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SKI BOOT HARNESS HAVING A REAR SAFETY THRUST MEMBER

Filed June 7, 1966

2 Sheets-Sheet 1

Fig: 1

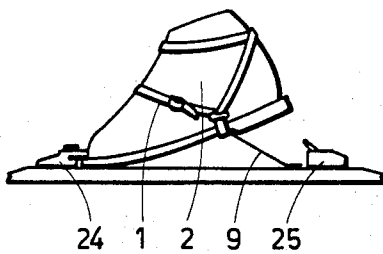
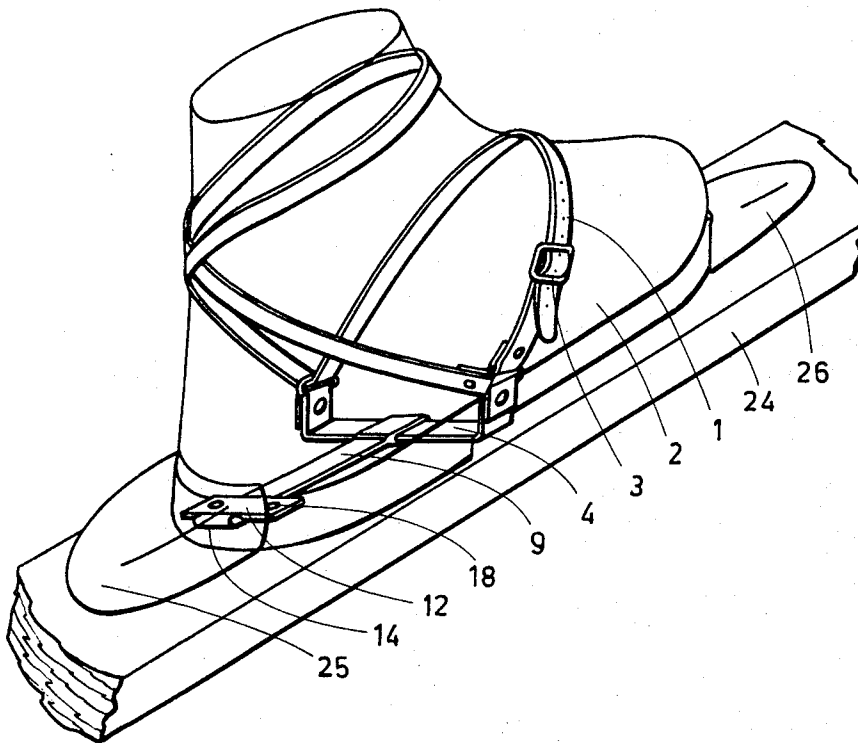


Fig: 2

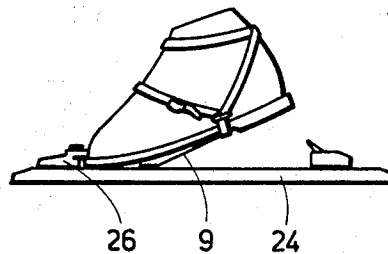


Fig: 3

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Fig: 4

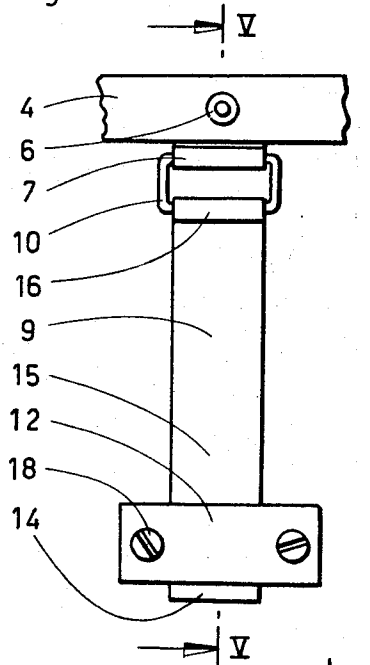


Fig: 5

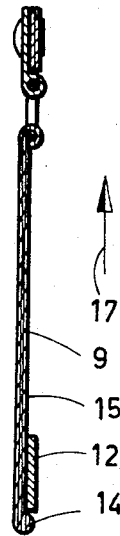


Fig: 6

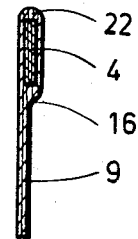


Fig: 7

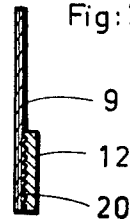


Fig: 8

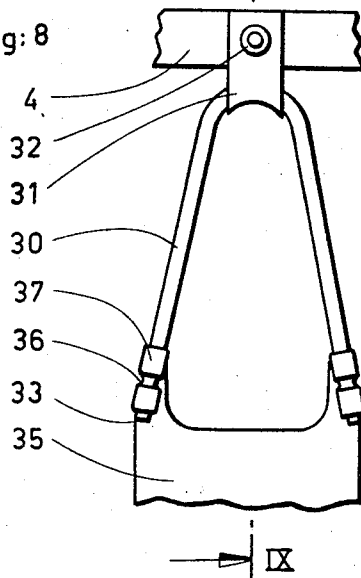
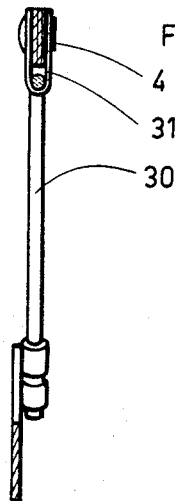


Fig: 9



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SKI BOOT HARNESS HAVING A REAR SAFETY THRUST MEMBER

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15 Claims. (Cl. 280—11.35)

ABSTRACT OF THE DISCLOSURE

A leather band connected between a portion of the shank strap under the boot and a portion of said ski also located beneath the boot.

The present invention generally relates to improvements in ski harnesses having a rear safety thrust member.

In making and using the safety harness with rear safety thrust member disclosed in my prior U.S. application Ser. No. 385,161, filed on July 27, 1964, I have come to conceive various embodiments that are simpler and less expensive, yet that offer the same advantages and will similarly rigidly hold the foot of the skier without impairing the operation of the safety devices.

As in the case of the device disclosed in the above application, that of the instant application is characterized in that the clamping or binding strap tightly holding the foot of the skier is retained on the ski by a lower or shank strap located beneath the heel of the said boot and joined to the ski either on the side at the front thrust member or on the side of the rear thrust member.

According to the invention, the connection between the shank strap and the ski is obtained by means of an articulated and/or resilient attachment made of rubber, leather or the like located between the sole of the boot and the ski. This attachment is fast with that part of the shank strap located beneath the sole, on the one hand, and with the ski or with a movable or stationary part of the harness or the rear or front safety thrust member.

In one embodiment of the present invention, the said attachment is a leather band joined to the shank strap by a metal buckle or ring, the latter being riveted to the said shank strap, the opposite end of which being secured on the ski by a metal piece pressing it on the ski and screwed thereon. This opposite end of the said band may be secured to a stationary or movable part of the rear or front safety thrust member of the ski. Still according to the invention, the attachment joining the said shank strap to the ski may be provided with a bulge at the end secured to the ski to prevent undesired release from the metal part clamping it to the ski. This metal part could advantageously be serrated or toothed on the inner face thereof to avoid any accidental slipping of the said attachment on the ski. Always according to the instant invention, the attachment could be connected to the shank strap not by means of a metal buckle or strap but by means of a keeper of which it is provided and through which extends the said shank strap. This arrangement can be reinforced by a rivet, by a stitching or any other appropriate means.

According to another embodiment of the invention, a rubber string is slipped through a metal buckle fast with the shank strap and secured to the rear or front thrust member in a set or releasable manner.

In all cases, the attachment having a flat or circular cross-section may advantageously be reinforced by an outer sheath and/or a metal web limiting its elongation

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and also absorbing forces remaining when the elastic elongation limit of the said attachment is reached.

Always according to the invention and in order to prevent slipping during clamping thereof, that portion of the shank strap receiving the attachment may include transverse grooves or teeth which will stop translation displacement of the clamping strap, during clamping thereof, by friction on the outer and inner edges of the sole. In order to better take into account the width of the said sole, the strap could be formed of a succession of articulated or flexible links and rigid parts that will also replace the aforesaid transverse movement. Finally, that portion of the shank strap that receives the attachment and clamping strap could be made of resilient material in order to hold the tension and, as a consequence, the good holding power on the foot that it is meant to insure.

The present invention will best be understood by reference to the following description and to the schematic appended drawing giving, by way of nonlimitative example, various preferred embodiments of the invention.

FIGURE 1 is a perspective view of a harnessing device according to the invention shown mounted on a partially illustrated ski.

FIGURE 2 is a front view of the device of FIGURE 1, the attachment of the latter being secured on the side of the rear thrust member.

FIGURE 3 is a view similar to that of FIGURE 2, the attachment being connected on the side of the front thrust member.

FIGURE 4 is a plan view of an attachment made according to the invention, the shank strap being only partially illustrated.

FIGURE 5 is a longitudinal cross-sectional view according to line A—A of FIGURE 4.

FIGURE 6 is a longitudinal cross-sectional view of an attachment provided with a keeper inside of which the attachment extends.

FIGURE 7 is a longitudinal cross-sectional view of an attachment secured to the ski, not shown, by a serrated securement plate.

FIGURE 8 is a plan view of a double attachment according to the invention and retained on the ski by a partially illustrated plate.

FIGURE 9 is a longitudinal cross-section according to line A—A of FIGURE 8.

In FIGURE 1, the strap 1 which is clamped on the boot 2 by the buckle 3 is connected to the shank strap 4 extending beneath the sole of the said boot; the attachment 9 which ends with a bulge 14 is retained on the ski 24 by a plate 12 fast on the ski by screws 18; the boot 2 being retained by the rear thrust member 25 and front thrust member 24.

In FIGURE 2, the strap 1 clamping the boot 2 is held onto the ski 24 by the attachment 9 secured on the side of the rear thrust member 25.

In FIGURE 3, the same attachment 9 is secured onto the ski 24 on the side of the front thrust member 26.

In FIGURE 4, the shank strap 4 is fixed by a rivet on a fastener 7, the latter being secured to the attachment 9 by a metal ring 10, the said ring closing on the end 16 of the said attachment, the latter being secured on the ski by the screws 18 clamping the plate 12 on the end 15 of the attachment, the said end being provided with a bulge 14.

FIGURE 5 shows the plate 12 and the end 15 of the attachment 9, the said end having the bulge 14 to ensure holding during abnormal tensions in the direction of arrow 17 taking place after release of the safety members.

In FIGURE 6, the end 16 of the attachment 9 is shown provided with a keeper 22 inside of which the shank strap 4 extends, either clamped or free to slide.

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In FIGURE 7, the clamping plate 12 is provided on the face thereof bearing on the attachment 9 with transverse serrations or grooves 22 which bite on the said attachment during clamping of the plate to prevent untimely sliding.

In FIGURE 8, the attachment is a resilient string 30 passing through a metal buckle 31 secured by a rivet 32 on the shank strap 4. The free ends of the said attachment are held by a setting 36 provided on legs 37 of a plate 35 mounted on the ski or on a stationary or movable part of the rear or front safety thrust member.

In FIGURE 9, the illustrated fastener 31 is riveted to the shank strap 4 and the attachment 30 of circular cross-section slides within this fastener.

One would not go beyond the scope of the invention whatever be the shape, nature, dimensions and arrangement of the various parts making up the said invention; similarly, the said parts could be made of various materials or combinations of materials capable of being subjected to any treatments; besides, the device of the present invention can be mounted in any manner and at all points of all skis of known makes and of all origins without departing from the scope of the invention.

I claim:

1. In a ski boot harness having a clamping strap to be mounted around the leg of said boot and a shank strap extending beneath the sole adjacent the heel of said boot and connected to said clamping strap, the improvement comprising:

- (a) an attachment extending along the longitudinal axis of said ski under the ski boot;
- (b) first means securing said attachment to a portion of said shank strap under the ski boot, and
- (c) second means located beneath the boot securing said attachment to said ski.

2. An improvement as claimed in claim 1, wherein said attachment is a band of flexible material and said first means is a keeper formed at one end of said band and through which said shank strap extends.

3. An improvement as claimed in claim 2, wherein said band and shank strap are fastened together through said keeper generally centrally of said shank strap.

4. An improvement as claimed in claim 2, wherein said shank strap slidably extends through said keeper.

5. An improvement as claimed in claim 2, wherein said attachment is a band made of resilient material.

6. An improvement as claimed in claim 1, wherein

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said attachment is a band of flexible material and said second means comprises a metal plate extending over and across the end of said band opposite that secured to said shank strap and means securely fastening said plate to said ski to press said band and hold it against said ski.

7. An improvement as claimed in claim 6, wherein said band is formed with a bulge at the extreme end thereof to prevent slipping of the band away therefrom.

8. An improvement as claimed in claim 6, wherein said plate has serrations on the face thereof pressing against said band to prevent it from slipping away from said plate.

9. An improvement as claimed in claim 1, including a thrust member fixed to said ski axially thereof, said second means securing said attachment to said thrust member.

10. An improvement as claimed in claim 1, wherein said shank strap has transverse serrations to prevent slipping thereof transversely of said boot sole under the action of said clamping strap when being clamped.

11. An improvement as claimed in claim 10, wherein said attachment is a cable having a reinforcing metal sheath.

12. An improvement as claimed in claim 1, wherein said shank strap is formed of articulated links.

13. An improvement as claimed in claim 1, including means to allow length adjustment of said second means to said ski.

14. An improvement as claimed in claim 1, wherein said ski has a rear safety thrust member and said second means is located adjacent said thrust member.

15. An improvement as claimed in claim 1, wherein said ski has a front safety thrust member and said second means is located adjacent said front thrust member.

References Cited

FOREIGN PATENTS

457,357	6/1949	Canada.
Ad. 60,630	5/1954	France.
1,020,479	11/1952	France.
1,372,021	8/1964	France.
188,355	5/1937	Switzerland.

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