

# United States Patent

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## FOREIGN PATENTS

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[54] **SKI CONSTRUCTION**  
**8 Claims, 5 Drawing Figs.**

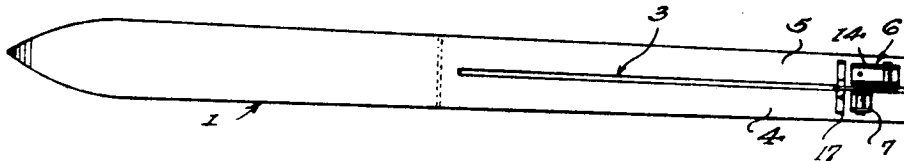
[52] U.S. Cl. .... 280/11.13  
 [51] Int. Cl. .... A63c 5/06  
 [50] Field of Search ..... 280/11.13

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**ABSTRACT:** A ski includes an elongated body which is split longitudinally thereof from the rear end to a portion adjacent the midpoint of the ski to define a pair of spaced parallel longitudinal portions which are movable relative to one another. Tilt control means is interconnected with the two movable portions of the ski to maintain these movable portions parallel with one another at all times.



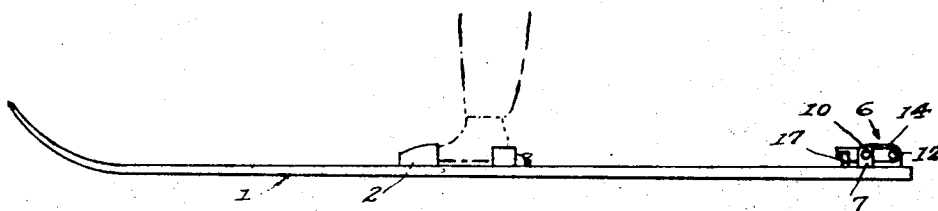


Fig. 1.

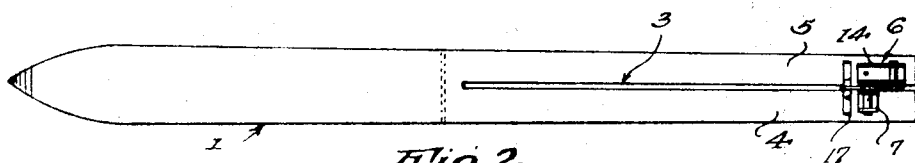


Fig. 2.

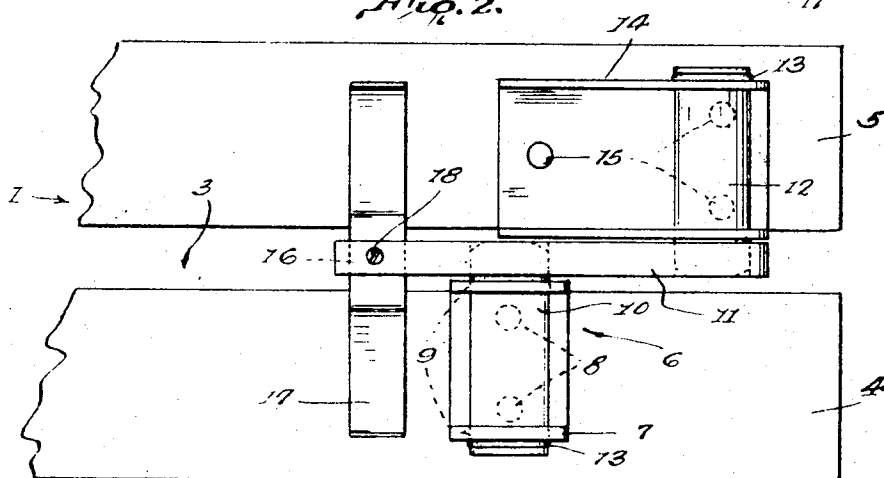


Fig. 3.

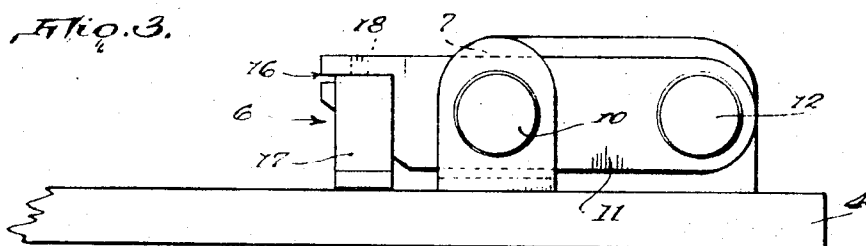


Fig. 4.

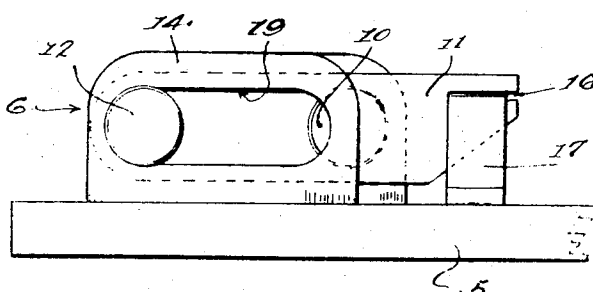


Fig. 5.

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## SKI CONSTRUCTION

## BACKGROUND OF THE INVENTION

The present invention is directed to a ski which will provide better control when making turns so that the turns can be made with greater ease and with less danger of skidding.

In the usual ski construction, when the skier makes a turn, only one control edge of the ski engages the snow. It is accordingly desirable to provide an arrangement wherein the ski provides a plurality of control edges when a turn is being made. As a result, when the ski is tipped for turning, the ski will provide two surfaces gripping the snow and the skier will have much better control over skids.

In order to accomplish the desired results, it is also necessary to provide an arrangement wherein the two control edges of the ski will remain parallel with one another so as to provide optimum results.

## SUMMARY OF THE INVENTION

In the present invention, the ski is split longitudinally thereof from the rear end to a point adjacent the midpoint in the length of the ski. This provides two parallel longitudinally extending portions of the ski which are movable with respect to one another. These two portions accordingly will provide two separate control edges when turns are being made.

A tilt control means is also provided for maintaining the two movable portions of the ski substantially parallel with one another so that the control edges thereof will stay parallel as the ski moves through a turn thereby providing two gripping surfaces rather than a single one as has been heretofore provided.

## BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 is a side view of a ski according to the present invention;

FIG. 2 is a top view of the ski shown in FIG. 1;

FIG. 3 is an enlarged top view of a portion of the structure shown in FIG. 2;

FIG. 4 is a side view of the structure shown in FIG. 3; and

FIG. 5 is the opposite side view of the structure shown in FIG. 3.

## DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to the drawings wherein like reference characters designate corresponding parts throughout the several views, ski 1 comprises an elongated body of the usual size and configuration. The ski is provided with a conventional clamping mechanism 2 for holding a ski boot in place on the ski.

An elongated slot 3 extends from the rear end of the ski to a point under the center of the clamping mechanism, or in other words, this slot extends from the rear end of the ski to a point at least adjacent the midpoint in the length of the ski. The elongated slot 3 which is formed completely through the ski defines a pair of relatively movable spaced longitudinally extending portions 4 and 5 at the rear part of the ski.

A tilt control means is indicated generally by reference numeral 6 and is mounted adjacent the rear end of the ski. This tilt control means includes a first generally U-shaped bracket 7 having a pair of upstanding spaced legs each of which has a circular opening 9 formed therethrough and in alignment with one another. The flat connecting portion of the bracket between the upstanding legs is secured to the upper surface of portion 4 of the ski by a pair of flatheaded screws 8.

A generally cylindrical shaft 10 is rotatably supported within the aligned circular holes 9 in brackets 7. This shaft 10 is rigidly secured as by welding to a floating arm 11. A further shaft 12 is rigidly secured to the floating arm 11 and extends laterally therefrom. It will be noted that the shafts 10 and 12 have the axes thereof disposed substantially parallel with one another, these two shafts extending laterally from opposite sides of the arm. Shafts 10 and 12 are provided with circum-

ferentially extending grooves around the outer ends thereof for receiving snaprings 13 to retain the shafts in operative position.

A further bracket member 14 of generally U-shaped cross-sectional configuration is provided, the flat connecting portion of this bracket member being secured to the upper surface of portion 5 of the ski by flatheaded screws 15.

The legs of bracket member 14 are provided with elongated slots 19, and shaft 12 is adapted to slide along the slots 19. Shaft 12 may also rotate with respect to bracket 14.

The forward end of floating arm 11 is provided with a slot 16 which receives an elongated one-piece spring 17 of generally flat rectangular cross section. A set screw 18 is threaded through a suitable hole provided in arm 11 and engages the spring for holding it in operative position. The spring includes oppositely extending portions which curve outwardly and downwardly so as to engage the upper surfaces of portions 4 and 5 of the ski.

The tilt control unit permits limited movement of movable portions 4 and 5 of the ski with respect to one another. The two movable portions are adapted to independently engage the snow and present two gripping surfaces and controlled edges instead of one as in conventional constructions. The tilt control means ensures that these two movable portions remain parallel with one another in use.

As this invention may be embodied in several forms without departing from the spirit or essential characteristics thereof, the present embodiment is therefore illustrative and not restrictive, and since the scope of the invention is defined by the appended claims, all changes that fall within the metes and bounds of the claims or that form their functional as well as conjointly cooperative equivalents are therefore intended to be embraced by those claims.

I claim:

1. A ski having a plurality of control edges for making turns, comprising:

- a. an elongate body;
- b. a slot through said body extending longitudinally from one end of said body to a point intermediate the ends thereof and defining a pair of longitudinally extending substantially parallel side-by-side relatively movable portions;
- c. a pair of separate control edges on each of said longitudinally extending portions; and
- d. tilt control means on said longitudinally extending relatively movable portions for maintaining said portions substantially parallel but enabling relative movement therebetween, said tilt control means including one part fixed to one of said relatively movable portions and a separate part fixed to the other of said relatively movable portions, means interconnecting said parts across said slot enabling relative vertical movement between said relatively movable portions but precluding relative lateral movement between said relatively movable portions.

2. A ski as in claim 1, wherein the elongated body is split longitudinally to a point adjacent at least the midpoint of the length of said body.

3. A ski as defined in claim 1 wherein one of said parts is pivotally interconnected with one of said movable portions.

4. A ski as defined in claim 3 wherein another of said parts is pivotally and slidably interconnected with the other of said movable portions.

5. A ski construction including an elongate body having a pair of relatively movable portions disposed adjacent the rear end thereof, tilt control means for maintaining said portions substantially parallel with one another during use, said tilt control means including a part movably connected with each of said relatively movable portions, said parts being rigidly interconnected with one another and comprising shafts, said shafts being rigidly interconnected with an arm and extending laterally therefrom.

6. A ski as defined in claim 5 including spring means mounted at the forward end of said arm and engaging each of said relatively movable portions.

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7. A ski as defined in claim 6 wherein said spring means is of one-piece construction having the opposite ends thereof extending laterally of said arm, each of said ends engaging one of said relatively movable portions.

8. A ski construction including an elongate body split longitudinally from the rear end thereof to a point at least adjacent the midpoint of the length of the body to define a pair of relatively movable portions disposed adjacent the rear end,

tilt control means including an arm having a pair of shafts extending laterally therefrom, one of said shafts being pivotally interconnected with one of said movable portions, the other of said shafts being pivotally and slidably interconnected with the other of said movable portions, and spring means supported at the forward end of said arm and having portions engaging each of said relatively movable portions of the body.

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