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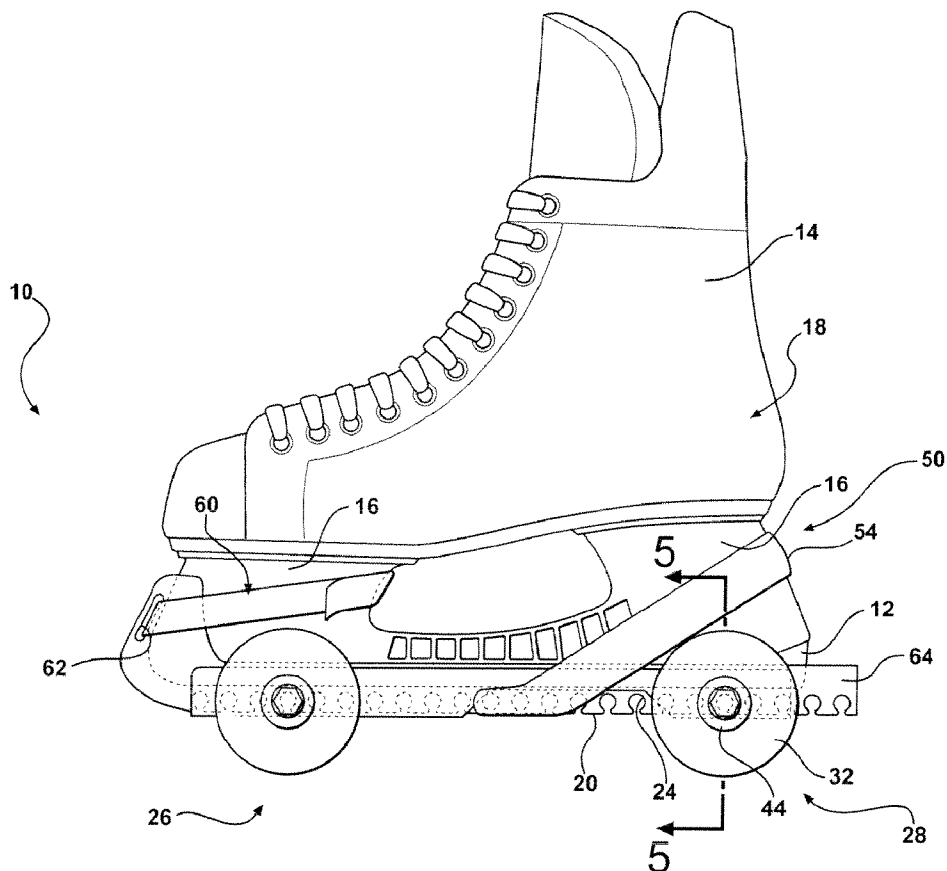
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(54) **Titre : ENSEMBLE DE PROTECTION DE ROLLER**
(54) **Title: ROLLER BLADE GUARD ASSEMBLY**



(57) Abrégé/Abstract:

A roller blade guard assembly releasably mountable over an ice skate blade attached to a boot by a blade mount. The roller blade guard assembly includes a blade guard having an open ended channel for receiving a skate ice blade. The blade guard extends a

(57) Abrégé(suite)/Abstract(continued):

length along the channel. The roller blade guard assembly also includes a plurality of apertures extending transversely to the length in a longitudinally spaced manner along the length of the blade guard. The roller blade guard assembly also includes pairs of wheel assemblies, each having an axle mountable through one of the apertures in the blade guard. The roller blade guard assembly also includes a heel strap formed of elastic material for maintaining the blade guard on the blade. The heel strap includes a portion receivable in one of the apertures such that either one of the wheel assemblies or the heel strap is receivable in any one of the plurality of apertures.

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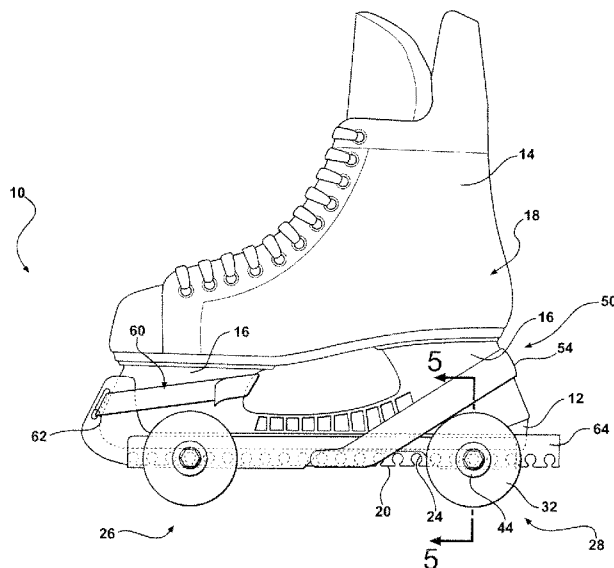
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(54) Title: ROLLER BLADE GUARD ASSEMBLY



(57) **Abstract:** A roller blade guard assembly releasibly mountable over an ice skate blade attached to a boot by a blade mount. The roller blade guard assembly includes a blade guard having an open ended channel for receiving a skate ice blade. The blade guard extends a length along the channel. The roller blade guard assembly also includes a plurality of apertures extending transversely to the length in a longitudinally spaced manner along the length of the blade guard. The roller blade guard assembly also includes pairs of wheel assemblies, each having an axle mountable through one of the apertures in the blade guard. The roller blade guard assembly also includes a heel strap formed of elastic material for maintaining the blade guard on the blade. The heel strap includes a portion receivable in one of the apertures such that either one of the wheel assemblies or the heel strap is receivable in any one of the plurality of apertures.

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ROLLER BLADE GUARD ASSEMBLY

BACKGROUND OF THE INVENTION

1. Field of the Invention

[0001] The invention relates to a guard for the runner blade of an ice skate.

2. Description of Related Art

[0002] During the use of ice skates, it may be desirable to traverse distances that are not covered in ice. For example, it may be desirable and/or necessary to don ice skates outside of a skating rink and then walk into the rink due to limited space in the rink. Similarly, for the same reason, it may be desirable to leave the ice and immediately proceed outside of the rink, to a vehicle for example. Alternatively, it may be desirable to move back-and-forth between the ice and a rest area spaced from the ice. During movement away from the ice, it is desirable to protect the blade of the skate from damage and dulling that can occur as a result of contact between the bottom of the blade and a surface that is not ice.

SUMMARY OF THE INVENTION

[0003] In summary, the invention is a roller blade guard assembly releasibly mountable over an ice skate blade attached to a boot by a blade mount. The roller blade guard assembly includes a blade guard having an open ended channel for receiving a skate ice blade. The blade guard extends a length along the channel. The roller blade guard assembly also includes a plurality of apertures extending transversely to the length in a longitudinally spaced manner along the length of the blade guard. The roller blade guard assembly also includes pairs of wheel assemblies, each having an axle mountable through one of the apertures in the blade guard. The roller blade guard assembly also includes a heel strap formed of elastic material for maintaining the blade guard on the blade. The heel strap includes a portion receivable in one of the apertures such that either one of the wheel assemblies or the heel strap is receivable in any one of the plurality of apertures.

BRIEF DESCRIPTION OF THE DRAWINGS

[0004] The present invention will be readily appreciated as the same becomes better understood by reference to the following detailed description and the accompanying drawings that set forth an exemplary embodiment wherein:

[0005] Figure 1 is a front view of a first exemplary embodiment of the invention;

[0006] Figure 2 is a perspective view of a blade guard associated with the first exemplary embodiment;

[0007] Figure 3 is a perspective view of a heel strap associated with the first exemplary embodiment;

[0008] Figure 4 is a perspective view of a rail associated with the first exemplary embodiment;

[0009] Figure 5 is a cross-sectional view of the first exemplary embodiment taken along section lines 5 – 5 in Figure 1;

[0010] Figure 6 is an exploded view of a second exemplary embodiment of the invention;

[0011] Figure 7 is a front view of a third exemplary embodiment of the invention; and

[0012] Figure 8 is a cross-sectional view of the third exemplary embodiment taken along section lines 8 – 8 in Figure 7.

DETAILED DESCRIPTION OF EXEMPLARY EMBODIMENTS

[0013] A plurality of different embodiments of the invention are shown in the Figures of the application. Similar features are shown in the various embodiments of the invention. Similar features have been numbered with a common reference numeral and have been differentiated by an alphabetic designation. Also, to enhance consistency, features in any particular drawing share the same alphabetic designation even if the feature is shown in less than all embodiments. Similar features are structured similarly, operate similarly, and/or have the same function unless otherwise indicated by the drawings or this specification. Furthermore, particular features of one embodiment can replace corresponding features in another embodiment unless otherwise indicated by the drawings or this specification.

[0014] Referring now to Figures 1 – 5, a first embodiment invention includes a roller blade guard assembly 10 releasibly mountable over a runner blade 12 attached to a boot 14 by a blade mount or platform 16 of a hockey skate 18. The roller blade guard assembly 10 includes a blade guard 20 having an open ended channel 22 for receiving the runner blade 12. The length of the blade guard 20 extends in the direction of the channel 22. The roller blade guard assembly 10 also includes a plurality of apertures 24 extending transversely to the length and spaced from one another along the length.

[0015] The roller blade guard assembly 10 also includes pairs of wheel assemblies 26 and 28, each having an axle mountable through any one of the apertures 24 in the blade guard 20. The wheel assemblies 26, 28 can be positioned along the length of the blade guard 20 as desired by the user. Figure 5 shows a cross-section of the wheel assembly 28, which is substantially similar to the wheel assembly 26. The wheel assembly 28 includes an axle 30 extending through one of the apertures 24. The wheel assembly 28 also includes wheels 32 and 34 disposed on opposite sides of the blade guard 20 and mounted on the axle 30. Bushings 36, 38 and 40, 42 can be disposed between the wheels 32 and 34, respectively, to reduce friction when the wheels 32, 34 are rotating. Fasteners such as bolts 44 and 46 can be received in threaded apertures of the axle 30, such as aperture 48, to prevent the wheels 32, 34 from separating from the axle 30.

[0016] The roller blade guard assembly also includes a heel strap 50 formed of elastic material for maintaining the blade guard 20 on the blade 12. The heel strap 50 includes a portion in the form of a shaft 52 receivable in one of the apertures 24. The heel strap 50 also includes an elastic band 54 that extends from a first end 56 to a second end 58 to form a loop with the shaft 52. As best shown in Figure 1, the shaft 52 is received in one of the apertures and the band 54 extends around a heel portion of the platform 16. The band 54 can be in a stretched condition while engaged with the heel portion of the platform 16 to reduce the likelihood that the blade guard 20 will separate from the runner blade 12. Figure 1 shows that the first exemplary embodiment of the invention also includes a strap 60 extending around a toe portion of the platform 16 and through an aperture 62 in the blade guard 20 to reduce the likelihood that the blade guard 20 will separate from the runner blade 12. The strap 60 is an option for any embodiment of the invention.

[0017] The present invention provides an arrangement wherein either one of the wheel assemblies 26, 28 or the heel strap 50 is receivable in any one of the plurality of apertures. This arrangement is an improvement over the prior art. Some prior art blade guards did not provide wheel assemblies. Prior art blade guards that did provide wheel assemblies did not include a heel strap that could engage the same apertures that could receive the wheel assemblies. The present invention, on the other hand, improves the efficiency of the blade guard structure by allowing the same structural element to serve dual purposes: supporting wheel assemblies or supporting a portion of a heel strap.

[0018] The first exemplary embodiment of the invention also includes a blade guard sleeve 64. The sleeve 64 substantially encircles the blade guard 20 to enhance the rigidity of the assembly 10. The sleeve includes apertures 66 that can align with the apertures 24 to allow the axles of the wheel assemblies 26, 28 to pass. The sleeve 64 also includes a notch 68 to expose apertures 24 for receiving the shaft 52 of the heel strap 50.

[0019] The second embodiment of the invention also provides the advantage of improving the efficiency of the blade guard structure by allowing the same structural element to serve dual purposes. Referring now to Figure 6, a second embodiment invention includes a roller blade guard assembly 10a releasibly mountable over an ice skate blade 12a attached to a boot 14a of a figure skate 18a. The roller blade guard assembly 10a includes a blade guard 20a having an open ended channel 22a for receiving the runner blade 12a. The blade guard 20a extends a length along the channel 22a. The roller blade guard assembly 10a also includes a plurality of apertures 24a extending transversely to the length in a longitudinally spaced manner along the length of the blade guard 20a. The roller blade guard assembly 10a also includes pairs of wheel assemblies 26a and 28a, each having an axle such as axle 30a mountable through one of the apertures 24a in the blade guard 20a. The roller blade guard assembly 10a also includes a heel strap 50a formed of elastic material for maintaining the blade guard 20a on the blade 12a. The heel strap 50a includes a portion receivable in one of the apertures 24a such that either one of the wheel assemblies 26a, 28a or the heel strap 50a is receivable in any one of the plurality of apertures 24a.

[0020] The second embodiment differs from the first embodiment in several aspects, but both are embodiments of the invention. The second embodiment includes a figure skate and the first embodiment includes a hockey skate. Also, the second embodiment includes a blade guard sleeve 64a in two pieces 70a, 72a and the first embodiment includes a unitary sleeve 64.

[0021] The second embodiment of the invention also provides the advantage of improving the efficiency of the blade guard structure by allowing the same structural element to serve dual purposes. Referring now to Figures 7 – 8, a third embodiment invention includes a roller blade guard assembly 10b releasibly mountable over an ice skate blade 12b attached to a boot 14b by a blade mount 16b of a hockey skate 18b. The roller blade guard assembly 10b includes a blade guard 20b having an open ended channel 22b for receiving the runner blade 12b. The blade guard 20b extends a length along the channel 22b. The roller blade guard assembly 10b also includes a plurality of apertures 24b extending transversely to the length in a longitudinally spaced manner along the length of the blade guard 20b. The roller blade guard assembly 10b also includes pairs of wheel assemblies 26b, 28b, each having an axle, such as axle 30b, mountable through one of the apertures 24b in the blade guard 20b. The roller blade guard assembly 10b also includes a heel strap 50b formed of elastic material for maintaining the blade guard 20b on the blade 12b. The heel strap 50b includes a portion receivable in one of the apertures 24b such that either one of the wheel assemblies 26b, 28b or the heel strap 50b is receivable in any one of the plurality of apertures 24b. The third embodiment of the invention does not include a sleeve.

[0022] While the invention has been described with reference to an exemplary embodiment, it will be understood by those skilled in the art that various changes may be made and equivalents may be substituted for elements thereof without departing from the scope of the invention. In addition, many modifications may be made to adapt a particular situation or material to the teachings of the invention without departing from the essential scope thereof. Therefore, it is intended that the invention not be limited to the particular embodiment disclosed as the best mode contemplated for carrying out this invention, but that the invention will include all embodiments falling within the scope of the appended claims.

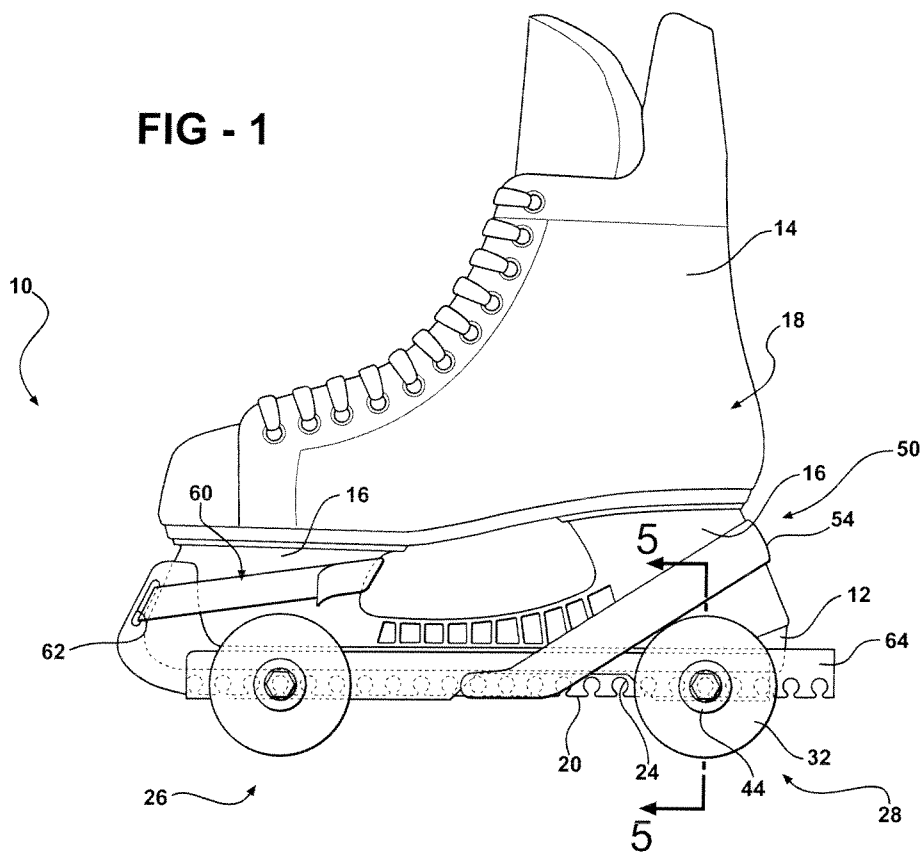
CLAIMS

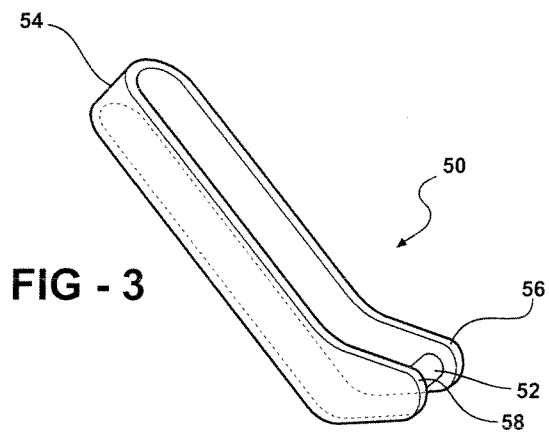
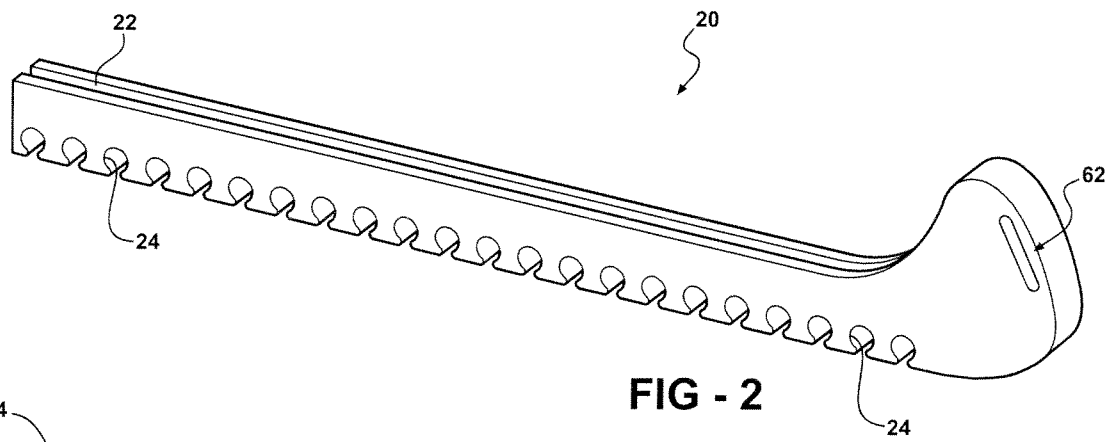
What is claimed is:

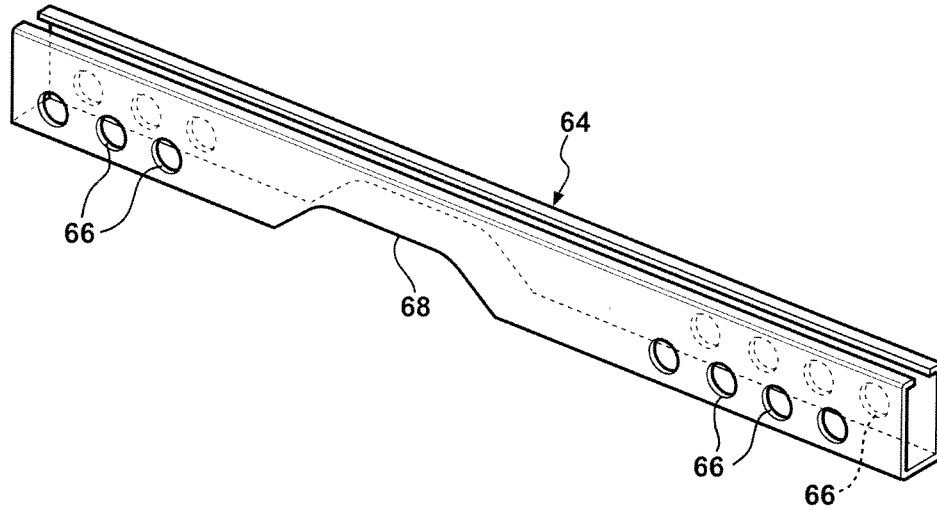
1. A roller blade guard assembly releasibly mountable over an ice skate blade attached to a boot comprising:
 - a blade guard having an open ended channel having a length and operable to receive a runner blade;
 - a plurality of apertures extending transversely to said channel and spaced from one another along said length;
 - first and second wheel assemblies each having an axle mountable through one of said apertures; and
 - a heel strap including a portion receivable in one of said apertures and an elastic band for encircling a heel portion of the blade mount for maintaining said blade guard on the runner blade, such that said heel strap and either one of said wheel assemblies are receivable in any one of said plurality of apertures.
2. The roller blade guard assembly of claim 1 wherein said portion of said heel strap is further defined as a shaft having a diameter similar to a diameter of said axle.
3. The roller blade guard assembly of claim 1 further comprising:
 - a sleeve substantially encircling said blade guard to enhance the structural rigidity of said blade guard.
4. The roller blade guard assembly of claim 3 wherein said sleeve is further defined as extending along substantially all of said length.
5. The roller blade guard assembly of claim 3 wherein said sleeve is further defined as including a plurality of pieces.
6. The roller blade guard assembly of claim 1 further comprising:

a second strap operable to bind a toe portion of said blade guard with a toe portion of the runner blade.

FIG - 1





**FIG - 4**