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2,540,576

WATER SKI BINDING

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Fig. 1

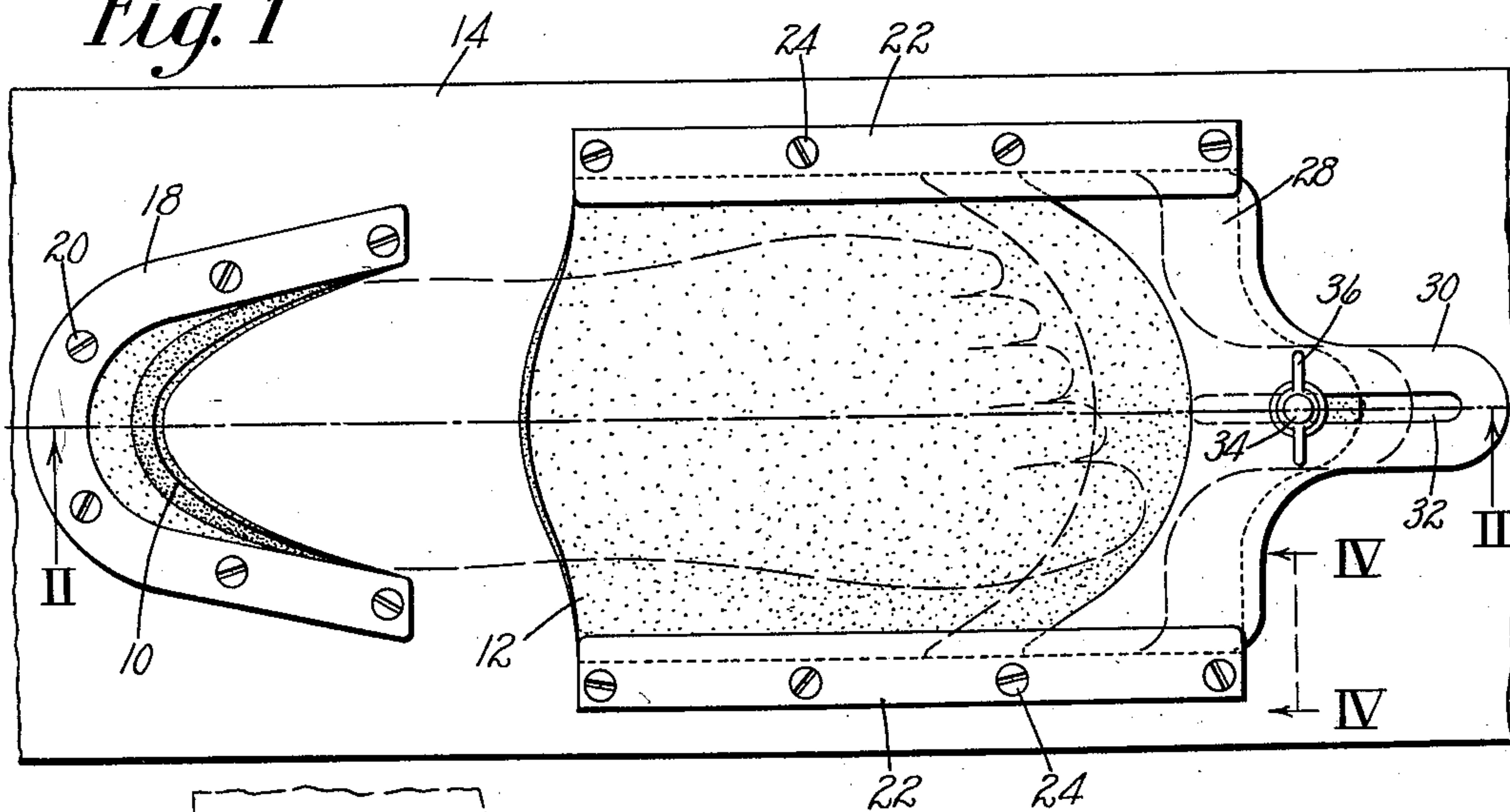


Fig. 2

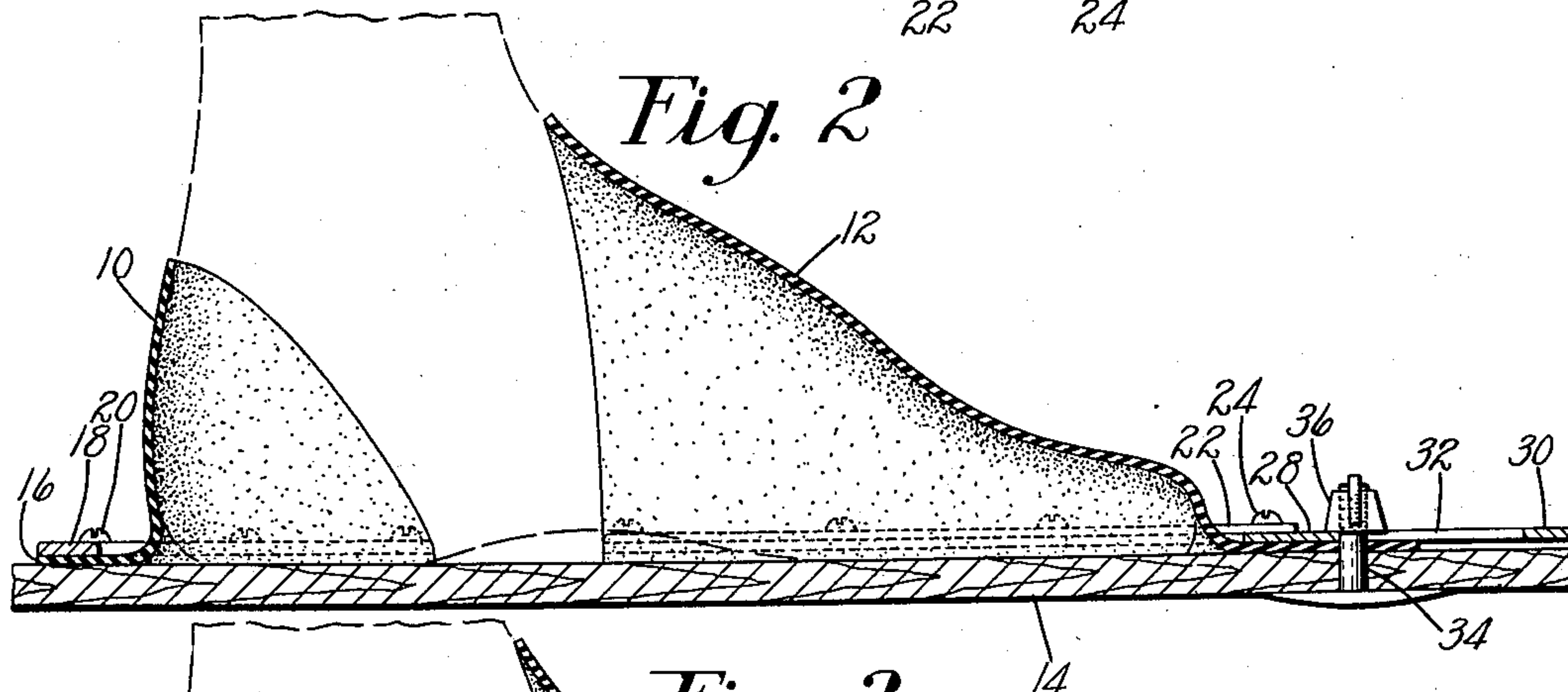


Fig. 3

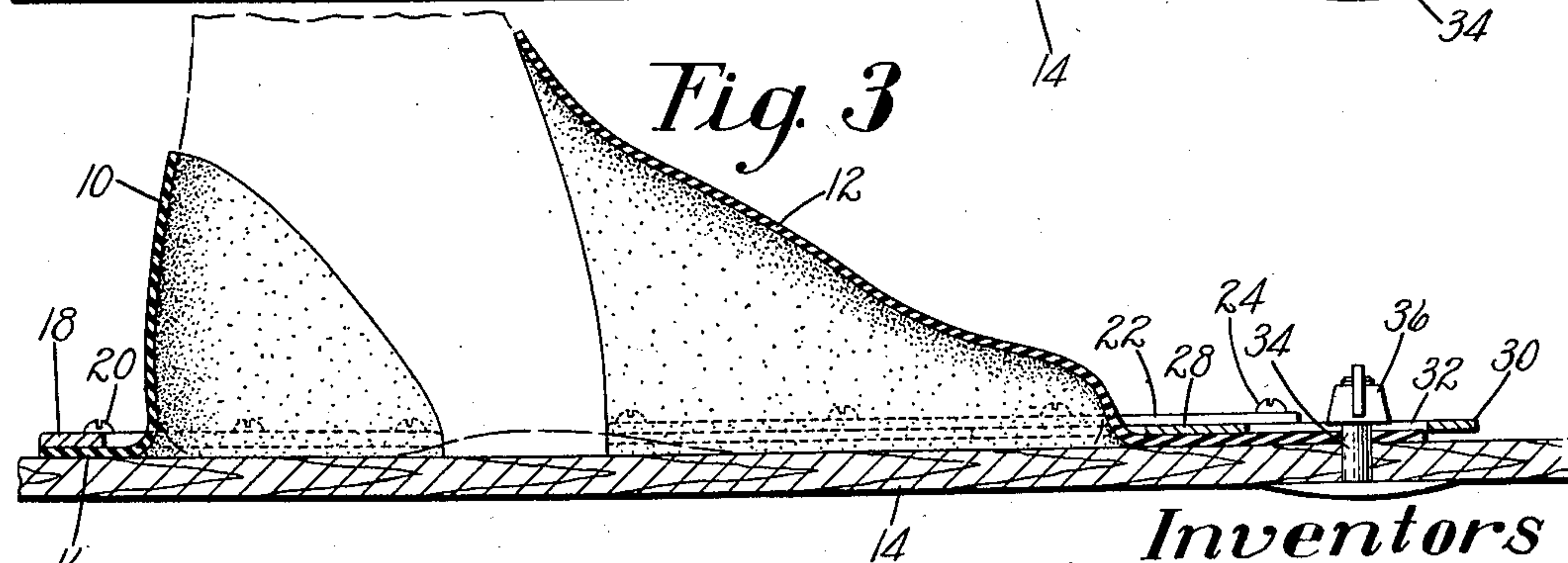
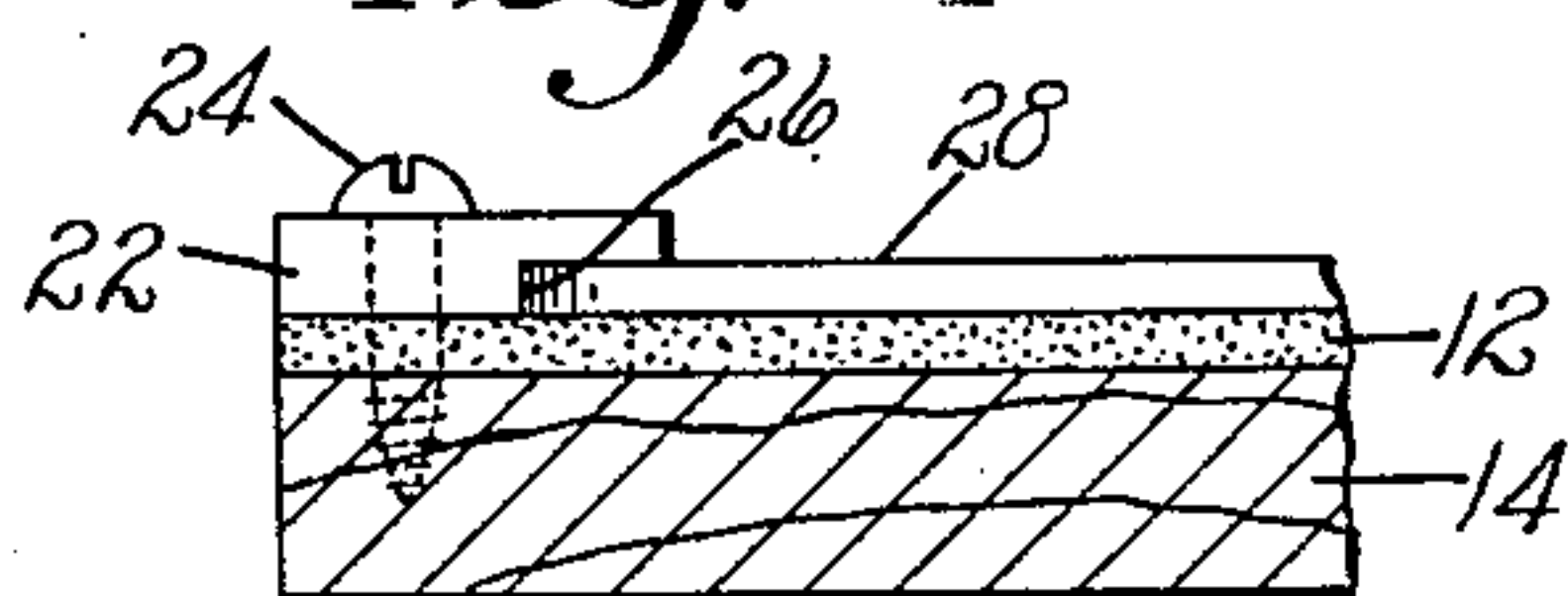


Fig. 4



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WATER SKI BINDING

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4 Claims. (Cl. 9—21)

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This invention relates to bindings for use with water skis, and more particularly to bindings adapted to accommodate feet of different sizes.

An object of the invention is to provide a water ski binding having improved means for adjusting the binding for different size feet.

In using water skis to the best advantage, it is important that the weight of the user be properly located lengthwise of the ski. Bindings applied to water skis, which commonly employ vamp and counter portions, should be capable of accommodating feet of various sizes while firmly but yieldingly securing the foot to the ski at the proper location lengthwise of the ski.

In the accomplishment of the above, and in accordance with a feature of the invention, the counter portion of the binding is permanently attached to the ski in such position that the heel of the foot, regardless of the length of the foot, is positioned so that the weight of the user is properly located lengthwise of the ski, the effective length of the vamp being varied in accordance with the length of the foot to be accommodated.

More specifically, clamping means is associated with the vamp, which is preferably formed of rubber or similar material, the clamping means being adjustable and arranged to limit the extent to which the foot may be inserted in the vamp. Thus, regardless of the length of the foot of the user, it is securely held on the ski in the proper location so that the weight of the user is correctly positioned lengthwise of the ski.

The above and other features of the invention, including various details of construction and novel combinations of parts, will now be described by reference to the drawings and pointed out in the claims.

In the drawings,

Fig. 1 is a plan view of one form of binding in which the invention is embodied;

Fig. 2 is a longitudinal section through the binding on the line II—II of Fig. 1 with the clamping means adjusted for a large foot;

Fig. 3 is a view similar to Fig. 2 but showing the clamping means adjusted for a smaller foot, and

Fig. 4 is a detail view looking along the line IV—IV in the direction of the arrows in Fig. 1.

The binding is shown to comprise a counter 10 and a vamp 12 carried by a water ski a mid-section of which is illustrated at 14. The counter and vamp portions of the binding may be made of rubber or any similar flexible material and are suitably formed to engage the heel and forepart

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portions of the foot to hold the foot firmly in place on the ski, while permitting the foot to be easily withdrawn when desired.

The counter portion is formed with an out-turned flange 16 as best shown in Figs. 2 and 3 which is held against the top surface of the ski by a U-shaped clamp 18 secured in place by screws 20. The counter is located lengthwise of the ski in such position that the weight of the user will be correctly located to obtain the best control possible over the ski. Inasmuch as the weight of the user will be largely concentrated beneath the heel, the position where the heel should be is the same for any length of foot. Hence the counter portion of the binding is not made adjustable lengthwise of the ski.

The vamp or forepart portion of the binding is secured along its longitudinal marginal portions to the ski by clamping strips 22 held in place by screws 24. The inner marginal portions of the clamping strips are undercut to form ways 26 as best shown in Fig. 4 for an adjustable U-shaped clamp 28 having a forwardly extending tongue 30 formed with a slot 32. Extending upwardly from the underside of the ski is a pin 34 which passes through the slot 32, the upper end of the pin being threaded to receive a wing nut 36 by which the clamp is held in the desired position lengthwise of the ski. The pin 34 is illustrated as having a rounded lower head which merges with the undersurface of the ski so as not to offer resistance to movement of the ski through the water. It will be understood however that the head of the pin may be recessed if desired into the bottom of the ski.

The clamp 28 engages the forward end of the vamp 12, and depending upon the position of the clamp, holds more or less of the vamp in contact with the top surface of the ski. As shown in Fig. 2, the clamp is in its forwardmost position so that a foot may be inserted into it the maximum distance. Thus the clamp is adjusted for the largest foot that the binding is capable of accommodating. In Fig. 3, the clamp is adjusted rearwardly to a mid-position so that it will properly engage a smaller foot with the heel of the foot held snugly in the counter 10. To accommodate a still smaller foot, the clamp 28 is adjusted further rearwardly. The range of adjustment will be determined by the length of the tongue 30 and its slot 32. It has been found with the arrangement disclosed herein that a very wide range of adjustments is possible so that most feet can be accommodated with the same binding.

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From the above it will be understood that with our improved binding, adjustments are readily made for feet of different size, merely by loosening the wing nut 36 and sliding the clamp to whatever position is necessary firmly to clamp the foot in place. Regardless of the length of the foot, the heel will be positioned so that the weight of the user will be properly positioned lengthwise of the ski.

Having thus described the invention, what we claim as new and desire to secure by Letters Patent of the United States is:

1. A water ski binding comprising a counter portion arranged to engage and partially surround the heel of the user's foot, a flexible resilient vamp fixed to the ski and engageable with the top of the foot, a U-shaped clamp engageable with the toe end of the vamp, and means mounting said clamp for adjustment lengthwise of the vamp and of the ski.

2. A water ski binding comprising a flexible resilient counter portion permanently attached to the ski and arranged to engage and partially surround the heel of the user's foot, a flexible resilient vamp permanently attached to the ski and arranged to engage the top of the user's foot, a U-shaped clamp engageable with the toe end of the vamp and mounted for sliding movement relatively thereto to limit the extent to which the foot may be inserted in the vamp, and means for locking the clamp in the desired position lengthwise of the vamp.

3. A water ski binding comprising a flexible resilient counter portion permanently attached to the ski and arranged to engage and partially

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surround the heel of the user's foot, a plurality of clamping strips, a flexible resilient vamp permanently attached to the ski by said strips and arranged to engage the top of the user's foot, a U-shaped clamp slidably engaged in and supported by said strips and engageable with the toe end of the vamp to limit the extent to which the foot may be inserted in the vamp, and means for locking the clamp in the desired position lengthwise of the vamp.

4. A water ski binding comprising a counter portion arranged to engage and partially surround the heel of the user's foot, a flexible resilient vamp engageable with the top of the foot, means for securing the counter portion and the vamp to the top of a ski, a member overlying a portion of the vamp and extending transversely thereof for clamping the vamp to the ski and limiting the extent to which the foot can be inserted therein, and means mounting said member for adjustment lengthwise of the vamp and of the ski.

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