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(54) **Anti-theft and ski-carrier device**

(57) Anti-theft and ski-carrier device composed basically of a separable handle (2) for its grasping by hand, two chains (3) and two connecting elements (26) between the ends of the handle (2) and the chains (3), which is intended to make it easier to carry the skis. For this purpose the handle is taken apart and the chains are fitted around the skis in the area between the front and rear fastening, preventing their detachment. After

girding the chains, the skis are placed in the horizontal position and the handle is put back together. When used as an anti-theft device, the procedure is the same but only one of the chains goes round the skis, whilst the other encircles a railing or any other object to which we wish to secure the skis, and we then proceed to assemble the handle and assure its inviolability by means of a padlock with which it is fitted.

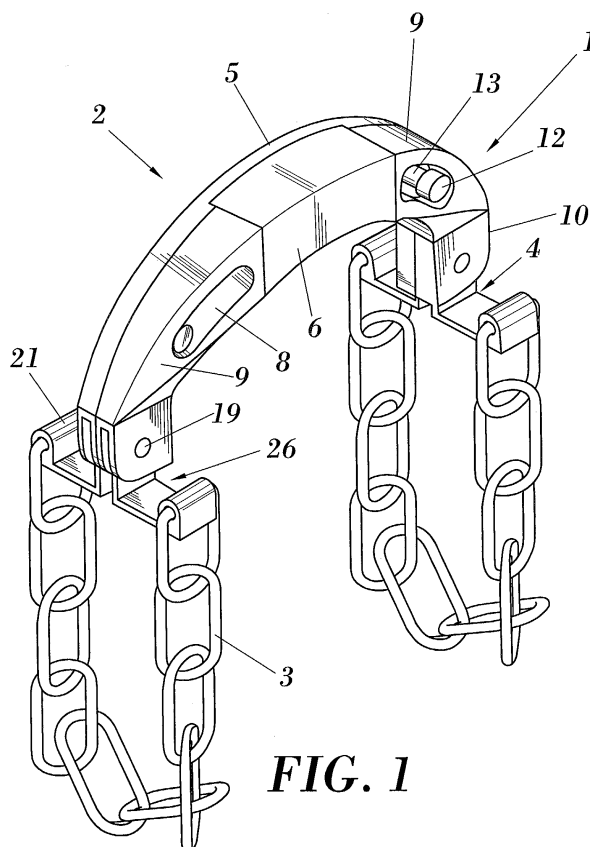


FIG. 1

Description

OBJECT OF THE INVENTION

[0001] The present invention refers to an anti-theft and ski-carrier device which has the purpose of facilitate the manual handling of skis and which also acts as a device for preventing their being stolen.

BACKGROUND OF THE INVENTION

[0002] When engaging in this sport, all skiers are aware how awkward it is to carry skis. For this reason a vast number of devices have been developed for attachment to the car roof rack to assist their conveyance to the place where the sport is done.

[0003] Owing to the shape and dimensions of skis, once at the ski resort their handling proves particularly bothersome and dangerous, as skiers normally carry them over one shoulder with the resultant risk of possibly hitting other skiers.

[0004] At the present time there are numerous inventions describing devices specially developed to make skis easier to carry.

[0005] Spanish document ES 158826 U refers to a "ski-carrier tie" consisting of a small-sized elastic strip provided at one end with a ring in which there is a jointed hook-shaped piece for latching onto the edge of one of the skis, whilst at the opposite end of the elastic strip there is a second piece which is for fastening the tie.

[0006] Inventions of this type facilitate the manual handling of skis, as they keep them joined to each other, which therefore makes it easier to take hold of them and prevents one of them from being dropped accidentally. As opposed to the advantage represented by their simplicity, they have the main drawback of not providing a handle or a gripping element proper, which means that both skis have to be clasped with one hand. The need to keep both skis clasped with one hand may prove especially bothersome if we remember that on the ski slopes it is common practice to protect your hands from the cold by wearing thick gloves, which interferes with the agility of the hand and makes it harder to grip.

[0007] To overcome this problem, such inventions are known as those described in document WO 9315798, referring to a "Device for carrying skis and ski poles together" or the "Ski carrying tie" of document WO 9428986, which basically consist of combinations of strips and plastic pieces which encircle both skis and their respective sticks and make use of the latter as a handle for carrying the whole assemblage.

[0008] Ski-carriers of this type undoubtedly represent an advantage over the previous ones, as the fact of including the sticks not only saves having to lug them along separately, but what is more they serve as a means of taking hold of the device. Yet, the fact that it is the strips that bear the weight of the skis and the actual arrangement of these, as their edges are in direct con-

tact with the strips, leads to their premature wear, so that it is necessary to have replacements available for these strips.

[0009] This same disadvantage affects the numerous ski-carrier devices that are known for hanging from the shoulder, carrying the skis in a vertical position. Devices of this type are described in Spanish document ES 1006633, referring to an "Elemento para sujetar y transportar esquís (element for securing and carrying skis)", the "Bolsa riñonera porta esquís (ski-carrier belt bag)" of ES 261604 U or the "Gerät zum Tragen von Skiern (ski-carrier device)" referred to in European document EP 0300971. In addition, these devices secure the skis by merely encircling them with strips, one of which is placed above the front fastening of the ski to the boot and the other below the rear fastening, so it appears logical, that when the skis are positioned vertically for carrying, they tend to fall, with the result that the rear fastening will tend to drop onto the lower strip and cause it to wear, whereas the upper strip will tend to slide vertically towards the upper end of the skis, making them very awkward to handle.

[0010] Apart from the above-mentioned inconvenience in the handling of the skis, skiers have to face the problem of their skis being stolen, which is why they do not usually place them in the stands installed for this purpose on the esplanades and in cafés and hotel foyers close to the ski slopes. This mistrust forces skiers to keep their skis near at hand all the time, which is particularly bothersome in rest periods or at the end of the day's skiing.

[0011] For this reason at many ski resorts ski stands have been installed fitted with an automatic locking device that works by inserting a coin. Spanish document ES 159761 U describes "Un dispositivo antirrobo, en especial para esquís (An anti-theft device, especially for skis)", which tries to remedy this problem. It consists basically of a box with a pull-out belt inside, which operates like a tape measure in that its free end is provided with a retaining pin which is in a notch in the box and which may be secured with a lock, so that the belt is blocked and cannot be removed from the box.

[0012] This anti-theft device enables skis to be attached to any static object, such as a railing or the like, so that they cannot be stolen. However, since it is merely an anti-theft device, it is not designed to facilitate the handling of skis.

DESCRIPTION OF THE INVENTION

[0013] The object of the present invention is to achieve a device that will facilitate the manual handling of skis and prevent their theft, so that the owner does not have to worry about keeping an eye on them during breaks and at the end of the day.

[0014] The anti-theft and ski-carrier device advocated here has the advantage over commonly known ski-carriers in that, given its configuration, it is an especially

convenient and durable device, these being drawbacks presented, as we have seen, by known ski-carriers, with the additional advantage represented by its simplicity, easy handling and its dual function, which enables it to be used as an anti-theft device.

[0015] Compared with the inconvenience of carrying both skis clasped in one hand, the device covered by this invention has a handle or gripping element, which makes it easy for it to be picked up conveniently even when wearing gloves. The skis are tied to each other and attached to the handle by means of appropriately plasticized chains, which make it a durable invention, without this entailing damage to the skis carried.

[0016] The anti-theft and ski-carrier device is composed basically of a separable handle, chains and U-pieces which form the attachment between the handle and the chains.

[0017] The separable handle has a basically semi-circular shape and is made up of the union of three elements, one of which includes a locking mechanism and two pins each for engagement in two guides machined in the other two elements making up the handle, which are thereby joined together to form a single body together with the first element and the lock mechanism.

[0018] At each end of the three elements making up the separable handle a total of four U-pieces are provided for housing the ends of the two chains that are used for securing the skis. These pieces also provide the assemblage with stability and restrict unwanted movements.

[0019] The chains will be preferably flat and plasticized chains may be installed in order to prevent rubbing and damage that could be caused to the skis. The inside of the separable handle, which is what is supported in your hand, may also be plasticized to make it more comfortable to carry the assemblage.

[0020] To use the device advocated as a ski-carrier, you just have to disassemble the three elements making up the separable handle and place the skis, and their respective sticks if so desired, so that they rest on the chains, which encircle the skis in the middle. To prevent the skis from moving towards the ends, the chains are inserted in the part between the toe cap fastening of the boot to the ski and the heel fastening. Once the skis are set in place on the chains, they are positioned horizontally and therefore parallel to the separable handle, which is assembled by inserting each of the pins of the main element making up this handle into the guides machined in the secondary elements and inserting their other end in the lock mechanism, which has two slots, one on either side, provided for the purpose. If so wished, the device may be secured by using the padlock fitted to the lock mechanism, although it is not necessary to do so when the device is used as a ski-carrier.

[0021] The operation to be followed to use the device covered by this invention as a ski anti-theft device is basically the same, but in this case the skis are bound by a single chain, which, as in the previous case, is set in

place between the toe cap and heel fastenings. The other chain then goes round any stationary object, such as a railing or a ski rack commonly installed at hotel and catering establishments at ski resorts. The three elements making up the separable handle are connected up, as in the previous case, by inserting the pins in their respective guides and the inner ends of the secondary elements in the side slots in the locking mechanism. The operation is completed by securing the device lock with the locking device padlock, which prevents the ends of the secondary elements being removed from the slots. As these cannot be removed, the pins cannot run out of the guides and the separable handle cannot be disassembled, so that it is impossible to detach the skis from the chain binding them or to unfasten the device from the object to which it is secured.

DESCRIPTION OF THE DRAWINGS

[0022] To supplement the description being given and in order to assist a better understanding of the features of the invention, in accordance with a preferred practical embodiment thereof, a set of drawings is attached as an integral part hereof wherein the following is represented, for illustrative but non-restrictive purposes:

Figure 1.- It shows a perspective view of the anti-theft and ski-carrier device covered by this invention.

Figure 2.- It shows a perspective view of the main element of the separable handle of the device, including the locking mechanism, the two pins and the two respective U-pieces.

Figure 3.- It shows a perspective view of one of the secondary elements with its respective U-piece and the pin removed.

Figure 4.- It shows a perspective view of the device used as a ski-carrier.

Figure 5.- It shows a perspective view of the device used as an anti-theft device.

PREFERRED EMBODIMENT OF THE INVENTION

[0023] In the light of the figures we may observe therein a specimen embodiment of the invention, which consists of an anti-theft and ski-carrier device (1), composed basically of a separable handle (2), chains (3) and connecting pieces (26) which serve to attach the handle (2) to the chains (3).

[0024] The separable, roughly semicircular-shaped handle (2), is in turn made up of a main element (5) and two secondary elements (9).

[0025] As may be observed in figure 2, the main element (5) is a flat approximately semicircular-shaped

body and in the middle it includes a thicker locking mechanism (6) and two pins (7) made up of a cylindrical body (13) and a larger-diameter cylindrical head (12). These pins (7) are located on either side of the locking mechanism (6) and their purpose is to engage in each of the guides (8) provided for this purpose in the secondary elements (9). At each end the main element (5) includes a receiving piece (10) to which a U-piece (4) is joined, so that the receiving piece (10) - U-piece (4) assembly forms a connecting element (26), as will be seen later on.

[0026] The secondary elements (9), symmetrical to each other, have an arched-shape of such a circumference and dimensions that, when installed on either side of the locking mechanism (6), they form, together with this, an arch with a circumference of the same length as the main element (5), thereby making up the assembly formed of the main element (5), the locking mechanism (6) and the two secondary elements (9) an essentially semicircular-shaped handle (2) suitable for being grasped by a hand.

[0027] Each of the secondary elements (9) is affected by a guide (8) which has, in the area adjoining the locking mechanism (6), a through inlet hole of a suitable diameter to permit the insertion of the head (12) of the pin (7). The width of the rest of the guide (8) as far as the inner half of its thickness is such that, while preventing the head (12) of the pin (7) from coming out after being inserted in the guide (8), it allows the body (13) of the aforesaid pin (7) to slide. The width of the outer half of its thickness is similar to that of the head (12) of the pin (7), so that this slides from the inlet hole to the opposite end of the guide (8) without it being possible for it to be removed from it throughout its whole travel.

[0028] The end of each secondary element (9), which is facing the locking mechanism (6), has a flat extension (14) of smaller thickness and width finished with a shoulder acting as a stop (15), which is inserted in each of the side slots (16) in the locking mechanism (6). To assure the inviolability of the locking mechanism assembly (6), it includes a padlock (17) that is accessed from the main element (5), which prevents the stops (15) and the extensions (14) being removed from inside, so that it is impossible to take the handle (2) apart and, therefore, to release the skis (22) or the railing (23) from the chains (3) securing them.

[0029] At the other end the secondary elements (9) include a receiving piece (10) the same as the main element (5). These four hollow receiving pieces (10) have the shape of a portion of circumference with a radius matching the width of the ends of the elements making up the handle (2), to which they are joined by one of their straight sides. Both this straight side and the second one, which faces the inside of the device, are closed, whereas the curving side is open, which permits the insertion of the shoulder (18) of the U-piece (4) that is connected to the receiving piece (10) by means of a pin (19) that goes through the holes (20) provided for this pur-

pose both in the shoulder (18) and in the U-piece (4). Each connecting element (26) is made up of a receiving piece (10) and a U-piece (4) and they not only perform the connecting function between the handle (2) and the chains (3), but also, in view of their layout, they permit the desired movements and restrict the unwanted ones, as is explained below. The open side of the receiving pieces (10) permits the tilting of the U-pieces (4) towards the outside of the device, facilitating its use as an anti-theft device, as shown in figure 5. However, the closed side of these pieces prevents the tilting of the U-pieces (4) towards the inside of the device, so that the use of the device as a ski-carrier is made more convenient, as may be seen in figure 4, since they are preventing from swinging while being carried.

[0030] As already mentioned, the U-pieces (4), which act as a link between the receiving pieces (10) and the chains (3), provide the assembly with stability and, because their swivelling movement around the pin (19) is restricted by the actual configuration of the receiving pieces (10), they prevent unwanted movements. The purpose of the shape of these U-pieces (4) is to separate the ends of the chains (3) slightly so that each of them is long enough to tie a pair of skis (22) with their respective sticks or else to go round a railing (23) or any other desired object in the event of using the device for anti-theft purposes. On their side opposite the shoulder (18) the U-pieces (4) have a hollow cylindrical housing (21) into which are inserted the ends of the chains (3), which shall preferably be flat and plasticized to prevent their rubbing up against the skis (22) causing damage to them.

[0031] The chains (3) are finally in place girding the skis (22), and so that it is impossible to release them without disassembling the handle (2), they are placed between the boot toe cap fastening (24) and the boot heel fastening (25), so that these fastenings prevent the skis (22) from being withdrawn.

Claims

1. Anti-theft and ski-carrier device which, being made up of two suitably sized chains to gird a pair of skis and their respective sticks attached by way of connecting elements to a handle for picking up the device by hand for the purposes of easier carrying, is **characterised in that** the handle (2) is separable and is made up of a main element (5) and two secondary elements (9) which, being affected by guides (8) in which there are pins (7) fitted to the main element (2) inserted, have a flat extension (14) at one end finished with a stop (15) which is engaged in the slot (16) of a lock mechanism (6) situated in the middle of the main element (2), said arrangement of the handle (2) permitting not only its disassembly for the insertion of the skis (22) in the device for them to be secured by the chains (3), but

also its subsequent assembly for carrying them.

2. Anti-theft and ski-carrier device according to the previous claim, **characterised in that** its configuration enables it to be used as an anti-theft device by taking apart the handle (2) and in this case with one of the chains (3) going round the skis (22) and the other chain (3) round a static object, such as a railing (23), and then re-assembling the handle (2), assuring its inviolability with a padlock (17) housed in the locking mechanism (6). 5 10

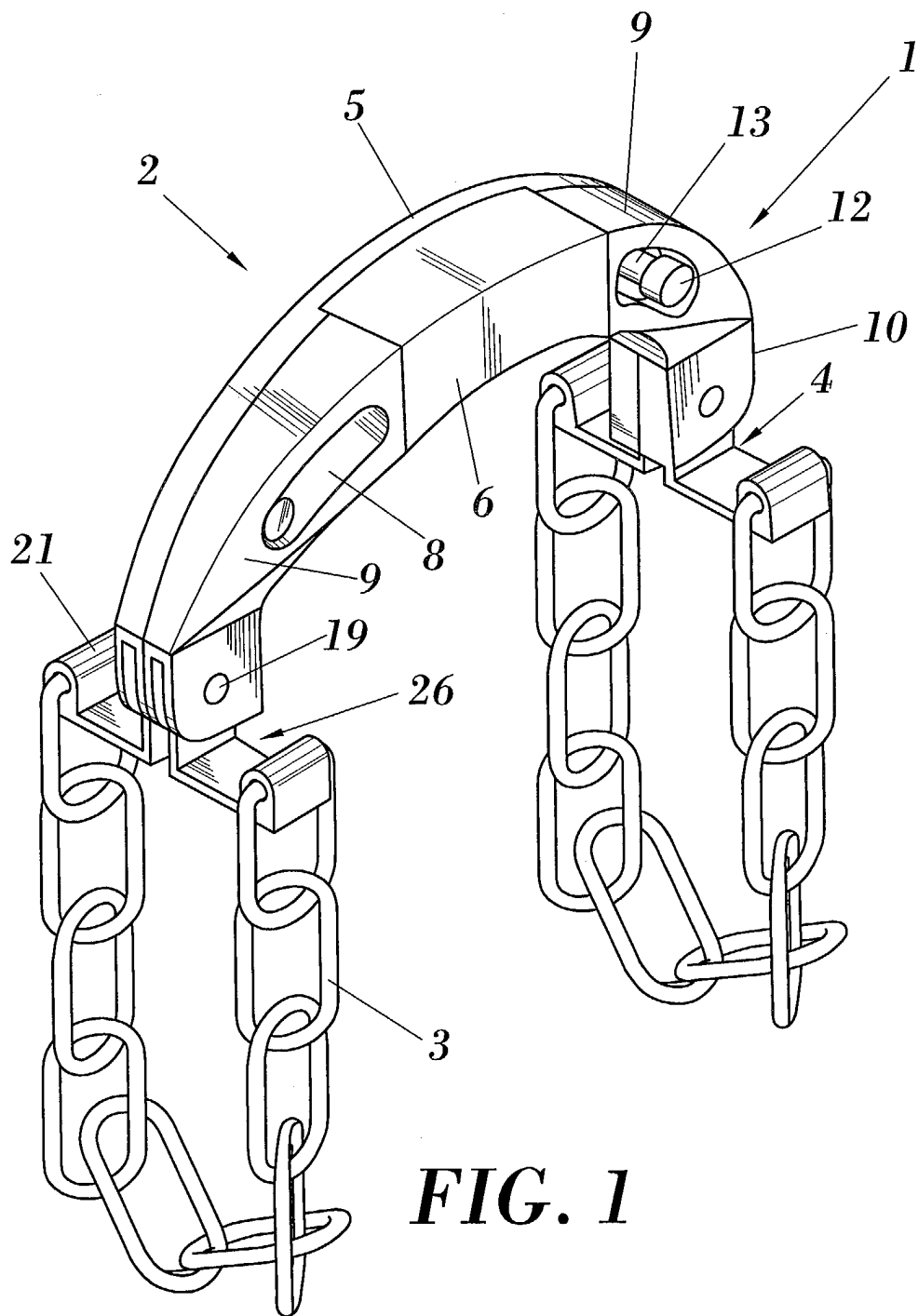
3. Anti-theft and ski-carrier device according to the previous claims, **characterised in that** each one of the connecting elements (26) between the handle (2) and the chains (3) is made up of a U-piece (4) and a receiving piece (10) which has the shape of a portion of circumference and is hollow, which permits the insertion of a shoulder (18) on the U-piece (4), which is attached to the receiving piece (10) by means of a pin (19) that passes through the holes (20) provided for this purpose both in the shoulder (18) and in the U-piece (4), so that this pin (19) enables the U-piece (4) to tilt in respect of the receiving piece (10), which remains firmly attached by one of its straight sides to the end of the handle (2). 15 20 25

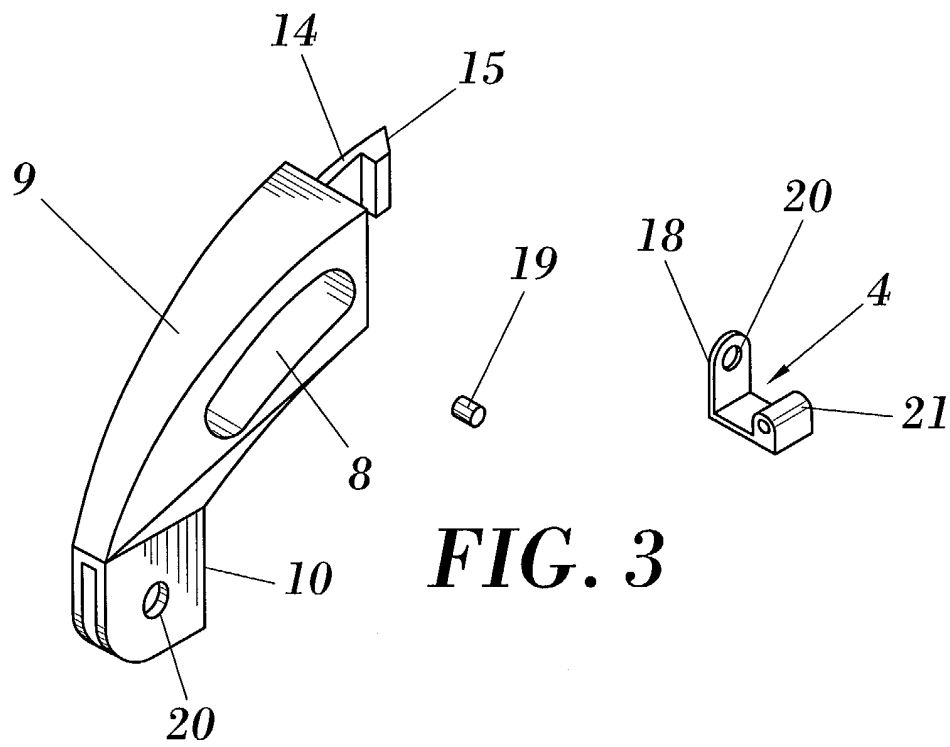
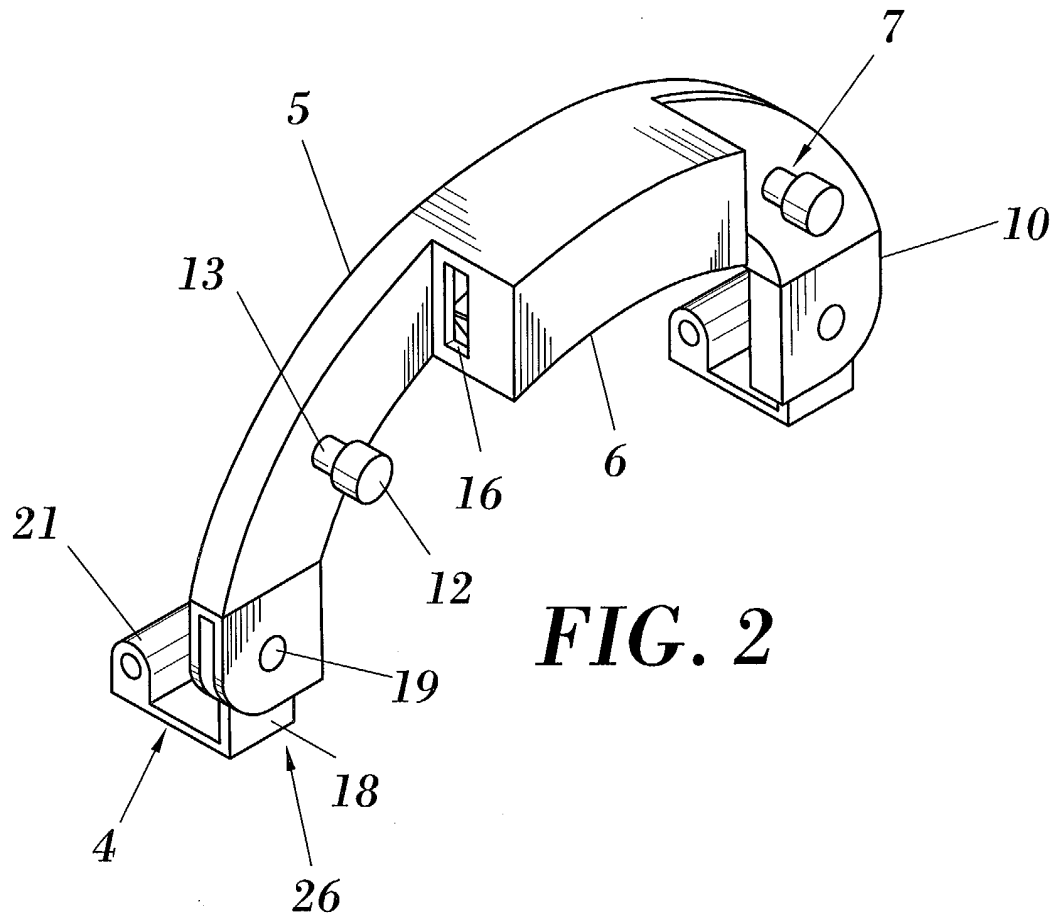
4. Anti-theft and ski-carrier device according to claim 3, **characterised in that** the curving side of the receiving piece (10) is open, which permits the insertion of the shoulder (18) on the U-piece (4) and its tilting towards the outside of the device to facilitate the tying of the chain (3) round a static object, such as a railing (23), when the device is used for anti-theft purposes. 30 35

5. Anti-theft and ski-carrier device according to claims 3 and 4, **characterised in that** the straight sides of the receiving piece (10) are closed, thereby preventing the U-piece (4) from tilting towards the inside of the device, so that the skis cannot swing (22), making it more comfortable to use the device as a ski-carrier. 40

6. Anti-theft and ski-carrier device according to any of the foregoing claims, **characterised in that** the chains (3) are flat and plasticized, thereby preventing them from rubbing up against the skis (22) and damaging them. 45 50

7. Anti-theft and ski-carrier device according to any of the foregoing claims, **characterised in that** the handle (2) is coated with a material of a plastic nature to make it more comfortable to grasp. 55





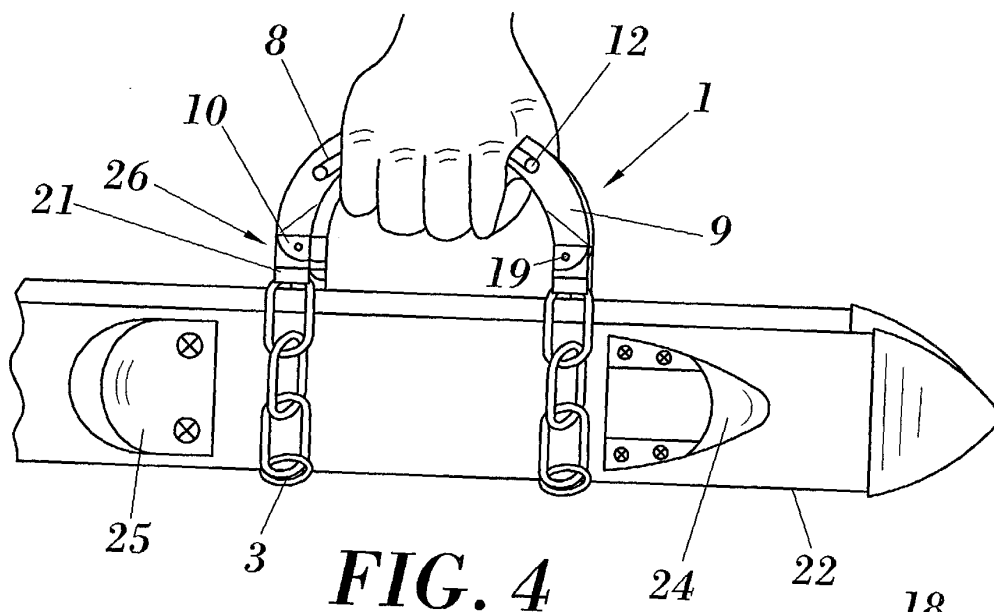


FIG. 4

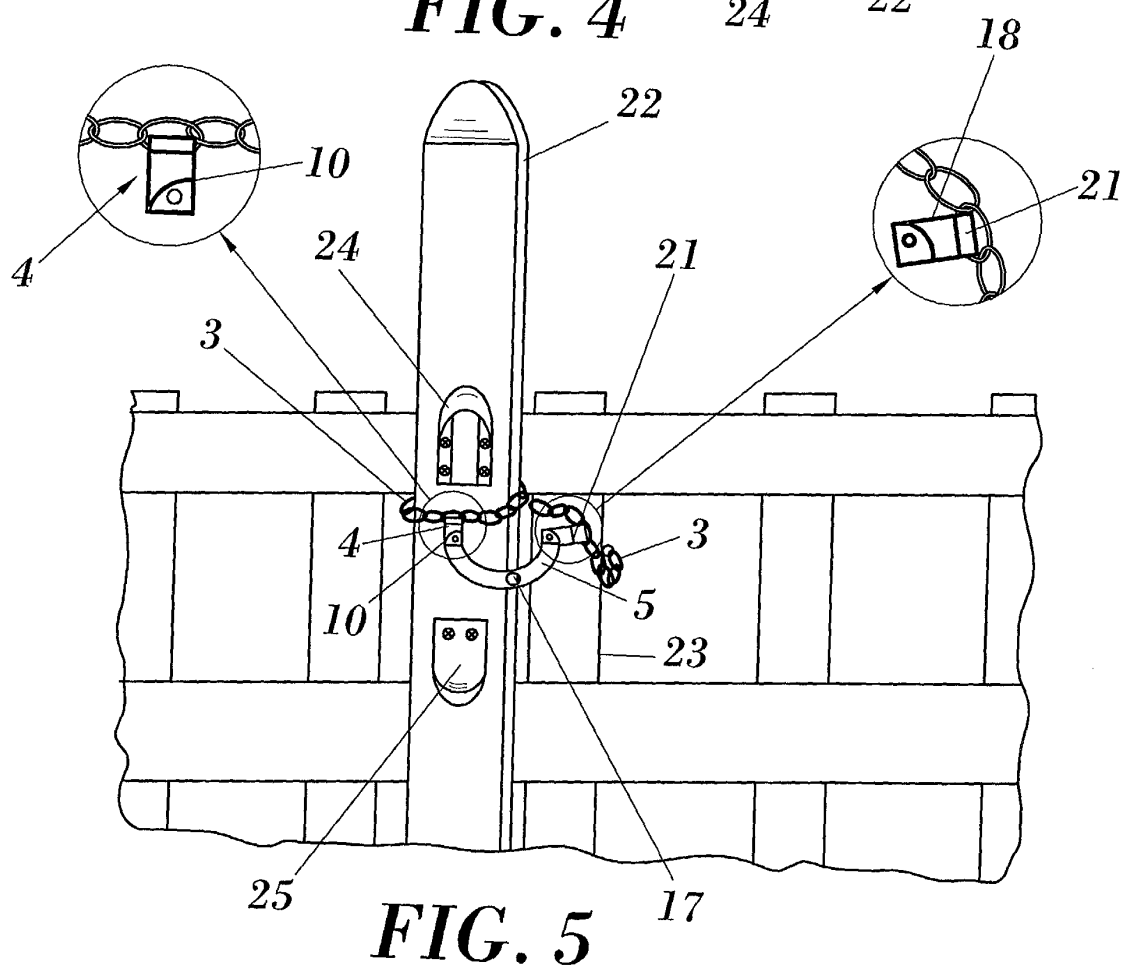


FIG. 5



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 04 38 0070

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
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			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
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The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 29 July 2004	Examiner Friedrich, A
CATEGORY OF CITED DOCUMENTS 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 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			

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EPO FORM 1503 (03.82 (P04001))

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

EP 04 38 0070

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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29-07-2004

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