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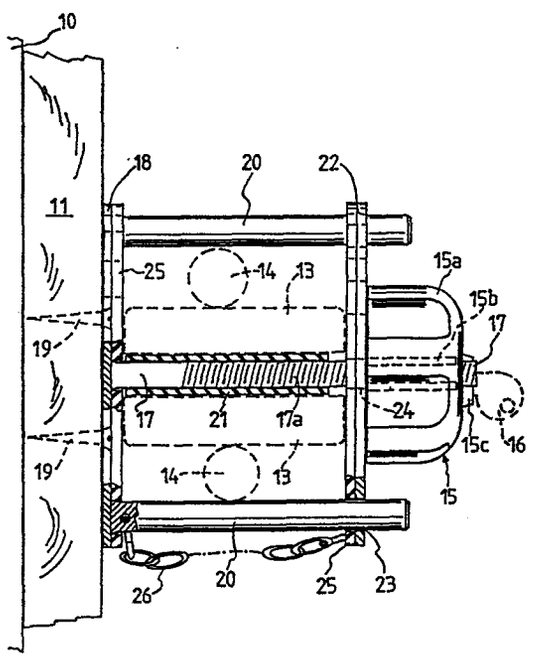
(54) Locking device for skis.

(57) A locking device to secure a pair of skis (13) from theft, by means of a previously known locking means (15). It comprises an outer operating knob member (15a) and an inner member (15b) with an inner screw thread, which inner member in locked position is disengaged from the outer member. The inner member cooperates with a locking bolt (17) having an outer screw thread and which bolt protrudes from a base plate (18) affixed to a supporting structure (10, 11). The base plate has at least one block pin (20) in parallel with and on each side of the locking bolt. A blocking plate (22) has apertures (23, 24) corresponding to the bolt and the pins and is displaceable along these until it abuts the side edges of a pair of skis between the bolt and the pins, through tightening of the locking means (15) by screwing it on the locking bolt towards the blocking plate (22).



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LOCKING DEVICE FOR SKIS

This invention relates to a locking device to secure a pair of skis from theft, by means of a previously known locking means comprising an outer operating knob member and an inner member with an inner screw thread and which inner member, in locked position, is disengaged from the outer member and cooperates with a locking bolt having an outer screw thread and which bolt protrudes from a fixed supporting structure, which locking bolt is mounted at approximately right angle to a base plate which is affixed to the supporting structure, and has at least one block pin on each side of the threaded locking bolt and in parallel with said bolt.

Each year there are a great number of thefts of ski equipment from hotels, rest or sport cabins and also from storage areas in the cellar or attic of appartment houses.

Ski resort establishments normally have at least one lockable storage room, where skis can be kept during night to reduce the risk of theft. Many thefts, however, occur during daytime when there are no provisions for locking skis, e.g. during lunchtime. Common simple locks, e.g. wire or chain locks for bicycles are not well suited to secure skis and ski poles.

The presence of expensive ski equipment in storage areas in appartment houses has proven to be a major reason for the increase in burglary in these areas.

The object of the invention is to provide a simple and effective locking device, in which ski equipment of different models and sizes can be safely secured from theft.

The locking device according to the invention is characterized in that a blocking plate with apertures corresponding to the bolt and the pins is displacable along these until said plate abuts the sides of a pair of skis being held in the gaps between the locking bolt and the block pins through tightening of the locking means by screw-

ing it on the locking bolt towards the blocking plate, and that at least one of the plates has a layer of pliable material on the side turned towards the other plate, which material has a high coefficient of friction.

The base plate is preferably mounted on the supporting structure by means of screws which are covered by a pair of skis when mounted in the locking device.

Preferably the distance between each block pin and the locking bolt is large enough to enable entering of a ski into each of these gaps with its narrow side edge and also a ski pole along and in parallel with its broad side.

The invention is described in the following with reference to the accompanying drawings, wherein

Figure 1 is a perspective view showing a number of locking devices according to the invention securing pairs of skis on a wall,

Figure 2 is a plan view with cutaway portions shown in larger scale and from below, and

Figure 3 is an elevational view of the locking device.

Figure 1 show a wall 10 at which a wooden crossbar 11 is mounted at about 1 to 1.5 meter level above ground. A number of locking devices 12 are mounted on the crossbar, each securing a pair of skis 13 and ski poles 14 in a locked position.

This locking is affected by means of a locking means 15 of a certain previously known type schematically shown in Figure 2 and 3 and having an outer operating knob 15a and an inner element 15b with an inner screw thread. These inner and outer elements can be connected or disconnected from each other by means of the insertion and turning of a key 16 for operation of a locking cylinder 15c. The locking means 15 cooperates with a locking bolt 17 having an outer screw thread and said bolt is mounted at the center of a base plate 18 which is affixed to the crossbar with screws 19.

The base plate 18 has two block pins 20 which are horisontally mounted on each side of and parallel with the locking bolt 17. The distance between the locking bolt and each of the block pins 20 is sufficient to enable the

insertion of one ski and one ski pole with only a small amount of free play. The locking bolt 17 comprises a sleeve 21 of soft, pliable material, e.g. syntetic rubber, to protect the external screw thread 17a from being damaged from possible sharp steel edges on the sides of alpine skis, and also to protect the surface of the skis from damage from said thread.

A blocking plate 22 is formed with apertures 23 and 24 corresponding to the locking bolt 17 and the block pins 20 to be displacable along these towards the base plate 18. The blocking plate 22 and the base plate 20 each has a layer of pliant material, e.g. syntetic rubber. The blocking plate is connected to one of the block pins 20 via a light chain 26 in order to prevent loss of the blocking plate from the locking device when this is not in locked position on the fixed members.

A pair of skis and ski poles are secured in the locking device in the following manner:

The base plate 22 is pulled and removed from the bolt 17 and the pins 20. The skis may then be fitted, one on each side of the locking bolt 17 between the block pins 20 so they abut against the rubber layer 25 of the base plate 18 and stand with their ends against the ground. The ski poles 14 are then inserted in the same way between the block pins 20 but along the outer broad side of each ski. The blocking plate 22 will then be fitted unto the bolt 17 and the pins 20 with the layer 25 towards the sides of the skis 13. The locking means 15 will then be entered on the locking bolt 17, and screwed all the way in, until it clamps the sides of the skis between the layers 25 of the base plate 18 and the blocking plate 22. Finally the key 16 is turned to its locking position and removed from the locking cylinder 15c. The operating knob 15a of the locking means 15 is now disengaged from the inner element 15b, which is tightened against the blocking plate 22.

Even a light tightening of the locking means 15 is enough to generate sufficient grip between the sides of the skis and contact surfaces of the plates 18 and 22 so that

the skis cannot be pulled lengthwise (upwards) from the locking device. The prime reason for this is the relatively large contact surfaces between the sides of the skis and the friction layers 25 of the plates 18 and 22.

Since the locking means 15 can be brought in disengaged locking position on the locking bolt 17 at any selectively distance from the base plate 18, all skis can be secured in the locking device regardless of width.

The ski poles 14 are not held in a clamping grip but can be displaced lengthwise in the locking device. The handles and the baskets of the ski poles will prevent the poles from being removed from the locking device. Therefore the poles can not be stolen from the locking device without the dismounting of either the handles, or the baskets.

The four screws 19 by which the base plate 18 is mounted to the crossbar 11 are positioned so that they are substantially covered by the skis 13, making the screw heads inaccessible, when a pair of skis are held in the locking device 12. Preferably the layer 25 in addition is applicated over the heads of the screws when they have been fully tightened to mount the base plate 18 to the crossbar 11, so that said screw heads are hidden by the layer 25.

Preferably locking devices 12 are mounted at different places on a ski resort establishment, and a personal locking device 15 may be rented with or without a deposit fee in the reception or similar service booth. In this way the locking means may be carried along on a ski tour and any free locking device may be used when the person makes a pause, or has lunch.

The disclosed embodiment is representative of a presently preferred form of the invention, but is intended to be illustrative rather than definitive thereof. A helical spring can be used instead of the pliant sleeve 21, to protect the skis and the screw thread. Other means than the screws 19 can be used to mount the locking device 12 to a wall or a crossbar, e.g. the block pins 22 and perhaps also the locking bolt 17 may be elongated to reach through the base plate 18 with attachments to this plate and have screw

nuts on the rear ends to fix the locking device 12 to a suitable wall or a crossbar.

CLAIMS

1. A locking device to secure a pair of skis (13) from theft, by means of a previously known locking means (15) comprising an outer operating knob member (15a) and an inner member (15b) with an inner screw thread and which inner member, in locked position, is disengaged from the outer member (15a) and cooperates with a locking bolt (17) having an outer screw thread and which bolt protrudes from a fixed supporting structure (10, 11), which locking bolt (17) is mounted at approximately right angle to a base plate (18) which is affixed to the supporting structure (10, 11), and has at least one block pin (20) on each side of the threaded locking bolt (17) and in parallel with said bolt, c h a r a c t e r i z e d in

that a blocking plate (22) with apertures (23, 24) corresponding to the bolt (17) and the pins (20) is displacable along these until said plate abuts the sides of a pair of skis (13) being held in the gaps between the locking bolt (17) and the block pins (20) through tightening of the locking means (15) by screwing it on the locking bolt (17) towards the blocking plate (22), and

that at least one of the plates (18; 22) has a layer (25) of pliable material on the side turned towards the other plate, which material has a high coefficient of friction.

2. A locking device according to any of the above claims, c h a r a c t e r i z e d in that the base plate (18) is mounted to the supporting structure (10, 11) by means of screws (19) which are covered by a pair of skis (13) secured in the locking device (12).

3. A locking device according to any of the above claims, c h a r a c t e r i z e d in that the distance between each block pin (20) and the locking bolt (17) is large enough to enable one ski (13) to be inserted into each of these gaps with its narrow side edge and also a ski pole (14) along and in parallel with its broad side.

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FIG. 1

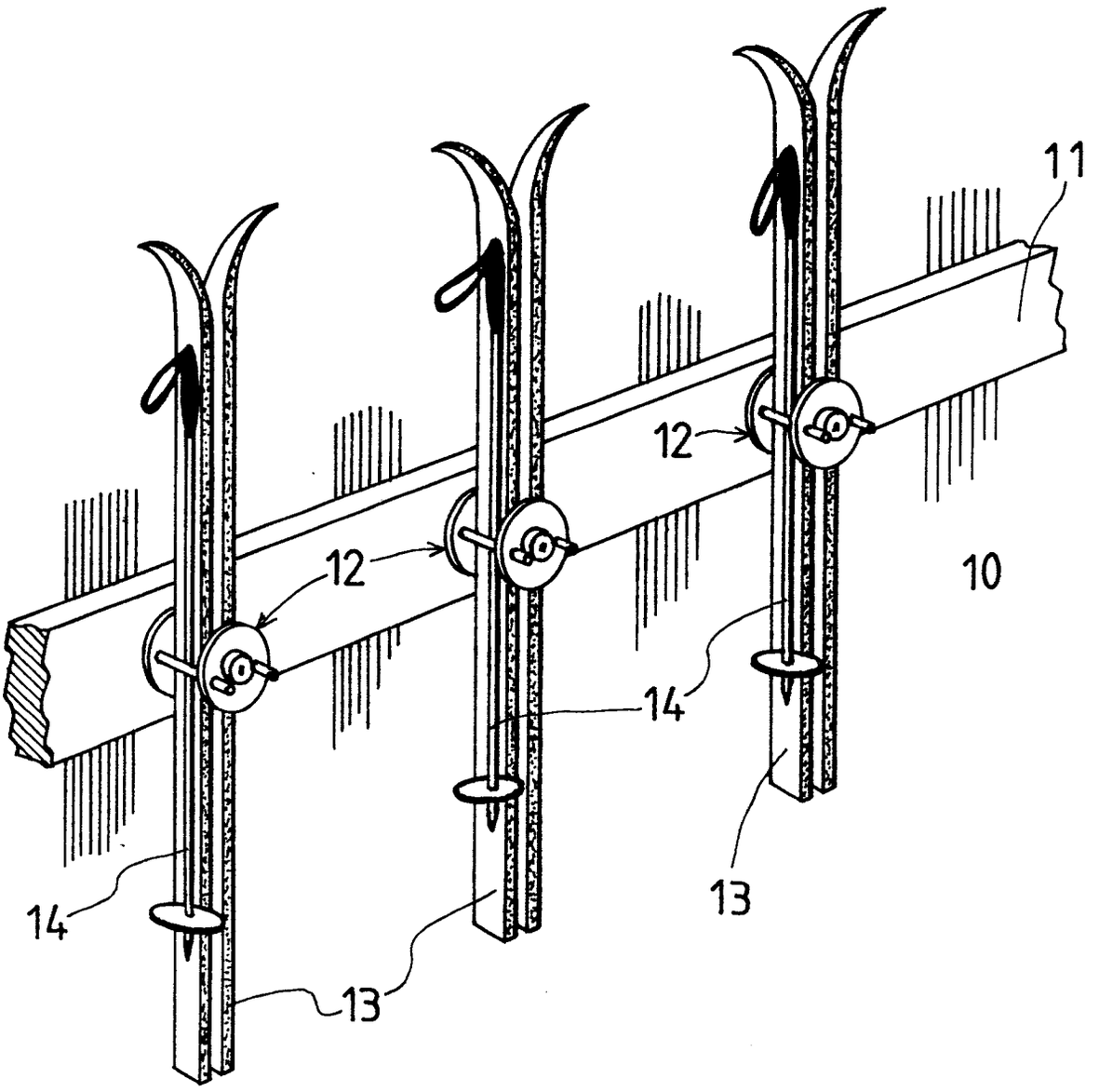

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FIG. 2

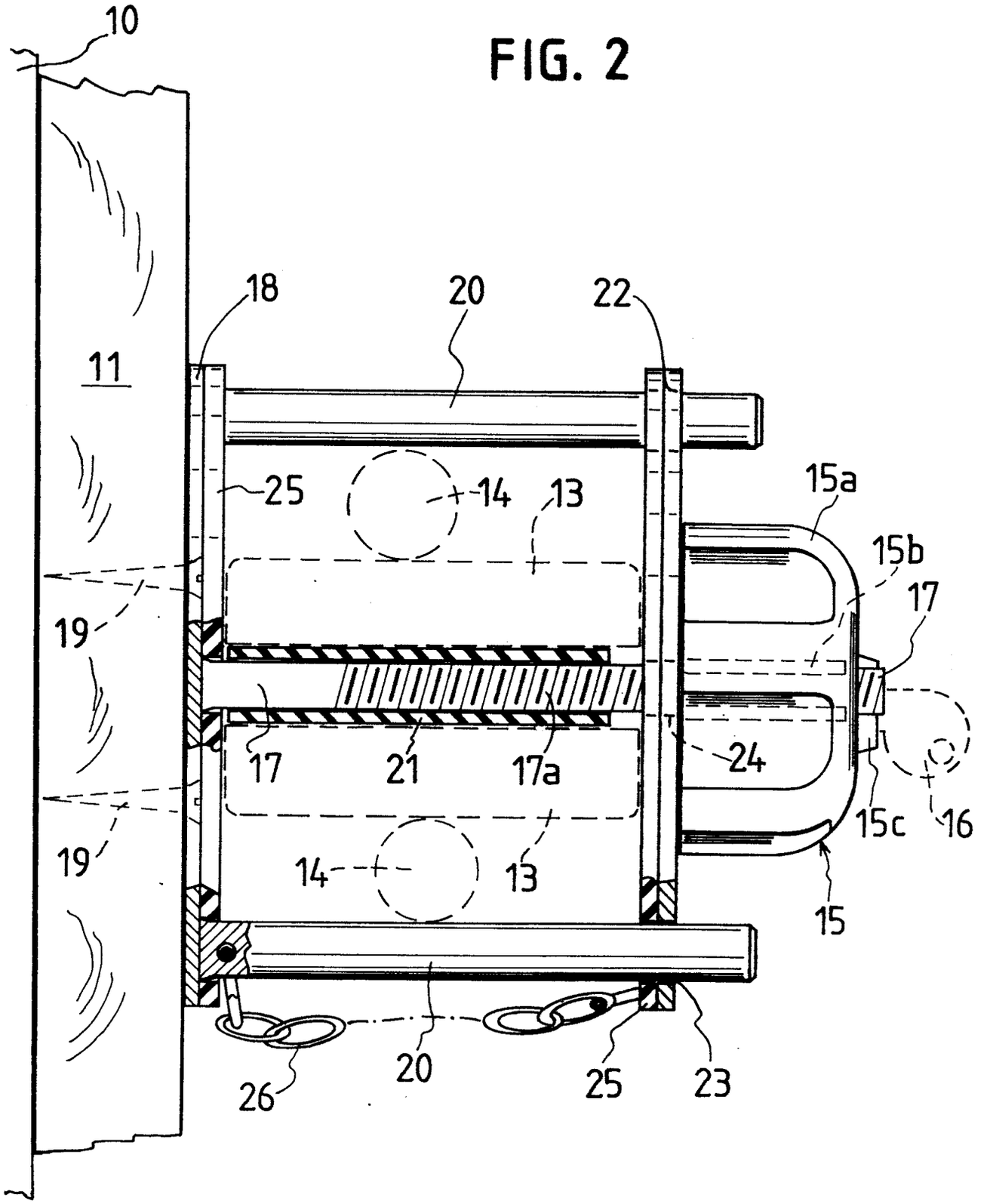

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FIG. 3