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(54) **Gliding board**

Gleitbrett

Planche de glisse

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Description

Field of the Invention

[0001] The present invention relates generally to a gliding board and, more particularly, to a snowboard. A method of manufacturing a snowboard having the features of the preamble of claim 1 further below is disclosed in FR 2 748 400 A1.

Background of the Invention

[0002] Specially configured boards for gliding along a surface are known, such as snowboards, snow skis, water skis, wake boards, surfboards and the like. For purposes herein, "gliding board" refers generally to any of the foregoing boards as well as to other devices which allow a rider to traverse a surface.

[0003] Gliding enthusiasts typically prefer to ride their boards on a variety of different surface terrain or conditions, and also may enjoy different styles of riding. Snowboards, for example, are ridden on many different surface conditions, such as deep powder as well as dense groomed or hard packed snow. There are several styles of snowboard riding, including freeride which favors long runs down a mountain and freestyle which emphasizes jumps and tricks, including spins and other aerial moves, that may be performed in a half pipe or a terrain park. A snowboarder may enjoy both freestyle and freeride styles of riding and may find herself in powder conditions on one run and groomed terrain on the next. Snowboards have been designed to enhance performance in a particular snow condition or for a particular style of riding. Thus, longer boards, typically greater than 160 cm or 162 cm are preferred for powder riding since the greater length enhances the ability of the board to "float", that is, to remain within or on top of the powder rather than sinking deeply into the snow. Longer boards, however, are more difficult to spin in the air, making it harder to ride in a terrain park or in the half pipe. These and other competing design factors may come into play when planning and constructing a snowboard that may be ridden in both powder and dense snow conditions, as well as for a board that may be ridden in a terrain park or half pipe as well as down trails. Commercially available snowboards, consequently, typically are tailored for a particular terrain or riding style, and while the snowboard may be ridden in other conditions or using a different riding form, the performance properties of the board may be less desirable than when ridden in the intended fashion or targeted condition.

[0004] FR 2 748 400 A 1 discloses a method of manufacturing a snowboard. The snowboard is manufactured from, inter alia, a polycarbonate plate having a length of 160 cm and a width of 30 cm near the tip end and near the tail end of the polycarbonate plate. Both ends of the plates are curved upwardly. The plate is symmetrical both to its longitudinal and its transverse center lines.

[0005] US 5,782,475 relates to a board for gliding on the snow with a raised tip. For a board having a total length of, for instance, 178 cm, US 5,782,475 discloses that the maximum width of the board is on the order of 230 mm at the widest part of the tip and on the order of 220 mm at the widest part of the heel.

Summary of the Invention

[0006] The invention seeks to provide a gliding board that is amenable to spinning in the half pipe or park as well as deep powder riding.

[0007] In one embodiment of the invention, a gliding board, such as a snowboard, includes an elongated member having a nose, a tail, a waist, a running length extending between the nose and the tail, an edge to edge direction, wherein the nose and the tail are curved upwardly away from the running length, and binding positions for securing two feet to the elongated member simultaneously such that one foot is secured forward of the other foot in relation to the nose. The elongated member has an overall length of less than about 162 cm, the nose and the tail each has a length in a nose to tail direction, the nose and the tail each has a largest width in the edge to edge direction, and the waist has a narrowest waist width in the edge to edge direction. The elongated member has a largest nose width in the edge to edge direction of at least about 3 0 cm, wherein the largest nose width is at least about 1.5 cm greater than the largest tail width.

[0008] In another embodiment, the nose length is greater than about 22 cm.

[0009] In another embodiment, the nose length is greater than about 23.5 cm.

[0010] In another embodiment, the nose length is greater than about 25 cm.

[0011] In another embodiment, the tail length is less than about 19.0 cm.

[0012] In another embodiment, the tail length is less than about 1 7.5 cm.

[0013] In another embodiment, the tail length is less than about 16.0 cm.

[0014] In another embodiment, a ratio of the nose length to the tail length is at least about 1.45.

[0015] In another embodiment, a ratio of the nose length to the tail length is greater than about 1.48.

[0016] In another embodiment, a ratio of the nose length to the tail length is greater than about 1.5.

[0017] In another embodiment, a ratio of the nose length to the tail length is greater than about 1.53.

[0018] In another embodiment, a ratio of the nose length to the tail length is greater than about 1.56.

[0019] In another embodiment, the largest nose width is at least about 2.0 cm greater than the largest width of the tail.

[0020] In another embodiment, the largest nose width is at least about 2.5 cm greater than the largest width of

the tail.

[0021] In another embodiment, the largest nose width is at least about 3.0 cm greater than the largest tail width.

[0022] In another embodiment, a ratio of the largest nose width to the largest tail width is greater than about 1.05.

[0023] In another embodiment, a ratio of the largest nose width to the largest tail width is greater than about 1.07.

[0024] In another embodiment, a ratio of the largest nose width to the largest tail width is greater than about 1.09.

[0025] In another embodiment, a ratio of the largest nose width to the largest tail width is greater than about 1.1.

[0026] In another embodiment, the largest nose width is between 5 and 20 percent greater than the largest tail width.

[0027] In another embodiment, the largest nose width is between 7.5 and 15 percent greater than the largest tail width.

[0028] In another embodiment, the largest nose width is between 20 and 25 percent greater than the narrowest waist width.

[0029] In another embodiment, the largest nose width is about 22 percent greater than the narrowest waist width.

[0030] In another embodiment, the largest nose width is less than 1.30 times the narrowest waist width.

[0031] In another embodiment, a ratio of the narrowest waist width to the largest nose width is greater than about 0.77.

[0032] In another embodiment, a ratio of the narrowest waist width to the largest tail width is greater than about 0.85.

[0033] In another embodiment, a sidecut extending along the running length, the sidecut comprising a sidecut depth and a sidecut length, a ratio of the sidecut depth to the sidecut length being about 0.02.

[0034] In another embodiment, the overall length is less than about 160 cm.

[0035] In another embodiment, the overall length is less than about 158 cm.

[0036] In another embodiment, the overall length is less than about 155 cm.

[0037] In another embodiment of the invention, a gliding board, such as a snowboard, includes an elongated member having a nose, a tail, a running length extending between the nose and the tail, and a mid-line defining the center of the running length. The nose and tail may be curved upwardly away from the running length. The elongated member includes a first and a second binding mounting location corresponding to a front and a back binding, the first binding mounting location positioned between the mid-line and the tail and the second binding mounting location positioned between the mid-line and the nose, wherein the first and second binding mounting locations are offset in a direction of the tail more than 25 mm from the mid-line.

[0038] In another embodiment, the first and second mounting locations are offset by at least about 30 mm from the mid-line in a direction of the tail.

[0039] In another embodiment, the first and second mounting locations are offset by at least about 50 mm from the mid-line in a direction of the tail.

[0040] In another embodiment, the first and second mounting locations are offset by at least about 75 mm from the mid-line in a direction of the tail.

[0041] In another embodiment, the first and second mounting locations are offset by at least about 100 mm from the mid-line in a direction of the tail.

[0042] In another embodiment of the invention, a gliding board, such as a snowboard, includes an elongated member having a nose, a tail, and a running length extending between the nose and the tail. The nose and the tail are curved upwardly away from the running length and each have a largest width in an edge to edge direction of the board and a length. The board includes a mid-line defining the center of the running length and first and second binding mounting locations preformed in the board. The first binding mounting location is positioned between the mid-line and the tail, and the second binding mounting location is positioned between the mid-line and the nose. The gliding board has at least three of the following dimensions and structural arrangements:

> an overall length less than about 162 cm, a largest nose width greater than 30 cm, a largest nose width more than 1.5 cm greater than a largest tail width, a largest tail width of at least about 25 cm, a nose length greater than about 22 cm, a tail length less than about 19 cm, first and second binding mounting locations that are off-set from a mid-line of the board more than 25 mm in a direction of the tail.

[0043] In another embodiment of the invention, a gliding board, such as a snowboard, includes an elongated member having a nose, a tail, and a running length extending between the nose and the tail. The nose and the tail are curved upwardly away from the running length and each have a largest width in an edge to edge direction of the board and a length. The board includes a mid-line defining the center of the running length and first and second binding mounting locations preformed in the board. The first binding mounting location is positioned between the mid-line and the tail, and the second binding mounting location is positioned between the mid-line and the nose. The gliding board has at least three of the following dimensions and structural arrangements:

> an overall length less than about 160 cm, a largest nose width greater than 30 cm, a largest nose width more than 1.5 cm greater than a largest tail width, a largest tail width of at least about 25 cm, a nose length greater than about 22 cm, a tail length less than about 19 cm, first and second binding mount-

ing locations that are off-set from a mid-line of the board more than 25 mm in a direction of the tail.

[0044] In another embodiment of the invention, a gliding board, such as a snowboard, is provided including an elongated member having a nose, a tail, a running length extending between the nose and the tail, and an edge to edge direction. The nose has a largest width in the edge to edge direction that is at least about 2 cm greater than a largest width of the tail in the edge to edge direction.

[0045] In another embodiment of the invention, a gliding board, such as a snowboard, includes an elongated member having a nose, a tail, a running length extending between the nose and the tail, and an edge to edge direction. The nose and tail may be curved upwardly away from the running length. The elongated member has an overall length of less than about 162 cm, a largest nose width in the edge to edge direction of at least about 30 cm, a tail length of less than about 19.0 cm, and a largest tail width in said edge to edge direction of at least about 25 cm.

[0046] In another embodiment of the invention, a gliding board, such as a snowboard, includes an elongated member having a nose, a tail, a running length extending between the nose and the tail, and an edge to edge direction. The nose and tail may be curved upwardly away from the running length. The elongated member has an overall length of less than about 160 cm, a largest nose width in the edge to edge direction of at least about 30 cm, and a tail length of less than about 19.0 cm, and a largest tail width in said edge to edge direction of at least about 25 cm.

[0047] In another embodiment of the invention, a gliding board, such as a snowboard, includes an elongated member having a nose, a tail, and a running length extending between the nose and the tail. The nose and tail may be curved upwardly away from the running length. The nose and the tail each having a length in a nose to tail direction, a ratio of the nose length to the tail length being at least about 1.45.

[0048] In another embodiment of the invention, a gliding board, such as a snowboard, includes an'elongated member having a nose, a tail, and a running length extending between the nose and the tail. The nose and tail may be curved upwardly away from the running length. The nose and the tail each having a length in a nose to tail direction, a ratio of the nose length to the tail length being at least about 1.5.

[0049] In another embodiment of the invention, a gliding board, such as a snowboard, includes an elongated member having a nose, a tail, a waist, and a running length extending between the nose and the tail. The nose and the tail are curved upwardly away from the running length and each has a largest width in an edge to edge direction of the board. The waist has a narrowest waist width in the edge to edge direction. The largest nose width is greater than 30 cm and between 20 and 25 percent greater than the narrowest waist width.

[0050] In another embodiment of the invention, a gliding board, such as a snowboard, includes an elongated member having a nose, a tail, a waist, a running length extending between the nose and the tail, and an edge to edge direction. The nose and tail are curved upwardly away from the running length and each has a largest width in the edge to edge direction. The waist has a narrowest width in the edge to edge direction. The largest nose width is greater than about 25 cm, at least 2 cm greater than the largest tail width and less than 1.30 times the narrowest waist width.

[0051] In another embodiment of the invention, a gliding board, such as a snowboard, includes an elongated member having a nose, a tail, a waist, a running length extending between the nose and the tail, and an edge to edge direction. The nose and tail are curved upwardly away from the running length and each has a largest width in the edge to edge direction. The waist has a narrowest waist width in the edge to edge direction. The largest nose width is greater than about 30 cm, and a ratio of the narrowest waist width to the largest nose width is greater than about 0.77. A ratio of the narrowest waist width to the largest tail width is greater than about 0.85. A ratio of the largest nose width to the largest tail width is about 1.10.

[0052] In another embodiment of the invention, a gliding board, such as a snowboard, includes an elongated member having a nose, a tail, an edge to edge direction, a running length extending between the nose and the tail, and a sidecut extending along the running length. The nose and tail are curved upwardly away from the running length and each has a largest nose width in the edge to edge direction. The sidecut includes a side cut depth and a sidecut length. The largest nose width is greater than about 30 cm and at least 2 cm greater than the largest tail width. A ratio of the sidecut depth to the side cut length is about 0.02.

[0053] Various aspects and/or dimensions of the invention identified above and/or described below may be combined with one or more other aspects and/or dimensions of the invention in any suitable way.

Brief Description of the Drawings

[0054] It should be understood that the drawings are provided for the purpose of illustration only and are not intended to define the limits of the invention. Various aspects of the present invention will become apparent with reference to the following detailed description taken in conjunction with the accompanying drawings in which:

Fig. 1 is a top view of a gliding board, in the illustrated case a snowboard, in accordance with the present invention; and

Fig. 2 is a side view of the snowboard illustrated in Fig. 1.

Detailed Description

[0055] In at least one embodiment, the invention is directed to a versatile gliding board characterized by performance properties suitable for two or more riding styles and/or use in two or more surface conditions. The inventive board has particular application to a gliding implement that is rideable in both coarse and dense conditions, such as powder and either hard packed or groomed trails, when the gliding board is a snowboard. The inventive board also is suited to a gliding implement that may be spun in the air as well as ridden along a trail, and where the gliding implement is a snowboard may be ridden freeride all over a mountain and freestyle, performing spins and other aerial maneuvers, in the half pipe or park.

[0056] For ease of understanding, and without limiting the scope of the invention, illustrative embodiments of the inventive gliding board to which this patent is addressed are disclosed below particularly in connection with a snowboard. It should be appreciated, however, that the inventive board may be embodied in a gliding implement that is used to traverse a terrain other than snow, such as grass, dirt, ice, water, sand, and other surfaces. Further, while the gliding board for use on snow is discussed in connection with a snowboard, the invention is not limited in that respect and other devices for traversing snow also are contemplated.

[0057] In one illustrative embodiment, the snowboard of the present invention is particularly suited for riding in deep powder as well as for traversing more dense terrain such as hard packed or groomed trails. It should be appreciated, however, that the two or more disparate conditions in which the inventive snowboard is designed for riding are not limited only to powder and compact snow as should be apparent to one of skill in the art. Although embodiments of the inventive snowboard permit a snowboarder to ride freestyle and freeride, the two or more different riding styles enabled by the present invention are not limited only to these two riding preferences but include other riding forms as should be apparent to one of skill in the art.

[0058] Thus, in one embodiment, a gliding board allows a rider to use his or her board on different terrains that demand different board performance properties and to switch amongst different riding styles that, too, emphasize different board characteristics. The subject board may be arranged for any one of the riding conditions and/or riding styles indicated above, or may be configured for a combination of such riding styles and/or conditions. For example, the gliding board, where embodied as a snowboard, may be arranged for riding in powder, riding in powder and on hard pack, riding in powder and in the half pipe (free style), or riding in powder, on hard pack and in the half pipe. The exact specification and construction of a particular board encompassed by the invention ultimately will depend upon the performance properties that are desired.

[0059] A snowboard 10, as illustrated in Fig. 1, includes a nose 12, a tail 14, and a running length 16 extending between the nose and the tail that defines the effective length of the board that actually contacts the snow on flat terrain. The dimensions and relative dimensions of the board are especially designed to provide the desired balance in performance properties, and the relevant variables include the overall length, nose width and length, tail width and length, waist width, taper, and binding mounting location offset. The overall length 18 is the distance between the absolute tip of the tail to the absolute tip of the nose. The nose width NW is defined as the largest distance in an edge to edge direction in the nose section of the board, while the tail width TW is defined as the largest distance in an edge to edge direction in the tail section of the board. The length NL of the nose section runs from the transition point or junction of the essentially flat running length to the upwardly curving shovel shape of the nose and to the absolute tip of the nose, and a similar length defines the tail section TL. The board may be provided with one or more sets of binding mounting locations 20, 22 that, as shown, may include internally threaded insert fasteners. The front and back binding mounting locations may be offset in the direction of the tail to enhance the float properties of the board in connection with riding in powder.

[0060] The float of a board in powder or powder-like snow is influenced by the width of the nose and may be characterized by the difference in width between the nose and the tail and/or by the ratio of the nose width to tail width. The board may be provided with a nose width that is at least about 15 mm greater than the tail width, preferably is provided with a nose width that is at least about 18 mm greater than the tail width, more preferably at least about 20 mm greater than the tail width, and even more preferably is provided with a nose width that is at least about 25 mm greater than the tail width. In one embodiment developed by Burton, the nose width is about 25 mm greater than the tail width. In another embodiment developed by Burton, the nose width is about 30 mm greater than the tail width. In another embodiment, the board may also be provided with an upper limit to the difference between the greater nose width and the smaller tail width that is less than about 80 mm, preferably less than about 75 mm, and even more preferably less than about 70 mm.

[0061] Comparing the nose width and the tail width by percent difference, the board may be provided with a nose width that is between 5 and 20 percent greater than the tail width, and more preferably between 7.5 and 15 percent greater than the tail width. In one embodiment developed by proprietor, The Burton Corporation, the nose width is about 9 percent greater than the tail width. In another embodiment developed by Burton, the nose width is about 10.5 percent greater than the tail width. In still another embodiment developed by Burton, the nose width is about 11 percent greater than the tail width. The inventive board may have a nose width to tail

width ratio of greater than about 1.05, prefcrably greater than about 1.07, more preferably greater than about 1.09 and even more preferably greater than about 1.10. In one embodiment, the board has a nose width to tail width ratio of 1.091. In another embodiment, the board has a nose width to tail width ratio of 1.106. In yet another embodiment, the board has a nose width to tail width ratio of 1.105.

[0062] The width of the nose and its influence on the board's float in powder-like snow may also be characterized by the difference in width between the nose and waist. The board may be provided with a largest nose width that is between 20 and 25 percent greater than the narrowest waist width. In an embodiment developed by Burton, the largest nose width is about 22 percent greater than the narrowest waist width. Characterizing the difference between the nose width and the waist width in an alternative fashion, the largest nose width is less than 1.30 times the narrowest waist width, and more preferably less than 1.25 times the narrowest waist width. In an embodiment developed by Burton, the nose width is about 1.22 times the narrowest waist width.

[0063] Comparing various dimensions of the inventive board from a different perspective, a ratio of the narrowest waist width to the largest nose width is greater than about 0.77. In an embodiment developed by Burton, the ratio of the narrowest waist width to the largest nose width is about 0.81. A ratio of the narrowest waist width to the largest tail width is about 0.85. In another embodiment developed by Burton, the ratio of the narrowest waist width to the largest tail width is about 0.86. In another embodiment developed by Burton, the ratio of the narrowest waist width to the largest tail width is about 0.90. In a further embodiment developed by Burton, the ratio of the narrowest waist width to the largest tail width is about 0.92.

[0064] The length of the nose and of the tail, in combination with other board dimensions, also departs from conventional board arrangements. The nose may have a length greater than about 22 cm, more preferably greater than about 23.5 cm, and even more preferably greater than about 25 cm. In one embodiment, the nose has a length of about 24 cm. In another embodiment, the nose has a length of about 25 cm. The tail may have a length less than about 19 cm, more preferably less than about 17.5 cm, and even more preferably less than about 16 cm. In one embodiment, the board has a tail length of 16 cm.

[0065] The overall length of the board may impact the float of the board when freeriding in powder as well as the maneuverability and rotation of the board when freestyle riding in the park or half pipe. Longer boards, such as those greater than about 160 cm, are less likely to sink in powder while shorter boards, those less than about 160 cm, are more suited to aerials and tricks. Certain embodiments of the present board possess strong floating properties while still being amenable to spinning in the pipe and park. Such versatile boards may have a length of less than 162 cm, preferably less than 160 cm, more preferably less than 158 cm, and even more preferably less than 155 cm. In an embodiment developed by Burton, the board has an overall length of 150 cm. In another embodiment developed by Burton, the board has an overall length of 156.5 cm. In yet another embodiment developed by Burton, the board has an overall length of 160 cm. With a shorter board, comes the added benefit that the board is lighter; it is observed that board manufacturers strive to reduce the weight of a board without adversely affecting performance properties.

[0066] A still further way to characterize the board is to consider the ratio of the nose length to the tail length. A larger nose length may provide enhanced performance in deep powder riding and a ratio of greater than 1.45, preferably greater than 1.48, more preferably greater than 1.5, even more preferably greater than 1.53, and still more preferably greater than 1.56 are contemplated. In another embodiment, the ratio of the nose length to the tail length is less than about 2.75, preferably less than 2.70, and even more preferably less than 2.65.

[0067] The binding mounting locations may be offset from the mid-line of the effective length and positioned closer to the tail of the board, providing a longer segment of the board between the front binding and the absolute outer tip of the nose that may influence the ability of the board to float in powder and powder-like conditions. It is conventional for the insert pattern in a Burton board, whether tailored for powder, compact snow conditions, freeride or freestyle riding, to he offset towards the tail no more than 25 mm from the mid-line of the effective length. In certain embodiments of the present board, the front and back binding mounting locations, which correspond to one or more pairs of insert fastener patterns prearranged in the board, are offset rearward of the effective length mid-line by at least about 30 mm, preferably by at least about 50 mm, even more preferably by at least about 75 mm, and even further more preferably by at least about 100 mm. In an embodiment developed by Burton, the complementary front and back insert fasteners are offset about 100 mm from the mid-line of the effective length. In another embodiment developed by Burton, the fasteners are offset about 75 mm from the mid-line of the effective length.

[0068] Accordingly, the present board provides an arrangement that particularly is suited for powder riding, yet also is easy to ride on hardpack and groomed runs and, or alternatively, in the terrain park and in half pipes. The board may be tailored for a specific one of these riding conditions or styles or may be arranged for any combination of such riding conditions or styles.

[0069] In one illustrated embodiment of the present board, the overall length of the board is 150 cm and the running length, also known as the sidecut length, is 110 cm. The nose has a width of 30.05 cm and a length of 24 cm. The tail has a width of 27.55 cm and a length of

16 cm. The waist has a width of 24.7 cm. The ratio of the nose length to tail length is 1.50. The taper, that is the difference between the nose width and the tail width, is 2.5 cm. The sidecut depth is 2.05 cm. In another illustrated embodiment, the overall length of the board is 156.5 cm while the running length is 115.5 cm. The nose has a width of 31.25 cm and a length of 25 cm, while the tail has a width of 28.25 cm and a length of 16.0 cm. The waist has a width of 25.5 cm. The ratio of nose length to tail length is 1.56 to 1. The taper of the board is 3 cm. The sidecut depth is 2.125 cm. The nose may have a height from 5 to 6 cm, and typically the tail height is between 0.5 to 1.5 cm shorter than the nose.

[0070] In yet another illustrated embodiment, the overall length of the board is 160 cm and the running length is 119 cm. The nose has a width of 31.6 cm and a length of 25 cm, while the tail has a width of 28.6 cm and a length of 16.0 cm. The waist has a width of 25.8 cm. The ratio of nose length to tail length is 1.56. The board taper is 3 cm. The sidecut depth is 2.15 cm.

[0071] As indicated earlier, the invention is not limited to a board with these specific dimensions or any of the dimensions recited in this specification, and other widths and lengths whether of the same or varying proportions to that described and illustrated are contemplated. Further, one or more of the dimensions, relationships between dimensions, or structural arrangements of a board in an embodiment disclosed above could be modified to change or eliminate a performance property yet still be within the scope of the invention. For example, the overall length of the illustrated board could be increased one or more centimeters and even beyond 160 cm if desired and while the increase in length may make it more difficult to rotate the board 360° while in the air, the longer board would still have a nose to tail width ratio within one of the ranges mentioned above, and, consequently, would still be within the scope of the contemplated invention. Also instructive is that the insert patterns corresponding to the front and back bindings may be offset 25 mm from the mid-line in the conventional Burton manner, yet the board because of its nose and tail dimensions still provides advantageous floating properties as compared to a board with a narrower nose or a smaller taper, and such a board is still encompassed by the present invention. Thus, the invention is not limited only to a board that includes all of the beneficial arrangements discussed above but, rather, encompasses any board that includes one or more of these particular dimensional attributes or structural arrangements. Of course, as should be appreciated by one of skill in the art, many other board specifications come within the present invention in addition to those recited further below in the claims.

[0072] The construction and assembly of the snowboard is not critical to the present invention. A representative board may include a vertical laminate wood core surrounded by one or more fiber/resin layers for torsional control. A sintered or extruded polyethylene, graphite or other base material may be provided in sheet form on the snow contacting surface of the board while a plastic, preferably opaque, top sheet is arranged on the opposite surface for protecting the core and laminate from abrasion and from exposure to ultraviolet light. Sidewall, cap or mixed sidewall/cap construction may be employed to protect and seal the core from the environment. Metal edges (not shown) may wrap around a partial, or preferably a full, perimeter of the board, providing a hard gripping edge for board control on snow and ice. Damping material to reduce chatter and vibrations also may be incorporated into the board. The board may have a sidecut, typically from about 6.0 to 10.0 m radius, for ease of turning the gliding device, and or camber, e.g., to even the contact pressures on the board along the running length. The board may have a thickness ranging from about 15 to 16 mm that may taper downwardly in the region of the nose and tail to about 3 to 8 mm. The board may have an overall length between 135 to 170 cm for an adult model. The width of the nose section may range from 25 to 30 cm, more preferably up to 32 cm, while the width of the tail section typically is from about 24 to 30 cm. Nose height typically ranges from about 2 to about 6 cm, more preferably up to about 8 cm, with the tail height in many boards being about 0.5 to 1.5 cm shorter, or even up to about 3 to 4 cm shorter.

[0073] Any binding or other device for attaching a rider's foot or boot to a board, including strap, step-in, and plate bindings, may be mounted to the board. Such bindings typically include a front and a back binding each provided with a hold down disc having one or more holes through which hardware such as a bolt, screw or other fastener is passed and then engaged with the inserts preformed in the board, so that the tightened disc secures the respective bindings to the board. While the insert pattern shown in the illustrated embodiment is the 3D® pattern proprietary to Burton, other insert arrangements may be utilized, such as the 4x4 pattern, as should be appreciated by one of skill in the art.

[0074] Having described particular embodiments of the invention in detail, various modifications and improvements will readily occur to those skilled in the art. Such modifications and improvements are intended to be part of this disclosure and within the scope of the invention. Furthermore, various aspects and/or dimensions of the invention described above may be combined with one or more other aspects and/or dimensions of the invention in any suitable way. Accordingly, the foregoing description is by way of example only.

Claims

1. A gliding board, comprising:

an elongated member having a nose (12), a tail (14), as well as a running length (16) extending

between the nose and the tail and having two edges defining an edge to edge direction, wherein the nose (12) and the tail (14) are curved upwardly away from the running length (16),
the elongated member having an overall length (18) of less than about 162 cm, the nose (12) and the tail (14) each having a largest width (NW, TW) in the edge to edge direction, the running length having a narrowest width in the edge to edge direction defining a waist width (WW) of the elongated member, the largest nose width (NW) in the edge to edge direction being at least about 30 cm;
the gliding board being **characterized in that** positions (20, 22) for, in use of the gliding board, binding two feet of a rider to the elongated member are provided such that one foot is bound forward of the other foot in relation to the running length (16),
and the largest nose width (NW) in the edge to edge direction is at least about 1.5 cm greater than the largest tail width (TW).

2. The gliding board recited in claim 1, wherein the nose has a length (NL) in a nose to tail direction greater than about 22 cm, preferably greater than about 23.5 cm, and most preferably greater than about 25 cm.

3. The gliding board recited in claim 1 or 2, wherein the tail has a length (TL) in a nose to tail direction less than about 19.0 cm, preferably less than about 17.5 cm, and most preferably less than about 16.0 cm.

4. The gliding board recited in any one of claims 1 to 3, wherein a ratio of the nose length (NL) to the tail length (TL) is greater than about 1.45, preferably greater than about 1.48, more preferably greater than about 1.5, still more preferably greater than about 1.53, and most preferably greater than about 1.56.

5. The gliding board recited in any one of claims 1 to 4, wherein the largest nose width (NW) is at least about 2.0 cm greater, preferably at least about 2.5 cm greater, and most preferably at least about 3.0 cm greater than the largest tail width (TW).

6. The gliding board recited in any one of claims 1 to 5, wherein a ratio of the largest nose width (NW) to the largest tail width (TW) is greater than about 1.05, preferably greater than about 1.07, more preferably greater than about 1.09, and most preferably greater than about 1.1.

7. The gliding board recited in any one of claims 1 to 6, wherein a ratio of the largest nose width (NW) to the narrowest waist width (WW) is less than about 1.3, preferably between about 1.2 and about 1.25, and most preferably about 1.22.

8. The gliding board recited in any one of claims 1 to 7, wherein a ratio of the narrowest waist width (WW) to the largest nose width (NW) is greater than about 0.77.

9. The gliding board recited in any one of claims 1 to 8, wherein a ratio of the narrowest waist width to the largest tail width (TW) is greater than about 0.85.

10. The gliding board recited in any one of claims 1 to 9, further comprising a sidecut extending along the running length (16), the sidecut comprising a sidecut depth and a sidecut length, a ratio of the sidecut depth to the sidecut length being about 0.02.

11. The gliding board recited in any one of claims 1 to 10, wherein the overall length (18) is less than about 160 cm, less than about 158 cm, or less than about 155 cm.

12. The gliding board recited in any one of claims 1 to 11, wherein as the binding positions first (20) and second (22) binding mounting locations are preformed in the elongated member, the first binding mounting location (20) being positioned between the middle of the elongated member along the overall length (18) and the tail, and the second binding mounting location (22) between the middle of the elongated member along the overall length (18) and the nose;
the first (20) and second (22) binding mounting locations being offset toward the tail more than 25 mm from the middle of the elongated member along the overall length (18).

13. The gliding board recited in claim 12, wherein the first (20) and second (22) binding mounting locations are offset by at least about 30 mm, preferably by at least about 50 mm, more preferably by at least about 75 mm, and most preferably by at least about 100 mm.

14. The gliding board recited in any one of claims 1 to 13, wherein the gliding board is a snowboard.

Patentansprüche

1. Gleitbrett, umfassend:

ein längliches Element mit einem Bug (12), einem Heck (14), sowie einer Lauflänge (16), die

sich zwischen dem Bug und dem Heck erstreckt und zwei Ränder aufweist, die eine Rand-zu-Rand-Richtung definieren, wobei der Bug (12) und das Heck (14) von der Lauflänge (16) weg nach oben gekrümmt sind,

wobei das längliche Element eine Gesamtlänge (18) von weniger als ungefähr 162 cm aufweist, der Bug (12) und das Heck (14) jeweils eine größte Breite (NW, TW) in der Rand-zu-Rand-Richtung aufweisen, die Lauflänge eine schmalste Breite in der Rand-zu-Rand-Richtung aufweist, die eine Taillenbreite (WW) des länglichen Elements definiert, wobei die größte Bugbreite (NW) in der Rand-zu-Rand-Richtung wenigstens ungefähr 30 cm beträgt;
wobei das Gleitbrett **dadurch gekennzeichnet ist, dass** Positionen (20, 22) zum Verbinden zweier Füße eines Fahrers mit dem länglichen Element bei Verwendung des Gleitbretts derart vorgesehen sind, dass ein Fuß in bezug auf die Lauflänge (16) vor dem anderen Fuß verbunden ist,
und dass die größte Bugbreite (NW) in der Rand-zu-Rand-Richtung wenigstens ungefähr 1,5 cm größer als die größte Heckbreite (TW) ist.

2. Gleitbrett nach Anspruch 1, wobei der Bug in einer Bug-zu-Heck-Richtung eine Länge (NL) aufweist, die größer als ungefähr 22 cm, vorzugsweise größer als ungefähr 23,5 cm, und am meisten bevorzugt größer als ungefähr 25 cm ist.

3. Gleitbrett nach Anspruch 1 oder 2, wobei das Heck in einer Bug-zu-Heck-Richtung eine Länge (TL) aufweist, die kleiner als ungefähr 19,0 cm, vorzugsweise kleiner als 17,5 cm, und am meisten bevorzugt kleiner als ungefähr 16,0 cm ist.

4. Gleitbrett nach einem der Ansprüche 1 bis 3, wobei ein Verhältnis der Buglänge (NL) zu der Hecklänge (TL) größer als ungefähr 1,45, vorzugsweise größer als ungefähr 1,48, bevorzugter größer als ungefähr 1,5, noch bevorzugter größer als ungefähr 1,53 und am meisten bevorzugt größer als ungefähr 1,56 ist.

5. Gleitbrett nach einem der Ansprüche 1 bis 4, wobei die größte Bugbreite (NW) wenigstens ungefähr 2,0 cm größer, vorzugsweise ungefähr 2,5 cm größer und am meisten bevorzugt zumindest ungefähr 3,0 cm größer als die größte Heckbreite (TW) ist.

6. Gleitbrett nach einem der Ansprüche 1 bis 5, wobei ein Verhältnis der größten Bugbreite (NW) zu der größten Heckbreite (TW) größer als ungefähr 1,05, vorzugsweise größer als ungefähr 1,07, bevorzugter größer als 1,09 und am meisten bevorzugt größer als ungefähr 1,1 ist.

7. Gleitbrett nach einem der Ansprüche 1 bis 6, wobei ein Verhältnis der größten Bugbreite (NW) zu der schmälsten Taillenbreite (WW) kleiner als ungefähr 1,3, vorzugsweise zwischen ungefähr 1,2 und ungefähr 1,25 und am meisten bevorzugt ungefähr 1,22 ist.

8. Gleitbrett nach einem der Ansprüche 1 bis 7, wobei ein Verhältnis der schmälsten Taillenbreite (WW) zu der größten Bugbreite (NW) größer als ungefähr 0,77 ist.

9. Gleitbrett nach einem der Ansprüche 1 bis 8, wobei ein Verhältnis der schmälsten Taillenbreite zu der größten Heckbreite (TW) größer als ungefähr 0,85 ist.

10. Gleitbrett nach einem der Ansprüche 1 bis 9, ferner umfassend einen Sidecut, der sich entlang der Lauffläche (16) erstreckt, wobei der Sidecut eine Sidecuttiefe und eine Sidecutlänge umfasst, wobei ein Verhältnis der Sidecuttiefe zu der Sidecutlänge ungefähr 0,02 beträgt.

11. Gleitbrett nach einem der Ansprüche 1 bis 10, wobei die Gesamtlänge (18) weniger als ungefähr 160 cm, weniger als ungefähr 158 cm oder weniger als ungefähr 155 cm beträgt.

12. Gleitbrett nach einem der Ansprüche 1 bis 11, wobei als die Bindungspositionen erste (20) und zweite (22) Bindungsmontageorte in dem länglichen Element vorgeformt sind, wobei der erste Bindungsmontageort (20) entlang der Gesamtlänge (18) zwischen der Mitte des länglichen Elements und dem Heck angeordnet ist und der zweite Bindungsmontageort (22) entlang der Gesamtlänge (18) zwischen der Mitte des länglichen Elements und dem Bug; wobei
der erste (20) und zweite (22) Bindungsmontageort räumlich in Richtung des Hecks entlang der Gesamtlänge (18) um mehr als 25 mm von der Mitte des länglichen Elements versetzt sind.

13. Gleitbrett nach Anspruch 12, wobei der erste (20) und zweite (22) Bindungsmontageort um wenigstens ungefähr 30 mm, vorzugsweise wenigstens ungefähr 50 mm, bevorzugter wenigstens 75 mm und am meisten bevorzugt um wenigstens ungefähr 100 mm versetzt sind.

14. Gleitbrett nach einem der Ansprüche 1 bis 13, wobei das Gleitbrett ein Snowboard ist.

Revendications

1. Planche de glisse comprenant :

un élément allongé ayant une spatule (12), un talon (14), ainsi qu'une longueur de carre de contact (16) s'étendant entre la spatule et le talon et ayant deux carres définissant une direction de carre à carre, dans lequel la spatule (12) et le talon (14) sont recourbés vers le haut loin de la longueur de carre de contact (16),
l'élément allongé ayant une longueur totale (18) inférieure à 162 cm environ, la spatule (12) et le talon (14) chacun ayant une largeur la plus large (NW, TW) dans la direction de carre à carre, la longueur de carre de contact ayant une largeur la plus étroite dans la direction de carre à carre définissant une largeur de taille (WW) de l'élément allongé, la largeur de spatule la plus large (NW) dans la direction de carre à carre étant d'au moins 30 cm environ ;
la planche de glisse étant **caractérisée en ce que**
les positions (20, 22), dans l'utilisation de la planche à glisse, pour fixer les deux pieds d'un surfeur des neiges à l'élément allongé sont fournies de telle sorte qu'un pied est fixé à l'avant de l'autre pied par rapport à la longueur de carre de contact (16),

et la largeur de spatule la plus large (NW) dans la direction de carre à carre est d'au moins 1,5 cm supérieure à la largeur du talon la plus large (TW).

2. Planche de glisse selon la revendication 1, dans laquelle la spatule a une longueur (NL) dans un sens de spatule à talon supérieure à 22 cm environ, de préférence supérieure à 23,5 cm environ, de manière préférée entre toutes supérieure à 25 cm environ.

3. Planche de glisse selon la revendication 1 ou 2, dans laquelle le talon a une longueur (TL) dans une direction de spatule à talon inférieure à 19,0 cm environ, de préférence inférieure à 17,5 cm environ, de manière préférée entre toutes inférieure à 16,0 cm environ.

4. Planche de glisse selon l'une quelconque des revendications 1 à 3, dans laquelle un rapport de la longueur de spatule (NL) par rapport à la longueur de talon (TL) est supérieur à 1,45 environ, de préférence supérieur à 1,48 environ, de manière préférée entre toutes supérieur à 1,5 environ, encore de manière préférée entre toutes supérieur à 1,53 environ, et de la manière la plus préférée supérieur à 1,56 environ.

5. Planche de glisse selon l'une quelconque des revendications 1 à 4, dans laquelle la largeur de spatule la plus large (NW) est au moins supérieure de 2,0 cm environ, de préférence d'au moins supérieure de 2,5 cm environ, et de manière préférée entre toutes d'au moins supérieure de 3,0 cm environ à la largeur de talon la plus large (TW).

6. Planche de glisse selon l'une quelconque des revendications 1 à 5, dans laquelle un rapport de la largeur de spatule la plus large (NW) par rapport à la largeur de talon la plus large (TW) est supérieur à 1,05 environ, de préférence supérieur à 1,07 environ, de manière plus préférée supérieur à 1,09 environ, et de manière préférée entre toutes supérieur à 1,1 environ.

7. Planche de glisse selon l'une quelconque des revendications 1 à 6, dans laquelle un rapport de la largeur de spatule la plus large (NW) par rapport à la largeur de taille la plus étroite (WW) est inférieur à 1,3 environ, de préférence entre 1,2 et 1,25 environ, et de manière préférée entre toutes environ 1,22.

8. Planche de glisse selon l'une quelconque des revendications 1 à 7, dans laquelle un rapport de la largeur de taille la plus étroite (WW) par rapport à la largeur de spatule la plus large (NW) est supérieur à 0,77 environ.

9. Planche de glisse selon l'une quelconque des revendications 1 à 8, dans laquelle un rapport de la largeur de taille la plus étroite par rapport à la largeur de taille la plus large (TW) est supérieur à 0,85 environ.

10. Planche de glisse selon l'une quelconque des revendications 1 à 9, comprenant en outre une configuration latérale en courbe s'étendant le long de la longueur de carre de contact (16), la configuration latérale en courbe comprenant une profondeur de configuration latérale en courbe et une longueur de configuration latérale en courbe, un rapport de la profondeur de configuration latérale en courbe par rapport à la longueur de configuration latérale en courbe étant de 0,02 environ.

11. Planche de glisse selon l'une quelconque des revendications 1 à 10, dans laquelle la longueur totale (18) est inférieure à 160 cm environ, inférieure à 158 cm environ ou inférieure à 155 cm environ.

12. Planche de glisse selon l'une quelconque des revendications 1 à 11, dans laquelle la première (20) et la seconde (22) positions de fixation fixant les emplacements de montage sont préformées dans l'élément allongé, le premier emplacement de montage de fixation (20) étant positionné entre le milieu de l'élément allongé le long de la longueur totale (18) et le talon, et le second emplacement de mon-

tage de fixation (22) entre le milieu de l'élément allongé le long de la longueur totale (18) et la spatule ;

le premier (20) et le second (22) emplacements de montage de fixation étant décalés vers le talon à plus de 25 mm à partir du milieu de l'élément allongé le long de la longueur totale (18).

13. Planche de glisse selon la revendication 12, dans laquelle le premier (20) et le second (22) emplacements de montage de fixation sont décalés d'au moins 30 mm environ, de préférence d'au moins 50 mm environ, de manière plus préférée d'au moins 75mm environ, et de manière préférée entre toutes d'au moins 100 mm environ.

14. Planche de glisse selon l'une quelconque des revendications 1 à 13, dans laquelle la planche de glisse est un surf des neiges.

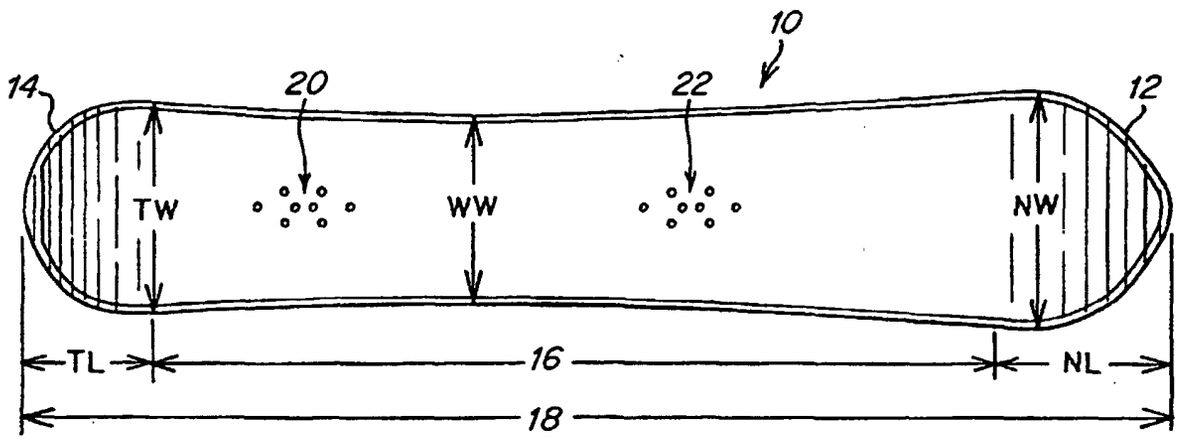

Fig. 1

Fig. 2