

12

EUROPEAN PATENT APPLICATION

21 Application number: 87830084.7

51 Int. Cl.³: **A 43 B 5/04**

22 Date of filing: 05.03.87

30 Priority: 19.03.86 IT 1158586 U

43 Date of publication of application:
23.09.87 Bulletin 87/39

84 Designated Contracting States:
AT CH DE FR GB LI SE

71 Applicant: Galluccio, Antonmassimo
Via Cristoforo Colombo, 223
I-89032 Bianco Reggio Calabria(IT)

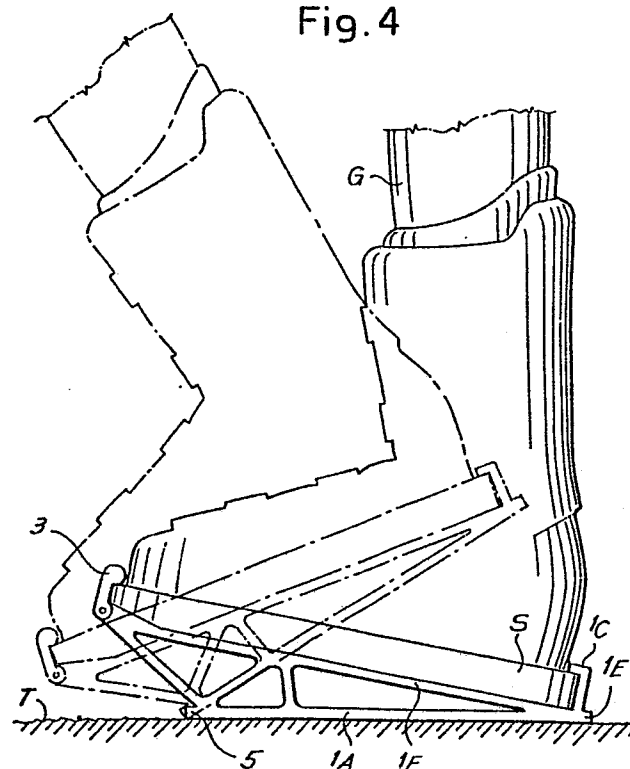
72 Inventor: Galluccio, Antonmassimo
Via Cristoforo Colombo, 223
I-89032 Bianco Reggio Calabria(IT)

74 Representative: Mannucci, Gianfranco, Dott.-Ing.
Ufficio Tecnico Ing. A. Mannucci Via della Scala 4
I-50123 Firenze(IT)

54 **Device applicable to the ski-boot to ease deambulation.**

57 The device (1) is applicable under the sole (S) of a ski-boot and is capable of imposing an inclined disposition of the sole (S) with the tip being raised, in order to ease deambulation; the front end (5) of the portion (1A), rests on the ground, in backward position in respect to the boot tip, in order to facilitate a rotation of the boot.

Fig. 4



- 1 -

DESCRIPTION

0238452

The invention relates to a device - especially of wedge ramp-shape - which is applicable under the ski boot and which is able to impose an inclination to the sole with the tip being raised, in order to ease deambulation, since this causes the limb in the tibia-perone section to be brought back into the vertical orientation.

In this device the transverse corner-like front end of the part resting on the ground is more or less in backward position in respect to the boot tip, to facilitate a rotation of the ski boot.

Advantageously, means are provided with a rigid profile for the engagement with the rear part of the boot sole and means for an elastic snap-type engagement with the front edge of the sole. Retaining teeth may also be provided at the ends of the bottom surface resting on the ground, for the engagement with a support, which is secured to the front part of the ski and is provided with a front rigid stop and a rear means for an elastic snap-type engagement. Insofar as the adaptation to the boot sizes is concerned, the front means and/or the rear means for the engagement of the device to the sole, can be suitably adjusted.

The drawing shows a possible embodiment of the device.

Fig. 1 shows a side view of the device in the arrangement combined with a support engaged with the ski;

Fig. 2 shows two operations of the boot engagement and disengagement;

Fig. 3 shows a ski with the applied device during the ski use; and

Fig. 4 shows the device use during deambulation.

The device of the invention substantially consists of a suitably light wedge or ramp-shaped member 1, with a bottom surface 1A resting on the ground, an inclined surface 1B, a rear rigid profile 1C for the engagement of the rear edge of the boot sole S, a retaining elastic snap-type member 3 for the engagement of the front edge of the same sole S. The surface 1B is of use for the resting of the sole S which can be engaged therewith by means 1C and 3. The surface 1A is shorter than the inclined surface indicated by 1B and thus the front edge of the surface 1A has a corner 5 in backward position in respect to the boot tip for the indicated purposes.

A support 7, applied to the front part of the ski, has a front rigid stop 7A and an elastic snap-type engagement means 7B, respectively for the corner 5 and for the rear end 1E of the surface 1A of the device 1.

The "ramp" device 1 of the invention - which can be made of plastics or other material - is of use for bringing the skier's leg back into a position orthogonal to the ground T, allowing an easy deambulation as illustrated in Fig. 4, as the leg G is forced to a forward inclination in respect to the sole S, in the classic conformation of the ski-boot for downhill racing.

The ski-boot, by forcing the ankle to take up a particular angle of inclination, makes the skier's activity easier, but limits considerably the possibility of a smooth deambulation. The gait - in the deambulation - is greatly improved by applying the device 1 in question to the boot, for bringing the leg back to the orthogonal position relative to the ground. By withdrawing the front edge 5 in respect to the tip, towards the boot heel, a position is found by which - being anyway valid the orthogonality between the leg and the ground - the boot rotation is made possible with great improvement of the gait.

The device 1 is to be made solid with the boot during the deambulation phase and, advantageously, it remains applied to the skis during the skiing activity, with the aid of the support 7 which can be made solid to the ski by a simple bi-adhesive tape or glue, or by

means of screws or other. On the upper part of this support 7 the device 1 can be engaged by the stop 7A, and by the elastic snap tooth 7B.

The positioning of the device 1 on the ski will prevent also the crossing of same skis by mistake during the skiing activity.

The positioning of the fixed engagements 1C and 7A relative to the "snap"-like ones 3 and 7B makes it extremely easy to engage the devices 1 and makes their accidental detachment difficult. At the end of the skiing activity the skier will disengage the first boot from the ski connection; by pulling the ski by the same boot backwards up to the device, he will be able to lean the heel in the stop 1C and exert a pressure on the snap engagement 3 which, by snapping will make the device 1 solid with the boot. By pressing forwards again, the elastic stop 7B will be disengaged thereby releasing the device 1 from the base 7. The first boot with the device 1 will be thus able to rest on the ground and - by repeating the above operations with the other boot - the second device will be detached.

1) A device (1) applicable under the sole (S) of a ski-boot, capable of imposing an inclined disposition of the sole with the tip being raised, in order to ease deambulation.

2) Device according to claim 1, having the front end (5) of the portion (1A) which rests on the ground, in backward position in respect to the boot tip, in order to facilitate a rotation of the boot.

3) Device according to claim 1 or 2, being developed as a wedge ramp.

4) Device according to claim 1 or 2, comprising a rigid profile (1C) for the back engagement of the boot sole and an elastic snap-means (3) for the engagement with the front edge of the sole.

5) Device according to claim 1 or 2, shaped with retention teeth (1E, 5) at the ends of the lower surface (1A) resting on the ground.

6) Device according to claims 5, further comprising a support (7) that can be engaged to the front part of the ski, with a front rigid stop (7A) and means (7B) for the rear elastic snap-like engagement.

7) Device according to claim 4, further comprising means for adjusting the distance of the snap-means (3) in respect to the rigid profile (1C) for the rear

engagement (1C).

0238452

Fig. 1

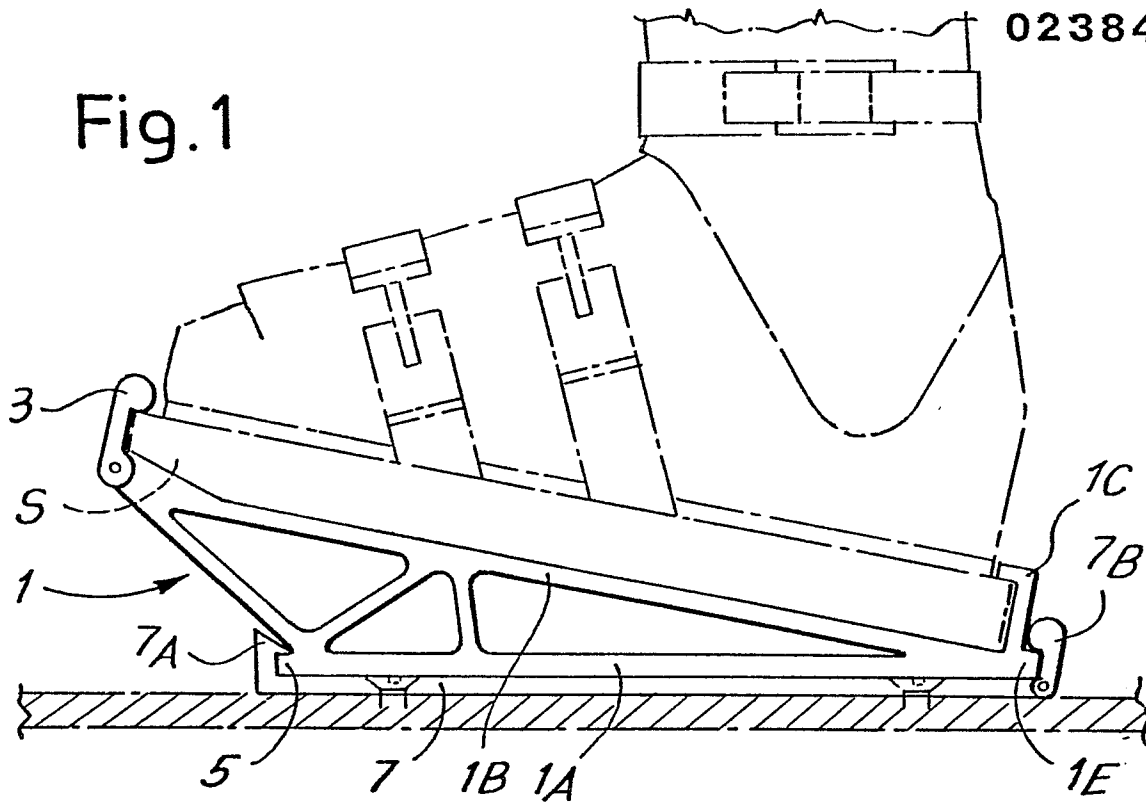


Fig. 2

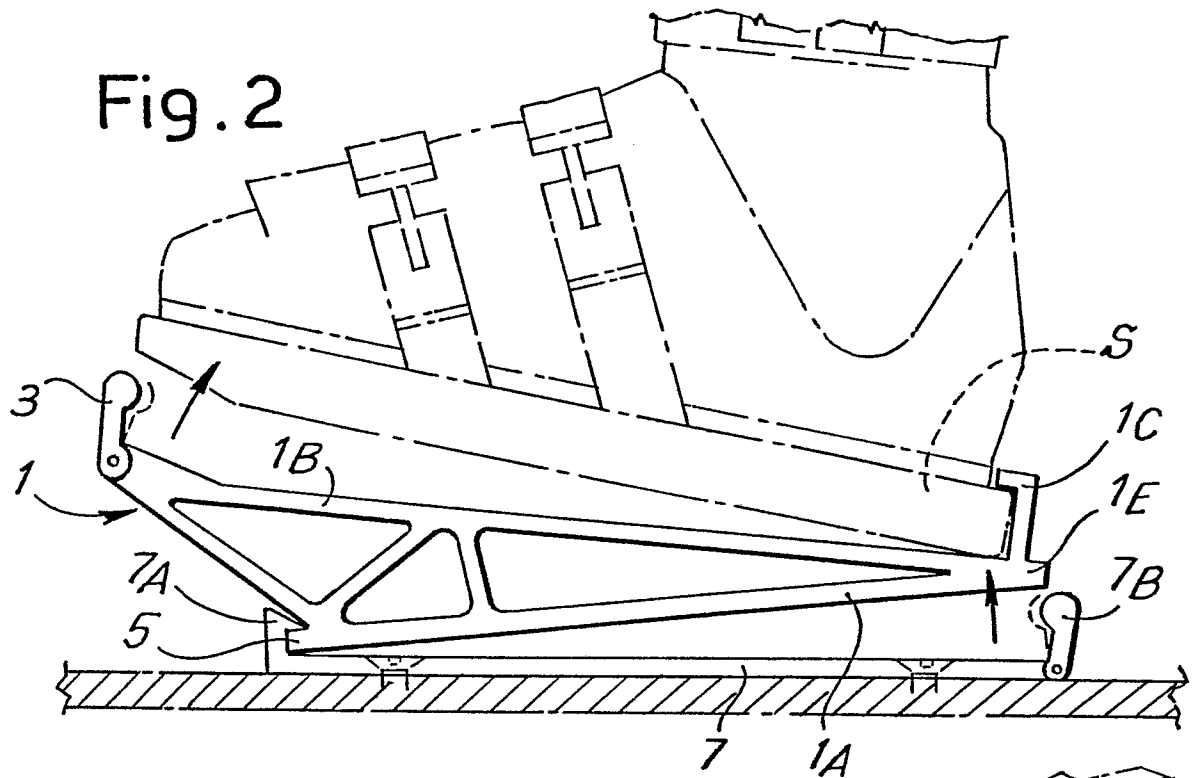


Fig. 3

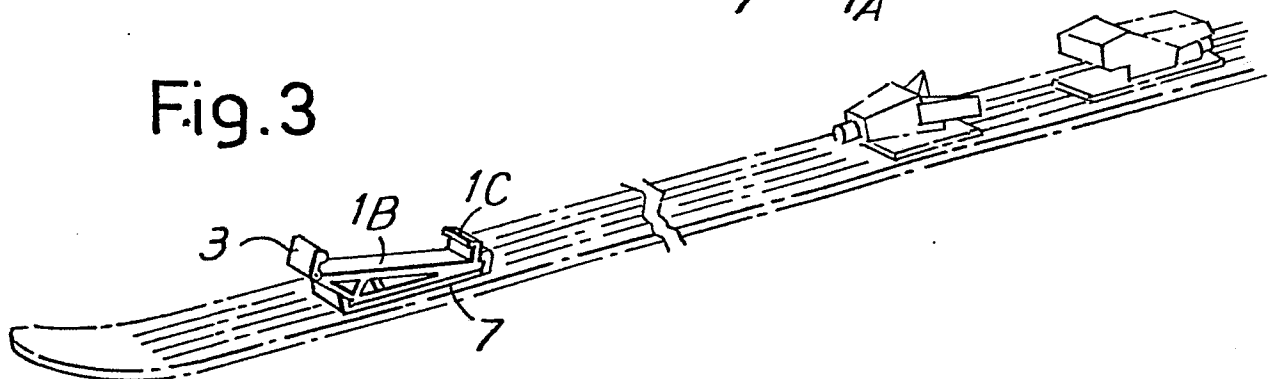


Fig. 4

