Aug. 24, 1943. D. B. HAINS 2,327,783

WATER SKI BINDING

Filed Jan. 7, 1941

Fig. 1.

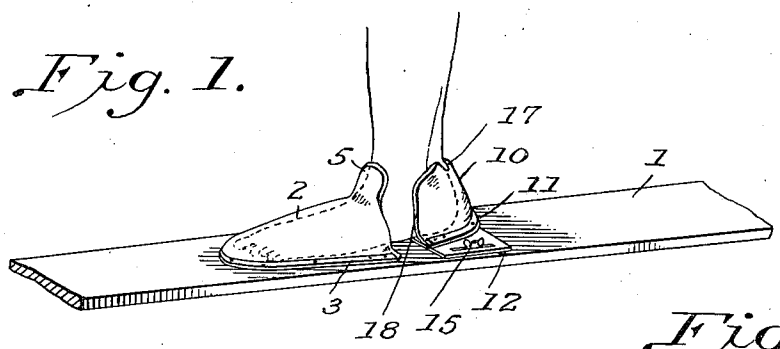



Fig. 2.

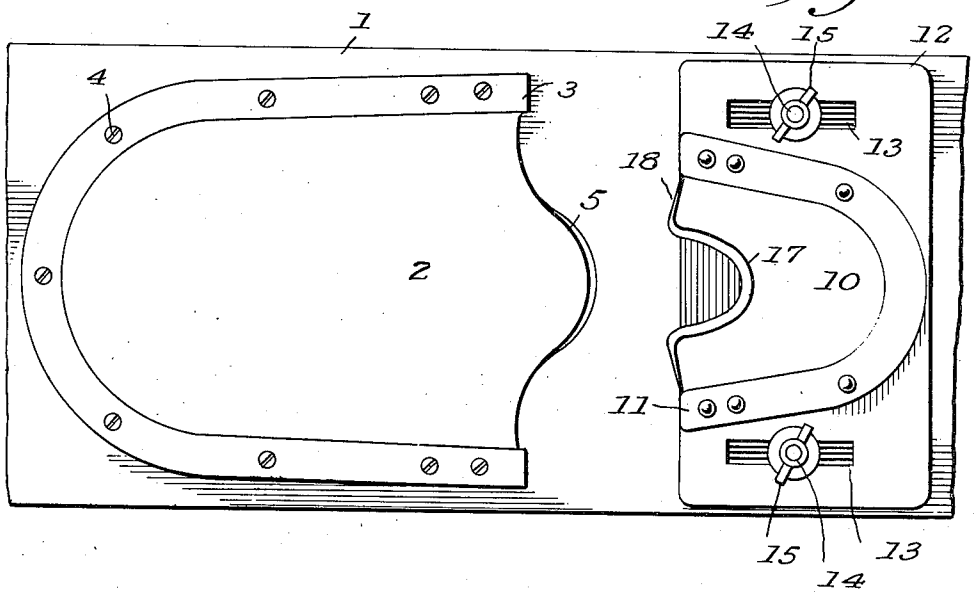
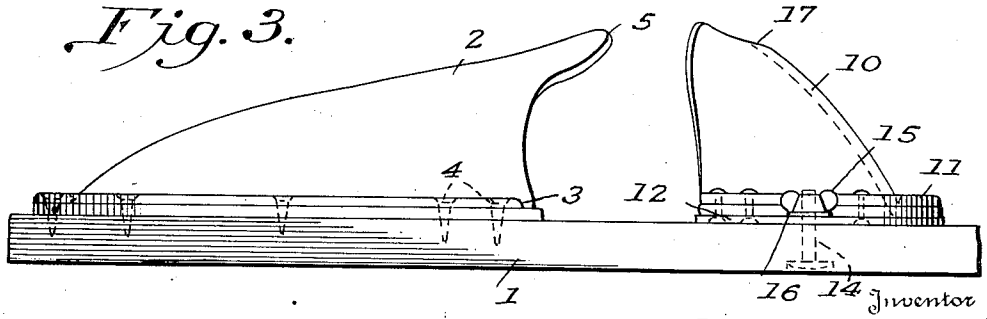



Fig. 3.




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## WATER SKI BINDING

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5 Claims. (Cl. 9—21)

This invention relates to an improvement in water skis and, more particularly, to a ski binding for supporting and retaining the foot of the wearer.

An object of the invention is to provide a sturdy foot binding for water skis which is adjustable for various size feet.

Another object of the invention is to construct a foot supporting binding for water skis which will comfortably support the forward portion of the foot in a resilient vamp or forepart and embrace the heel portion by a counter. The vamp and counter portions are discontinuous with the counter movable or adjustable with relation to the vamp.

A still further object of the invention is the construction of a ski binding that will be securely attached to the upper surface of the ski and, while snugly supporting the forward and heel portion of the user's foot, will permit the instantaneous removal of the foot therefrom.

Another salient feature of the present invention is the construction of the counter in a manner which will snugly support the heel without binding or pressing on the Achilles tendon.

In the drawing,

Fig. 1 is a perspective of the improved ski binding shown supporting the wearer's foot;

Fig. 2 is a top plane view of the binding mounted on a portion of a water ski showing the manner of attaching the vamp and counter to the ski;

Fig. 3 is a side elevation illustrating the relation of the vamp to the counter and the adjustment means for the counter.

Specifically, numeral 1 denotes a water ski of any desired size or configuration. As it will be understood, the binding hereinafter described is applicable to any style of water ski. The forepart of the binding comprises a vamp 2 composed of flexible material, such as leather, rubber, or treated textile. The side and front section of the vamp is rigidly attached to the ski by means of a U-shaped metal clamping strip 3 and a plurality of spaced screws 4. The inner edge of the vamp is fashioned in such a manner as to have an integral upstanding tongue 5 and in use the tongue fits snugly against the upper part of the insteps adjacent the ankle, as shown in Fig. 1.

The adjustable counter 10 is also formed of flexible material with its rear and side edges riveted to a U-shaped metal clamping strip 11. The rivets 12 bind the outwardly flared edge of the counter 10 between the strip 11 and the bottom plate 12. The plate 12 is provided with oppositely disposed elongated openings 13 for the reception of bolts 14 carrying wing nuts 15. The bolts 14 extend through the plane of the ski 1 and, if desired, may be countersunk in the lower surface thereof. Washers 16 are preferably placed to underlie the wing nuts 15 and bind against the sides of the openings 13 when the nuts are tightened up.

It will be obvious that after the user has inserted his foot in the vamp and positioned the tongue thereof against the upper part of his foot, the counter 10 may be moved forward to snugly engage his heel and thereafter the adjusting nuts 15 tightened to snugly hold the foot in position.

One of the features of the present invention is the notching of the upper edge of the counter 10 at 17 to permit the forward side parts 18 to firmly press against the sides of the foot and encompass the Achilles tendon within the cut-out portion 17. This construction removes all detrimental binding or pressure of the sensitive Achilles tendon by the counter which would be painful and harmful to the user.

In use when the wearer desires or must remove his foot quickly from the binding as when he topples over in the water, the resiliency of the vamp counter permits instant removal of the foot. In normal use, however, the foot is snugly and comfortably supported and gives ample security without the danger of not being able to easily kick the ski off and without discomfort of pressure against the Achilles tendon.

One of the salient features of this invention is the fact that with this improved binding the wearer's foot is subjected to an even pressure all over and this gives complete control of the ski so that the wearer's foot, ski binding, and ski, are in effect an integral structure.

What I claim is:

1. A water ski binding comprising a flexible resilient vamp portion having its front and side edges rigidly secured to a water ski and a flexible resilient counter portion having its rear and side edges rigidly secured to a plate, elongated slots formed in either side of said plate, spaced bolts affixed in said water ski and extending upwardly through said slots and nuts on said bolts whereby said plate may be rigidly bound against said water ski.

2. A water ski comprising a flat horizontal ski surface and a foot binding thereon, said binding comprising a resilient sheet fastened around its front and sides to said ski surface, the rear edge thereof extending beyond the side portions and

adapted to engage the top of the user's foot, and a heel engaging portion adjustably secured to the ski surface adjacent the forward foot engaging portion, the heel portion consisting of an upstanding, substantially semi-circular resilient sheet.

3. A water ski binding comprising a flexible vamp having an integral upstanding tongue over the upper part of the instep adjacent the ankle, a cup-shaped counter for encompassing the heel of the foot, said counter portion being provided with a recess forming end flanges so that the heel will fit back into the cup-shaped counter and the flanges will grip over the ankle bone, said tongue and counter flanges being substantially in the same horizontal plane.

4. A water ski binding comprising a flexible vamp for encompassing the forepart of the foot, an integral upstanding tongue over the upper part of the instep adjacent the ankle, a plate, a flexible counter for encompassing the heel of the foot mounted on said plate, said plate being provided with slots transverse its width on both sides of the counter for the reception of bolts whereby longitudinal adjustment of the counter is provided.

5. In combination with a water ski, a ski binding comprising a flexible vamp for encompassing the forepart of the foot, a U-shaped rigid strip adapted to fit over the ends of the vamp and fasten it to the ski, a plate, a flexible counter mounted on said plate for encompassing the heel of the foot, said plate being adjustably mounted on the ski.

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