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J. G. DANISKA
ROLLER SKATE ATTACHMENT
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2,631,861

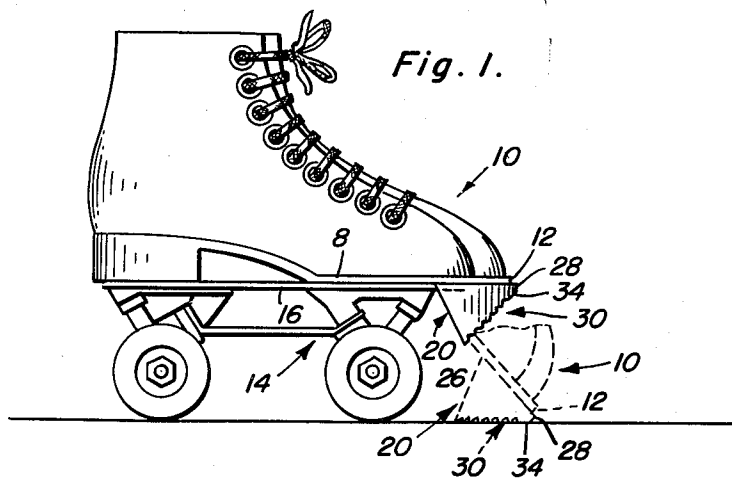


Fig. 4.

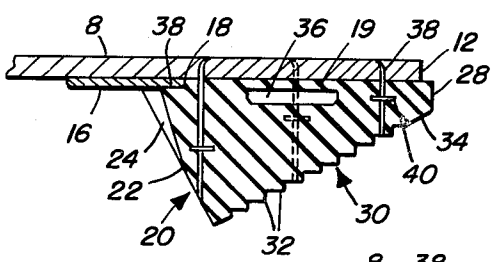


Fig. 3.

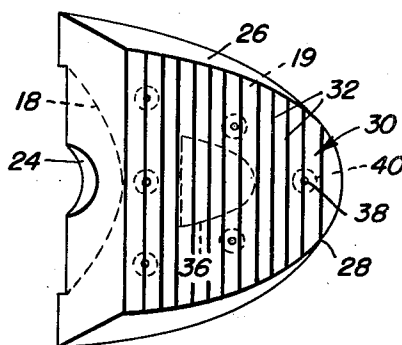


Fig. 5.

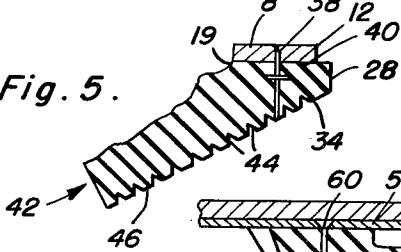


Fig. 2.

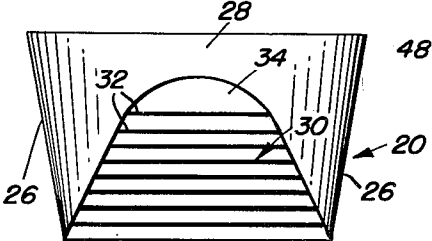
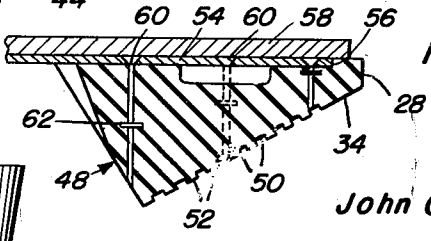


Fig. 6.



John G. Daniska
INVENTOR.

BY *Chance A. Olson*
and *Harvey B. Jacobson*
Attorneys

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ROLLER SKATE ATTACHMENT

John G. Daniska, Vandergrift, Pa.

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1 Claim. (Cl. 280—11.2)

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The present invention relates to an attachment for the toe portion of a roller-skate on the one hand and a skate-shoe (skate and shoe combined) on the other hand, said attachment being in the form of a depending chock, preferably an especially proportioned and shaped rubber block which is adapted for engagement with a skating rink floor or other surface for quick starting and stopping and similar maneuvering by the skater.

Persons skilled in the art to which the invention relates are aware that so-called toe blocks, and equivalent check and control devices, are indeed well known. They are used, for the most part, in speed skating, where skaters are called upon to make a quick get-away from a standing start and are also used as friction brakes to expedite negotiating fancy maneuvers in figure skating performances for any out-of-the-ordinary skating activities. What is more, a number of prior patents have been granted on toe blocks and the like.

Take for instance, Patent No. 2,269,362; this shows the type of block under consideration and in fact, represents a patent which was granted to me under date of January 6, 1942, bearing the title Roller Skate Attachment. More specifically, the patent has to do with a hard rubber block, means for securing the block to the underside of the sole of the shoe at the toe portion of the shoe, the floor contacting surface of the block being provided with a declivity which forms a forward and upward incline and which is substantially flat so that it may be angled, by forwardly tilting the skate and shoe, into flatwise controllable contact with the floor.

In further experimenting with my patented attachment, I have found it advisable to incorporate certain refinements and improvements.

More specifically, it is an object of the instant matter to provide the aforementioned inclined flat braking surface with anti-slipping means to render same more effective as a traction producing tread. A further object of the invention has to do with the stated flat braking surface or tread which is fashioned with varying kinds of anti-skid elements, giving the skater choice as to whichever type is preferred for different skating requirements.

A further object of the invention has to do with extending the curvate frontal or nose portion of the block slightly beyond the corresponding tip end of the sole of the shoe in order that said extension may constitute a protective wear-resisting bumper.

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Other objects and advantages will become more readily apparent from the following description and the accompanying illustrative drawings.

5 In the accompanying sheet of drawings:

Figure 1 is a side elevational view of a shoe-skate with the improved anti-skid toe block shown as it appears when in use;

10 Figure 2 is a front end elevation on an enlarged scale, of the toe block;

Figure 3 is a bottom plan view of said block also on an enlarged scale;

15 Figure 4 is a vertical longitudinal sectional view taken centrally through the shoe sole, block and portion of the skate;

Figure 5 is a fragmentary sectional view based on Figure 4 and showing a modified surface construction in respect to the anti-skid means; and,

20 Figure 6 is a view showing a further form of the anti-skid means, and a block which is modified in other respects and especially adapted for use on a skate without an attached shoe.

Referring now to the drawings (Figs. 1 to 5 inclusive) by distinguishing reference numerals and particularly to Figure 4 which shows the essential elements under advisement, the numeral 8 designates the sole of a conventional skate-shoe 10 whose tip portion is denoted at 12. The plate part of the skate 14 is denoted by the numeral 16 and this terminates short of the shoe sole tip and projects into a segmental recess or pocket 18 formed in the top portion 19 of the hard rubber toe-block 20. In side elevation, the toe-block is of substantially wedge-shaped form or configuration. The rear inclined end portion 22 has a centralized clearance groove 24 therein to accommodate projecting portions on the skate chassis (not shown) when the type of skate is used which has shoe clamps and a key turned adjusting bolt for the clamps. The marginal side portions of the block are slightly tapered in an upwardly and outwardly directed fashion, as indicated at 26. The rounded nose portion 28 projects slightly beyond the sole tip 12 and constitutes the aforementioned bumper. The tread surface, an inclined plane, is denoted at 30 and inclines upwardly and forwardly the same as in my previous Patent No. 2,269,362. In the patent the traction surface is the same degree of inclination disclosed herein but is smooth. Also in the patent, the rounded nose terminates flush with the shoe sole. Here, the tip portion 28 projects and provides an appropriate bumper. The major area of tread surface 30 is serrated as at 32, thus 55 providing transverse anti-skid ribs as shown best

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in Figure 3. The area denoted at 34 is smooth in contrast to the ribbed surface 32.

The cavity 36 is the same as in the previous patent and is employed to facilitate the relief of pressure on the toe of the skater at the time the block is brought forcibly into contact with the floor or other surface. The block is held in place by nails or equivalent fasteners 38 and coating washers, that is, stop washers 40 which are imbedded in the block.

The block shown in Figure 5 is the same in construction as the block already described, but is differentiated by the numeral 42. The only notable difference here has to do with the kind of anti-slipping elements used. That is to say, in this arrangement, I provide parallel transverse V-shaped flutes or grooves 44 and intervening substantially flat surfaced ribs 46.

In the modification shown in Figure 6, the block 48 also has ribs and grooves, the grooves being channels 50 which are rectangular in cross section and the ribs being also rectangular in cross section as at 52. In this form of the invention, the skate blade or plate 54 extends well into the block by way of the relatively large recess 56 and the sole 58 rests on but is not actually secured to said blade 54. The headed ends of the nails 60 extend down through blade 54 and are flanged and embedded in the block as shown at 62.

Having described the invention, what is claimed as new is:

As a new article of manufacture, a double acting shoe and skate attachment to facilitate skate lifting and tilting and to aid in balancing, starting and stopping comprising a hard rubber block marginally shaped to conform to the marginal edge portion of a shoe sole, said block being pro-

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vided with a substantially flat top for reception and support of said shoe sole, said top having a recess of a depth and shape to receive and accommodate the usual skate plate, the bottom surface of said block constituting a tread and being inclined forwardly and upwardly for flatwise engagement with the floor or other surface upon the forward tilting movement of the skate, said traction surface being provided with antiskid means embodying alternate parallel channels and intervening ribs, and the leading end of said block when protruding beyond the tip of the shoe sole constituting a shock absorbing bumper, said recess being of a length substantially commensurate with the length of the over-all block with the leading end portion of the recess in close proximity to the leading end of said block, and said channels and ribs being substantially rectangular in cross section and the rear trailing end of said block having a centralized vertical clearance groove to accommodately receive the depending clamp or equivalent portion of a skate chassis.

JOHN G. DANISKA.

REFERENCES CITED

The following references are of record in the file of this patent:

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