A non-slip sole structure of fishing shoes contains a sole, a profile of which corresponds to that of a bottom end of a body. The body includes two groups of hooks one piece arranged on a forefoot position thereof and a heel portion of the bottom end thereof, the sole includes a slot defined on a middle section thereof to space apart two groups of hooks. Each hook has two extending sections extending outward from a bottom end thereof, and a length of the slot is greater than a size of each hook, such that after the sole is retained and glued with the bottom end of the body, a gap forms between the slot and the two groups of hooks. The sole also includes plural V-shaped cutouts arranged on a forefoot position thereof and a heel portion thereof to correspond to and retain with the two groups of hooks.
NON-SLIP SOLE STRUCTURE OF FISHING SHOES

FIELD OF THE INVENTION

[0001] The present invention relates to finishing shoes, and more particularly to a non-slip sole structure for finishing shoes which when a sole is removed from a body, the body keeps stable in walking and stepping by ways of two groups of hooks, thus enhancing gripping friction and anti-slip function.

BACKGROUND OF THE INVENTION

[0002] Conventional finishing shoes are employed to walk in a river to prevent slip and contain a sole glued with a non-woven fabric on a bottom end of a shoe body to achieve friction resistance in stepping and walking. However, the sole removes from the bottom end of the shoe body easily.

[0003] To overcome such a problem, an improved non-slip sole structure is disclosed in US Publication No. 20130036333 and contains a plurality of regular or irregular protrusions, each piece formed on a bottom end of a shoe body and a plurality of cutouts defined on a sole to retain with the plurality of protrusions, and the shoe body is glued with the sole to avoid a removal of the sole from the bottom end of the shoe body.

[0004] Nevertheless, a size of the bottom end of the shoe body is too small to cause sufficient friction resistance, and a size of each protrusion and a number of the plural protrusions are limited, hence when a user walks and steps on slippery surfaces, such as stones or wave dissipating concrete blocks, non-slip structure of the finishing shoes cannot cause friction resistance against the slippery surfaces. Furthermore, since the sole is glued with the bottom end of the shoe body, the stretching capacity of the non-slip sole structure is restricted in walking and cannot change with a curvature of the shoe body.

[0005] The present invention has arisen to mitigate and/or obviate the afore-described disadvantages.

SUMMARY OF THE INVENTION

[0006] The primary object of the present invention is to provide a non-slip sole structure for finishing shoes which when a sole is removed from a body, the body keeps stable in walking and stepping by ways of two groups of hooks, thus enhancing gripping friction and anti-slip function.

[0007] Another object of the present invention is to provide a non-slip sole structure for finishing shoes in which a gap forms between a slot and two groups of hooks, and the sole also includes plural V-shaped cutouts arranged on a forefoot position thereof and a heel portion thereof to correspond to and retain with the two groups of hooks, hence activity margin and deformation rate of the sole is increased when a curve of the body changes in walking or stepping.

[0008] To obtain the above objectives, a counterweight structure of a traffic cone provided by the present invention contains:

[0009] a sole, a profile of which corresponds to that of a bottom end of a body, the body including two groups of hooks one piece arranged on a forefoot position thereof and a heel portion of the bottom end thereof, the sole including a slot defined on a middle section thereof to space apart two group of hooks.

[0010] Each hook has two extending sections extending outward from a bottom end thereof, and a length of the slot is greater than a size of each hook, such that after the sole is retained and glued with the bottom end of the body, a gap forms between the slot and the two groups of hooks to obtain high flexibility and deformation rate of the sole.

[0011] The sole also includes plural V-shaped cutouts arranged on a forefoot position thereof and a heel portion thereof to correspond to and retain with the two groups of hooks, such that activity margin and deformation rate of the sole is increased when a curve of the body changes in walking or stepping.

[0012] Preferably, the two groups of hooks are arranged in different directions.

[0013] Preferably, the two groups of hooks are arranged in a direction.

[0014] Preferably, the two groups of hooks are arranged regularly on the body.

[0015] Preferably, the two groups of hooks are arranged irregularly on the body.

[0016] Preferably, the two groups of hooks are in different sizes.

[0017] Preferably, each hook has two extending sections linearly extending toward two different directions from a bottom end thereof.

[0018] Preferably, each hook has two extending sections arcuately extending toward two different directions from a bottom end thereof.

[0019] The foregoing, as well as additional objects, features and advantages of the invention will be more readily apparent from the following detailed description, which proceeds with reference to the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0020] FIG. 1 is a perspective view showing the exploded components of a non-slip sole structure for finishing shoes according to a preferred embodiment of the present invention.

[0021] FIG. 2 is a perspective view showing the assembly of the non-slip sole structure for the finishing shoes according to the preferred embodiment of the present invention.

[0022] FIG. 3 is a bottom plane view showing the assembly of the non-slip sole structure for the finishing shoes according to the preferred embodiment of the present invention.

[0023] FIG. 4 is a cross sectional view showing the assembly of the non-slip sole structure for the finishing shoes according to the preferred embodiment of the present invention.

[0024] FIG. 5 is a cross sectional view showing the application of the non-slip sole structure for the finishing shoes according to the preferred embodiment of the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0025] With reference to FIGS. 1 to 5, a non-slip sole structure of fishing shoes according to a preferred embodiment of the present invention comprises a sole 20 made of non-woven fabric with a large friction resistance, and a profile of the sole 20 corresponds to that of a bottom end of a body 10, the body 10 includes two groups of hooks 11 one piece arranged on a forefoot position thereof and a heel portion of the bottom end thereof, wherein the two groups of hooks 11 are arranged in different directions or in a direction, the two groups of hooks...
are arranged regularly or irregularly on the body. The two groups of hooks in different sizes, and each hook has two extending sections linearly or arcuately extending toward two different directions from a bottom end thereof. The sole includes a slot defined on a middle section thereof to space apart two group of hooks, and a length of the slot is greater than a size of each hook, such that after the sole is retained and glued with the bottom end of the body, a gap forms between the slot and the two groups of hooks to obtain high flexibility and deformation rate of the sole. The sole also includes plural V-shaped cutouts arranged on a forefoot position thereof and a heel portion thereof to correspond to and retain with the two groups of hooks, such that activity margin and deformation rate of the sole is increased when a curve of the body changes in walking or stepping.

Accordingly, the slot of the sole spaces apart the two groups of hooks of the body, the sole also includes the plural V-shaped cutouts corresponding to and retaining with the two groups of hooks of the body, thus enhancing connecting capacity of the sole and the body. Preferably, when the sole removes from the body, the body keeps stable in the walking and the stepping by ways of the two groups of hooks, thus enhancing grabbing friction and anti-slip function. The gap forms between the slot and the two groups of hooks, hence the activity margin and the deformation rate of the sole is increased when a curve of the body changes in walking or stepping.

Accordingly, the non-slip sole structure of the fishing shoes comprises the two groups of hooks one piece arranged on the forefoot position thereof and the heel portion of the bottom end thereof, and each hook is formed in the V shape, the length of the slot is greater than the size of each hook, such that after the sole is retained and glued with the bottom end of the body, the gap forms between the slot and the two groups of hooks to obtain high flexibility and deformation of the sole. When the sole is removed from the body, the body keeps stable in the walking and the stepping by ways of the two groups of hooks, thus enhancing grabbing friction and anti-slip function.

While the preferred embodiments of the invention have been set forth for the purpose of disclosure, modifications of the disclosed embodiments of the invention as well as other embodiments thereof may occur to those skilled in the art. Accordingly, the appended claims are intended to cover all embodiments which do not depart from the spirit and scope of the invention.

What is claimed is:
1. A non-slip sole structure of fishing shoes comprising a sole, a profile of which corresponds to that of a bottom end of a body, the body including two groups of hooks one piece arranged on a forefoot position thereof and a heel portion of the bottom end thereof, the sole including a slot defined on a middle section thereof to space apart two group of hooks, characterized in that each hook has two extending sections extending outward from a bottom end thereof, and a length of the slot is greater than a size of each hook, such that after the sole is retained and glued with the bottom end of the body, a gap forms between the slot and the two groups of hooks to obtain high flexibility and deformation rate of the sole.

2. The non-slip sole structure of the fishing shoes as claimed in claim 1, wherein the two groups of hooks are arranged in different directions.
3. The non-slip sole structure of the fishing shoes as claimed in claim 1, wherein the two groups of hooks are arranged in a direction.
4. The non-slip sole structure of the fishing shoes as claimed in claim 1, wherein the two groups of hooks are arranged regularly on the body.
5. The non-slip sole structure of the fishing shoes as claimed in claim 1, wherein the two groups of hooks are arranged irregularly on the body.

6. The non-slip sole structure of the fishing shoes as claimed in claim 1, wherein the two groups of hooks are in different sizes.
7. The non-slip sole structure of the fishing shoes as claimed in claim 1, wherein each hook has two extending sections linearly extending toward two different directions from a bottom end thereof.
8. The non-slip sole structure of the fishing shoes as claimed in claim 1, wherein each hook has two extending sections arcuately extending toward two different directions from a bottom end thereof.