

May 12, 1970

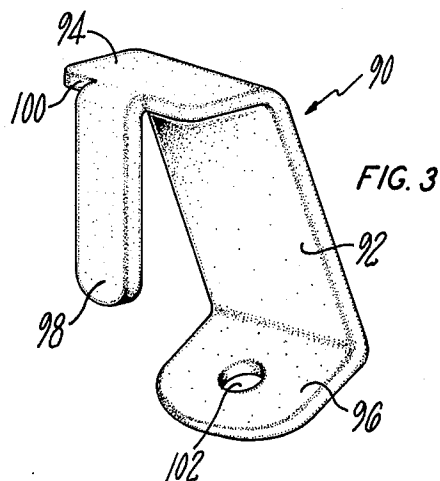
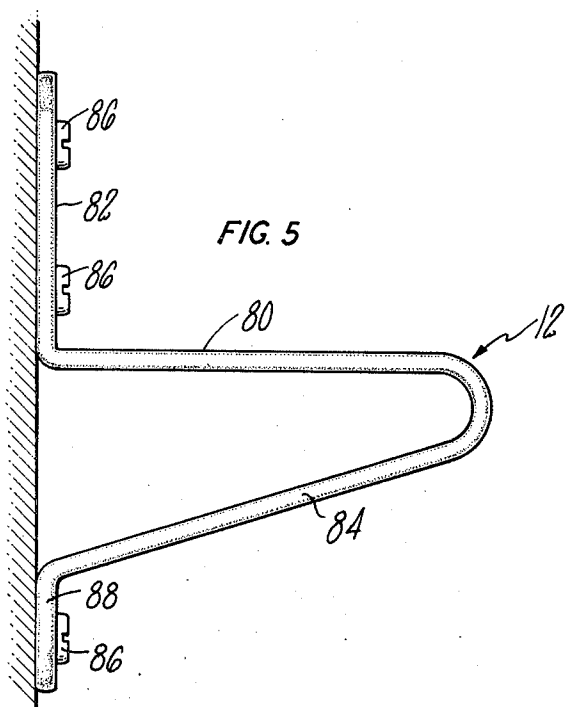
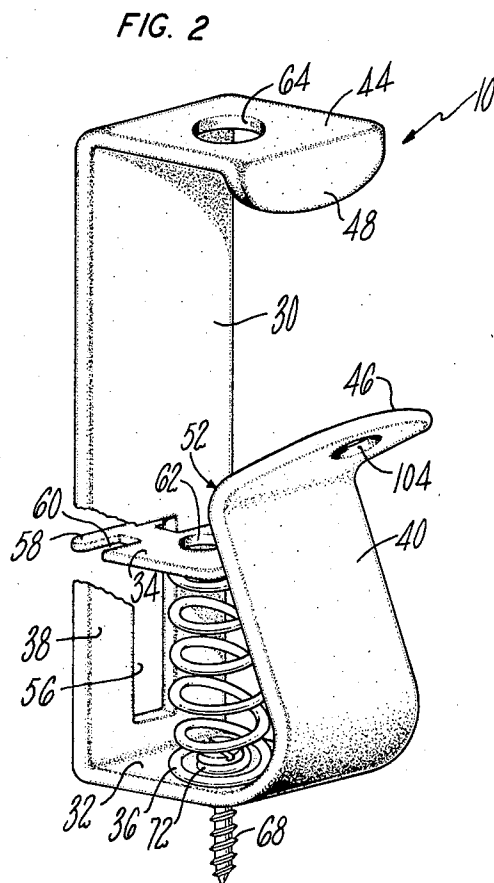
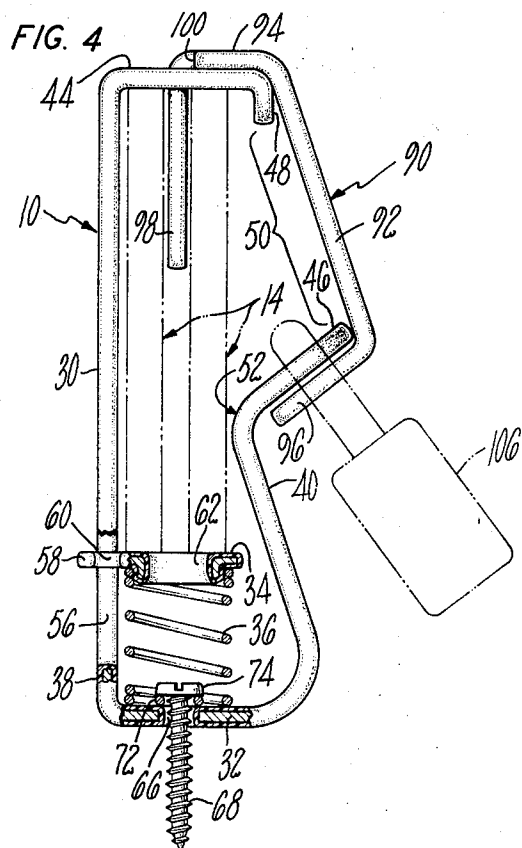
L. J. PRATT

3,511,384

SKI MOUNTING DEVICE

Filed Oct. 14, 1968

2 Sheets-Sheet 2



INVENTOR.
LEON J. PRATT

BY
Lindsey, Prutzman and Hayes

ATTORNEYS

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L. J. PRATT

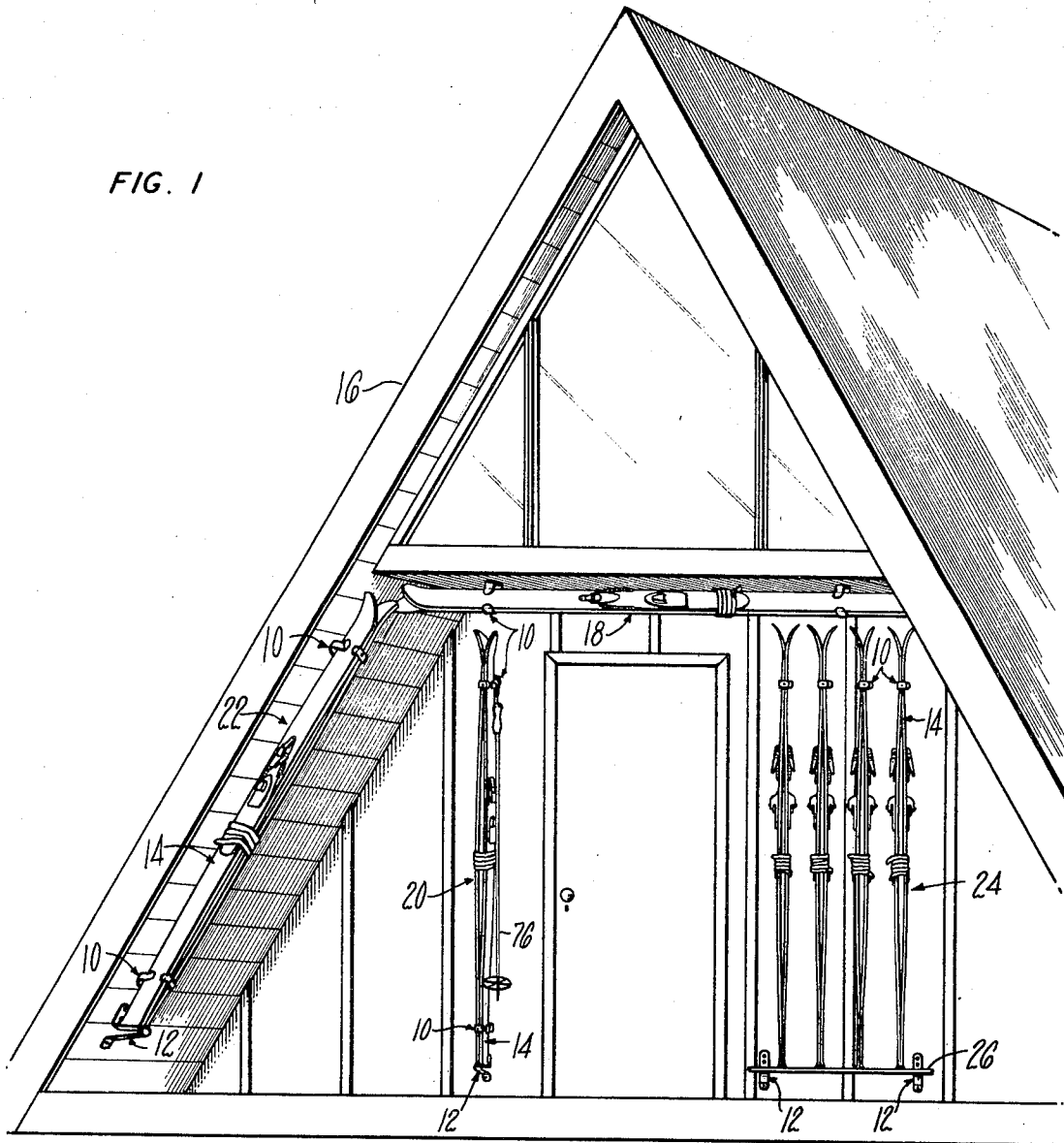
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2 Sheets-Sheet 1

FIG. 1



INVENTOR.
LEON J. PRATT

BY
Lindsey, Prutzman and Hayes
ATTORNEYS

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SKI MOUNTING DEVICE

Leon J. Pratt, Trailsend Drive, Canton, Conn. 06019
Continuation-in-part of application Ser. No. 681,347,
Nov. 8, 1967. This application Oct. 14, 1968, Ser.
No. 767,410

Int. Cl. A47f 7/00

U.S. Cl. 211—60

11 Claims

ABSTRACT OF THE DISCLOSURE

A ski mounting device includes a mounting bracket having a one piece bracket body of G-shaped cross section, a ski clamping plate slidably mounted on the body for compressively holding the edges of a pair of skis between the plate and the top of the bracket body and a compression spring constantly biasing the plate into contact with the edges of the skis when the skis are mounted on the bracket. A cover plate cooperates with the bracket to facilitate secure locking of the skis within the bracket.

This application is a continuation-in-part of my prior copending application Ser. No. 681,347, filed Nov. 8, 1967, and entitled "Ski Mounting Device" now abandoned.

The present invention relates generally to devices for mounting and storing skis and the like. More particularly, it relates to a new and improved mounting device for storing pairs of skis in a neat, orderly and efficient manner on a supporting structure which may be disposed at various angular positions.

A principal object of the present invention is to provide a new and improved ski mounting device of the type described which securely holds the skis without exerting thereon any pressure that might tend to change the shape or otherwise adversely affect the skis. In particular, the device obviates the application of any pressure to the top or running surfaces or against the camber of the skis. As part of this object is the provision for a mounting device of simple, yet durable construction which exhibits ease and versatility of installation while enabling quick and facile mounting of the skis thereon.

Another object of the present invention is to provide a ski mounting device which includes a new and improved ski receiving bracket capable of firmly holding the skis regardless of whether the support on which the bracket is mounted is disposed horizontally, vertically or in an inclined position. Included in this object is the provision for a ski mounting device which can be secured to a movable partition such as a door yet prevents slippage or rattling of the skis and does not interfere with the operation of the door.

A further object of the present invention is to provide a new and improved ski supporting bracket which applies equal pressure to both skis being supported while contacting only the edges thereof and provides sufficient clearance between the skis and the supporting surfaces on which they are mounted to assure protection of both the skis and the supporting surfaces from scratches, scuffs or other damage which might be caused during mounting the skis, particularly by the ski bindings.

Still another object of the present invention is to provide a new and improved ski supporting bracket of the type described which includes a biasing member adapted not only to securely hold the skis by compressively engaging the edges thereof but also to effectively absorb any shock resulting from the bumping or banging to which the skis may be subjected.

A still further object of the invention is the provision for an easily mounted lock plate which cooperates with

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the bracket in preventing unauthorized removal of the skis when left unattended.

Other objects will be in part obvious and in part pointed out more in detail hereinafter.

The invention accordingly consists in the features of construction, combination of elements and arrangement of parts which will be exemplified in the construction hereafter set forth.

In the drawings:

FIG. 1 is a perspective view illustrating various ways in which the new and improved ski mounting device of the present invention may be utilized;

FIG. 2 is a perspective view of the ski receiving bracket of the device prior to installation;

FIG. 3 is a perspective view of the lock plate of the present invention prior to installation;

FIG. 4 is a side view, partially broken away and partially in section, of the bracket shown in FIG. 2 illustrating the position of the clamping plate of the bracket when a pair of skis, shown in phantom, are mounted on the bracket and the lock plate of FIG. 5 is assembled thereon; and

FIG. 5 is a side view of the separate end pedestal of the ski mounting device.

Referring now to the drawings in greater detail, wherein like reference numerals indicate like parts throughout the several figures, the mounting device of the present invention is depicted in FIG. 1 in various modes of utilization. As illustrated, the device includes at least one, and preferably two, ski retaining brackets, generally designated 10, and a separate pedestal 12 for supporting the rearward end of a pair of skis 14. The ski mounting device may be affixed to various structural portions of a ski lodge, such as the A-frame 16 depicted in FIG. 1, whereby the pairs of skis 14 may be mounted in different out of the way locations. For example, using only the brackets 10, the skis 14 may be stored in a horizontal position on the walls or ceiling of the building, as illustrated at 18, or may be mounted in the vertical or inclined positions shown at 20 and 22 respectively. Although only one bracket 10 of the support need be employed to hold the skis in a stationary position, it is generally preferred that the ski mounting device include a pair of spaced brackets 10 and a lower pedestal member 12, especially in those instances where the stored skis will be subjected to movement during storage, such as when the skis are attached to a moving panel, e.g. a door. An example of the use of only one bracket 10 for each pair of skis is given at 24 where the device is illustrated as being adapted to store four pairs of skis. As shown, a pair of end pedestals 12 are mounted so as to support an elongated shelf 26 which supportably receives the rearward ends of the skis 14 mounted on the wall by only the four horizontally spaced brackets 10.

Referring now to FIGS. 2 and 4, the bracket 10 is a narrow elongated member consisting of a one piece bracket body 30 exhibiting a generally G-shaped cross-sectional configuration including a flat base 32, a ski clamping plate 34 mounted on the bracket body above the base 32 and a coiled compression spring 36 secured to both the plate 34 and the bracket base 32 and adapted to be loaded upon movement of the plate 34 toward the base 32. The bracket body 30 is preferably formed from flat strip steel or the like and, in addition to the base 32 which facilitates mounting of the bracket on a suitable support, includes an integral back member 38 extending upwardly from the back edge of the base 32 at substantially a right angle thereto and a shorter front guide member 40 integrally upstanding from the front edge of base 32. A flat, substantially square, end flange 44 extends forwardly from the top of the flat, generally

rectangular back member 38 at a right angle thereto in such a manner that it is in substantial overlying parallelism with the base 32. Thus, the flange 44 is spaced from the base 32 by a distance equal to the length of the back member 38 which is substantially greater than the width of the skis 14 supported by the bracket. The front guide member 40 which completes the G-shaped configuration of the bracket body is of a serpentine or S-shaped cross-sectional configuration with a terminal tongue portion 46 extending outwardly away from the back member 38 at an acute angle about midway between the base 32 and the end flange 44. The front guide 40, being substantially shorter than the back member 38, defines with the top lip 48 depending from the flange 44 a front opening 50 adapted to readily receive the skis as they are mounted on the bracket. Additionally, the innermost part of the guide 40, designated by the numeral 52, defines the depth of the ski receiving cavity which, preferably, is about three times the thickness of an individual ski. Thus, the over-sized cavity provides latitude in mounting the bracket and enables utilization of the bracket for skis of different but similar size.

As best shown in FIG. 2, the straight, flat back member 38 is provided with an elongated, generally rectangular slot 56 spaced from the end flange 44 by a distance less than the width of the skis, that slot 56 extending longitudinally toward and terminating adjacent the base 32 of the bracket. A key tab 58 extending outwardly from the rear edge 60 of the flat, generally rectangular ski clamping plate 34 protrudes through slot 56 and cooperatively interengages the back member 38 to facilitate slidable movement of the plate 34 toward and away from the base 32 of the bracket.

The clamping plate 34 is provided with a central aperture 62 axially aligned with both the central aperture 64 in the end flange 44 and the fastener receiving aperture 66 in the base. In this manner a long-shanked screw-driver or the like can easily pass through the apertures 62, 64 to manipulate the fastener 68 and securely fasten the bracket 10 on a suitable support. As illustrated, a reduced diameter coil 72 at one end of the compression spring 36 is interposed between the base 32 and the fastener head 74 to thereby securely anchor the spring 36 to the bracket body 30. The edge of the clamping plate's central aperture 62 is provided with a downwardly depending flared shoulder 76 over which readily snaps the other terminal coil 78 of the spring 36 thereby stabilizing the reciprocal operation of the spring 36 and clamping plate 34 upon insertion and removal of the skis.

Referring now to FIGS. 3 and 4 there is shown a lock plate 90 adapted to close the ski receiving front opening 50 of the bracket after the skis have been mounted therein and facilitate the secure locking of the skis against unauthorized removal. The lock plate 90 is preferably formed from substantially the same material as the bracket 10, namely, strip steel, although it will be readily appreciated that the plate 90 is not subjected to the same stresses as the bracket 10 and therefore may be formed from other suitable materials. The plate 90 includes a central cover strip 92 of sufficient length to traverse the opening 50 between the end flange 44 and the tongue 46 of front guide 40. The strip 92 includes an angularly oriented portion 94 disposed in overlying abutting relationship to the end flange 44 and a flat end tab 96 located on the opposite end of strip 92 from portion 94 and suited for assembly in confronting relationship to the tongue 46. An aperture 102 is provided in the tab 96 for alignment with a corresponding aperture 104 in tongue 46. The one piece lock plate 90 is additionally provided with a long narrow mounting lug 98 which extends integrally from the free edge 100 of strip portion 94 generally toward the end tab 96. As shown, lug 98 is appreciably narrower than the remainder of lock plate 90 and readily passes not only through the central aperture 64 of end flange 44 but also between the skis 14

mounted within the bracket. Although the length of lug 98 may vary somewhat, it should be of sufficient length to prevent unauthorized removal of the lock plate from the assembly when end tab 96 and tongue 46 are secured against separation, as by means of a padlock 106 inserted through aligned apertures 102 and 104.

In order to facilitate the insertion and removal of the skis and at the same time protect them against sharp or rough edges which might cause scratches or other damage, the bracket 10, clamping plate 34 and lock plate 90 are preferably covered with a protective plastic coating such as polyethylene, nylon or the like. The protective covering may be applied by any suitable technique, such as dip coating. However, fused nylon has been found to give excellent results and is generally preferred.

Where two brackets are to be utilized in a desired installation, the brackets are easily aligned by means of their flat back members 38 which preferably should fall within the same plane. After attaching the bracket 10 on the supporting surface and before mounting the skis thereon, ski poles 76 can be easily and conveniently mounted thereon by hooking the straps of the poles over the guide member 40 or on the lock plate 90.

When the skis are to be mounted in a vertical or inclined position, it is generally preferred that the mounting device include a bottom or end pedestal 12 for supportably receiving the end of the skis. The pedestal 12, best shown in FIG. 5, is formed as a one piece unit from narrow strip steel of substantially the same quality as that used for the bracket 10 and is provided with a generally V-shaped cross-sectional configuration including a primary supporting leg 80 which extends outwardly at substantially a right angle from the pedestal's top mounting flange 82 mounted on the supporting surface directly below a bracket 10. A reinforcing leg 84 is integrally connected to leg 82 at its outermost extremity and extends downwardly therefrom at an acute angle toward the supporting surface. The reinforcing leg 84 is affixed to the support by suitable fasteners 86 passing through the flat, lower flange 88 integral therewith and angularly disposed with respect to the reinforcing leg to lie flat against the supporting surface.

After securely attaching the pedestal 12 and brackets 10, the skis are easily mounted on the brackets by passing the edges thereof through the opening 50 until they contact the plate 34. Thereupon the skis push the plate 34 toward the base 32 to load the spring 36 and permit the opposite edges of the skis to pass under lip 48 and come into contact with the top end flange 44. The spring 36 thereafter will urge the plate 34 into compressive retaining contact with the edges of the skis preventing any unwarranted movement thereof while the rearward end of the skis are permitted to rest upon the supporting leg 80 of the pedestal 12. The lock plate 90 may then be assembled thereon by inserting the elongated mounting lug 98 through aperture 64 and between skis 14 and bringing end tab 96 into confronting relationship with bracket tongue 48. A padlock having a portion passing through apertures 102, 104 may then effectively secure the lock plate to the bracket and lock the skis 14 in place within the bracket.

As can be seen from the foregoing detailed description, the mounting device of the present invention is particularly well adapted for storing skis against surfaces of suitable length. The ski receiving brackets hold the skis against the outward extremity of the bracket thereby obviating any damage to the supporting surfaces by the ski bindings. Additionally, the skis are firmly held without contacting the running surfaces or applying any pressure against the camber of the skis, the only contact being with the edges of the skis. The bracket further includes a locking plate for preventing unauthorized removal of the skis.

As will be apparent to persons skilled in the art, various modifications and adaptations of the structure above-

described will become readily apparent without departure from the spirit and scope of the invention.

I claim:

1. A mounting device for storing skis and the like comprising a ski receiving bracket for compressively engaging the edges of the skis without applying undesirable pressure against the camber thereof, said bracket including a one piece bracket body having a base for mounting the bracket on a suitable support and a stationary ski retaining end flange for receivably holding the skis at a substantially greater distance from the support than that required to accommodate the skis; a ski clamping plate mounted on the bracket body for limited movement in spaced parallel relationship to the end flange; and a plate biasing means acting on the movable clamping plate for urging the plate against the edges of the skis forcing the skis into compressive engagement with the end flange whereby the skis are firmly held by the bracket between the plate and flange thereof.

2. The mounting device of claim 1 wherein the movable clamping plate is a generally flat member mounted on the bracket body for stabilized slidable movement toward and away from the end flange, said plate being provided with means for releasably securing the biasing means to the plate.

3. The mounting device of claim 1 wherein the biasing means comprises a spring mounted between the bracket body and the clamping plate for holding the plate in a position spaced from the end flange by a distance less than the width of the skis and facilitating compressive loading of the spring upon mounting of the skis on the bracket.

4. The mounting device of claim 1 wherein the one piece bracket body includes a front guide member terminating in a forwardly projecting tongue portion for guiding the skis onto the bracket, the ski retaining end flange and the tongue portion of the guide member defining an opening for insertably mounting the skis on the bracket.

5. The mounting device of claim 4 including a closure strip for the opening having means for connecting the end flange and tongue portion to the strip to prevent its unauthorized disassembly from the bracket body.

6. The mounting device of claim 1 including a separate pedestal for supportably receiving the end of the skis having a substantially flat ski supporting leg and an integral mounting flange facilitating mounting of the pedestal on a support in aligned spaced relationship with the bracket.

7. A mounting device for storing skis and the like in a variety of positions comprising a ski receiving bracket for compressively engaging the edges of the skis without applying pressure to the camber thereof, said bracket comprising a one piece body member of generally G-shaped cross section including a substantially flat base provided with means facilitating mounting of the bracket on a suitable support, a front guide member of serpentine cross section upstanding integrally from the front of the base and terminating in a forwardly projecting tongue

portion for guiding the skis onto the bracket, a substantially straight back member of greater length than the guide member integrally upstanding from the rear of the base at substantially a right angle thereto, said back member having a stationary forwardly projecting ski retaining flange spaced above the base by a distance substantially greater than the width of the skis and being generally parallel thereto, said flange being integrally connected to the base through the back member, said flange having a terminal lip facing the guide member and defining with the tongue portion an opening for mounting the skis on the bracket, said back member being provided with an elongated longitudinally extending slot having one end thereof adjacent the base; a movable ski clamping plate of substantially the same planar dimensions as said flange having a keyed tab slidable along said slot and a spring retaining shoulder facing the base, said plate being spaced from the ski retaining flange intermediate the flange and the base in parallel relationship thereto for bearing against the edges of the skis on one side thereof; and a compression spring mounted on the base and secured to the spring retaining shoulder of the plate, said spring acting on the plate causing it to compressively bear against the skis forcing them into engagement with the retaining flange.

8. The mounting device of claim 7 wherein at least the lip and tongue portions are coated with a plastic material to protect the skis as they are mounted on the bracket.

9. The mounting device of claim 8 including a closure strip for the ski mounting opening having means for connecting the flange and tongue portion to the strip.

10. The mounting device of claim 1 wherein the one piece bracket body is of a generally G-shaped cross-sectional configuration and is provided with an elongated longitudinally extending slot having one end thereof adjacent the base, and wherein the movable clamping plate includes a keyed tab slidable along said slot for maintaining said plate in stabilized parallel relationship to the end flange, said plate being moved against the bias of the biasing means upon mounting of the skis thereon.

11. The mounting device of claim 1 including a cover strip mountable on the bracket body to lockably enclose the skis mounted thereon.

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JAMES A. LEPPINK, Primary Examiner

U.S. Cl. X.R.

248—310