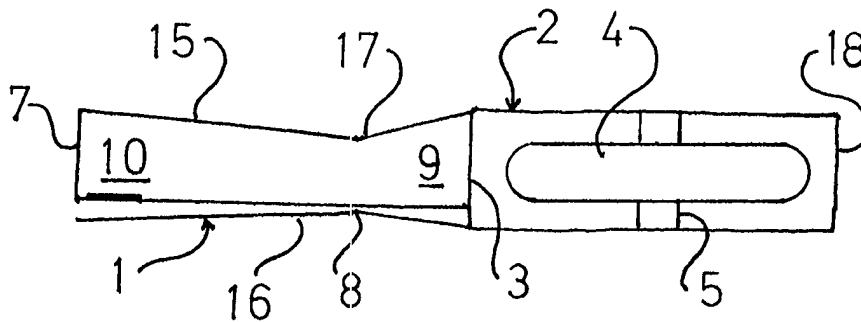




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(54) Title: A DEVICE FOR TRANSPORTING SKIS



(57) Abstract

The present invention is for a device to be used for transporting a single pair of skis, especially over shorter distances. The device comprises essentially two in one piece designed parts, namely one front section (1), intended for insertion of and holding of skis, and one rear section (2), which carries a transport wheel (4). The skis (11, 12) are placed in the device with their most rear sections (13, 14) nearest the middle wall (3) and the transition between the narrowing part and the thickening part placed at the folds (8, 17) on the side walls (15, 16). Due to one wall being resilient the skis are held in place in the device in this position without any further arrangements being necessary.

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A device for transporting skis.

5 The present invention refers to a device used for transporting a pair of skis primarily over a short distance.

10 With downhill skiing it has become the accepted thing to carry all the necessary equipment by hand to the skilift, hill or track. This usually means that each skier carries ones own equipment comprising of one pair of skis, one pair of poles and whatever else may be necessary.

15 Skis, especially those used for downhill skiing are comparatively heavy and handling can bring difficulties because the skis are not constructed in a way that makes carrying easy. The usual way is to tie the skis together in pairs with a strap. It is possible to tie the ski poles together with the skis making one unit. The unit is thus heavy, comparatively long and has protruding parts, i.e. edges and points such as ski bindings, points of the poles, so called skistoppers etc. To carry such a unit is therefore awkward and can also involve risks for both carrier and people in proximity, as the skis are often carried on the skiers shoulder with poor view over the rear end of the unit.

20 The present invention refers to a device with which the manual transport of the ski equipment is made substantially easier. By using the invention the risk of accidents is substantially decreased. The following description of the invention refers solely to its use in connection with slalom equipment although the invention is in no way restricted to only this type of skis. The device is distinctive in its characteristics as indicated in claim 1. Further distinctive characteristics of certain embodiments of the invention are indicated in the dependant claims.

25 The invention is below described in more detail with reference to embodiments shown in the enclosed figures.

30 Figure 1 shows a device according to the invention.

Figure 2 shows the device according figure 1 as seen from the side.

Figure 3 shows the device according to figure 1 and 2 as seen from above.

35 Figure 4 shows the device as seen from straight forward towards the opening intended for the skis.

Figure 5 shows the device as seen from above together with part of a pair of skis placed in the opening.

Figure 6 shows the device in use.

5 The device shown in the figures essentially comprises two sections manufactured as one piece, namely one frontal section 1, intended for the insertion and holding of skis, and one rear section 2, which carries a wheel 4. The two sections 1 and 2 are manufactured in one piece in a suitable material of metal or plastic. In order to avoid the skis touching the wheel 4 there is a dividing and connecting middle wall 3 between the two sections.

10 In the rear section 2 of the device there is a wheel 4, which can rotate freely around an axle 5. The diameter of the wheel and the positioning of the axle can be varied in different forms of design and it is also possible that instead of a wheel to have a runner or other gliding surface, although generally a wheel ought to be preferable, as the device then can be used both indoors and on snow free ground outdoors. The wheel is preferable placed so that the rotationplane is parallel with the surface of the
15 skis placed in the device as shown in the figures. The diameter of the wheel is preferably somewhat larger than the height of the side walls of the device as is shown in figures 2 and 4. The front section 1 of the device is divided by the said middle wall 3, two side walls 15, 16 and one bottom surface 7. The side walls 15, 16 both show a fold 8, 17, with which the space between the walls is divided in a front part 10 and one rear part 9, the latter connected to the middle wall 3. Seen from the dividing wall
20 3 the side walls 15, 16 are at the rear end 9 somewhat converging frontwards up to the fold lines 8, 17. From the fold lines 8, 17 in the front part 10 of the space between the walls these are parallel or somewhat diverging. The angle between the parts of the side walls in the fold lines 8, 17 is preferably 160 - 170 degrees.

25 Downwards the space between the side walls 15, 16 is defined by a bottom 7. Preferably this is manufactured in one piece together with at least parts of one of the side walls thus forming a 90 degree angle, as shown in figure 4. Constructed in this way both the required rigidity and the required flexibility is achieved owing to the one side wall 16 being totally free from the bottom 7, and resilience can be adapted to the current usage.

30 When using the device the skis are transported as a pair with the bottom surfaces placed together. Skis, especially for slalom, are constructed so that their thickness gradually decreases from the middle where the bindings are placed and backwards close to the rear edge, where the thickness again increases at the rear end. Most slalom skis currently available on the market are as far as the
35 aforementioned design, very similar in design. From figure 5 it shows how the skis 11, 12 are placed in the transport device with its most rear parts 13, 14 closest to the middle wall 3 and the transition between the narrowing part and the widening part is placed at the folds 8, 17 on the side walls 15, 16. Due to the fact that one of the side walls is resilient, as described above, the skis are held fast in the

device in this position without any further actions required. In order to gain even further security and in some cases to suit extremely thin skis a strap or other clasps can be placed around the device containing the skis. The strap is preferably placed either at the fold of the side walls 8, 17 or one opening made in the bottom 7. In order to further facilitate the handling a further strap can be used to hold the skis together at their front end. The use of a strap as just described, is especially advantageous and important when the skis are to be transported for example by public transport and have to be handled in luggage compartments, on conveyor belts etc. The device according to the invention can at such time be fixed to the skis during the total transport and thereby facilitate for example movement between different modes of transport. When queuing or at other waiting times the skis can be held vertically resting on the rear edge 18 of the transport device, which can be adapted for this purpose by for example being fitted with some sort of antiglide surface.

Within the frame of the inventive idea the device can be varied in different ways. In order to hold the skis fast in the device, the skis as well as the device can be fitted with protruding studs, opening in the side walls etc. It is also possible that the space designed for the rear end 1 of the skis could have a converging top and this can in different ways be fitted with devices for the holding fast of the skis. The front space 1 can be adapted to the front points of the skis instead of the rear end of the skis, which however means that the device as a whole becomes more bulky and awkward. In order to comply with the request of the device being simple to bring along the device would in this case have to be foldable. The above mentioned straps could be substituted by clasps, buckles or similar. It is also possible to fit a lock to the device, thus preventing the possibility of taking the device from the skis or to prevent the free rotation of the wheel. In a further form of design the front section 1 and rear section 2 are revolving 90 degrees in relation to each other with an at the middle wall 3 constructed joint, which preferably contains a pivot.

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CLAIMS

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1. Device for transportation of skis, comprising of a front section (1) designed for insertion of and holding the rear ends of a pair of skis and a rear section (2) with a wheel (4) or equivalent characterised in that by the fact that the front section has an opening or openable top, a bottom (7), one side wall fixed with the bottom (15) and one side wall 16 somewhat resilient and free from the

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bottom so that through the thickening ends (13,14) of the skis (11,12) the same are squeezed in place between the side walls.

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2. Device according to claim 1 characterised in that the side walls (15, 16) nearest the rear section being somewhat converging up to folding lines (8, 17) where from the side walls (15, 16) are parallel or somewhat diverging.

3. Device according to claim 1 or 2 characterised in that the wheel (4) being designed with its rotation surface in the extension of the surface of the skis.

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4. Device according to one of the preceding claim characterised in that the rear section (2) having a backend which touches ground or other surface when the skis are held upright.

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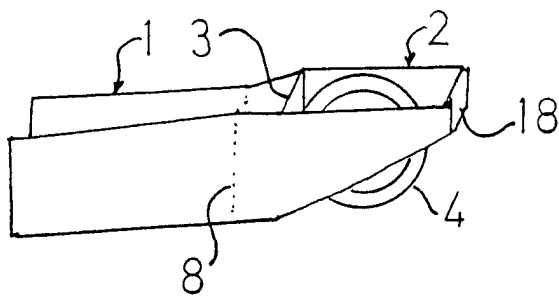


Fig 1

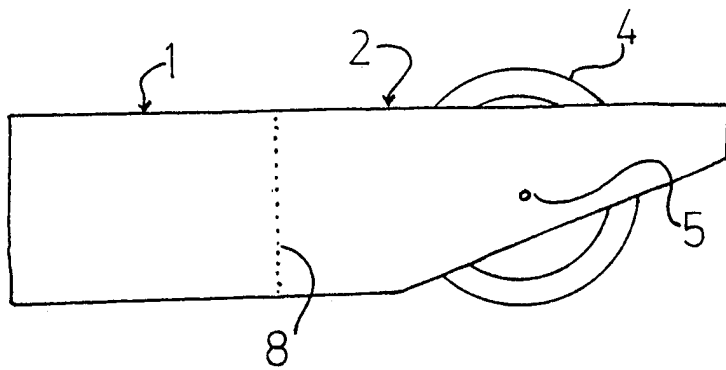


Fig 2

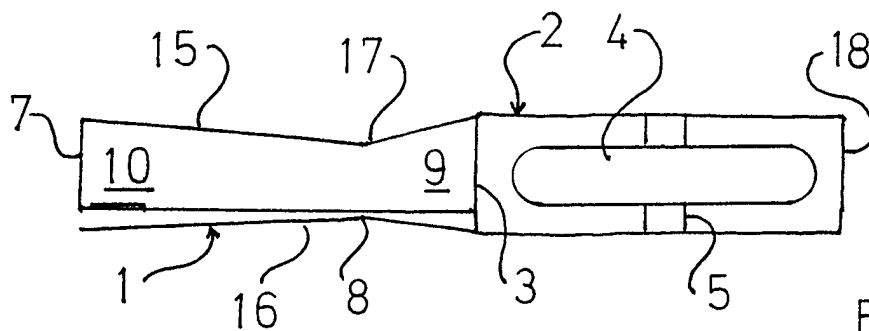


Fig 3

2 / 2

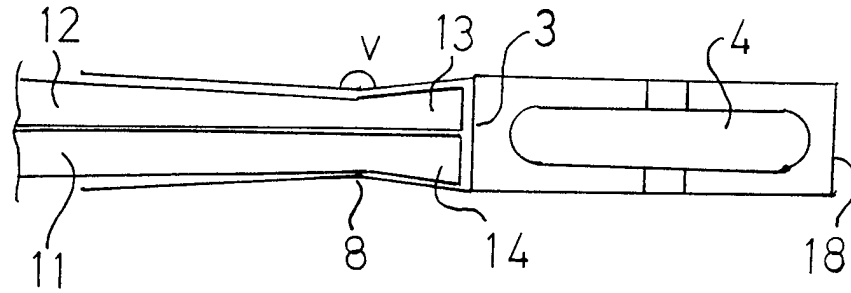


Fig 5

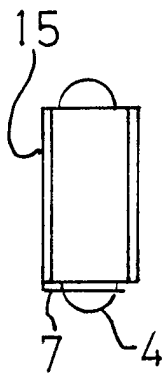


Fig 4

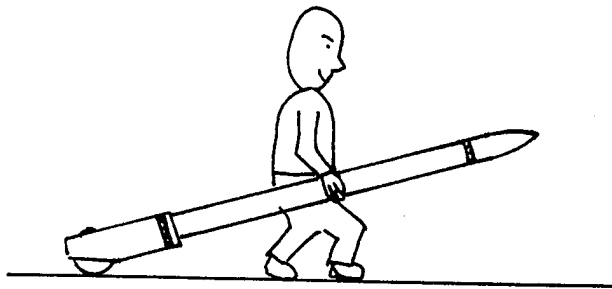


Fig 6

INTERNATIONAL SEARCH REPORT

International application No.

PCT/SE 97/01784

A. CLASSIFICATION OF SUBJECT MATTER

IPC6: A63C 11/02

According to International Patent Classification (IPC) or to both national classification and IPC

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

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C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 8001761 A1 (LARSEN. K.), 4 Sept 1980 (04.09.80) --	1-4
Y	EP 0406179 A1 (OGLIOTTI, C.), 2 January 1991 (02.01.91), figure 1 --	1-4
Y	DE 2650077 A1 (BREHM GEB. EHRMUTH, HEIDE), 3 May 1978 (03.05.78), figure 18 --	1-4
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A	FR 2715863 A1 (CORNIGLION, D.), 11 August 1995 (11.08.95) -- -----	1-4

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