Jan. 13, 1959 B. B. BARNETT ET AL 2,868,555

RELEASABLE SKI BINDING

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Fig. 1.

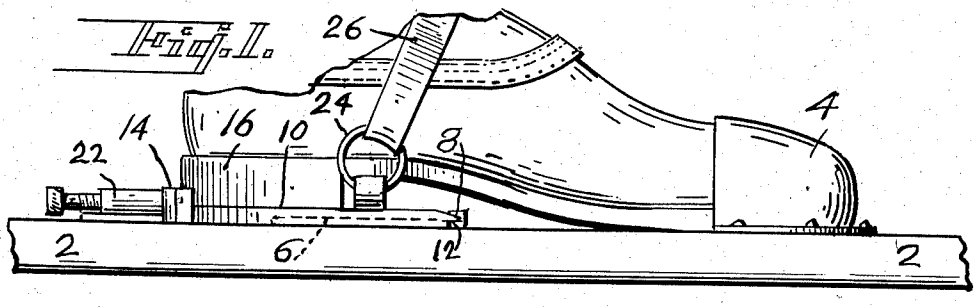


Fig. 2.

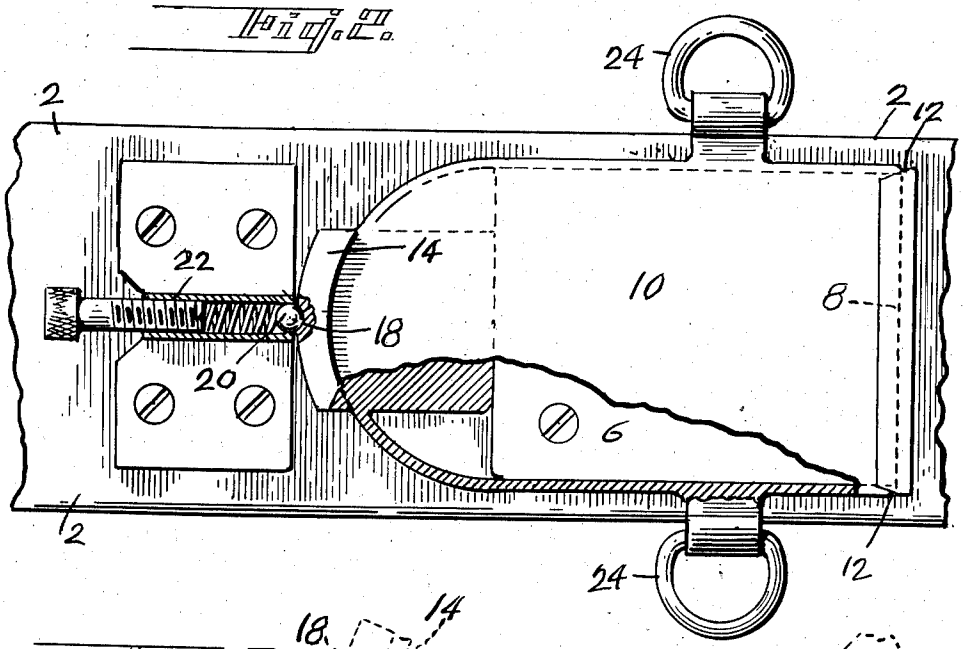
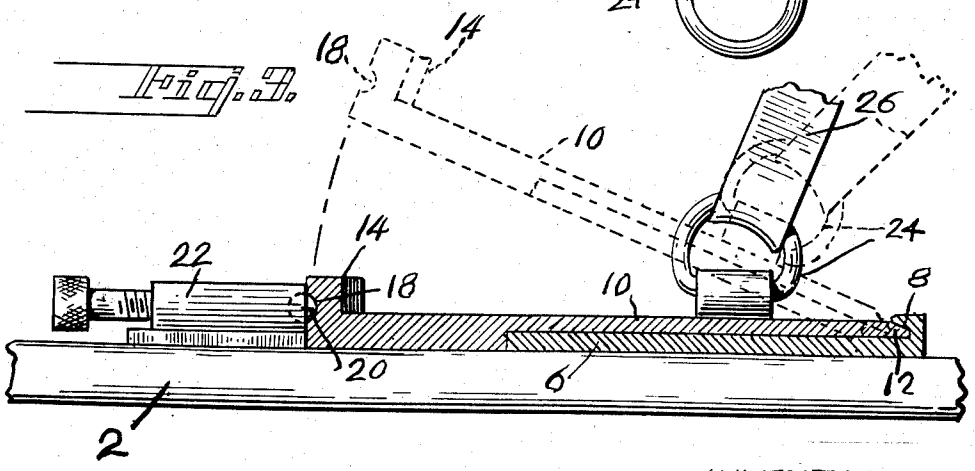


Fig. 3.



INVENTORS
BARTOW B. BARNETT
NORMAN KING
By Arthur R. Slee
THEIR ATTORNEY.

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RELEASABLE SKI BINDING

Bartow B. Barnett and Norman King, Kings Beach, Calif., assignors of one-half to Bonnie B. Barnett, Lake Tahoe, Calif.

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1 Claim. (Cl. 280—11.35)

The present invention relates to a new and improved releasable ski binding, wherein a heel-plate, adapted to be secured to a ski boot or shoe of a skier, with what is termed in the art as a long thong or ankle strap, is detachably mounted upon a ski runner and operates in conjunction with adjustable means adapted normally to hold said heel-plate in position, upon said runner, and automatically to release said heel-plate and the foot of a skier from said runner when said foot is forced into or toward a sharp angle with said runner and placing an undue and injurious strain upon a leg, whereby broken bones, due to a dangerous fall of a skier may be prevented.

The primary object of the present invention is to provide a new and improved releasable ski binding having improved means adapted to release automatically the foot of a skier from a ski runner during or immediately preceding a bad fall, whereby the danger or risk of broken leg bones may be eliminated.

Another object is to provide a new and improved device of the character set forth having a greatly simplified and economically produced construction and a maximum efficiency.

We accomplish these and other objects by means of the device disclosed in the drawings forming a part of the present application in which—

Figure 1 is a broken side elevation of the central or foot portion of a ski runner, disclosing the manner in which the device is applied;

Figure 2 is a broken plan view of Figure 1, partly in section, and with the ski shoe and strap omitted; and

Figure 3 is a longitudinal sectional view of the device.

Referring to the drawings, the numeral **2** is used to designate a conventional ski runner having a conventional toe-cap **4** fixed thereon. In the present invention, what is termed for descriptive purposes, a base-plate **6**, having a lateral groove or channel **8** in the front end thereof, is permanently fixed to the runner **2** slightly behind the toe-cap **4**, as disclosed in Figure 1,

A heel-plate **10** has the front edge **12** thereof snugly but detachably nested within the lateral channel **8**, said plate **10** also being snugly cupped over and upon the base-plate **6**, as shown, and provided on its rear end with an arcuate ridge **14** adapted to engage the rear rounded end of a skier's shoe heel, **16**, the rear of said ridge

14 being provided with a suitable depression or dent **18** adapted to be engaged by the ball **20** of an adjustable spring latch **22**, as disclosed in Figure 2, to normally hold said heel-plate **10** snugly cupped upon the base-plate **6**, and its front end **12** in engaging relation with the channel or groove **8**, as shown.

Opposite sides of the heel-plate **10** are provided with loosely mounted rings **24** through which may be threaded the usual instep strap, or, as known in the art, long thongs **26** which pass over and around the instep of a skier's shoe to firmly secure the same to said heel-plate **10**, snugly but detachably cupped upon the permanently secured base-plate **6**, as shown.

Frequently, during a fall, skiers are exposed to the danger of fractured leg bones, due to the unyieldingly long base length of the runner, which firmly holds leg bones upright.

In operation, when a fast moving skier realizes that he is about to fall, a forward movement of his body and legs, or uplifting movement of his heel will detach the rear of the heel **16** and heel-plate **10** from the ball **18** of the spring latch **22**, so that the skier is able to lift the heel-plate **10**, either rearwardly or laterally and thereby release the front edge **12** of said heel-plate **10** from engaging relation with the base-plate **6** and from the ski runner **2**, and thereby remove a bone breaking strain from foot and leg bones, and prevent serious injury.

It also should be noted that when the heel-plate **10** is lifted, it is uncupped from engaging relation with the base-plate **6** and, consequently, all connection with a skier's foot, and leg, is removed.

Having described our invention, we claim:

A releasable ski binding comprising the combination with a runner of a toe-cap fixed thereon; a base plate having a transverse channel in the front edge thereof and mounted to the rear of said toe-cap; a heel-plate detachably mounted upon said base-plate and having its front edge detachably engaging said channel, and having a rear edge provided with an arcuate ridge to engage the back of a shoe heel on said heel-plate, and having a dent on the back of said ridge and normally holding a toe of a shoe within said toe-cap; and an adjustable spring latch mounted upon said runner and adapted normally to engage the dent in said ridge and normally prevent disengagement of said heel-plate with said base-plate and to release said heel-plate under undue stress thereon.

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