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(54) **BOOT TRACTION ENHANCEMENT SYSTEM
AND METHOD OF MAKING ENHANCED
TRACTION BOOTS**

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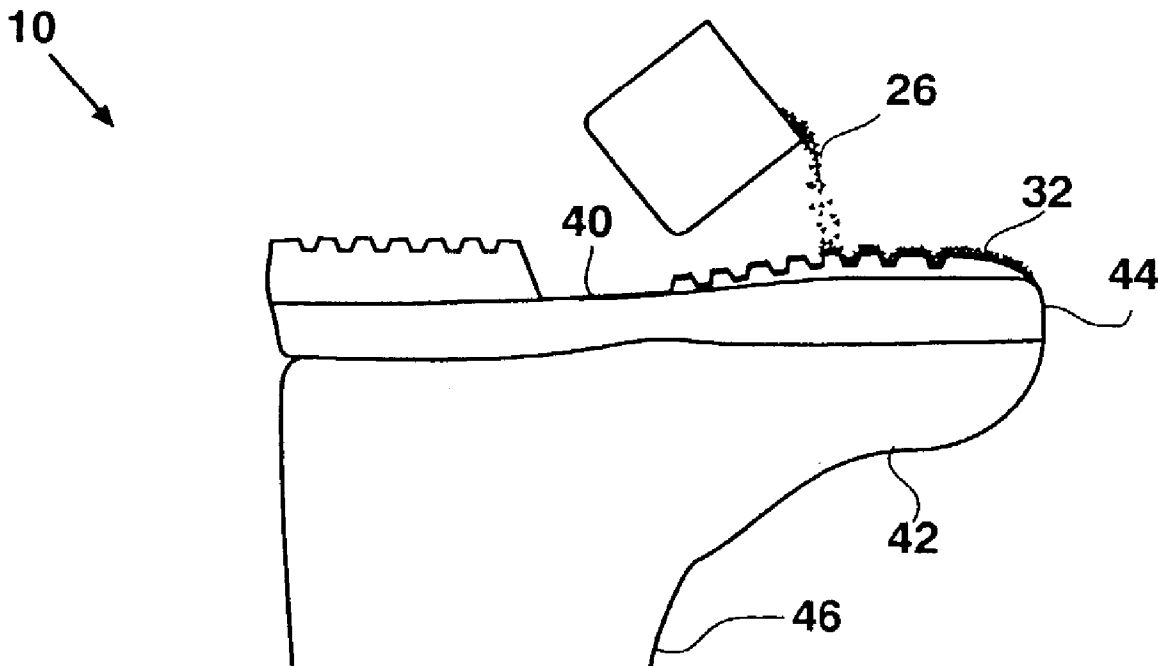
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(57) **ABSTRACT**

A method and device are presented for forming areas of enhanced traction on boots, particularly fishing boots. The method includes the method of applying adhesive and hardened particles to the adhesive onto a boot. The method can also be used as part of the process of fabricating a boot or as a kit to apply to an existing boot.

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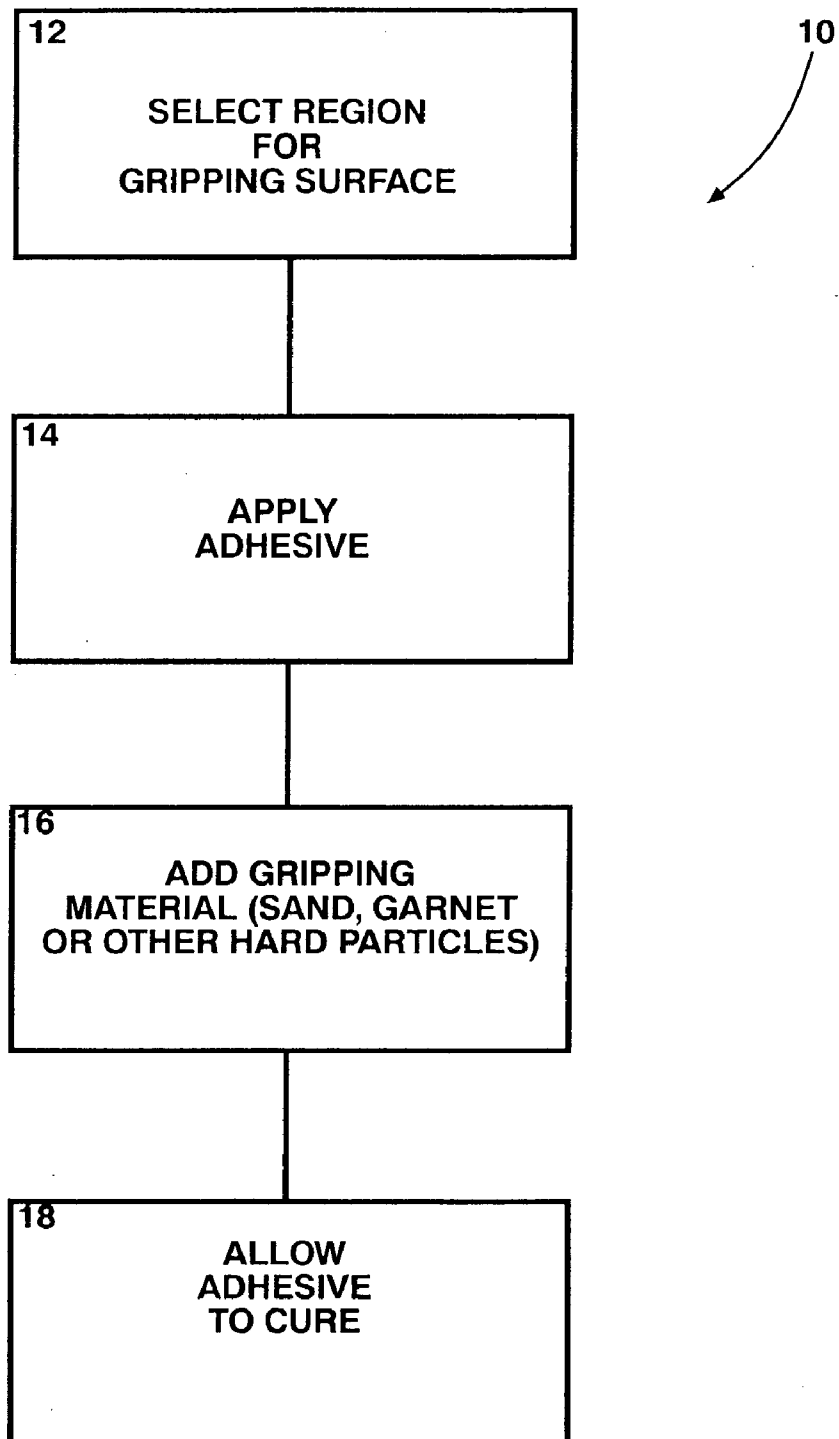


FIG. 1

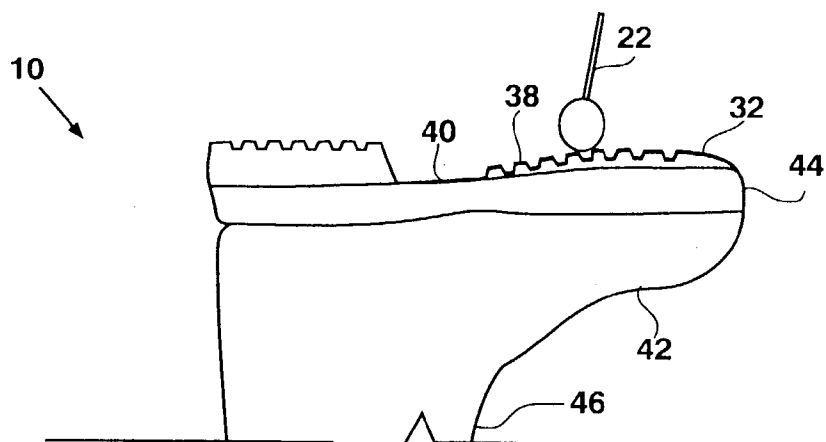


FIG. 2A

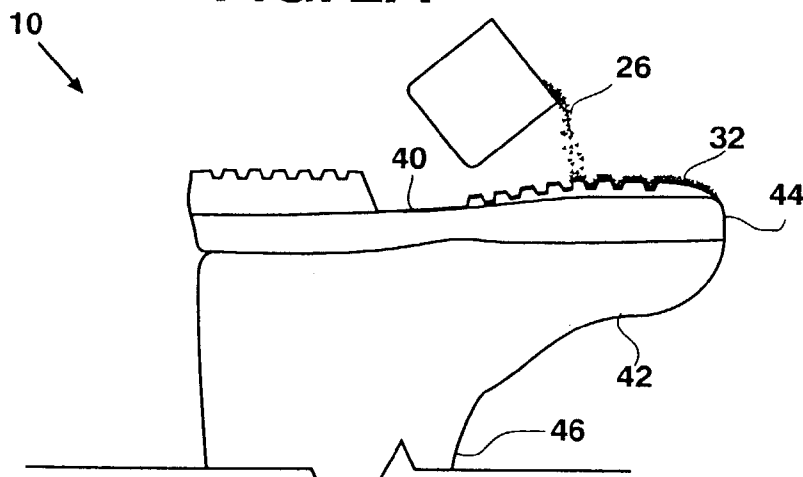


FIG. 2B

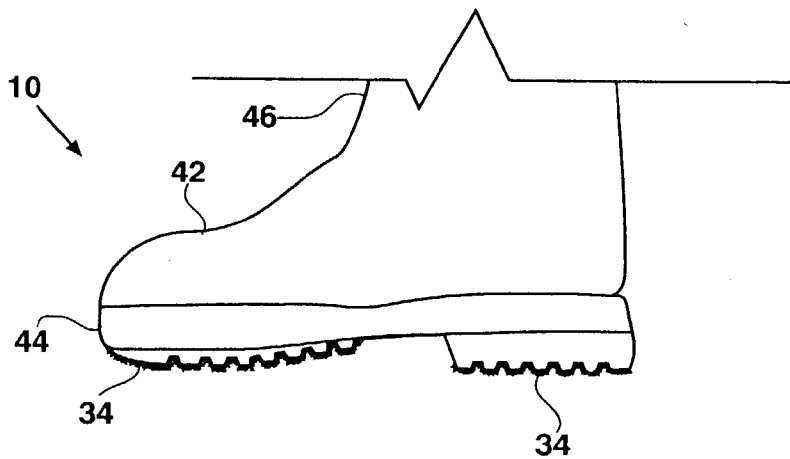


FIG. 2C

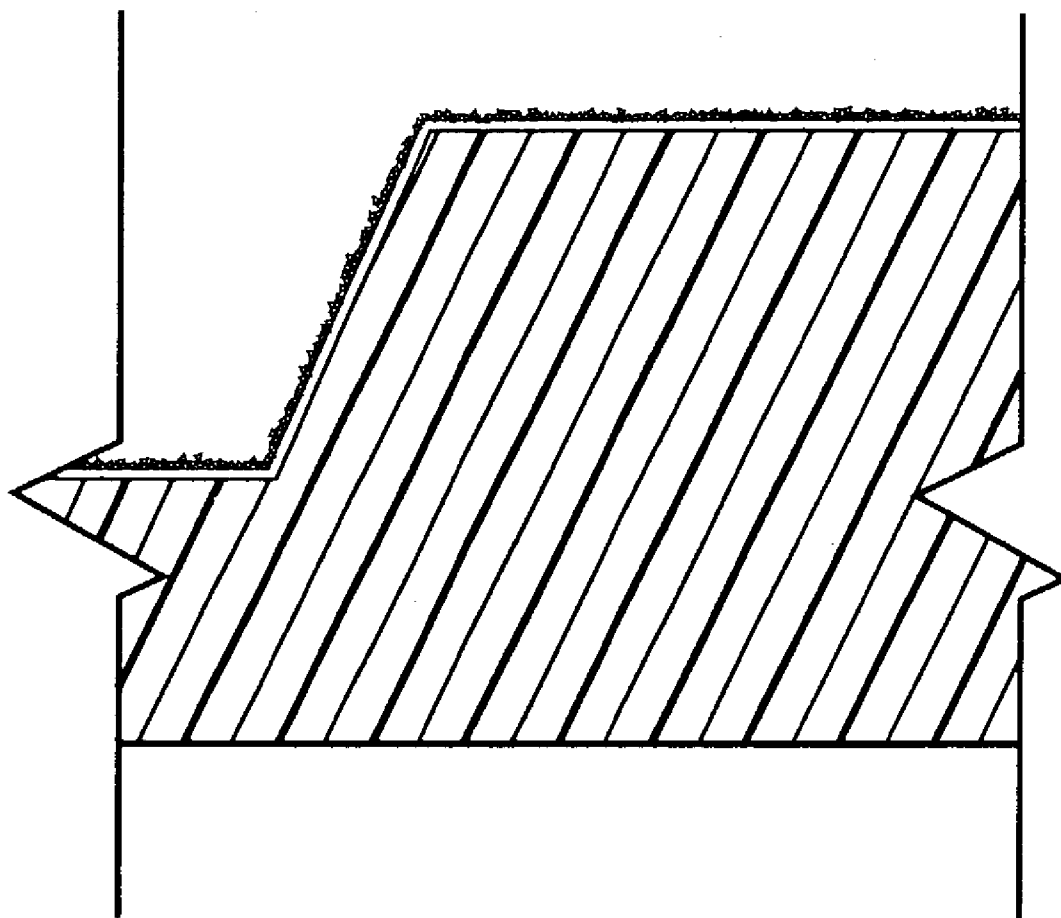


FIG. 3

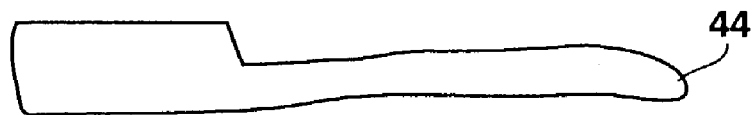


FIG. 4A

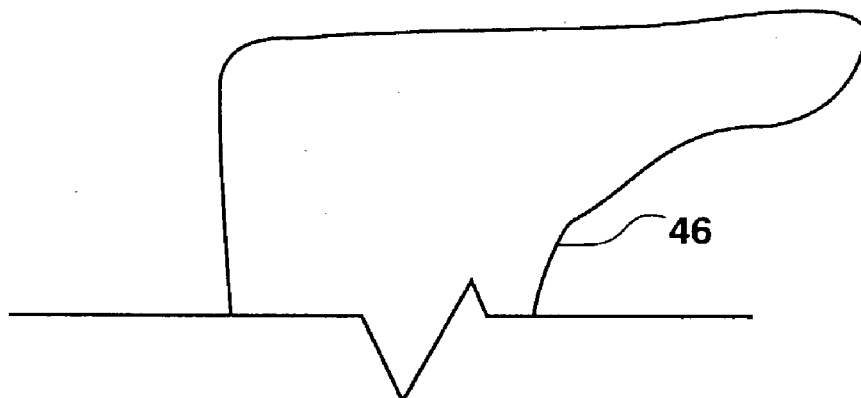


FIG. 4B

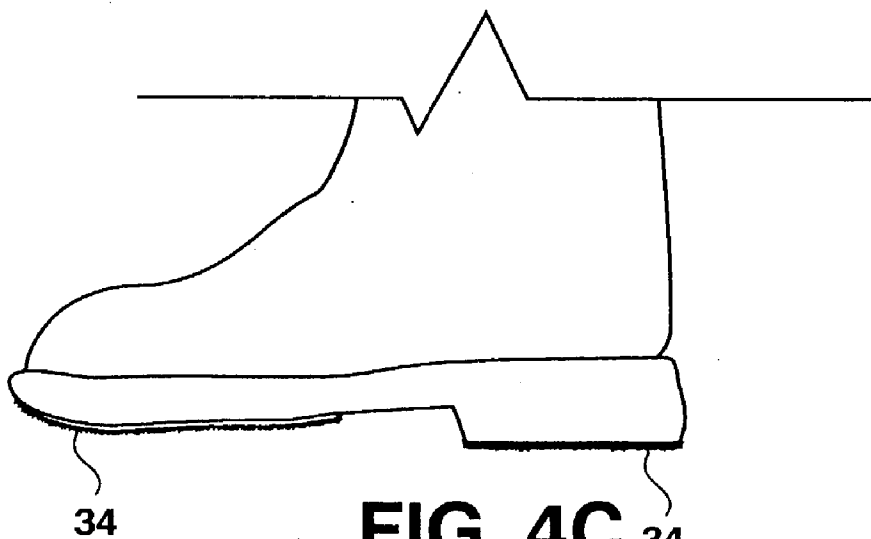


FIG. 4C

**BOOT TRACTION ENHANCEMENT SYSTEM AND
METHOD OF MAKING ENHANCED TRACTION
BOOTS**

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The present invention generally relates to boot soles and methods of making boot soles, and more particularly relates to a system and method for making enhanced traction boot soles especially for fishing boots.

[0003] 2. Background Information

[0004] It has been a long-standing problem that shoes and boots need to have the best grip possible so that the user can travel over rough and slippery ground without losing his/her footing. One of the areas in which this has been most necessary is for fishermen, who are often stepping on submerged rocks, which have been made smooth by the flow of water and have been made additionally hard to stand on due to a layer of algae or slime that can form in a stream.

[0005] Various methods have been employed to enhance the traction of boots and shoes, especially for purposes of fishing. The fishing boots referred to can be fishing waders, which comprise boots attached to pants that typically extend to mid-thigh or chest. Other fishing boots are approximately ankle high boots that are worn on the outside of waterproof waders. The waterproof waders can extend to the waist or chest. Boots for fishing have attempted to increase the traction for the user by having a sole made of felt. The felt has many fibrous connections and is thought to greatly increase the traction on slippery surfaces.

[0006] Another traction device is through the use of a high traction imprinted pattern on the sole of the boot. This can be in the form of ridges, grooves, protruding nubbins or blocks, or any number of surface textures built into the bottom of the boot. All of these attempts to improve the traction of the boot are useful, but further increase in traction is needed.

[0007] Another attempt at increasing the traction of the boots is to have a material that is harder than the boot surface protruding from the boot. This can be by screw-in metal studs or by metal protrusions that attach to the sole in some way. Metal protrusions or studs can increase traction in some situations, but a further increase in traction is needed.

[0008] The object of the invention is to provide an increased traction surface for boots or shoes, particularly fishing boots, in which hard particles are bonded to the sole of the boot and in which the hard particles protrude for increased traction. The method and device of the invention is also intended to be replaceable, and may be built into the original manufacture of the boot, or may be added as an amendment to the existing boot.

[0009] Additional objects, advantages and novel features of the invention will be set forth in part in the description which follows and in part will become apparent to those skilled in the art upon examination of the following or may be learned by practice of the invention. The objects and advantages of the invention may be realized and attained by means of the instrumentalities and combinations particularly pointed out in the appended claims.

SUMMARY OF THE INVENTION

[0010] The invention includes a method for treating boots for increased traction. This method of treating boots includes the step of first selecting an area of a previously fabricated boot or shoe on which to fashion a gripping surface. The next step involves applying an adhesive material to the selected area of the shoe or boot. The next step involves applying a gripping material made of hard granules to the adhesive before the adhesive cures. The final step in the process is allowing the adhesive with the embedded gripping material to cure thus forming a gripping surface on the bottom of the shoe or boot. This gripping surface aids in reducing slippage upon wet surfaces.

[0011] The shoe or boot used in this method can also be a shoe or boot that is specifically made for fishing, such as a fishing wader or a boot that is worn with a fishing wader.

[0012] Sand may be used as the gripping material and is embedded in the adhesive before it is cured. The gripping material can also be formed from garnet particles, which would be embedded in the adhesive before it cures. Other hard granules can also be used.

[0013] One method of embedding the gripping material in the adhesive is to push the gripping material partly into the adhesive so that the hard granules partly protrude from the adhesive material and provide an enhanced traction gripping surface.

[0014] The invention also includes a method of making an enhanced traction fishing boot that includes the steps of selecting an area of a previously fabricated boot or shoe for formation of a gripping surface, applying an adhesive material to the gripping surface, applying a gripping material to the adhesive before the adhesive cures, and allowing the adhesive with the embedded gripping material to cure. This process forms a gripping surface on the fishing shoe, whereby the gripping surface increases the surface of the fishing shoe or boot on wet surfaces. This method can also be utilized with sand, garnet particles, or other hard particles, and the hard particles can be left partially protruding from the adhesive.

[0015] The invention also includes a method of manufacturing a boot or fishing boot, which includes the steps of fabricating an upper, fabricating a lower in which the sole is embedded with hard particles in a selected area to form a gripping surface, and attaching the boot lower to the boot upper, so that the gripping surface is on the bottom of the boot lower and is oriented to increase traction of the shoe or boot on wet and slippery surfaces. This process can utilize sand, garnet particles, or other hard particles as a gripping material. The hard particles can be applied so that they partially protrude from the adhesive material.

[0016] Still other objects and advantages of the present invention will become readily apparent to those skilled in this art from the following detailed description wherein I have shown and described only the preferred embodiment of the invention, simply by way of illustration of the best mode contemplated by carrying out my invention. As will be realized, the invention is capable of modification in various obvious respects all without departing from the invention. Accordingly, the drawings and description of the preferred embodiment are to be regarded as illustrative in nature, and not as restrictive.

BRIEF DESCRIPTION OF THE DRAWINGS

[0017] **FIG. 1** is a flow chart of the method of making an enhanced traction boot.

[0018] **FIG. 2A** is the first step of making an enhanced traction boot.

[0019] **FIG. 2B** is the second step of making an enhanced traction boot.

[0020] **FIG. 2C** is the third step of making an enhanced traction boot.

[0021] **FIG. 3** is a cross-section of a boot with an enhanced traction region.

[0022] **FIG. 4A** shows the formation of the lower boot portion utilizing the present invention.

[0023] **FIG. 4B** shows the lower boot portion bonded to the upper boot portion utilizing the present invention.

[0024] **FIG. 4C** shows the improved traction boot utilizing the adhesive properties of the present invention.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0025] While the invention is susceptible of various modifications and alternative constructions, certain illustrated embodiments thereof have been shown in the drawings and will be described below in detail. It should be understood, however, that there is no intention to limit the invention to the specific form disclosed, but, on the contrary, the invention is to cover all modifications, alternative constructions, and equivalents falling within the spirit and scope of the invention as defined in the claims.

[0026] **FIGS. 1-4C** show the method and the device of the invention. **FIG. 1** shows the general flow of the invention, which is designated **10**. At Block **12**, a region is selected on a fishing boot or shoe for preparation to become a gripping surface. At Block **12**, adhesive is applied to the selected area of the sole of the boot to develop it into a gripping surface. At Block **16**, a gripping material is added to the uncured adhesive. The gripping material can be any type of hard particle, but sand and garnet particles are particularly suitable for this purpose. At Block **18**, the adhesive is allowed to cure with the embedded and partially protruding gripping materials found therein.

[0027] **FIGS. 2A, 2B,** and **2C** show the sequence of preparing a fishing shoe or boot, by the method of the invention. **FIG. 2A** shows the step where an adhesive **38** is applied using an adhesive applicator **22**. The adhesive **38** is applied to the sole **40** of a fishing boot **42**. The adhesive applied in this way will form an adhesive layer **32**. In **FIG. 2B**, gripping material **26** is applied to the uncured adhesive. The adhesive, combined with the gripping material, forms a gripping surface **34** on the sole of the boot **42**. **FIG. 2C** shows a fishing boot **42** with two gripping surfaces **34**, one under the ball of the boot and one under the heel of the boot. Thus configured, a fishing boot is made much more resistant to slipping, and the application of the adhesive and gripping material also improves the wear and durability of the boot, because when the gripping surface **34** wears off, a new one can be applied to the boot.

[0028] **FIG. 3** is a cross-section of the sole **40** of a fishing boot showing an adhesive layer **32** with embedded particles of gripping material **26**. Sand and garnet particles are particularly well suited for this, but other hard particles could also be used.

[0029] The adhesive can be mixed with the gripping material before application on the sole of the boot. In this form, the mixture of the two components would be applied as a paste to the selected gripping surfaces of the boot and allowed to cure. The formation of the gripping surfaces could also be formed within a mold, which forms the lower boot **44**. In this form, a layer of adhesive mixed containing gripping material would first be applied to the portion of the mold that would later become the bottom of the boot. On top of this adhesive layer would be formed the next layer of the lower boot **44**, which would be one or more additional layers of rubber or other waterproof material.

[0030] **FIGS. 4A-4C** show the method of making a boot with gripping surfaces of the invention. **FIG. 4A** shows the first step of a lower boot **44** as formed. On the lower boot **44**, gripping surfaces **34** are formed by the use of adhesive and hard particles in the form of gripping material. In **FIG. 4B**, the lower boot **44** is attached or bonded to a boot upper **46**. The final boot is shown in **FIG. 4C** as a fishing boot with gripping surfaces, which improve the traction and durability of the boot. A preferred adhesive for the process is a commercially available RTV adhesive known as Shoe Goo, but other adhesives would also be suitable. The preferred particle size for this sand or garnet particles are of approximately one-eighth to one-quarter inch in size. This particular adhesive may be cured at room temperature, or elevated temperatures may be utilized to hasten the curing of the adhesive, or as required by other adhesives.

[0031] While there is shown and described the present preferred embodiment of the invention, it is to be distinctly understood that this invention is not limited thereto but may be variously embodied to practice within the scope of the following claims. From the foregoing description, it will be apparent that various changes may be made without departing from the spirit and scope of the invention as defined by the following claims.

I claim:

1. A method of treating boots for increased traction, comprising the steps of:

selecting an area of a previously fabricated shoe or boot for formation of a gripping surface;

applying an adhesive material to said selected area of said shoe or boot;

applying a gripping material comprised of hard granules to said adhesive before said adhesive cures;

allowing said adhesive with embedded gripping material to cure, forming a gripping surface on said shoe or boot, whereby said gripping surface aids in reducing slipping on wet surfaces.

2. The method of making boots of claim 1, which further includes the step of providing a shoe or boot specifically made for fishing, for treatment by the method.

3. The method of making boots of claim 1, which further includes the step of providing sand as the gripping material, for embedding in said adhesive material.

4. The method of making boots of claim 1, which further includes the step of providing garnet particles as the gripping material, for embedding in said adhesive.

5. The method of making boots of claim 1, which includes the step of embedding said gripping material in said adhesive material so that said hard granules partially protrude from said adhesive material.

6. A method of making an enhanced traction fishing boot, comprising the steps of:

selecting an area of a previously fabricated shoe or boot configured for fishing for formation of a gripping surface;

applying an adhesive material to said selected area of said shoe or boot;

applying a gripping material comprised of garnet granules to said adhesive before said adhesive cures;

allowing said adhesive with embedded gripping material to cure, forming a gripping surface on said shoe or boot, whereby said gripping surface increases traction of said shoe or boot on wet surfaces.

7. The method of making boots of claim 6, which further includes the step of using sand as the gripping material, for embedding in said adhesive material.

8. The method of making boots of claim 6, which further includes the step of providing garnet particles as the gripping material, for embedding in said adhesive.

9. The method of making boots of claim 6, which includes the step of embedding said gripping material in said adhesive material so that said hard granules partially protrude from said adhesive material.

10. A method of making an enhanced traction fishing boot, comprising the steps of:

fabricating a shoe or boot upper;

fabricating a shoe or boot lower with a sole embedded with hard particles in a selected area for formation of a gripping surface;

attaching said boot lower to said boot upper, so that said gripping surface is oriented to increase traction of said shoe or boot on wet surfaces.

11. The method of making boots of claim 10, which further includes the step of using sand as the gripping material, for embedding in said adhesive material.

12. The method of making boots of claim 10, which further includes the step of providing garnet particles as the gripping material, for embedding in said adhesive.

13. The method of making boots of claim 10, which includes the step of embedding said gripping material in said adhesive material so that said hard granules partially protrude from said adhesive material.

14. A boot traction enhancement system, for enhancing traction of a fishing boot, which comprises:

an adhesive material for application to a fishing boot sole;

a quantity of hardened particles for application to said adhesive material;

wherein said adhesive is configured for application as a liquid to said fishing boot sole, and is configured for adherence to said fishing boot sole, and after application said adhesive is of a texture suitable for securing of said quantity of hardened particles when they are applied to said adhesive, with said adhesive formulated to cure with said embedded hardened particles embedded therein and to adhere securely to said fishing boot sole.

15. The boot enhancement system of claim 13, in which said gripping material is sand, and said sand is embedded in said adhesive for increased traction.

16. The boot traction enhancement system of claim 13, in which said gripping material is garnet particles, and said garnet particles are embedded in said adhesive for increased traction.

17. The boot traction enhancement system of claim 13, in which said gripping material is comprised of hard granules which partially protrude from said adhesive material.

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