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Pyzel

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[45] **July 3, 1973**

[54] **ANTI-THEFT DEVICE FOR SKIS**

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[21] Appl. No.: **222,868**

Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 130,235, April 1, 1971, abandoned.

[52] **U.S. Cl.** ..... **70/58,** 280/11.37 A
[51] **Int. Cl.** **E05b 73/00**
[58] **Field of Search** ..... 280/11.37 A, 11.37 K; 70/58, 26, 15

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Assistant Examiner—David M. Mitchell
Attorney—Dean S. Edmonds, Willis H. Taylor, Jr. et al.

[57] **ABSTRACT**

An anti-theft device for skis comprises a U-shaped bolt that is received and releasably locked in place in bolt-receiving openings disposed immediately adjacent the pointed forward end of each ski of a pair of skis. The bolt-receiving openings have a polygonal cross-section which corresponds to the polygonal cross-section of the arms of the U-shaped bolt received in said openings. The axis of each bolt-receiving opening is disposed at an angle with respect to the longitudinal axis of the skis with which the opening is associated, the angle at which said bolt-receiving openings are disposed being such that the skis are rigidly fastened together with the upper surfaces of said skis facing each other and with the main body portion of said skis disposed at said angle with respect to each other when the arms of the U-shaped bolt are received in said bolt-receiving openings, thereby rendering the skis conspicuous and awkward to carry. The transverse portion of the U-shaped bolt may be formed with a pair of pole-receiving slots that receive the shafts of a pair of ski poles, thereby locking the poles to the skis.

5 Claims, 10 Drawing Figures

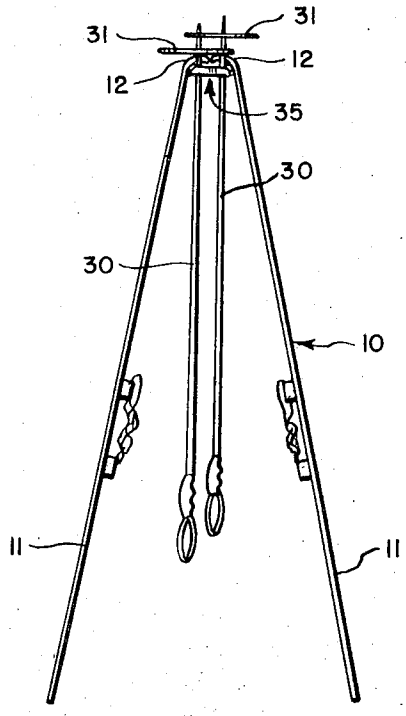


FIG. 1

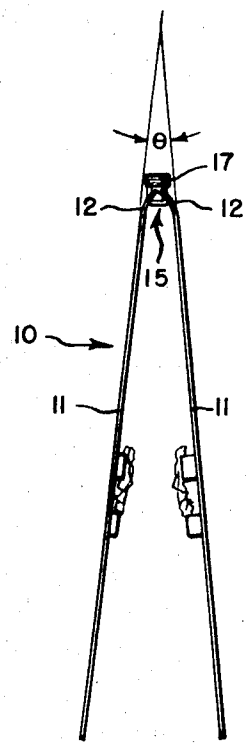


FIG. 2

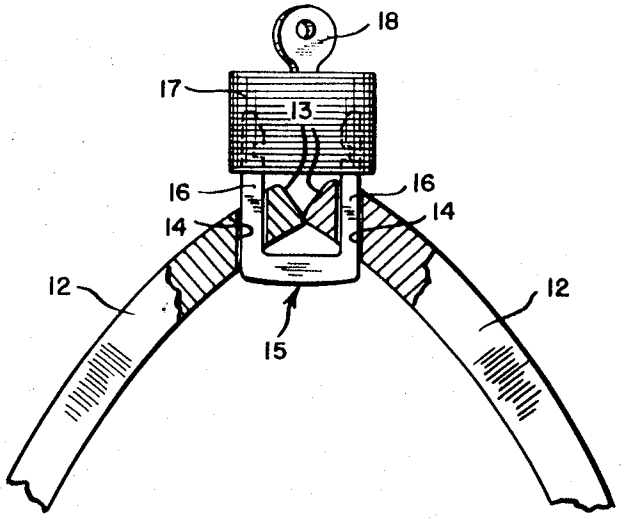
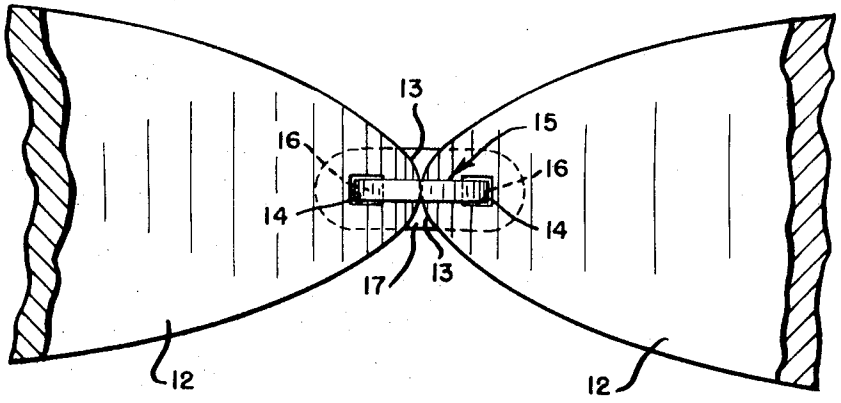


FIG. 3



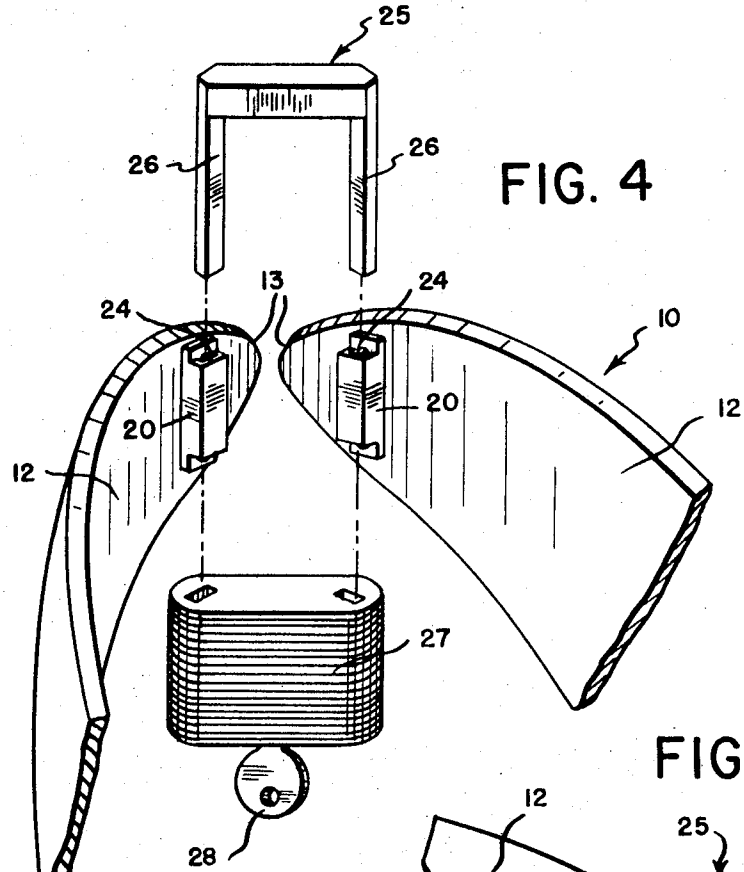


FIG. 4

FIG. 5

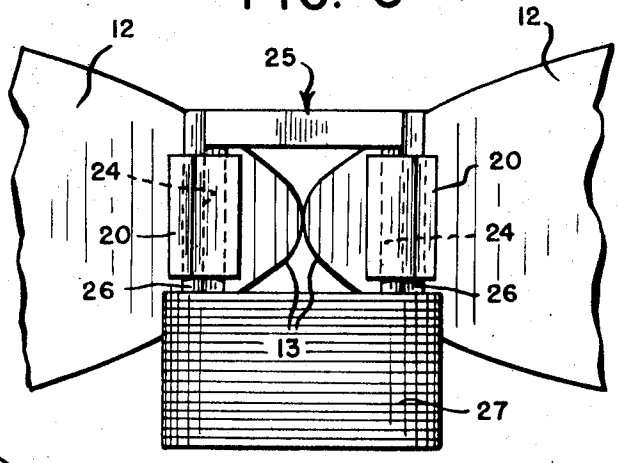
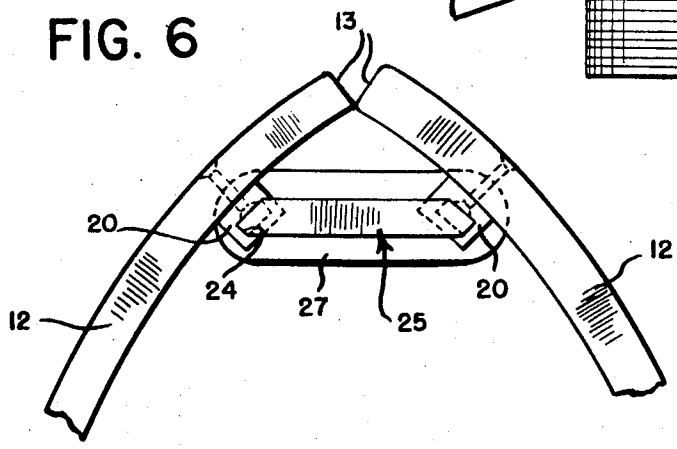


FIG. 6



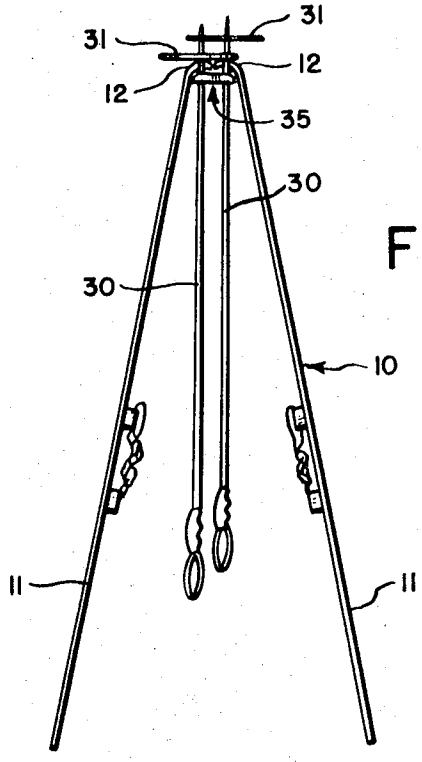

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FIG. 7

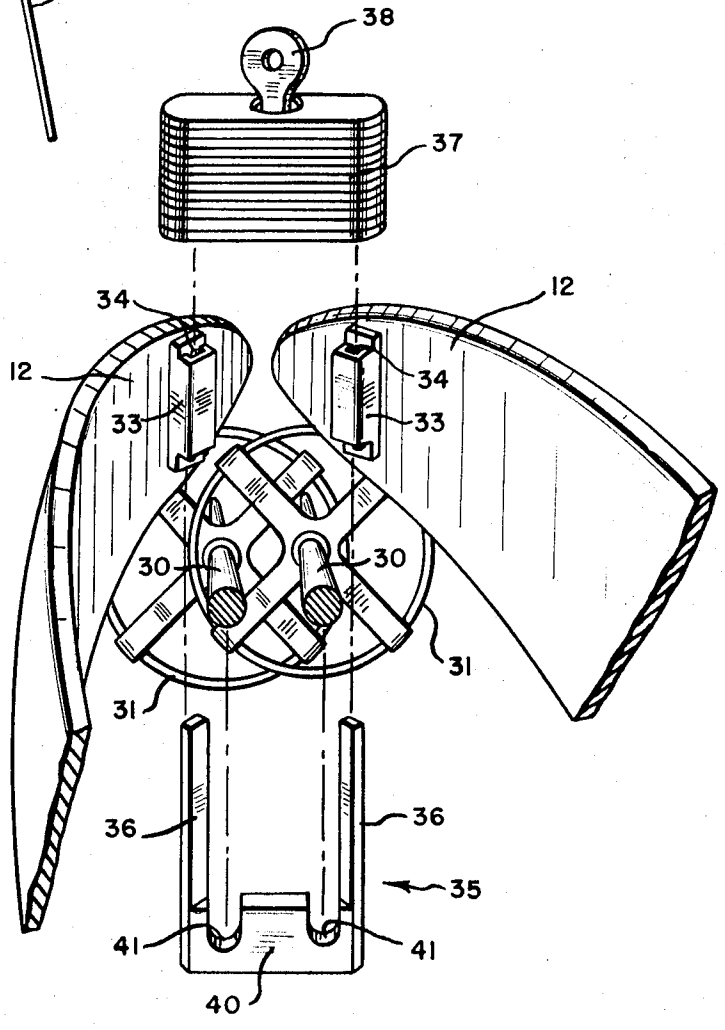

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FIG. 8

FIG. 9

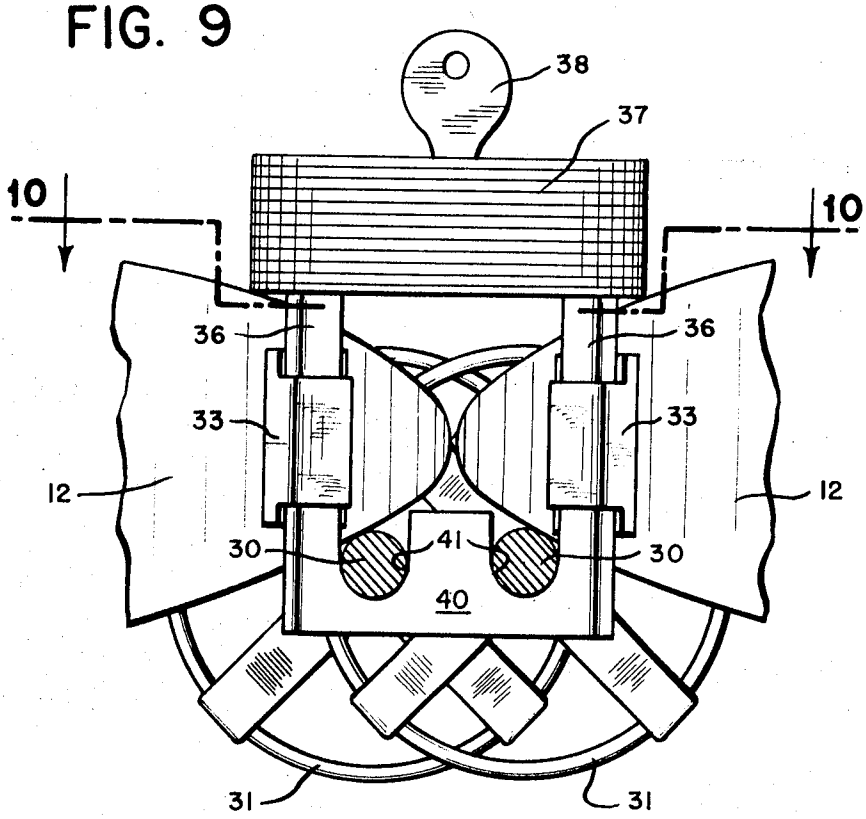
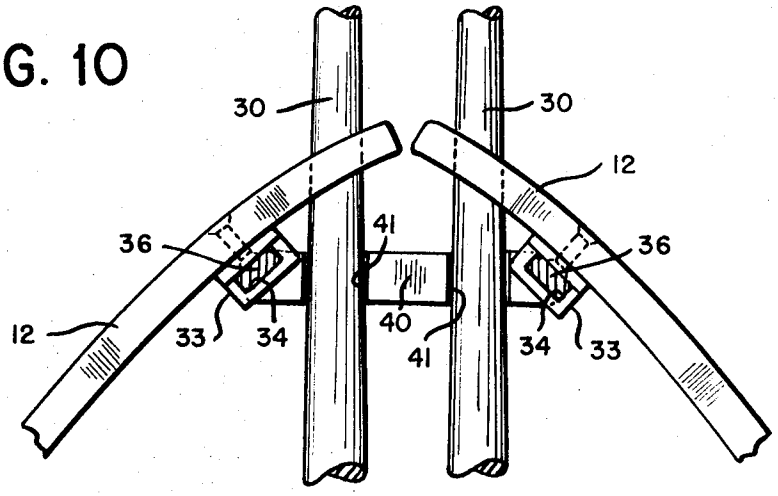

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FIG. 10


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ANTI-THEFT DEVICE FOR SKIS

RELATED APPLICATION

This is a continuation-in-part of my copending application Ser. No. 130,235, filed Apr. 1, 1971, and now abandoned.

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to anti-theft devices for skis and more particularly to a device which locks the skis in a distinctive V-shaped position that renders the skis conspicuous and awkward to carry.

2. Prior Art

When skis are not in use they are commonly strapped or otherwise fastened together with the relatively flat bottom surfaces in contact with each other. When fastened together in this manner the skis are easy to carry about and are readily stored in racks or by thrusting the rearward ends of the skis vertically into a bank of snow outside a house or lodge. The owner of skis temporarily stored in this manner frequently leaves the skis unattended while engaging in other activities. Skis strapped together and stored unattended can easily be carried away by an unauthorized person or thief. That is to say, a thief carrying off stolen skis strapped together in the usual manner is almost impossible to distinguish from the scores of other skiers in the area legitimately carrying their own skis strapped together in identical fashion. As a result, the theft of skis at ski resorts is a growing problem that is difficult to control because of the unobstrusive way in which a thief can purloin and carry off the stolen skis.

A number of devices have heretofore been proposed for preventing or frustrating the theft of skis at ski resorts and similar places. However, most of these prior art devices are cumbersome, or spoil the appearance and performance of the skis, or require special fittings at the ski rack, or have other disadvantages which make them impractical or unacceptable to the majority of skiers. After an intensive investigation of this problem I have now devised a novel anti-theft device for skis which is simple to use and which does not disfigure or harm the performance of the skis. Specifically, the anti-theft device of the invention locks the two skis in a distinctive V-shaped position that makes the skis awkward to carry and, especially, very conspicuous when carried off by an unauthorized person.

SUMMARY OF THE INVENTION

The anti-theft device of my invention is intended to be used in conjunction with a pair of skis having relatively straight main body portions and upwardly curved forward end portions which terminate with blunt points. A bolt-receiving opening is disposed immediately adjacent the pointed forward end of each ski of said pair of skis, each bolt-receiving opening having a polygonal cross-section. A U-shaped bolt is provided the arms of which are adapted to be received in the bolt-receiving openings disposed at the forward ends of the skis, the arms of said U-shaped bolts having polygonal cross-sections that correspond to the polygonal cross-sections of the bolt-receiving openings. The bolt-receiving openings are disposed at an angle with respect to the longitudinal axis of the ski with which each opening is associated, the angle at which said bolt-receiving openings are disposed being such that the skis

are rigidly fastened together with the upper surfaces of the skis facing each other and with the main body portions of the skis disposed at an acute angle with respect to each other when the arms are received in said bolt-receiving openings. In an advantageous modification of the device the transverse portion of the U-shaped bolt between the two arms thereof is formed with a pair of pole receiving slots, each slot being adapted to receive the shaft of a ski pole adjacent the basket of the pole as hereinafter described. Finally, lock means are provided which are adapted to be releasably locked to the ends of the U-shaped bolt when the polygonal arms of the bolt are received in the polygonal openings of the skis. As a result, when the arms of the U-shaped bolt are received in the bolt receiving openings, the relatively straight main body portions of the skis are rigidly maintained at an acute angle with respect to each other which renders the skis awkward to handle and very conspicuous to carry about.

BRIEF DESCRIPTION OF THE DRAWINGS

The anti-theft device of the invention will be better understood from the following description thereof in conjunction with the accompanying drawings of which:

FIG. 1 is a side elevation of a pair of skis that are rigidly locked together by means of an advantageous embodiment of the anti-theft device of the invention, the straight main body portions of the skis being disposed at an acute angle with respect to each other in accordance with the practice of the invention;

FIG. 2 is an enlarged fragmentary view of the pointed forward ends of the skis shown in FIG. 1 showing details of the anti-theft device of the invention;

FIG. 3 is a fragmentary view from below of the pointed forward ends of the skis shown in FIG. 2;

FIG. 4 is a fragmentary perspective view of the pointed forward ends of a pair of skis showing another embodiment of the anti-theft device of the invention;

FIG. 5 is a fragmentary view from below of the embodiment of the anti-theft device of the invention shown in FIG. 4;

FIG. 6 is a fragmentary side elevation of the anti-theft device shown in FIGS. 4 and 5;

FIG. 7 is a side elevation of a pair of skis that are rigidly locked together by means of an advantageous modification of the anti-theft device which also locks a pair of ski poles to the skis;

FIG. 8 is a fragmentary perspective view of the forward ends of a pair of skis and a pair of ski poles showing the aforesaid modification of the anti-theft device;

FIG. 9 is a fragmentary view from below of the modification of the anti-theft device shown in FIG. 8; and

FIG. 10 is a fragmentary side elevation of the anti-theft device shown in FIGS. 7, 8 and 9.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

As shown best in FIG. 1 of the drawing, the anti-theft device of the invention is designed to be used in conjunction with a pair of conventional skis **10** having relatively straight main body portions **11** and upwardly curved forward end portions **12** which terminate with blunt points **13**. Bolt-receiving openings are disposed adjacent the pointed forward ends **13** of each ski of the pair of skis **10**, each bolt-receiving opening being adapted to receive one of the arms of a U-shaped bolt (for example, the bolt **15** in FIG. 1). As hereinafter

more fully described, the bolt-receiving openings and the arms of the U-shaped bolt received therein have matching polygonal cross-sections which prevent relative rotational movement of the bolt **15** and the skis **10** fastened together by the bolt. In addition, the axis of each bolt-receiving opening is disposed at an angle with respect to the longitudinal axis of the ski with which the opening is associated, the angle being such that the skis **10** are relatively rigidly fastened together with the upper surfaces of the skis facing each other and with the main body portions **11** of the skis **10** disposed at an acute angle (the angle θ in FIG. **1**) with respect to each other when the arms of the bolt are received in the bolt receiving arms openings.

In the embodiment of the invention shown in FIGS. **1** to **3**, the bolt-receiving openings **14** are formed in and extend through each ski of the pair of skis **10** immediately adjacent the pointed forward ends **13** thereof. The axis of each bolt-receiving opening **14** lies in a plane that includes the longitudinal axis (hereinafter referred to as the plane of the longitudinal axis) of the ski in which the opening **14** is formed. Moreover, as previously noted the axis of each bolt-receiving opening **14** is disposed at an angle with respect to the longitudinal axis of the ski with which it is associated, this angle being equal to about one-half θ. The U-shaped bolt **15** is provided arms **16** of which are adapted to be received in the bolt-receiving openings **14** formed in the ends of the skis. As shown best in FIG. **3**, the bolt-receiving openings **14** and the arms **16** of the bolt **15** have matching polygonal cross-sections which prevent relative rotational movement of the bolt **15** and the skis **10** fastened together with the bolt. Lock means **17** are also provided which are adapted to be releasably locked to the ends of the arms **16** of the bolt **15** when the arms **16** are received in the bolt-receiving openings **14.** The lock means **17** advantageously is of conventional padlock design which is unlocked by means of a removable key **18.**

In the embodiment shown in FIGS. **4** to **6**, the bolt-receiving openings are formed in a bracket **20** which is secured by means of screws or the like to the upper surface of the curved forward end portion **12** of the skis **10** immediately adjacent the pointed forward ends **13** thereof. The brackets **20** are positioned so that the axis of each bolt-receiving opening **24** is disposed perpendicular to the plane of the longitudinal axis of the ski with which the opening **24** is associated. A bolt **25** is provided the arms **26** of which are adapted to be received in the bolt-receiving openings **24** of the brackets **20.** As in the previously described embodiment, the bolt-receiving openings **24** and the arms **26** of the bolt **25** have matching polygonal cross-sections which prevent relative rotational movement of the bolt **25** and the skis **10** when the skis are fastened together by the bolt. Also as previously described, lock means **27** are provided which is adapted to be releasably locked to the ends of the arms **26** of the U-shaped bolt **25** when the bolt is received in the openings **24**, the removable key **28** being used to unlock the lock means **27.**

When the arms of the bolt **15** are received in the bolt-receiving openings **14** of the embodiment of FIGS. **1** to **3**, and when the arms of the bolt **25** are received in the bolt-receiving openings **24** of the embodiment of FIGS. **4** to **6**, the pair of skis **10** are rigidly locked together with the upper surfaces of the skis facing each other and with the main body portions **11** disposed at an angle (the angle θ) with respect to each other. The rigidity with which the skis **10** are fastened together results from the matching polygonal cross-sections of the bolt-receiving openings (**14** and **24**) and the arms (**16** and **26**) of the bolt (**15** and **25**) received therein. The acute angle that the main body portions **11** are disposed with respect to each other results from the angle at which the axis of each bolt-receiving opening lies with respect to the longitudinal axis of the skis with which the opening is associated. The resulting V-shaped configuration of the relatively flat main body portions **11** of the skis **10** renders the skis awkward to handle and very conspicuous when being carried off by an unauthorized person.

Most skiers use ski poles when skiing, and it is desirable to provide means for securing the ski poles to the skis with which the poles are associated when the skis and poles are left unattended by the skier. In the modification of the invention shown in FIGS. **7** to **10**, the anti-theft device is provided with means for locking a pair of conventional ski poles to the skis. As shown best in FIGS. **7** and **8**, a conventional ski pole comprises a ski pole shaft **30** having a ski pole basket **31** secured to the shaft adjacent the lower end or tip of the pole. The ski pole has a hand grip or handle at its upper end, the pole shaft **30** tapering gradually from a maximum diameter at the handle to a minimum diameter at the tip. When the shaft **30** of one ski pole is inserted through the basket **31** of the other ski pole and the shafts are held parallel as shown in FIGS. **7** and **8**, the average distance between the shafts **30** is surprisingly uniform for the majority of ski poles now being manufactured. A pair of ski poles thus joined together are secured to the forward end portions **12** of the skis **10** by means of a modified version of the U-shaped bolt of the anti-theft device as hereinafter described.

As in the previously described embodiment, a bracket **33** having a bolt-receiving opening **34** formed therein is secured to the upper surface of the curved forward end portion **12** of each ski **10** adjacent the forward end **13** thereof. A U-shaped bolt **35** is provided the arms **36** of which are adapted to be received in the bolt-receiving openings **34** of the brackets **33.** As before, the bolt-receiving openings **34** and the arms **36** of the bolt **35** have matching polygonal cross-sections which prevent relative rotational movement of the bolt **35** and the skis **10** when the skis are fastened together by the bolt. As also previously described, lock means **37** are provided which are adapted to be releasably locked to the ends of the arms **36** of the U-shaped bolt **35** when the bolt is received in the openings **34**, the removable key **38** being used to unlock the lock means **37.**

In the modified version of the anti-theft device the transverse portion **40** of the U-shaped bolt **35** that extends between the arms **36** of the bolt is formed with a pair of pole-receiving slots **41.** Each slot **41** is adapted to receive the shaft **30** of one of the pair of ski poles adjacent the basket **31.** When the shaft **30** of each ski pole is received in one of the corresponding slots **41** of the bolt **35**, and when the skis, ski poles and anti-theft device are assembled as shown in the drawings, the ski poles are firmly secured to the forward end portions **12** of the skis as clearly shown in FIGS. **7, 9** and **10.** When thus assembled, the skis **10** are rigidly locked together at an acute angle and the ski poles are securely fastened

to the skis, the assembly being awkward to handle and very conspicuous when being carried off by a thief.

From the foregoing description of my new anti-theft device for skis it will be seen I have made an important contribution to the art of which my invention relates.

I claim:

1. An anti-theft device for a pair of skis, each ski having a relatively straight main body portion and an upwardly curved forward end portion which terminates with a blunt point, which comprises

a bolt-receiving opening for each ski of said pair disposed immediately adjacent the pointed forward end of each ski at an angle with respect to the longitudinal axis of said ski, each bolt-receiving opening having a polygonal cross-section.

a U-shaped bolt the arms of which are adapted to be received in the bolt-receiving openings at the forward ends of the skis, said arms each having a polygonal cross section that corresponds to the polygonal cross-section of the bolt-receiving openings,

the angle at which the polygonal bolt-receiving openings of said skis are disposed being such that the skis are rigidly fastened together with the upper surfaces of said skis facing each other and with the main body portions of the skis disposed at an acute angle with respect to each other when the arms of the U-shaped bolt are received in said bolt-receiving openings, and

lock means adapted to be releasably locked to the ends of the arms of the U-shaped bolt.

2. The anti-theft device according to claim 1 in which the polygonal bolt-receiving openings are formed in and extend through the pointed forward ends of the skis, the axis of each bolt-receiving opening being disposed in the plane of the longitudinal axis of the ski in which it is formed at an acute angle to said longitudinal axis.

3. The anti-theft device according to claim 1 in which the polygonal bolt-receiving openings are formed in a pair of brackets one of which is secured to the upper surface of each ski immediately adjacent the pointed forward end of said ski, the axis of each bolt-receiving opening being disposed perpendicular to the plane of the longitudinal axis of said ski.

4. The anti-theft device according to claim 1 in which a pair of ski poles are associated with said pair of skis, each ski pole comprising a ski pole shaft and a ski pole basket adjacent one end thereof, and in which the transverse portion of the U-shaped bolt between the arms of said bolt is formed with a pair of pole-receiving slots, each slot being adapted to receive the shaft of one of the ski poles adjacent the basket of said pole.

5. The anti-theft device according to claim 3 in which a pair of ski poles are associated with said pair of skis, each ski pole comprising a ski pole shaft and a ski pole basket adjacent one end thereof, and in which the transverse portion of the U-shaped bolt between the arms of said bolt is formed with a pair of pole-receiving slots, each slot being adapted to receive the shaft of one of the ski poles adjacent the basket of said pole.

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