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(54) **EDGES FOR SKIS, SNOWBOARDS AND ICE SKATES**

(57) Edges for skis, snowboards and ice skates, that through the incorporation of more than one edge make

it possible to increase grip in turns and stops. Especially applicable in the snow- or ice-sliding sports sector, where edges with such characteristics are required.

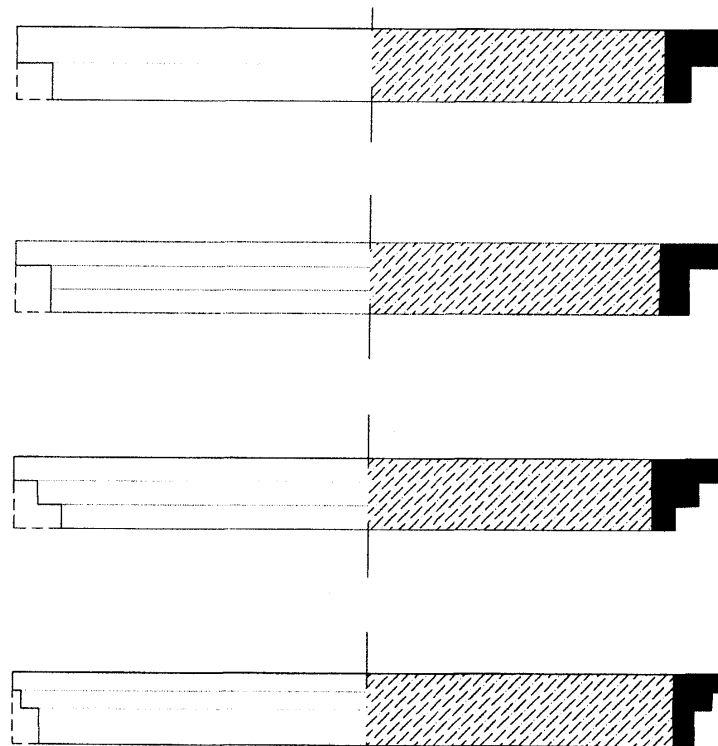


Fig.1

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Description

Object of the invention

[0001] The object of the present patent of invention is to present new edges for skis, snowboards and ice skates, that with the incorporation of more than one edge will increase the grip when turning and braking.

[0002] This new type of edges for skis, snowboards and ice skates has a special application in the sport sector in which you slide on snow or ice, where you would require edges with these characteristics.

Background of the invention

[0003] The edges for skis, snowboards and skates have two things in common:

1. Reduce the friction with the surface to increase speed.
2. Assure the grip to the surface when turning and braking.

[0004] To assure the grip to the surface when turning and braking, metallic edges are currently used, and in some cases these are strengthened by different types of treatments or combining different materials in the manufacturing process, but in all cases there is only one edge.

[0005] The evolution in the use of different materials, as well as the development of new designs has permitted to incorporate the metallic edge in the device instead of superposing the edges on the device.

[0006] In order to control the forward move on the ground, a series of turns are required and the edges assure the grip to the surface. As the turns are sharper, the edge produces a greater grip to the surface.

[0007] The greatest grip power is produced when the edge is at a determined angle and beyond this angle the grip is reduced.

[0008] Both snow and ice do not offer a uniform surface as the hardness and homogeneity vary according to temperature, humidity and wind. When moving on a non homogenous surface, there will be moments when entering in an area with a harder surface which will require that the inclination has to be increased. If this inclination goes past the point of maximum grip, the grip power will decrease and this situation could cause a loss of control or provoke a fall.

[0009] The development in sports is to a large extent centred on increasing speed or the execution of more complex and risky manoeuvres. In any of these cases, the new execution techniques impose an increased demand on the materials used and the design of the products in order to maintain control and safety in the realization of these sports.

[0010] The possibility to achieve a better grip contributes to gain more control and more safety when executing

these sports.

[0011] The edges that currently exist have partially achieved to increase control and safety, but present the limitation of having only one edge and the limitations that this implies.

Description of the invention

[0012] In order to mitigate or eliminate the above mentioned problems, this new type of edge is presented to be used for skis, snowboards and ice skates, that with the incorporation of more than one edge achieves a greater grip when turning and braking.

[0013] When increasing the number of edges, a greater grip on the surface is achieved.

[0014] The combination of the number of edges and the alignment of the edges (in a straight line or curved) is to be determined by the skiing or skating technique that is to be executed. Aligning the edges in a straight line might be more appropriate for making short and powerful turns while the curved alignment might be better adapted for long and high speed turns.

Description of the drawings

[0015] In order to complement the description, and to help understanding the characteristics of the invention, enclosed you will find in this descriptive memorandum and as integral part of the same, a series of drawings in which, in an illustrative sense and not limitative, the following representations:

Figure 1: Partial cross section of different examples of edges with different vertical and horizontal distances between the edges.

Figure 2: Partial cross section of different examples of edges, in which these are aligned in a straight line and with different inclination with respect to the horizontal plane.

Figure 3: Partial cross section of different examples of edges in which these are aligned to define different curved shapes.

Figure 4: Partial cross section of different examples of edges in which these are defined in straight angles, flattened and sharpened angles, in combination with alignments in different angles and shapes and with different distances between the edges.

Preferential execution of the invention

[0016] The edges for skis, snowboard and skates, which are the object of the present invention, by the incorporation of more than one edge, permit increasing the grip when turning and braking.

[0017] The said edges can have different types of

alignment, both straight line and curved, as well as different combinations of edges, allowing them to form different geometrical shapes.

[0018] These can be combined or not, in different sections along the ski allowing for different longitudes along the same. 5

[0019] Various types of edges can be combined in different longitudinal sections along the ski both in a continuous or discontinuous way or in combination.

[0020] The horizontal distances between the edges can vary. 10

[0021] The vertical distances between the edges can vary.

[0022] Different edges can be arranged in a straight line and with different angles with reference to the horizontal plane. 15

[0023] Once this memorandum has sufficiently described the nature of this invention, as well as the way to bring it into practice, it must be added that this invention could undergo certain variations in shapes and materials, as long as these variations do not vary substantially the characteristics that are vindicated next. 20

Claims 25

1. Edges for skis, snowboards and ice skates, characterized because they are composed of more than one edge. 30
2. Edges for skis, snowboards and ice skates, according to vindication 1 characterized because said edges can have different forms of alignment both straight line and curved, as well as combined, forming different geometrical forms. 35
3. Edges for skis, snowboards and ice skates, according to vindication 1 and 2 characterized because said edges can be combined or not, in different longitudinal sections along the ski, allowing for different lengths along the device. 40
4. Edges for skis, snowboards and ice skates, according to vindication 1, 2 and 3 characterized because edges of different forms can be combined in different longitudinal sections along the ski, both in a continuous or discontinuous way or in combination thereof. 45
5. Edges for skis, snowboards and ice skates, according to vindication 1, 2, 3 and 4 characterized because the horizontal distances between the edges can vary. 50
6. Edges for skis, snowboards and ice skates, according to vindication 1, 2, 3, 4 and 5 characterized because the vertical distances between the edges can vary. 55

7. Edges for skis, snowboards and ice skates, according to vindication 1, 2, 3, 4, 5 and 6 characterized because different edges can be aligned in a straight line and with different inclination with respect to the horizontal plane.

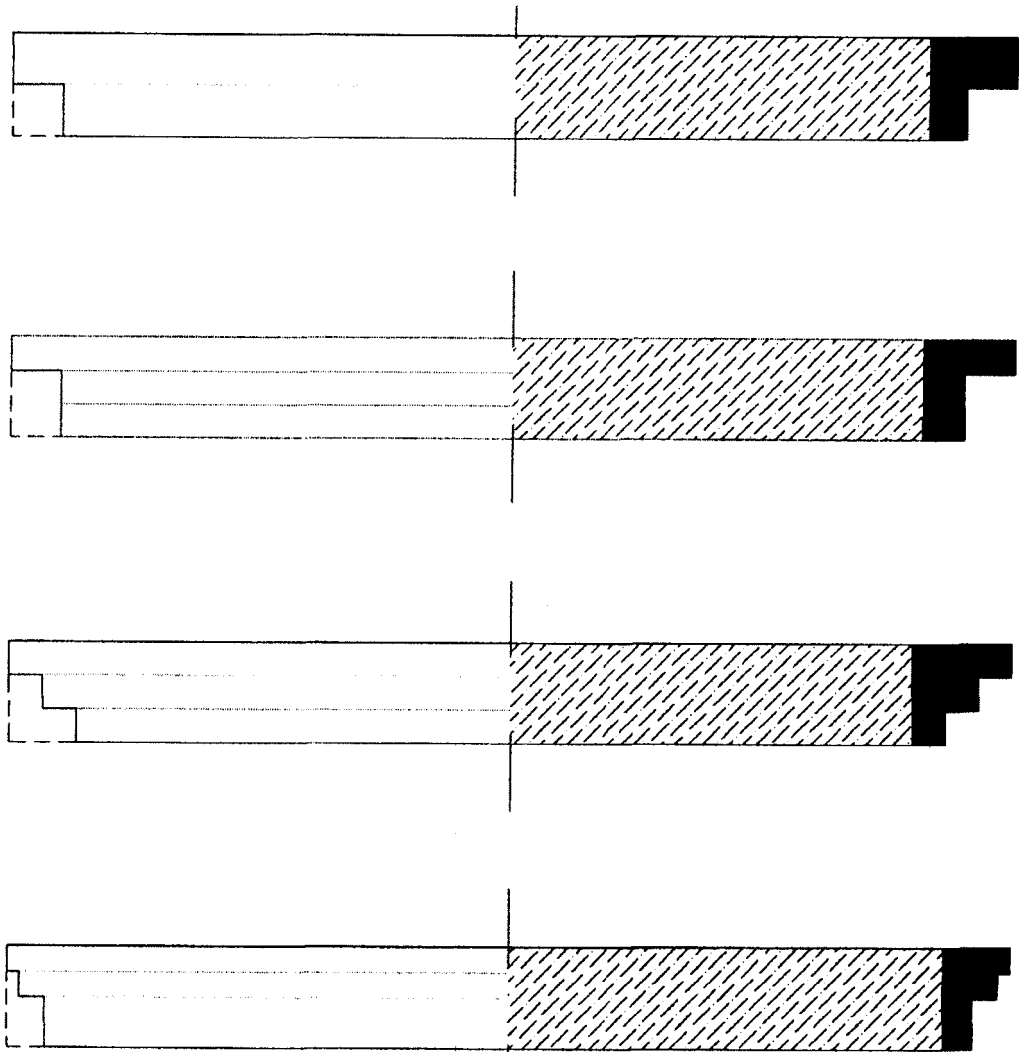


Fig.1

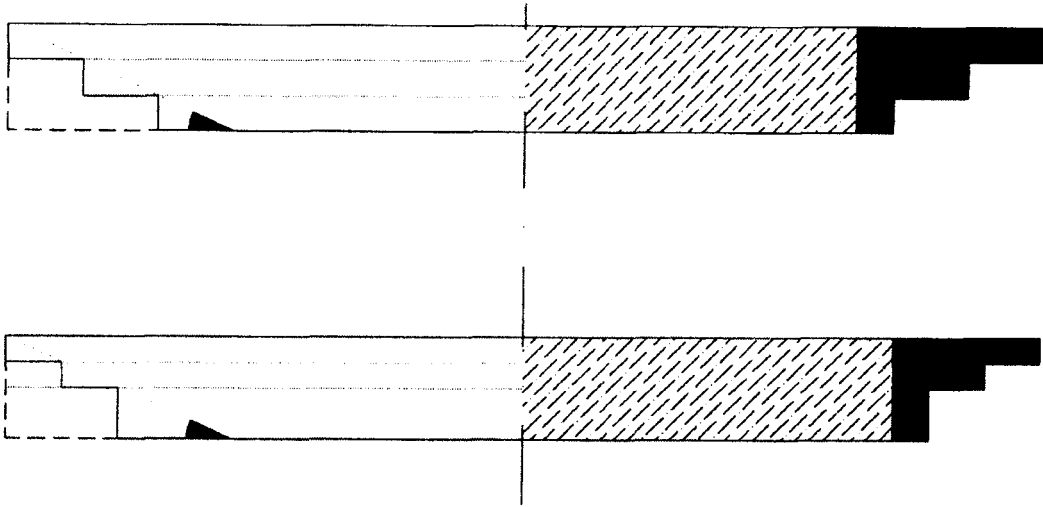


Fig.2

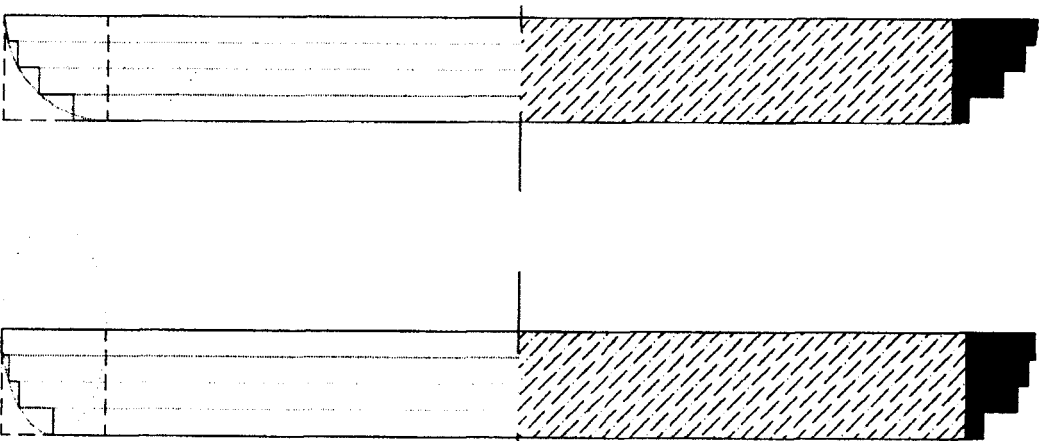


Fig.3

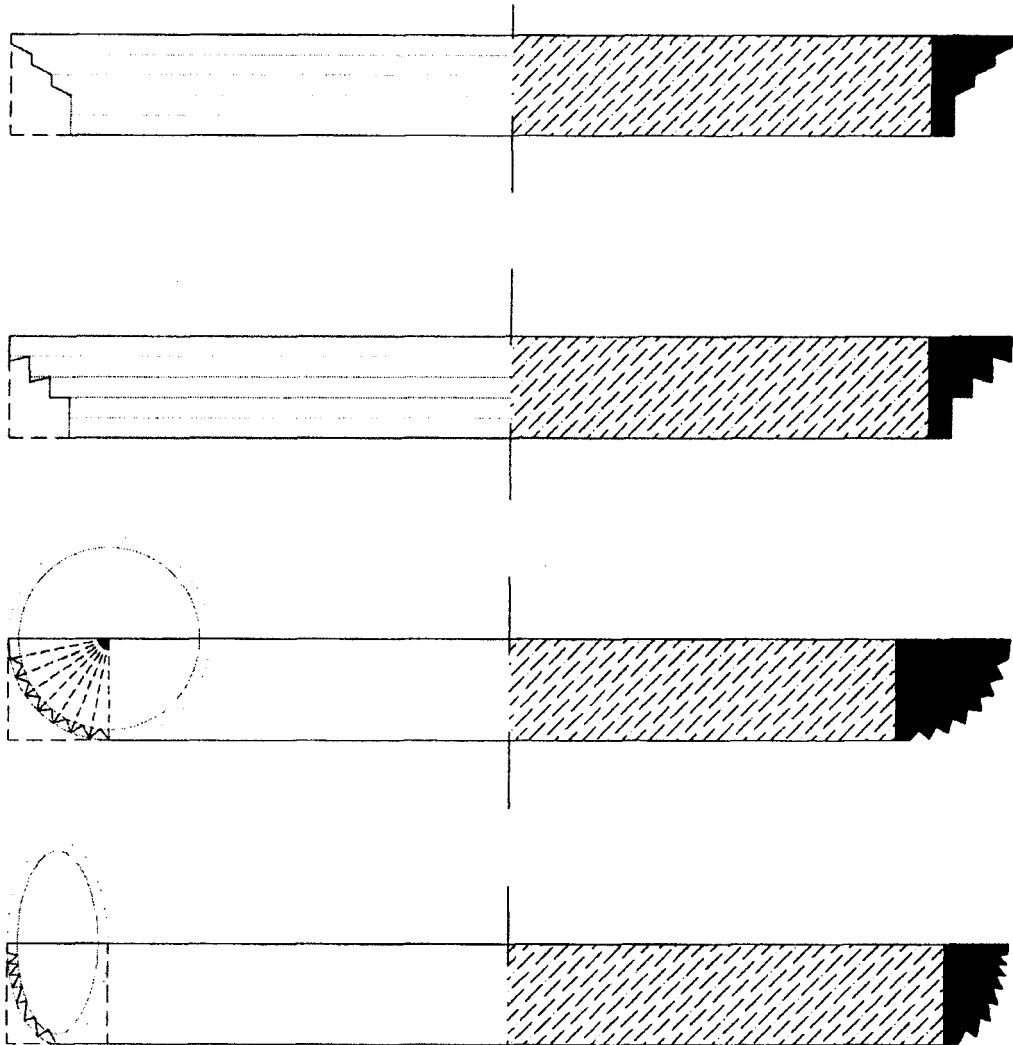


Fig.4