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(12) # EUROPEAN PATENT APPLICATION

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(54) **Heel unit for ski bindings.**

(57) A heel unit for ski bindings with snow drainage means includes a ski coupling body (2) with which a jaw (4) is associated; the jaw is engageable with a rear part of a ski boot. The unit includes, on the portion of the jaw which is directed toward the ski boot, an opening (11) for at least one channel (12) which is defined by the jaw and leads outside the jaw for the drainage of snow and dirt.

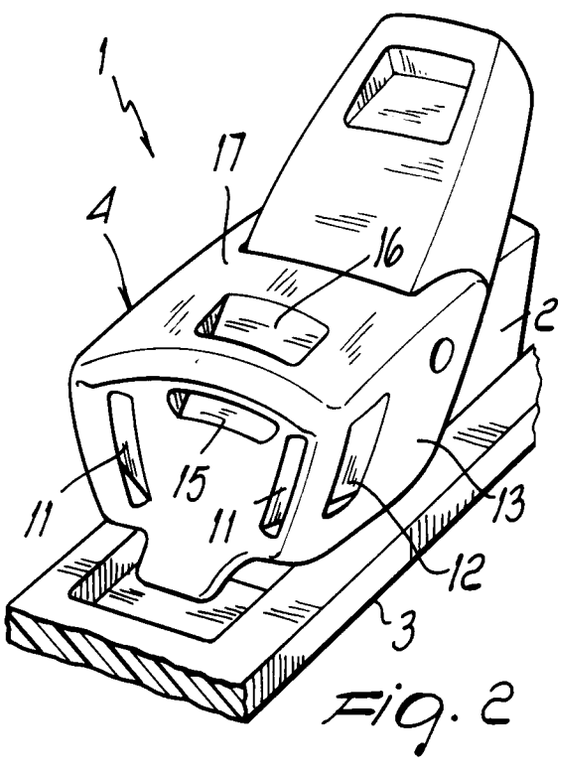

Fig. 2

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The present invention relates to a heel unit for ski bindings.

As is known, a problem which is frequently observed in ski bindings is the one determined by the accumulation of snow in the region comprised between the heel unit and the rear part of the boot.

This accumulation of snow is particularly inconvenient, because during the engagement of the boot with the rear jaw the snow is unavoidably compacted, creating an unwanted thickness which can alter the correct operation of the binding.

Similarly, the accumulation of snow while skiing can also prevent a correct disengagement of the heel unit.

The solutions currently adopted in order to solve this problem have not always proved effective but have been found to be merely palliatives which are unable to fully solve the problem.

The aim of the invention is to solve the above described problems by providing a heel unit for ski bindings having snow drainage means which allow to extremely facilitate the cleaning of the jaw, during the insertion of the boot, and furthermore prevent the accumulation of snow while skiing.

Within the scope of the above aim, a particular object of the invention is to provide a heel unit wherein the presence of the snow drainage means does not affect the operation of the binding and does not create particular constructive complications.

Another object of the present invention is to provide a heel unit for ski bindings which, by virtue of its peculiar characteristics of execution, is capable of giving the greatest assurances of reliability and safety in use.

Not least object of the present invention is to provide a heel unit which can be easily obtained starting from commonly commercially available elements and materials and is furthermore advantageous from a merely economical point of view.

The above described aim, the objects mentioned and others which will become apparent hereinafter are achieved by a heel unit for ski bindings comprising a ski coupling body with which a jaw is associated, said jaw being engageable with a rear part of a ski boot, characterized in that it comprises, on a portion of said jaw which is directed toward said ski boot, an opening of at least one channel, defined by said jaw, which leads outside said jaw for the drainage of snow and the like.

Further characteristics and advantages will become apparent from the detailed description of a heel unit for ski bindings with snow drainage means, illustrated only by way of non-limitative example in the accompanying drawings, wherein:

figure 1 is a front view of the heel unit according to the invention;

figure 2 is a perspective view of the heel unit;

figure 3 is a schematic cutout view of the heel unit.

With reference to the above figures, the heel unit according to the invention, which is generally indicated by the reference numeral 1, comprises a coupling body 2 for connection to the ski 3, with which a jaw, generally indicated by the reference numeral 4, is associated; said jaw engages, in a per se known manner, the rear part of a ski boot.

The peculiarity of the invention is constituted by the fact that on the portion of jaw 4 which is directed toward the ski boot there are channel openings which are defined by the jaw itself.

More in detail, there is a pair of lateral channels which define lateral openings 11 having a substantially rectangular configuration, which in practice affect the lateral regions of the jaw which are directed toward the ski boot.

The openings 11 are connected to lateral channels 12 which are defined directly in the body of the jaw and lead onto the lateral surface 13 of the heel unit.

Similarly, there is a central opening 15 which has a mainly horizontal arrangement, i.e. substantially parallel to the plane of arrangement of the ski, and is connected to a central channel 16 which leads onto the upper central portion 17 of the jaw.

With the described execution, the accumulation of snow between the boot and the jaw is prevented, since any snow which is present finds an outlet at the channels, so that said snow does not tend to remain between the jaw and the binding.

This fact is considerably important both during the engagement of the heel unit to the ski boot, since it is possible to easily remove said snow, and during normal skiing, since the snow which would tend to penetrate between the heel unit and the boot finds an unhindered outlet toward the channels, preventing the consequent accumulation of snow between the jaw and the boot.

In practice, the materials employed, so long as compatible with the specific use, as well as the dimensions and contingent shapes, may be any according to the requirements.

Where technical features mentioned in any claim are followed by reference signs, those reference signs have been included for the sole purpose of increasing the intelligibility of the claims and accordingly, such reference signs do not have any limiting effect on the scope of each element identified by way of example by such reference signs.

Claims

1. Heel unit for ski bindings, comprising a ski coupling body (2) with which a jaw (4) is asso-

ciated, said jaw being engageable with a rear part of a ski boot, characterized in that it comprises, on the portion of said jaw which is directed toward said ski boot, the opening (11) of at least one channel (12), defined by said jaw, which leads outside said jaw for the drainage of snow and dirt.

2. Heel unit, according to claim 1, characterized in that it comprises a pair of lateral openings (11) which are provided at the front sides of the jaw (4) and are connected to lateral channels (12) which lead out laterally from said jaw.

3. Heel unit, according to claim 2, characterized in that it comprises a central opening (15) which is provided in the upper central portion of the part of jaw, is directed toward the ski boot and is connected to a central channel (16) which leads onto the upper part of said jaw.

4. Heel unit, according to one or more of the preceding claims, characterized in that said openings have a substantially elongated configuration.

5. Heel unit, according to one or more of the preceding claims, characterized in that said openings extend substantially perpendicular with respect to the plane defined by the ski and diverge toward the upper part, said central opening extending substantially horizontally parallel to the plane of arrangement of the ski.

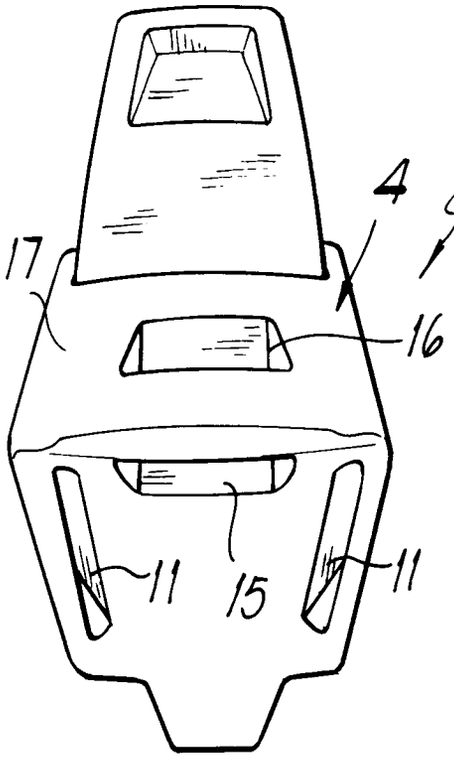

Fig. 1

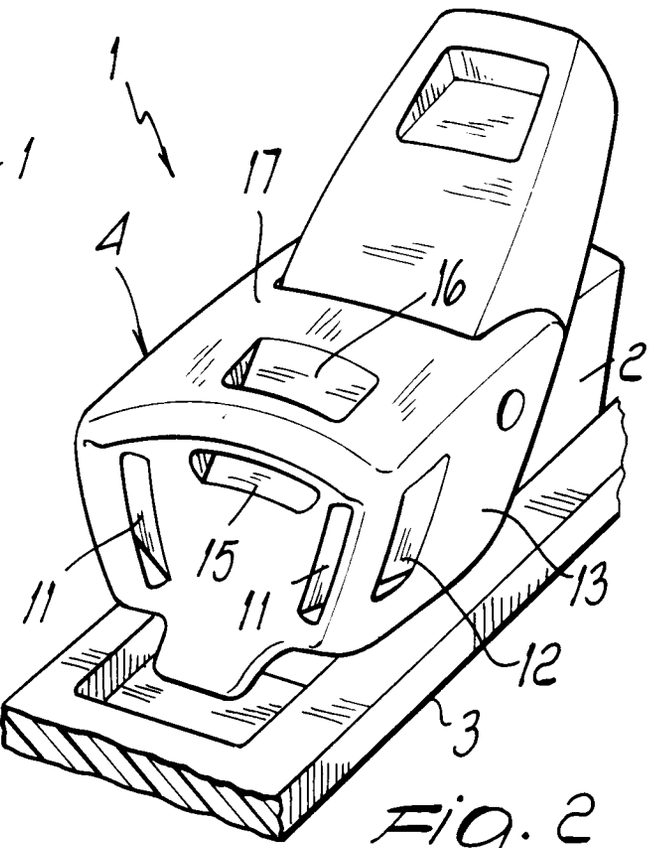

Fig. 2

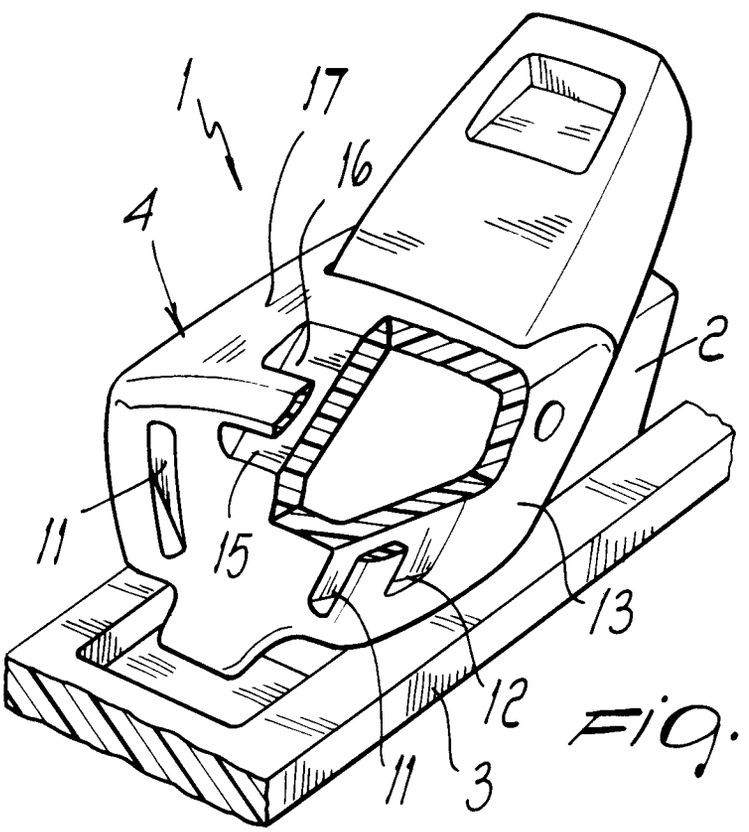

Fig. 3

European Patent Office

EUROPEAN SEARCH REPORT

Application Number

EP 92 10 4989

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
A	FR-A-2 349 347 (SALOMON SA) * figure 7 *	1-3	A63C9/00
A	US-A-2 196 925 (KAIRIS) * page 1; figures 1-6 *	1	
A	DE-A-3 515 966 (PAVLOVEC) * page 12, paragraph 4 - page 13, paragraph 3; figure 4 *	1	
A	US-A-4 900 061 (KOZMA,JR) * column 8, line 44 - line 45; figure 1 *	1	
A	AT-B-331 157 (SMOLKA & CO) * page 2, paragraph 2 -paragraph 3; figure 1 *	1-5	

TECHNICAL FIELDS SEARCHED (Int. Cl.5)

A63C

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	02 JULY 1992	STEEGMAN R.

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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