Feb. 14, 1967 W. C. CARLTON 3,304,095

PAIR OF SKIS

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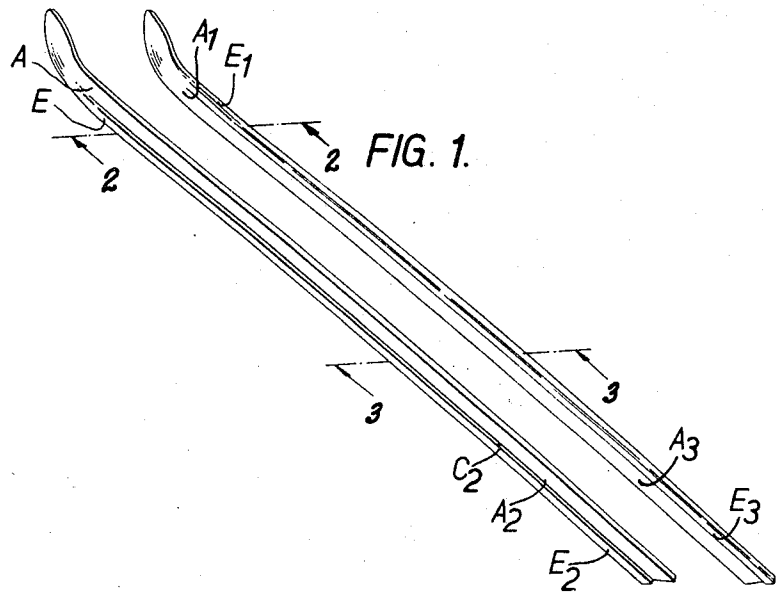


FIG. 1.

FIG. 2.

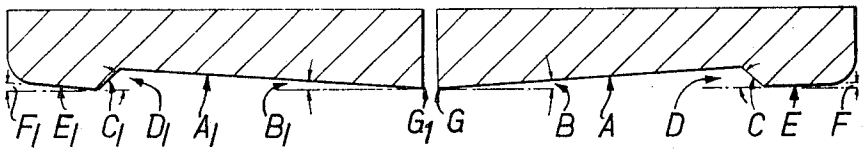
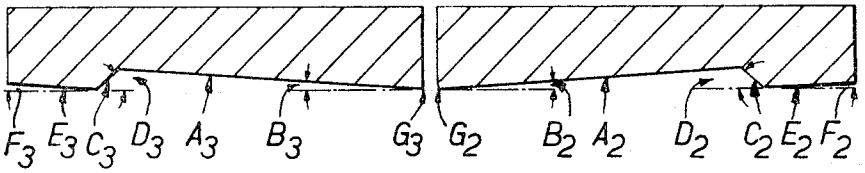


FIG. 3.



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PAIR OF SKIS

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4 Claims. (Cl. 280—11.13)

A difficulty in skiing concerns holiday-makers who do not spend sufficient time skiing each year to strengthen the muscles necessary to enable them to take some advantage of modern skiing techniques. This difficulty is particularly noticeable when the skier becomes tired. It is the object of this invention to alleviate this difficulty to some extent.

In the following specification and claims the word "horizontal" means the line upon which a cross section through a pair of skis would rest when the skis are in a normal position on level ground.

Skis made according to the known art are substantially similar for both the left and right foot, with the exception of the bindings, and each ski is also substantially symmetrical about its length. In the present invention, each ski is not symmetrical and the left ski is the opposite to or a mirror image of the right ski, so that the invention concerns a pair of skis as distinct from a single ski. This invention is not concerned with the ski bindings.

For the sake of brevity, in the following description of the manner in which the invention may be achieved, detailed reference is made only to the right ski, it being understood that the left ski is made in the opposite sense, that is, the left ski in transverse section is a mirror image of the right ski.

In order that this invention may be clearly understood and followed, examples will now be described with reference to the accompanying drawings, in which:

FIGURE 1 is a perspective view from the underside of a pair of skis embodying the invention.

FIGURE 2 is an enlarged cross section on line 2—2 of FIGURE 1.

FIGURE 3 is an enlarged cross section on line 3—3 of FIGURE 1, showing a development of the invention.

Referring now to FIGURES 1, 2 and 3, it will be seen that apart from the cross sections the main form of the skis is in the known manner, being curved upwards at the front end and very slightly arched intermediate the ends. As the view of the skis in FIGURE 1 is from underneath, the ski on the left in FIGURE 1 represents the right ski and the ski on the right in FIGURE 1 represents the left ski.

In FIGURE 2 the view is looking forward and therefore the ski on the left is the ski for the left foot and the ski on the right is the ski for the right foot.

In FIGURE 3 the view is also looking forward and therefore the ski on the left is the ski for the left foot and the ski on the right is the ski for the right foot.

Referring now to FIGURE 2, it will be seen that the inside lower edge G is sharp and this sharpness is maintained with a steel edge. Adjacent the lower edge G is the under-surface A which is made so that it is inclined transversely upwards from the horizontal at an angle designated B, this angle being between 2° and 10°.

Adjacent the end of the under-surface A which is remote from the sharp inside edge G is a further under-surface C which is inclined downwards from the point of intersection with under-surface A at an angle to the horizontal designated D which is between 90° and 45°.

Adjacent under-surface C, but remote from under-surface A, is a further under-surface E which is inclined upwards from the horizontal at an angle designated F which is between 2° and 10°. The section fades out as it reaches the curve in the ski forward and may continue throughout the length of the ski. Alternatively, the section may blend into another section about one third of the length from the forward end of the ski.

The ski for the left foot is shown in FIGURE 2 at G1, B1, A1, D1, C1, E1 and F1, being made exactly in the opposite sense to the ski described for the right foot.

A further development of the invention is now described with reference to FIGURES 2 and 3 and again referring to the ski for the right foot, the section at FIGURE 2 is blended or merges into the section shown in FIGURE 3 at about one third the length of the ski from the forward end. As shown on the drawing the section at FIGURE 3 has a sharp inside lower edge at G2 and adjacent the lower edge G2 is under-surface A2 which is made so that it is inclined upwards from the horizontal at an angle B2, this angle being between 2° and 10° and preferably the same angle as angle B in FIGURE 2.

Adjacent the end of the under-surface A2, which is remote from the sharp lower inside edge G2, is a further under-surface C2 which is inclined downwards from the point of intersection with under-surface A2 at an angle D2 to the horizontal which is between 90° and 45° and preferably the same angle as angle D in FIGURE 2. Adjacent under-surface C2, but remote from under-surface A2, is a further under-surface E2 which is between horizontal and an angle F2 which may be up to 10°.

The ski for the left foot is shown in FIGURE 3 at G3, B3, A3, D3, C3, E3 and F3 and is made exactly in the opposite sense to the ski described for the right foot.

It will be understood that throughout this specification the joints between the surfaces A, C and E may be slightly radiused rather than sharp, and, moreover, if the development of the invention is used in which two different sections are used to form the under-surface of the ski, the sections must be blended in such a way that the grooves formed on the under-side of the skis permit the skis to run straight and true.

What I claim is:

1. A pair of skis for a left and right foot, each ski having an inside edge, an outside edge, an upper surface and an under surface, a first portion of each said under surface adjacent the inside edge being inclined towards the upper surface from said inside edge at an angle of from 2° to 10° to the horizontal when the ski is disposed on level ground, a second portion of said under surface adjacent said first portion being inclined away from said upper surface and from said first portion at an angle of from 45° to 90° to the horizontal, and a third portion of said under surface between said second portion and the outside edge being inclined towards said upper surface from said second portion at an angle of not more than 10° to the horizontal, the intersection between said second and third portions of said under surface lying at a position from 60% to 90% of the distance between the inside and outside edges measured from said inside edge.

2. A pair of skis which are non-symmetrical, the ski for the left foot being, in transverse section, a mirror image of the ski for the right foot; each ski being of greatest thickness, measured vertically, at its inside edge and decreasing in vertical thickness transversely toward the outside edge; said decrease in vertical thickness taking place on the under surface only of the ski; the portion of said ski which is of decreasing thickness having its under surface at an angle relative to the horizontal of between 2° and 10°; there being a second under surface which is very narrow and is inclined at an angle of between 90° and 45° to the horizontal, this second under surface adjoining the first-mentioned portion of the under surface at the point where the ski is of least vertical thickness; this second inclined under surface terminating at a point where the ski is of a thickness substantially equal to the thickness at its inside edge; and a third inclined under surface extending from the termination point of the sec-

ond inclined under surface to the outside edge of the ski; this third inclined under surface extending at an angle of between 2° and 10° to the horizontal.

3. The invention defined in claim **2**, wherein the junction of the second inclined under surface and the third inclined under surface lies between 60% and 90% of the total width of the ski measured from the inside edge.

4. The invention defined in claim **2**, wherein each ski of the pair has a sharp outside lower edge extending for a substantial portion of its length, the under surface of each ski adjacent this outside lower edge being either horizontal or lying at an angle of 10° to the horizontal.

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