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WATER SKI HARNESS

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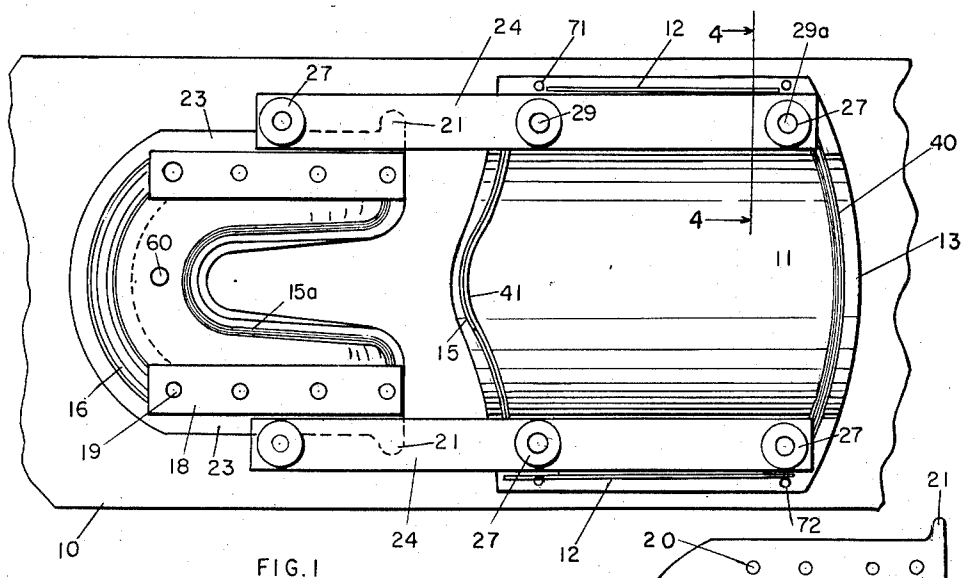


FIG. 1

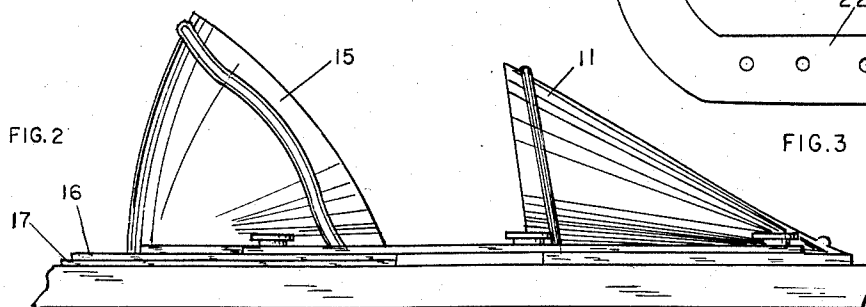


FIG. 2

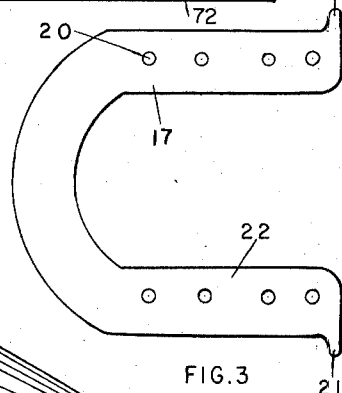


FIG. 3

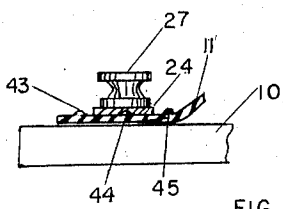


FIG. 4

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1

2,910,709

WATER SKI HARNESS

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1 Claim. (Cl. 9—21)

This invention relates to water skis and, more particularly, to ski bindings for supporting and retaining the foot of the wearer on the water ski.

It is, accordingly, an object of this invention to provide a ski binding for water skis which is simple in construction, economical to manufacture, and simple and efficient to use.

Another object of the invention is to provide a ski binding for water skis which is adjustable to various sizes of feet.

A further object of this invention is to provide a foot supporting binding for water skis which will be comfortable to the wearer and will support the forward portion of the foot in a resilient vamp or fore part and embrace the heel portion by a counter, the vamp and counter portions being separate with the counter portion movable or adjustable toward and away from the vamp and the vamp being adjustable laterally to accommodate various foot widths.

A still further object of the invention is to provide the construction of a ski binding which will securely attach to the upper surface of a ski, which will snugly support the forward and heel portions of the user's foot, and which will permit the instantaneous removal of the foot therefrom.

With the above and other objects in view, the present invention consists of the combination and arrangement of parts hereinafter more fully described, illustrated in the accompanying drawing and more particularly pointed out in the appended claims, it being understood that changes may be made in the form, size, proportions, and minor details of construction without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawing:

Fig. 1 is a top view of a ski binding according to the invention;

Fig. 2 is a side view of the ski binding shown in Fig. 1;

Fig. 3 is an enlarged view of a piece of the ski binding; and

Fig. 4 is a cross sectional view taken on line 4—4 of Fig. 1.

Now with more specific reference to the drawing, a portion 10 of a water ski is shown which may be of the desired size and configuration to suit the specific purpose intended; however, the binding described herein is adapted to be supported on any water ski or snow ski and, further, has utility in use as a harness or binding for snow shoes.

A vamp 11 is supported on the fore part of the binding and is adapted to be supported over the top of the instep of the foot of the wearer. The vamp portion 11 is made of a flat piece of flexible resilient material having outwardly extending edges 12 which are integral with the vamp portion 11 and form a part of a continuous flat piece of resilient flexible material. The vamp 11 has a plurality of holes 71 therein for rear bolts 29 to extend through and similar holes 72 are formed at the front for

2

front bolts 29a to extend through. The bolts 29 and 29a can be moved to other holes 71 and 72 to provide lateral adjustment for various sizes of feet. A front portion 13 of the vamp 11 can be rounded and extend out to cover the toes of the wearer and a rear portion 15 can be rounded to extend up over the instep of the foot; however, the vamp 11 could be made from a single strap which could be wide or narrow, depending upon the particular need and the circumstances involved.

A counter portion 15a is made of a flat piece of flexible material which could be resilient. The counter 15a has its lower edges turned out at the bottom thereof. Outer edges 16 of the counter 15a are supported on top of a clamping strip 17 and have clamping bars 18 extending over the top thereof with the edges 16 sandwiched between the clamping strip 17 and the clamping bars 18; that is, the edges 16 are clamped between the clamping strip 17 and the clamping bars 18 and the three members 16, 17, and 18 are held together by means of rivets 19 which extend through holes in the clamping bars 18 and through holes 20 in the clamping strip 17. Therefore, as shown, the counter 15a forms an enclosure to enclose the heel of the foot of the wearer.

The clamping member 17 is generally horseshoe shaped and has outwardly extending lugs 21 on the sides of legs 22 thereof. Outer edges 23 of the clamping member 17 slide under the rear ends of slats 24 and the rearward travel of the counter member 15a, when slid laterally under the slats 24, is limited by the lugs 21.

The front edge 13 of the vamp 11 has a raised bead 40 integral therewith extending over the toe portion adjacent the marginal edge. The bead 40 is semi-circular in cross section and reinforces the front edge 13 to prevent the vamp 11 from springing up and, therefore, trapping water thereunder as the ski slides through the water, thereby increasing the resistance. The counter portion 15a also has a bead disposed around the rear peripheral edge thereof which reinforces the counter edge and assists in holding it in an upright position. Beads 43, 44, and 45 are integrally formed with the outwardly extending edges 12 of the vamp 11 and are selectively engaged by the slats 24 to hold the vamp 11 clamped thereunder in positive relation. The beads 40, 43, 44, and 45 not only hold the counter 15a and vamp 11 in shape but they also stiffen them and, thereby, give the wearer additional comfort. A hole 60 is formed in the counter 15a to allow water to spill out and, also, to provide comfort and ventilation to the skier.

In use, the wearer will slip his toes under the vamp 11, loosen the thumb nuts 27, and insert the bolts 29 and 29a into the holes 71 and 72 in the vamp 11 to adjust it to the size of his foot. Then he will put his heel in the counter member 15a and push the counter member 15a along with the clamping strip 17 forward, sliding the clamping member 17 under the slats 24 until a comfortable size of shoe has been made. He will then tighten the nuts 27 which will clamp the edges 12 under the slats 24, holding the ski binding in rigid relation.

The nuts 27 are supported and threadably attached to the bolts 29 and 29a which extend up through the ski. The nuts 27 threadably engage the bolts 29 and 29a to lock the slats 24 in clamping position thereon.

The foregoing specification sets forth the invention in its preferred practical forms but the structure shown is capable of modification within a range of equivalents without departing from the invention which is to be understood is broadly novel as is commensurate with the appended claim.

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

In combination, a water ski and a binding therefor

3

comprising a vamp member having a thin sheet of flexible material bent at one end to form a hollow defined by said vamp member and a part of said ski, the marginal edges of said flexible vamp member engaging said ski along three edges thereof, a reinforcing bead along the front marginal edge of said flexible vamp member reinforcing said vamp member against bending, a marginal bead along the rear edge of said flexible vamp member reinforcing said vamp member, three spaced, generally parallel ribs on the upper outside marginal edges of said flexible vamp member, spaced holes in said flexible vamp member along the marginal edges thereof, bolts attached to said ski and extending through said holes, slats having holes therein receiving the ends of said bolts, said slats being disposed inwardly of said parallel ribs, nuts on said bolts clamping said slats on said edges of said vamp member, a counter member, a U-shaped flat rigid member having outwardly directed lugs on the front end thereof, said counter member being made of a thin flexible material attached to said U-shaped member at the

5

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bottom thereof, said slats overlying a part of said U-shaped member, and means clamping said U-shaped member between said slats and said ski, said U-shaped member having a straight smooth outside edge on the outer edge of each said lug and said edge extending from said lug to the rearward portion being slidable forwardly and rearwardly when said nuts are loosened to adjust the position of said counter member on said ski, said lugs engaging one said bolt to limit rearward sliding of said counter member.

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