

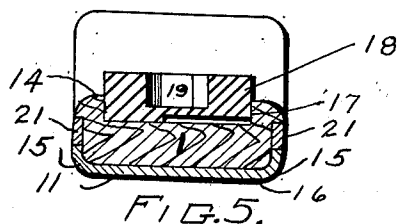
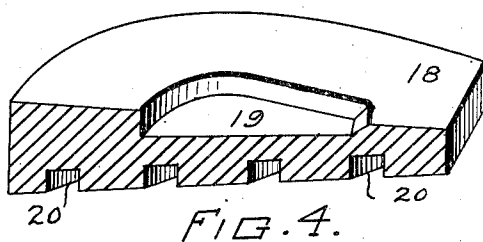
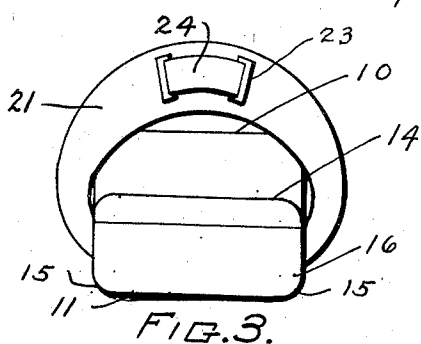
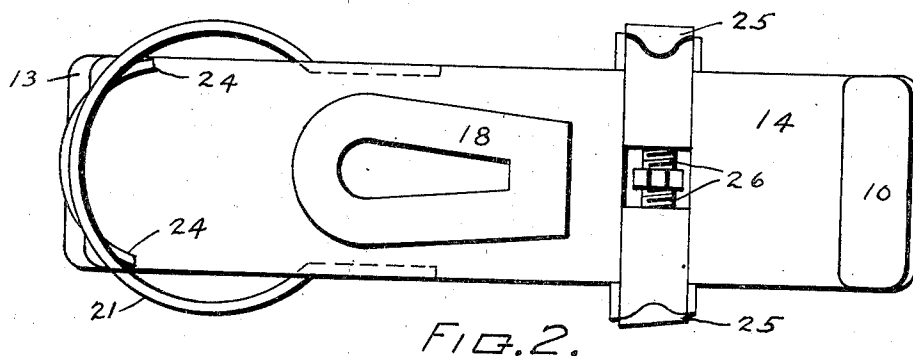
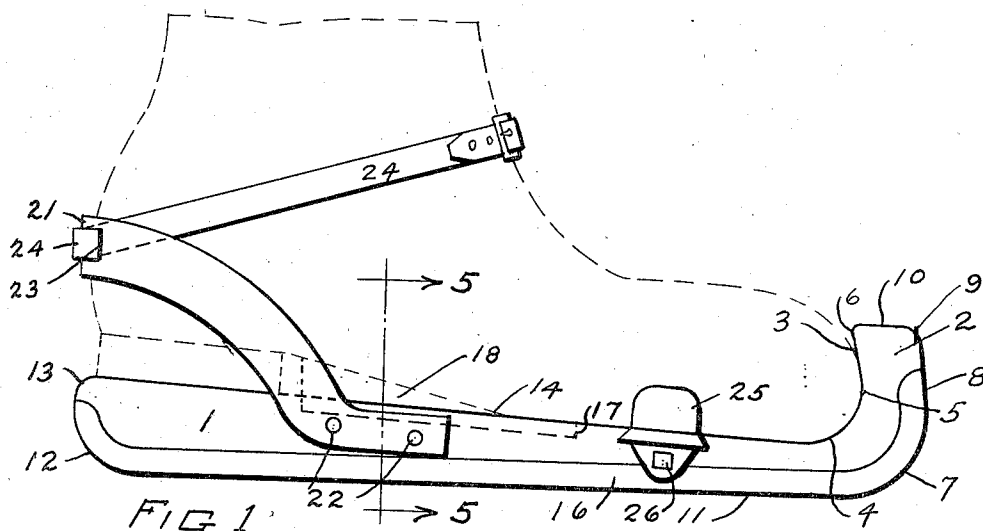
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SNOW SKI

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SNOW SKI

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2 Claims. (Cl. 280—11.12)

This invention refers to skates and more particularly to a type practical for use on snow or ice. It has, among its objects to provide a skate without a blade that will be free from snow packing in its parts; capable of turning easily and gracefully; and suitable for backward travel as well as the conventional forward movement. Another object is to have the skate fit suitably on the foot of the user; keep the foot close to the ground; lessen the bending effort of the user on upgrade movement; give more effective force to the skate on downgrade travel; and avoid stresses on the ankles and legs that might tend to sprain or injure same. A further object is to have a skate of this nature that will fit the shoe or boot of the user fully, and give great effective control and stabilization in its manipulation. Other objects will become apparent as the invention is more fully set forth.

This invention comprehends the use of a flat solid skate formed with a rigid toe element that will hold the toe of the shoe snugly and prevent snow from entering and dislodging the shoe of the user from its normal position. The element is designed to prevent digging into the snow and tripping the user. It is flat on the bottom to prevent interference with the turning action, and is rounded appreciably to permit such turning to be made readily and smoothly. It is constructed with an angularly disposed shoe contacting surface to lessen the bend of the operator while travelling on same. The flat surface being substantial, lessens the pressure per unit area on the snow or ice and keeps it from pressure into the surface of the latter, and avoids cutting into same, which cannot be avoided in the blade type of skate. There is no resilient action in the skate to cause stresses on the foot of the user or increase his tendency to fall, and the size complies closely with that of the shoe and avoids leverage on the same and the foot of the user. These features are not provided in the conventional form of skate used heretofore. The angle of the shoe plane with the base or bottom surface of the skate is approximately three degrees and thirty minutes.

In the drawing, which shows an embodiment of this invention:

Figure 1 is a side view of a snow skate embodying this invention, shown diagrammatically attached to a shoe,

Figure 2 is a plan view of the skate shown in Figure 1,

Figure 3 is a rear view of the skate,

Figure 4 is a detail in perspective and half-

section of the suction pad used between the skate and shoe of the user,

Figure 5 is a sectional view taken along line 5—5 of Figure 1.

Similar reference characters refer to similar parts throughout the drawing.

In the drawing 1 represents the block of a snow skate which is preferably formed of a hardwood like oak, in one solid piece, and nearly as wide as the shoe for which it is intended. Its front or toe portion 2 is curved as indicated with its inner surface 3 rising as an elliptical arc 4 drifting into a flattened curve 5 and terminating with an inwardly pointed end portion 6. Its outer contour rising with a circular arc portion 7, drifting into a flattened arc 8, and its end portion 9 parallel to front end portion 6 while a straight horizontal part 10 completes its top surface. The bottom, or running surface 11 of the skate is flat from the toe portion 7 to the rear bend 12. This rear bend is given a relatively long arc from the bottom to a relatively small rounded portion 13, as it turns into the top surface, which slants downwardly to the toe portion as indicated at 14. This makes the rear thicker than the front portion of the skate and serves to tilt the user forward slightly. This slight tilting is unnoticed as it actually keeps the skater upright. Ordinarily the skater, in using a conventional skate, would bend his body forward as he skates, which bending, this skate practically eliminates. The edges 15, at the bottom of the skate are given a substantial rounding off to permit an easy bending sidewise movement when the user turns. In order to take up the wear of use, the bottom is preferably provided with a tread plate 16 which covers the bottom portion as indicated, being recessed in the wood to allow it to come flush with the surface of the latter. The slope of the upper surface of the skate block compared with the flat bottom surface is approximately three degrees and thirty minutes, and is termed by the applicant as the stabilization slope.

The upper surface 14 is arranged to take the shoe of the operator and is provided with a recess 17 in which a rubber adapter 18 is inserted and held. This rubber adapter is provided with suction or vacuum depressions 19 and 20 in the top and bottom respectively thereof which enable the rubber to hold itself tight to the block and the shoe. A heel clamp 21 is fastened to the sides of the block by screws 22 and has slots 23 in which a shoe holding strap 24 is inserted in a conventional manner. A toe clamp 25 is

mounted on the forward portion of the block and serves to secure the sole of the shoe to same. It is held on by screws 26. The general position of the shoe on the skate is indicated by the dotted lines in Figure 1 as well as the manner of attaching same on.

When the user proceeds to skate with this device he pushes his foot or shoe forward, and as same presses against the inside surface of the toe portion and is held by the clamp 25 and 21, it effectively pushes same forward. The pressure of the toe of the shoe in the toe of the block prevents snow from getting in at this location. The toe portion protects the toe of the user's shoe and prevents any digging in. At the same time the long sweep curve 7 enables the skater to bend over on the toe portion of the skate without resistance. The long sweep curve 12 at the heel also permits a similar action and gives the user an opportunity to move backwardly without danger to himself. The sides curves 15 allow a bending over sidewise at an angle that permits the skater to turn corners effectively. The skate is but slightly longer than the shoe and thereby prevents dangerous leverage that might tend to stress his feet and legs, which would be the case if it extended substantially before or behind his shoe. This type of block allows the foot to come relatively close to the skating surface and thereby makes its use more stable than those which raise the skater higher.

While but one form of the invention is shown in the drawing it is not desired to limit this application for patent to the particular form indicated, otherwise than limited by the prior art, as it is appreciated that other forms might be made that would employ the same principles and come within the scope of the appended claims.

Having thus described the invention, what is claimed is:

1. A snow skate comprising in combination, a block having a flat bottom skating surface and an upper shoe surface tilting angularly downwardly towards the toe portion, said block being substantially the same length as the shoe of the user, a toe element at the front of the block curved to closely engage the toe of the shoe and project above same, its outer front portion having a long sweep curve to permit an unobstructed front tilting of the block, the heel portion of the block being provided with long sweep curves, and the lower edges of the block being substantially rounded to permit side tilting to allow the skater to turn on the skate, clamp means for holding the block to a shoe, and a resilient vacuum member interposed between the upper surface of the block and the shoe.

2. A skate of the class described comprising in combination, a solid block formed with the front and toe portion inwardly turned to closely engage over and against the shoe of the user and the outer surface provided with a relatively long sweep curve, and the rear or heel portion rounded above and below, said block having its upper surface tilted at a stabilizing angle from the heel to the toe portion as compared with the under surface of the block, means for attaching the block to a shoe, and a vacuum member intervening between and for resiliently supporting the shoe of the user on the block, said member having vacuum depressions on its underside for attaching it to the upper surface of the block and having its upper surface provided with a vacuum depression for fastening the under side of the shoe thereto.

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