpack. Thus, the dual use of the ski pole has little effect on the use or performance of the ski pole when used for skiing.

[0019] The shaft may protrude from a location at the first end of the handle in the second orientation of the handle relative to the shaft. This has the effect that the wheels are positioned far apart when using the ski carrier to pull a ski or a pair of skis, which contributes to an improved stability when pulling the ski carrier, without reducing the performance of the ski poles when skiing.

The handle may be releasably attached to the shaft in the first orientation of the handle relative to the shaft for allowing the handle to be detached and reattached to the shaft in the first orientation, and the handle may be releasably attached to the shaft in the second orientation of the handle relative to the shaft for allowing the handle to be detached and reattached to the shaft in the second orientation. This allows for stable attachments in both orientations of the handle. This is particularly advantageous when the wheel is removably attached to the first end of the handle, since then the wheel may be attached to handle by a hole that also receives the shaft in the first orientation of the shaft.

[0020] The wheel may be releasably attached to the handle for allowing the wheel to be detached from and reattached to the handle. This has the effect that the wheel does not need to be present on the ski pole when it is used for skiing. Instead, the wheel can be carried in a pocket or backpack.

[0021] The ski pole may further comprise: a strap releasably attached to the handle for allowing the strap to be detached from and reattached to the handle. This means that the strap can be removed when the ski pole is used as a part in a ski carrier, which prevents the strap from dragging along the ground, thus making the ski carrier easier and more convenient to use. The strap may be attached to the handle at the second end of the handle. The strap may be adapted for binding together a pair of skis positioned with their respective bottom sides together subsequent to a detachment of the strap from the handle. Carrying a pair of skis with the ski carrier is easier if the skis are held together, in particular if there are no grooves in the handles of the ski poles. The removable strap therefore contributes to making the handling easier

and swifter. A strap is also a common feature of a ski pole, which means that the dual function of the strap does not contribute to an additional load for the user. The strap may further be adapted to for binding the pair of skis together with a pair of ski pole shafts positioned on either side of the pair of skis.

[0022] The ski pole may further comprise: a basket attached to the shaft at the bottom end of the shaft for preventing or reducing a sinking of the shaft into a layer of snow during use of the ski pole, and the basket may comprise a groove for receiving the side of a ski or the sides of a pair of skis positioned with their respective bottom sides together. This means that the ski or the pair of skis can be held in place relative to the shaft, in particular if the shaft is pressed against the ski or the pair of skis, for example by a strap. Thus, an improved handling of a ski carrier involving such a ski pole is achieved. The groove of the basket and the wheel may be located on opposite side of the shaft in the second orientation of the handle relative to the shaft. This further contributes to the stability of a ski carrier involving such ski poles, since it positions the wheels on either sides of the ski or the pair of skis.

[0023] The handle, in the second orientation of the handle relative to the shaft, may be adapted for providing support to a ski or a pair of skis positioned with their respective bottom sides together. The support may be a partial support of the ski or the pair of skis positioned with their respective bottom sides together, which means that there may be other support means on the ski pole that contributes to supporting the ski or the pair of skis, for example a Velcro band locking a ski to a shaft. The ski pole may provide support to a ski or a pair of skis positioned with their respective bottom sides together in an orientation of the ski pole placing the top end of the shaft below the bottom end of the shaft and the ski or the pair of skis aligned with the shaft.

[0024] The handle may comprise a groove for receiving the back end of a ski having a flat back end or the back ends of a pair of skis having flat back ends and positioned with their respective bottom sides together. This has the effect that the ski or the pair of skis can be firmly supported by the handle or handles, which contributes to an easier use of the ski carrier. The groove may be open ended at the first end of the handle and/or at the second end of the handle.

[0025] Below, alternative or additional features of the second aspect are presented.

[0026] The lock may lock the first end of the handle of the first ski pole to the first end of the handle of the second ski pole. The lock may lock the second end of the handle of the first ski pole to the second end of the handle of the second ski pole.

[0027] The lock may be a bayonet mount. The bayonet mount may comprise a male connector located on the handle of the first ski pole, a female connector located on the handle of the second ski pole, and the male connector and the female connector may be configured to

mate and releasably lock the handle of the first ski pole and the handle of the second ski pole together. This has the advantage that the lock is formed of parts on the first and second ski poles, which means that the lock is readily accessible to the user. Furthermore, the bayonet mount allows for a lightweight lock, therefore contributing little to the additional load.

[0028] The lock may further align the axis of rotation of the wheel of the first ski pole with the axis of rotation of the wheel of the second ski pole. This contributes to good handling characteristics when rolling the ski carrier on the ground. Aligning may be understood to encompass a rough aligning and a precise aligning. Aligning between two object or elements may here be understood to encompass an angle between the two object or elements that is less than 15°, 10°, or 5°.

[0029] The handle of the first ski pole, the handle of the second ski pole, and the lock may orient the shaft of the first ski pole and the shaft of the second ski pole to extend in a common direction, provided the handle of the first ski pole is in its second orientation relative to the shaft of the first ski pole and the handle of the second ski pole is in its second orientation relative to the shaft of the second ski pole. This contributes to good handling characteristics when rolling the ski carrier on the ground, making the ski carrier easier to use. The handle of the first ski pole, the handle of the second ski pole, and the lock may orient the shaft of the first ski pole and the shaft of the second ski pole in parallel, provided the handle of the first ski pole is in its second orientation relative to the shaft of the first ski pole and the handle of the second ski pole is in its second orientation relative to the shaft of the second ski pole. This allows for the shafts to be jointly aligned with the ski or the pair of skis, making the ski carrier easier to pull together with the ski or the pair of skis.

[0030] The handle of the first ski pole, the handle of the second ski pole, and the lock may separate the shaft of the first ski pole and the shaft of the second ski pole with a minimum distance that is greater than the maximum width of the ski or the pair of skis, provided the handle of the first ski pole is in its second orientation relative to the shaft of the first ski pole and the handle of the second ski pole is in its second orientation relative to the shaft of the second ski pole. This allows for the ski or the pair of skis to be positioned between the shaft of the first ski pole and the shaft of the second ski pole, making the ski carrier easier to pull together with the ski or the pair of skis.

[0031] The handle of the first ski pole, the handle of the second ski pole, and the lock may orient the shaft of the first ski pole and the shaft of the second ski pole to converge at a common point, provided the handle of the first ski pole is in its second orientation relative to the shaft of the first ski pole and the handle of the second ski pole is in its second orientation relative to the shaft of the second ski pole. Ski poles are typically shorter than skis, which means that the converging shafts allows for the

ski or the pair of skis to rest on the shafts, which contributes to an increased stability in the handling of the ski carrier. The handle of the first ski pole, the handle of the second ski pole, and the lock may orient the shaft of the first ski pole and the shaft of the second ski pole to meet one another, provided the handle of the first ski pole is in its second orientation relative to the shaft of the first ski pole and the handle of the second ski pole is in its second orientation relative to the shaft of the second ski pole. The lock may further orient the shaft of the first ski pole and the shaft of the second ski pole to cross one another. This means that ski or the pair of skis can rest on the shafts, which contributes to an increased stability in the handling of the ski carrier.

[0032] The abovementioned orientations of the shafts provided by the handles and the lock allows for the ski carrier to function as a cart by lifting and pulling the shafts of the ski poles together with the ski or the pair of skis. A strap may be releasably attached to the handle of the first ski pole or the second ski pole and may be adapted, when detached from the handle, for binding together the shaft of the first ski pole, the shaft of the second ski pole, and the ski or the pair of skis positioned with their respective bottom sides. This further contributes to the stability of the ski carrier and improves its function as a cart, since the user does not have to collect the shafts and skis when lifting and pulling them.

[0033] The pair of skis may be positioned beside each other when supported by the handles of the first ski pole and the second ski pole. The handle of the first ski pole may be adapted to support the first ski of a pair of skis, and the handle of the second ski pole may be adapted to support the second ski of the pair of skis.

[0034] Other objects, advantages and features of embodiments of the invention will be explained in the following detailed description in conjunction with the accompanying drawings.

BRIEF DESCRIPTION OF DRAWINGS

[0035]

Figures 1A-B illustrate a pair of ski poles according to a first embodiment of the present invention,

Figure 1C-D illustrate a ski carrier according to the first embodiment,

Figures 2A-B illustrate the handles of the ski poles according to the first embodiment,

Figure 2C illustrate the handles of the ski poles and the lock of the ski carrier according to the first embodiment,

Figures 3A-B illustrate the handles of a pair of ski poles according to a second embodiment of the present invention.

DETAILED DESCRIPTION

[0036] In a first embodiment of the present invention, a ski carrier 10 is assembled from a first ski pole 12 and a second ski pole 14, as is shown in Figure 1C. Each ski pole 12 and 14 has an elongated shaft 16 having a top end 18 and a bottom end 20. A handle 22 is attached to the shaft 16 at the top end 18. The handle 22 can be oriented in a first orientation relative to the shaft 16, as is shown in Figures 1A and 2A, and in a second orientation relative to the shaft 16, as is shown in Figures 1B and 2B. In the first orientation of the handle 22, the ski poles 12 and 14 are suitable for skiing. Each of the ski poles 12 and 14 also has a wheel 24 that is rotatably attached to the handle 22. When the handle 22 is in its second orientation, the wheel 24 has an axis of rotation 26 that is transverse to the shaft 16.

[0037] The handle 22 is aligned with the shaft 16 in the first orientation, as is illustrated in Figures 1A and 2A, and transverse to the shaft 16 in the second orientation, as is illustrated in Figures 1B and 2B. In the second orientation of the handle 22 relative to the shaft 16, the shaft 16 protrudes from the handle 22 on the same half of the handle 22 that the wheel 24 is attached to. In the first orientation of the handle 22 relative to the shaft 16, the shaft 16 protrudes from the handle 22 on the other half of the handle.

[0038] The handle 22 has a first end 28 and a second end 30. The shaft 16 protrudes from the first end 28 of the handle 22 in the first orientation of the handle 22, and the wheel 24 is attached at the second end 30. The wheel 24 is thus located so that it does not hinder the use of the ski poles 12 and 14 when skiing. The shaft 16 protrudes from a location at the second end 30 of the handle 22 in the second orientation of the handle 22 relative to the shaft 16. This means that the wheels 24 are positioned far apart when using the ski carrier 10, as is shown in Figure 1C.

[0039] The handle 22 is pivotally attached to shaft 16 by a pivot joint 32. The pivot joint 32 is located at the second end 30 of the handle 22. Thus, the handle 22 can be pivoted from its first orientation relative to the shaft 16 to its second orientation relative to the shaft 16. This way, a quick and easy change from the first orientation to the second orientation is possible. Each of the ski poles 12 and 14 has a releasable lock 34 in the form of a click-fit that releasably locks the handle 22 in its first orientation relative to the shaft 16. The lock 34 prevents an unwanted change in orientation of the handle 22.

[0040] The handle 22 has a groove 38 that receives a top portion 40 of the shaft 16 in the first orientation of the handle 22 relative to the shaft 16, as is illustrated in Figure 2A. The groove 38 releases the handle 22 from the top portion 40 of the shaft 16 when the handle 22 is pivoted to its second orientation relative to the shaft 16, as is illustrated in Figure 2B. The groove 38 prevents any sideways and backward motions of the shaft 16 relative to the handle 22, thus firmly securing the shaft 16 while

skiing.

[0041] The groove 38 on each handle 22 is open ended at the first end of the handle 22 and the grooves 38 are aligned when the handles 22 are locked together. The grooves 38 is sufficiently wide for receiving the back ends 42 of a pair of skis 36 having flat back ends and positioned with their respective bottom sides 44 together, as is illustrated in Figure 1C. This way, the pair of skis 36 is firmly supported by the handles 22 of the ski poles 12 and 14.

[0042] In addition to the first and second ski poles 12 and 14, the ski carrier 10 has a lock 46 that releasably locks the handles 22 of the ski poles 12 and 14 together, as is illustrated in Figure 1C. This way, when the skis 12 and 14 are positioned as shown, they are supported by the handles 22 and the wheels 24 allows the ski carrier 10 to be rolled on the ground.

[0043] If the back ends of a pair of skis curves upward instead of being flat, they can be positioned with their respective bottom sides together so that the back ends diverge from one another. If the skis are held together in this position, for example by a strap, they can be secured to the ski carrier 10 by wedging the handles 22 between the back ends of the skis. Similarly, if a pair of skis are positioned with their respective bottom sides facing one another and held together, the curving front ends diverge from one another and the handles 22 may be wedged between the front ends of the skis so that they support the skis.

[0044] Each wheel 24 is releasably attached to the handle 22. This way the wheels 24 can be detached from and reattached to the handles 22 and the wheels can be carried in a pocket or backpack while skiing. The releasably attached wheels also allows for the wheels to be replaced when worn out or if different wheels are desired, for example wheels having a greater diameter. Each wheel 24 is attached to respective handle 22 bay way of a plain bearing 50 on the second end 30 of the handle 22 and a connector 52 that attaches the wheel 24 to the plain bearing 50. The hub of the wheel 24 is centered on the plain bearing 50, thus defining the axis of rotation 26 of the wheel 24.

[0045] Each ski pole has a strap 54 that is releasably attached to the handle 22. This way the strap 54 can be detached from and reattached to the handle 22. When detached, the strap 54 will not drag along the ground when the ski poles 12 and 14 form parts of the ski carrier 10, thus preventing unnecessary wear on the straps 54. In the first embodiment, the strap 54 is attached to the handle 22 at the second end of the handle 22. When detached from the handle 22, the straps 54 can be used to binding together the pair of skis 36 with the shafts 16 running alongside the skis 36 by tightening the straps, as is illustrated in Figures 1C-D.

[0046] Each ski pole 12 and 14 has a basket 58 attached to the shaft 16 at the bottom end 20 of the shaft 16, which prevents the shaft 16 from sinking deep into snow. The basket 58 has a groove 60 that can receive the sides 62 of a pair of skis 36, as is illustrated in Figures

1C-D. For each ski pole 12 and 14, the groove 60 of the basket 58 and the wheel 24 are located on opposite side of the shaft 16 in the second orientation of the handle 22. The grooves 60 contribute to holding the skis 36 in place relative to the shafts 16.

[0047] The lock 46 that releasably locks the handles 22 together is a bayonet mount having a male connector 64 located on the handle 22 of the first ski pole 12 and a female connector 66 located on the handle 22 of the second ski pole 14, as shown in Figure 2C. The male connector 64 and the female connector 66 are configured to mate and releasably lock the handles 22 together. The lock 46 aligns the axes 26 of rotation of the wheels 24 with an angle of less than 5° between them.

[0048] The handles 22 and the lock 46 orient the shafts 16 so that they extend in a common direction and converge on a common point located beyond the front ends 48 of the skis 36, as is illustrated in Figure 1C. The handles 22 and the lock further orient the shafts 16 to extend in the general direction of extension of the skis 36. The handles 22 and the lock 46 also separate the shafts 16 with a minimum distance that is greater than the maximum width of the pair of skis 36. This way, the pair of skis 36 can be positioned between the shafts 16, as is illustrated in Figure 1C. In an alternative embodiment, the handles 22 and the lock may orient the shafts 16 to cross one another, for example by resting on a ski binding of one of the skis 36.

[0049] With the handles 22 in the second orientation, the positions of the wheels 24, and the supporting functions of the grooves 60 of the baskets 58, the ski carrier 10 can be readily used as a cart for carrying the skis 36, as is shown in Figure 1C.

[0050] A second embodiment of the invention is partly shown in figures 3A-B. Features of the second embodiment that relate to features of the first embodiment by function have been given the same number indexing, but with a prime.

[0051] In the second embodiment, the handles 22' has first end 28' and a second end 30'. The shaft 16' of each ski pole 12' and 14' protrudes from the first end 28' of the handle in the first orientation of the handle 22' relative to the shaft 16', as is shown in Figure 3A. The wheel 24' is attached at the first end 28'. The shaft 16' passes through a circular aperture 68' of the wheel 24'.

[0052] Each wheel 24' is attached to respective handle 22 bay way of a plain bearing 50' on the first end 28' of the handle 22'. A connector 52' with an aperture 70 for passage of the shaft 16' attaches the wheel 24' to the plain bearing 50'. The hub of the wheel 24' is centered on the plain bearing 50'.

[0053] For each ski pole 12' and 14', the shaft 16' protrude from the first end 28' of the handle 22' in the second orientation of the handle 22' relative to the shaft 16'. This way, the wheels 24' are positioned far apart when using the ski carrier in a configuration similar to the one shown in Figure 1C. Each of the handles 22' has a first bore 72 that receives the top portion 40' of the shaft 16' in the

first orientation of the handle 22', as is illustrated in Figure 3A. The first bore 72 has a female threading 76 at its closed end and the shaft 16' has a male threading 74 at its top end 18' that cooperates with the female threading 76 and releasably locks the handle 22' to the shaft 16'.

[0054] Each of the handles 22' also has a second bore 78 that receives the top end 18' of the shaft 16' in the second orientation of the handle 22', as is illustrated in Figure 3B. The second bore 78 has a female threading 80 that cooperates with the male threading 74 of the shaft 16' and releasably locks the handle 22' to the shaft 16'.

[0055] The ski carrier of the second embodiment has a lock similar to the lock disclosed in relation to Figure 2C, but configured to releasably lock the second ends 30' of the handles 22' together instead of the first ends 28'. Furthermore, the handles 22' of the second embodiment have no grooves for receiving the skis. Instead, the handles 22' are intended to carry a pair of skis positioned with their respective bottom sides facing one another by wedging the handles 22' between the diverging front ends of the skis.

[0056] Additional features that are disclosed in relation to the first embodiment can also be applied to the second embodiment. In alternative embodiments, the pair of skis may be positioned beside each other when supported by the handles of the first ski pole and the second ski pole. The handle of the first ski pole may be adapted to support the first ski of a pair of skis, and the handle of the second ski pole may be adapted to support the second ski of the pair of skis.

ITEM LIST

[0057]

10 ski carrier
12 first ski pole
14 second ski pole
16 shaft
18 top end
20 bottom end
22 handle
24 wheel
26 axis of rotation
28 first end
30 second end
32 pivot joint
34 first releasable lock
36 pair of skis
38 groove
40 top portion
42 back ends
44 bottom sides
46 lock
48 front ends
50 plain bearing
52 connector
54 strap

58 basket
60 groove
62 sides
64 male connector
66 female connector
68 aperture
70 aperture
72 first bore
74 male threading
76 female threading
78 second bore
80 female threading

15 **Claims**

1. A ski pole comprising:

an elongated shaft having a top end and a bottom end,
a handle for being attached to the shaft at the top end of the shaft in a first orientation relative to the shaft and in a second orientation relative to the shaft, the first orientation being suitable for using the ski pole for skiing, and
a wheel rotatably attached to the handle and having an axis of rotation that is transverse to the shaft in the second orientation of the handle.

2. The ski pole according to claim 1, wherein the shaft, in the second orientation of the handle relative to the shaft, protrudes from the handle on the half of the handle that the wheel is attached to, and the shaft, in the first orientation of the handle relative to the shaft, protrudes from the handle on the other half of the handle.

3. The ski pole according to any of the claims 1-2, wherein the handle has a first end and a second end, the shaft protrudes from the first end of the handle in the first orientation of the handle relative to the shaft, and the wheel is attached at the second end.

4. The ski pole according to claim 3, wherein the shaft protrudes from a location at the second end of the handle in the second orientation of the handle relative to the shaft.

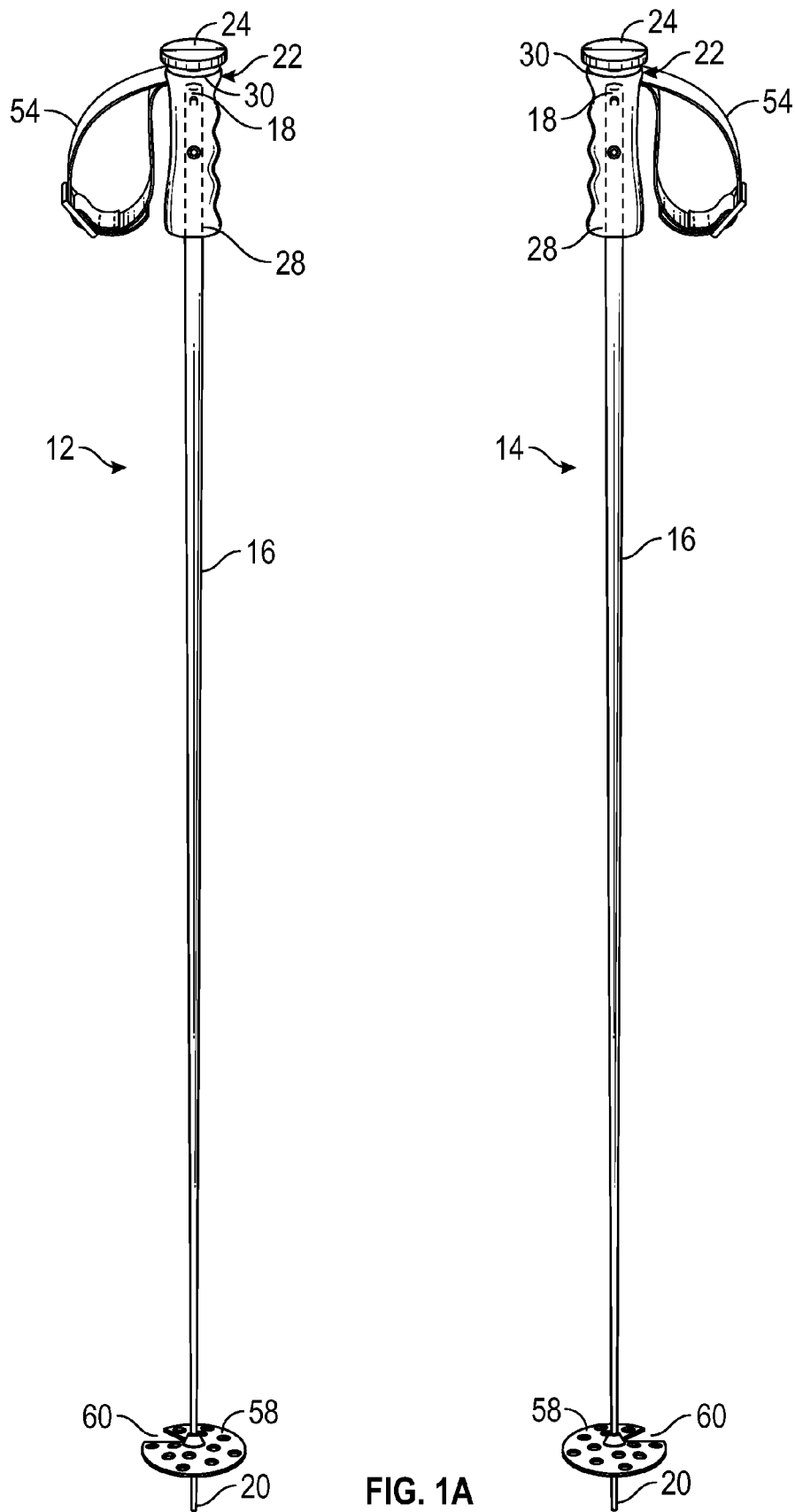
5. The ski pole according to any of the claims 1-4, wherein the handle is pivotally attached to shaft by a pivot joint.

6. The ski pole according to claims 5, wherein the handle has a groove for receiving a top portion of the shaft in the first orientation of the handle relative to the shaft and for releasing the handle from the top portion of the shaft in a pivoting of the handle to the second orientation of the handle relative to the shaft.

7. The ski pole according to any of the claims 1-2, wherein the handle has a first end and a second end, the shaft protrudes from the first end of the handle in the first orientation of the handle relative to the shaft, and the wheel is attached at the first end. 5
8. The ski pole according to claim 7 wherein the shaft protrudes from a location at the first end of the handle in the second orientation of the handle relative to the shaft. 10
9. The ski pole according to any of the claims 1-4 or 7-8, wherein the handle is releasably attached to the shaft in the first orientation of the handle relative to the shaft for allowing the handle to be detached and reattached to the shaft in the first orientation, and the handle is releasably attached to the shaft in the second orientation of the handle relative to the shaft for allowing the handle to be detached and reattached to the shaft in the second orientation. 20
10. The ski pole according to any of the claims 1-9, wherein the ski pole further comprises:
- a strap releasably attached to the handle for allowing the strap to be detached from and reattached to the handle. 25
11. The ski pole according to any of the claims 1-10, wherein the ski pole further comprises: 30
- a basket attached to the shaft at the bottom end of the shaft for preventing or reducing a sinking of the shaft into a layer of snow during use of the ski pole, and the basket comprises a groove for receiving the side of a ski or the sides of a pair of skis positioned with their respective bottom sides together. 35
12. The ski pole according to any of the claims 1-11, wherein the handle, in the second orientation of the handle relative to the shaft, is adapted for providing support to a ski or a pair of skis positioned with their respective bottom sides together. 40
13. A ski carrier for carrying a ski or a pair of skis positioned with their respective bottom sides together, the ski carrier comprises: 45
- a first ski pole according to any of the claims 1-12, 50
- a second ski pole according to any of the claims 1-12,
- a lock for releasably locking the handle of the first ski pole and the handle of the second ski pole together for positioning and orienting the wheel of the first ski pole and the wheel of the second ski pole for allowing the ski carrier to roll 55

on the ground.

14. The ski carrier according to claim 13, wherein the handle of the first ski pole, the handle of the second ski pole, and the lock orients the shaft of the first ski pole and the shaft of the second ski pole in parallel, provided the handle of the first ski pole is in its second orientation relative to the shaft of the first ski pole and the handle of the second ski pole is in its second orientation relative to the shaft of the second ski pole.
15. The ski carrier according to any of the claims 13-14, wherein the handle of the first ski pole, the handle of the second ski pole, and the lock separates the shaft of the first ski pole and the shaft of the second ski pole with a minimum distance that is greater than the maximum width of the ski or the pair of skis, provided the handle of the first ski pole is in its second orientation relative to the shaft of the first ski pole and the handle of the second ski pole is in its second orientation relative to the shaft of the second ski pole.



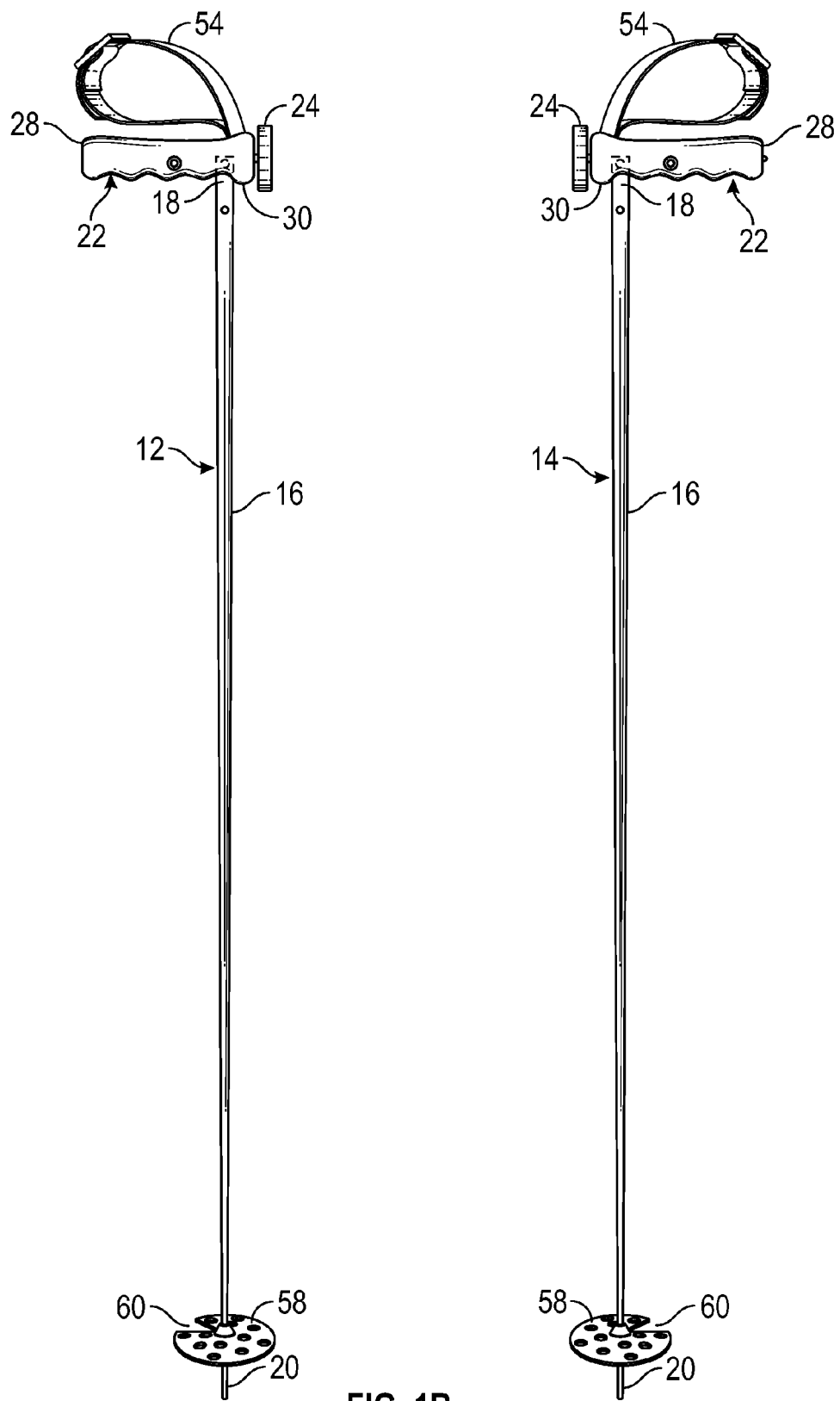
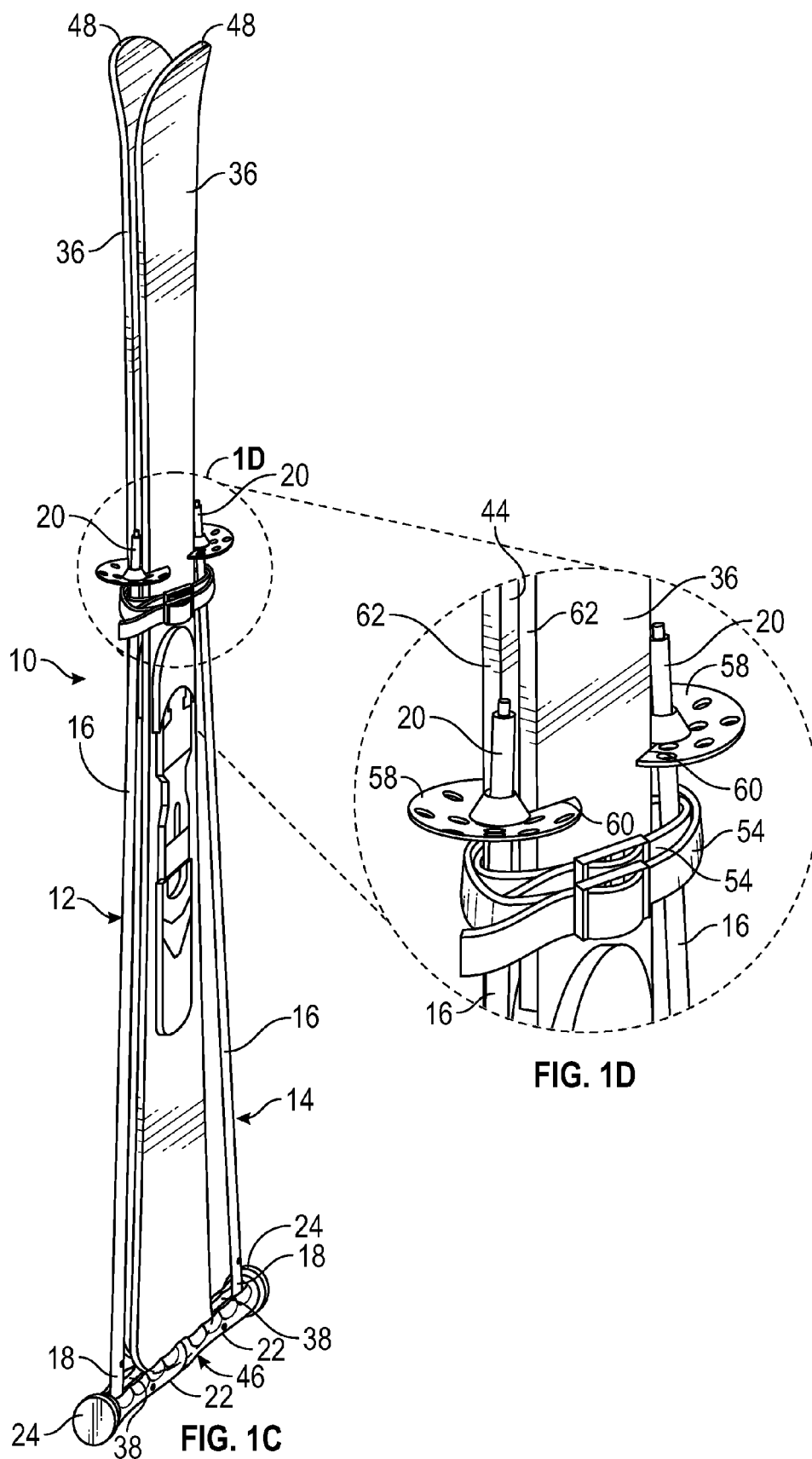


FIG. 1B



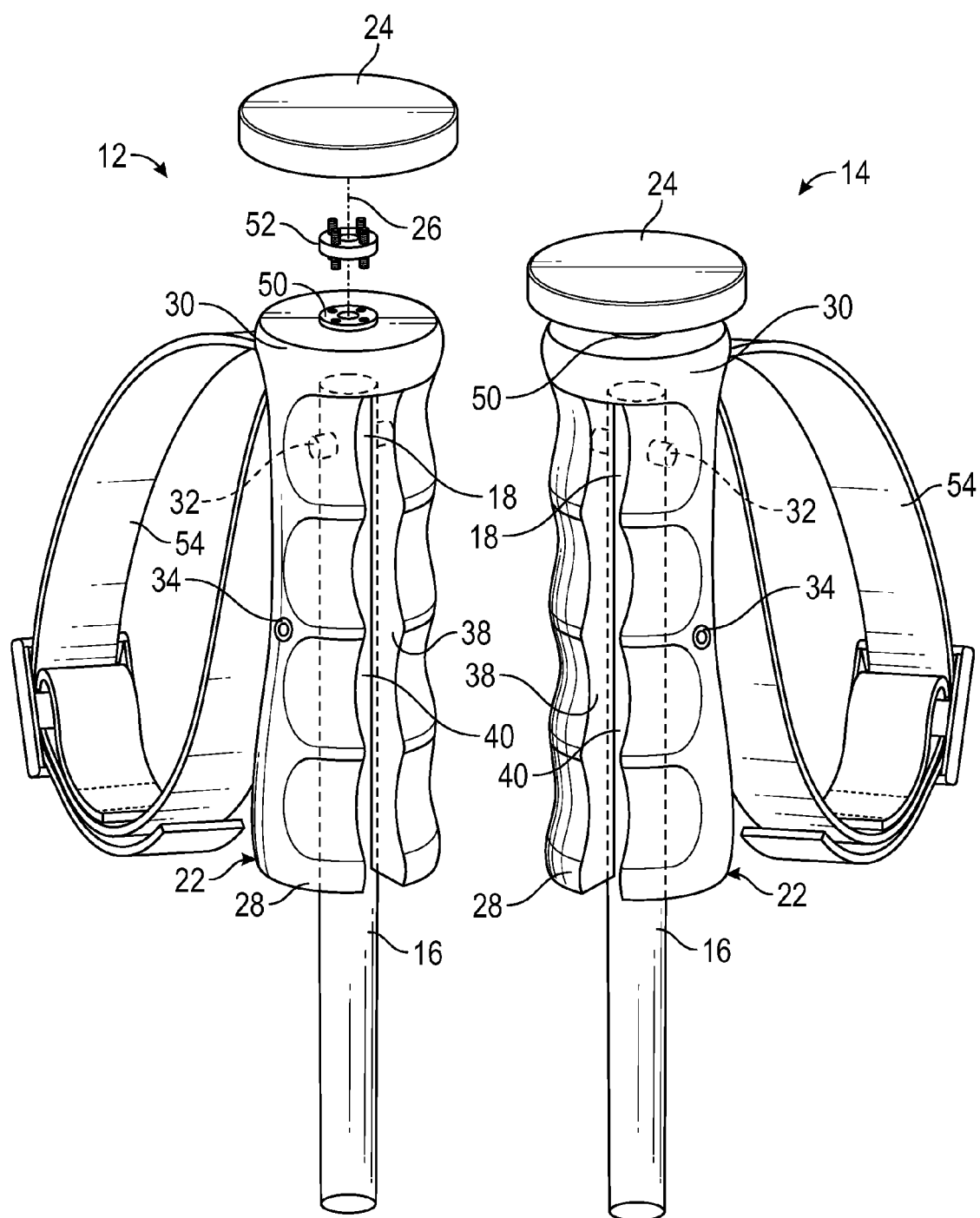


FIG. 2A

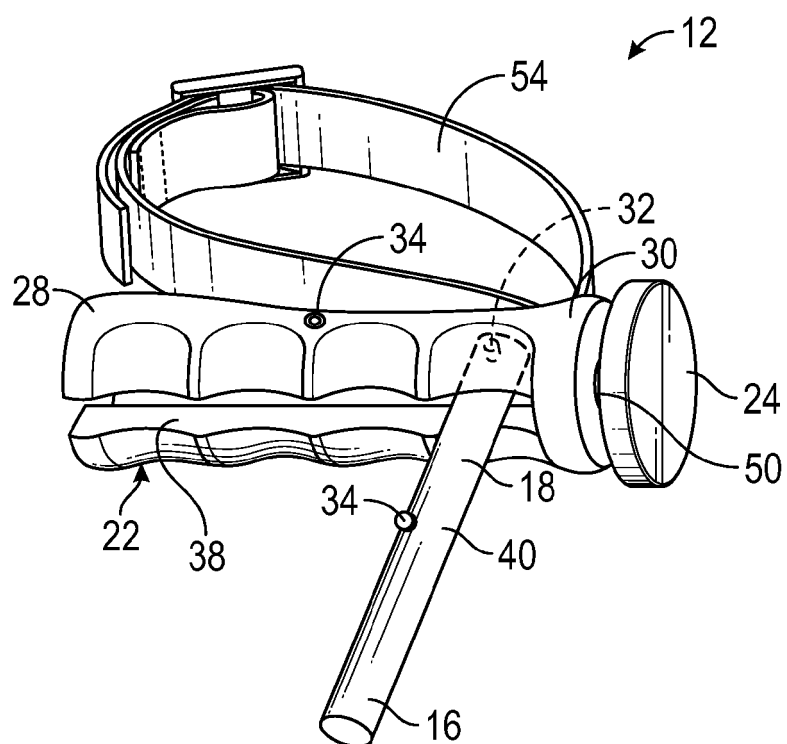
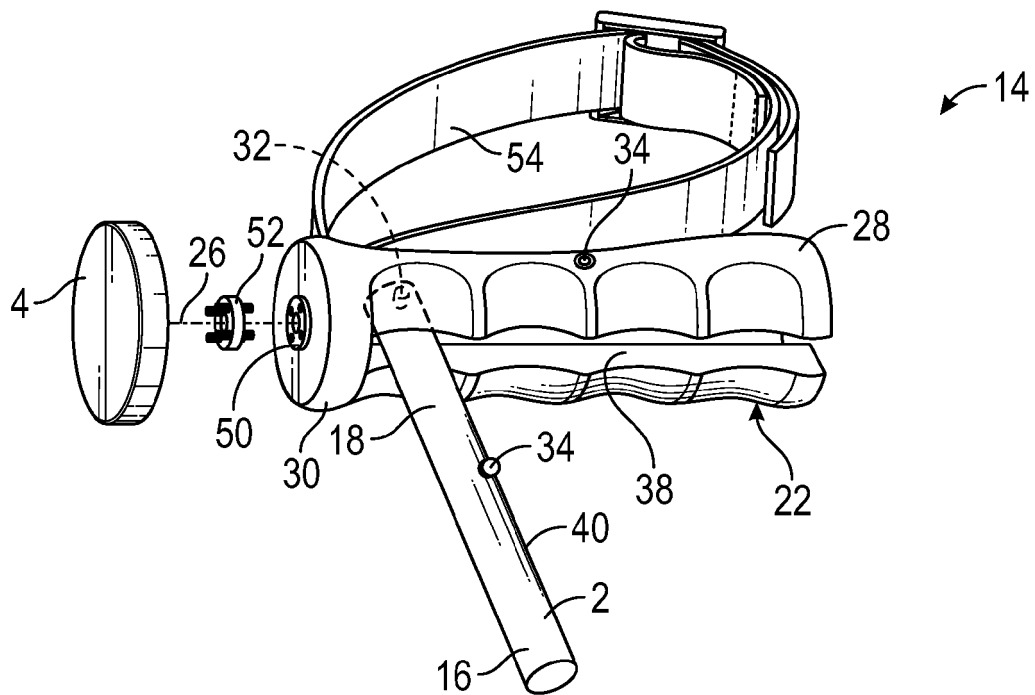


FIG. 2B

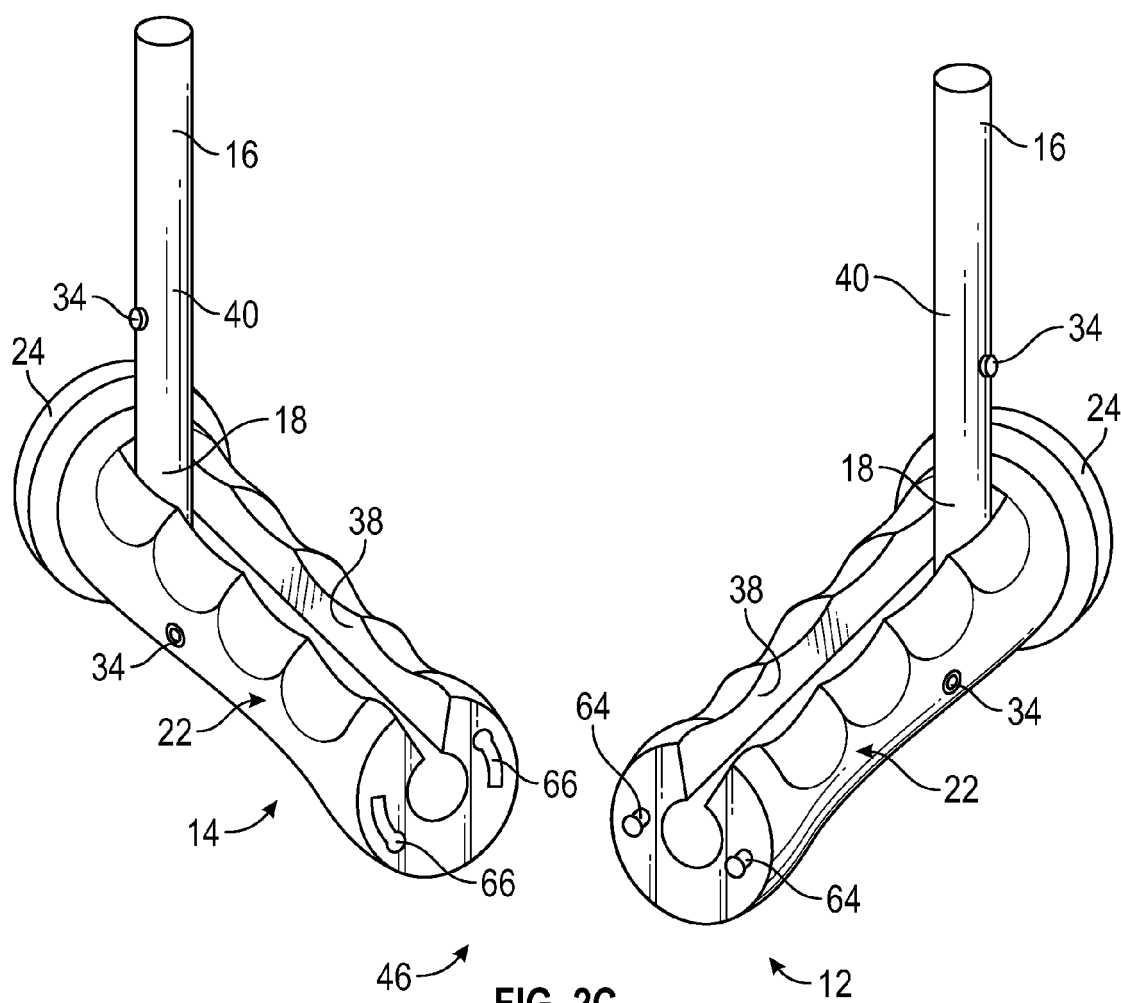
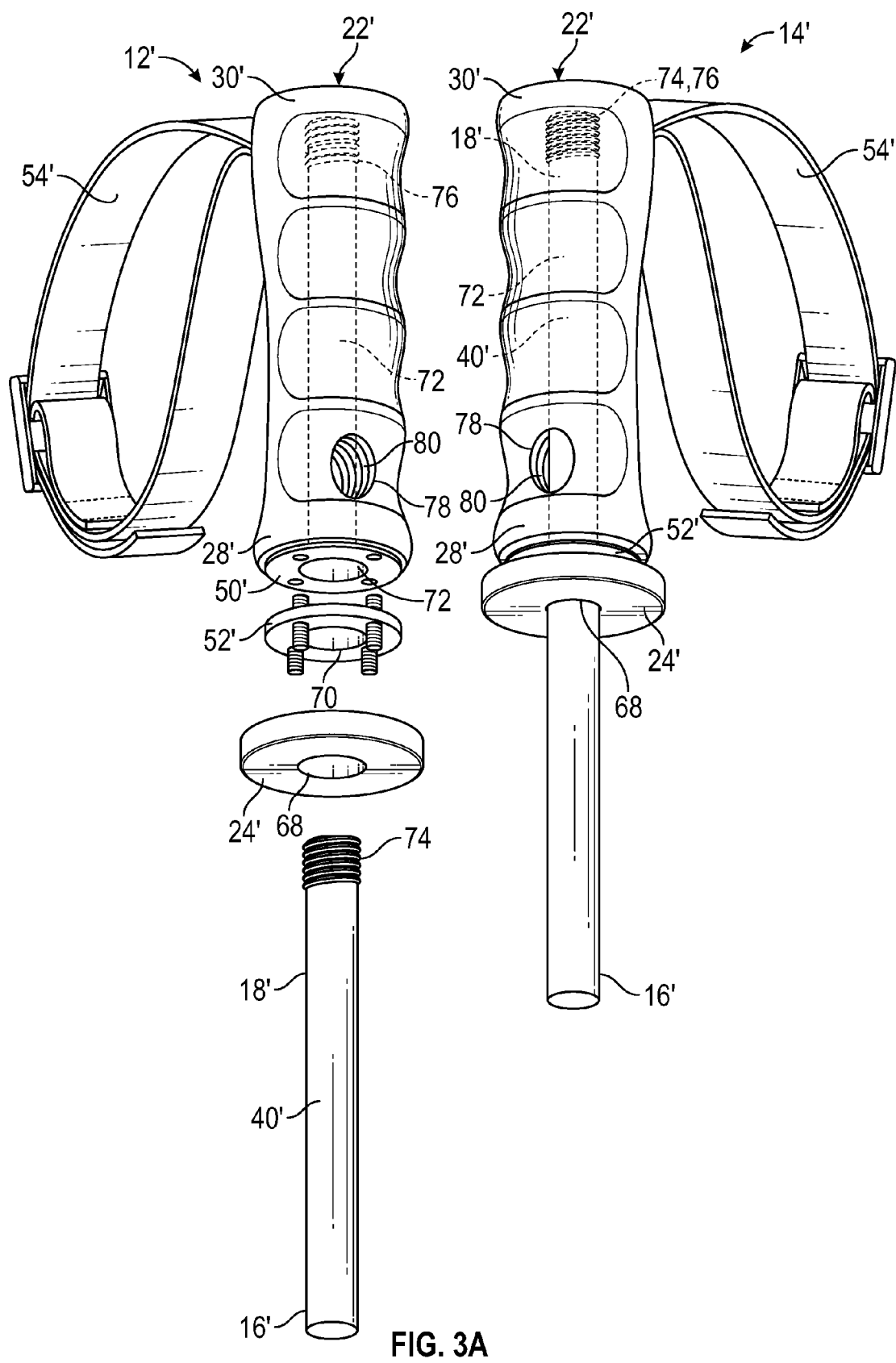


FIG. 2C



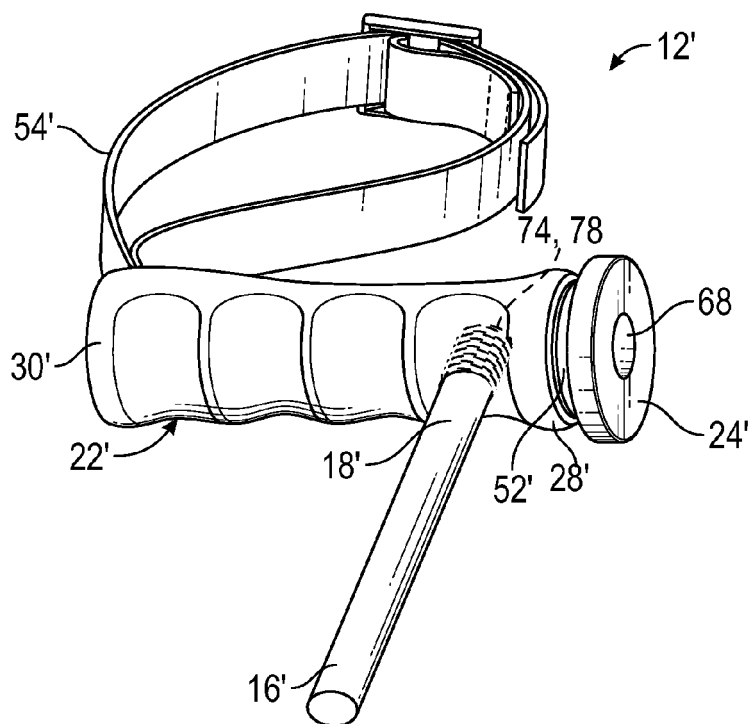
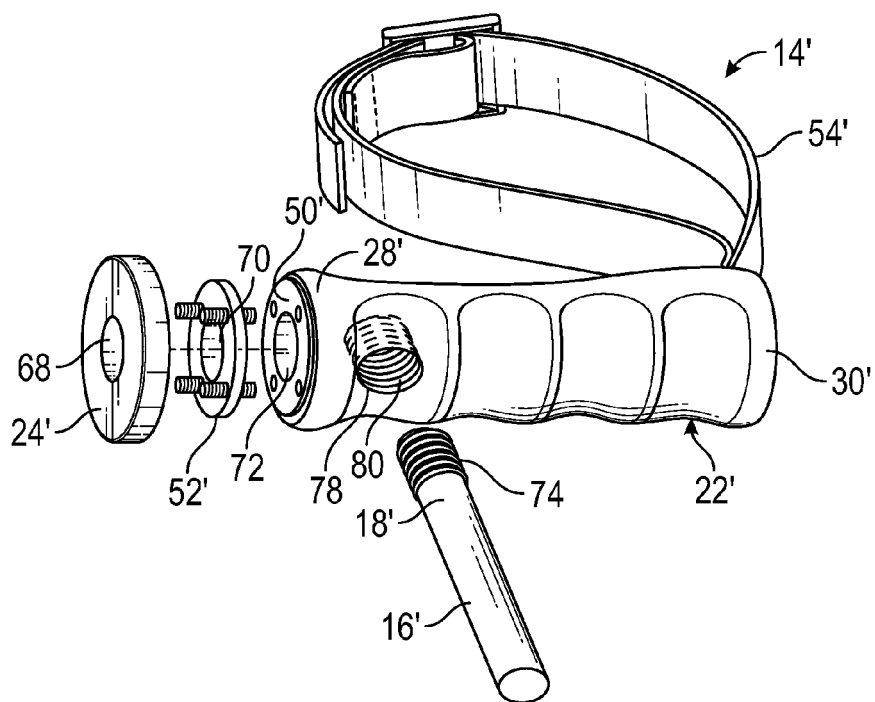


FIG. 3B



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Place of search Munich		Date of completion of the search 17 February 2015	Examiner Murer, Michael
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