

MAT USED IN CARS

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BACKGROUND OF THE INVENTION

[0001]

The invention ~~relates to~~ a ~~floor~~kind of mat used in cars. People ~~often use floor mats~~put it on the car carpet, because of its special structure when stepping on it the mat ~~prevents will not move,~~ and at the same time avoids the mud, dirt and gravel on the ~~person's shoes~~ from getting into dirty the carpet. ~~The floor mat of the present invention has~~ Furthermore, there are, multiple symmetrical bevel grooves ~~for collecting~~ formed in the plate-shaped mat to collect the water tracked on the mat, and it is convenient for people to take the mat ~~can be washed to remove any collected dirt or residue~~ out to wash.

[0002]

Usually, people ~~have an ornamental~~ pave classy carpet in a car for beautifying the interior of the car. However, in order to keep the carpet from ~~becoming soiled~~ defiling by ~~dirt from a person's shoes~~ people's tread, many people ~~place~~ puts a set of mats ~~on the carpet~~ (four pieces, two for the front seats and two for the rear seats) on the carpet. Conventional car mats are putted on the carpet without any design to fix the mat with the carpet, when people step on the mat, the mat will be moved. It may influence the safety of driving and defeats the purpose of the mat of its intended covering area. It is therefore need to be improved.

[0003]

Additionally, the design of the conventional car mat is flat, therefore, after using for a while, the sludge, gravel, and rainwater on the shoes will not only dirty the carpet, but also deface the inside of the car. It is the defect of the conventional car mat.

[0004]

Due to the defect of the conventional car mats on practice, the inventor designs an improved structure of car mat. The structure of the car mat is not only to improve the function of avoiding slide, but also to collect the sludge and gravel on the shoes, and will not dirty the carpet. Therewith, these multiple symmetrical bevel grooves formed in the plate-shaped car mat can collect the water tracked on the mat, and it is convenient for people to take the mat ~~is designed for easy cleaning or washing~~ out to wash.

SUMMARY OF THE INVENTION

[0005]

An improved ~~floor~~ mat used in cars includes an upper polyester fabric ~~layer~~, a middle ~~polyvinylchloride (PVC)-plastic~~ plate or layer, and an under net lining ~~or layer~~. All three ~~layers~~ parts are ~~laminated~~ stuck together, and bound to form a ~~unitary~~ plate-shaped object. The plate-shaped object of the mat is ~~in-bossed to form~~ formed by multiple ~~symmetrical~~ symmetrical

~~umbos (or raised areas) that define. There are multiple symmetrical bevel dirt collection grooves. The formed between these umbos naturally, and the grooves are downward. The sideways grooves therefore can collect the muck from a person's on the shoes. When necessary, the person can, and is convenient for people to take the mat out for washing or cleaning to wash without dirtying dirty the carpet. Multiple. Additionally, multiple foam particles are created on the under net lining of the mat to prevent the. The mat from shifting on the carpeted floor of will not move on the vehicle carpet by these foam particles.~~

BRIEF DESCRIPTION OF THE DRAWINGS

[0006]

FIG. 1 is a ~~perspective~~perspective view of the improved mat used in cars of this invention.

[0007]

FIG. 2 is a structure view of the unformed mat of this invention.

[0008]

FIG. 3 is an Y—Y section view of the improved mat used in cars of this invention.

[0009]

FIG. 4 is an X—X section view of the improved mat used in cars of this invention.

DETAILED DESCRIPTION

[0010]

As FIGS. 1, 2, 3, and 4 ~~show a car floor shown that an improved mat used in cars (100 of this invention) is~~ consisting of an upper polyester fabric ~~layer (10), (10),~~ a middle ~~polyvinylehloride (PVC) Plastic~~ plate or layer (20), and an under net lining ~~or layer (30).~~

[0011]

The material of the above mentioned middle ~~polyvinylehloride (PVC) plastic~~ plate ~~(or layer (20) is~~ a flexible, light weight, and waterproof Polyethylene (PE) or Polyethylene ~~Ethylene — Vinyl Acetate (EVA) foam.~~ The above mentioned net lining (30) is composed of multiple yarns or threads (31) woven or knotted in a combination of both ~~transverse~~horizontal and longitudinal ways to form a net fabric. This net fabric ~~is~~was dipped and coated with plastic (PVC etc.) resins, which are ~~formulated for 10 mulated~~ mulated with ~~foaming~~foamng agent. This coated fabric after being treated by ~~a heat foaming~~heatfoaming process, ~~will have a along the threads or yarns (31) continuous sponge foam covering 32 will be~~ formed on the thread or yarn ~~34~~ surface in a suitable thickness and on each knot ~~at the thread crossing points. place foam particle (32) will be created also.~~ The improved ~~car floor~~mat used in cars (100) of this invention is formed by ~~placng sticking~~ the net lining (30) with multiple foam particle (32), aforesaid middle ~~polyvinylehloride (PVC),~~ plastic plate or layer (20), and the upper polyester fabric ~~layer (10) together, and binding or gluing~~binning the three ~~layers together parts~~ to form a whole mat as shown in FIG. 1.

[0012]

As figures shown that the mat (100) of this invention is a plate-shaped object, and there is a shallow plate-shaped object at the front flange of the mat. The plate-shaped object and the shallow plate-shaped object are for people to step on. The mat can be placed freely depends on the locations of the front seat and rear seat.

[0013]

The plate-shaped object of the above mentioned mat (100) is formed by multiple symmetrical umbos(A) which can be designed as rectangle, quarry, or figure etc. There are multiple symmetrical bevel grooves (B) formed between these umbos (A) ~~so as to be depressed below the mat upper surface to thereby receive naturally, and the grooves (B) are downward. When the sludge, gravel, and rainwater that is on the shoes are tracked on the mat (100), by the person's shoes. The person's shoe can be people can scraped on the umbos (A), to move dirt into the sideways grooves (B) for collection. When will collect the muck on the shoes together, and it is convenient, the person can for people to take the mat out for washing or cleaning to wash.~~ At the same time, the muck will not dirty the carpet because of the design of ~~the~~ plate-shaped mat. The matIt will keep the carpet clean, and will not deface the inside of the car. As shown in FIGS. 1, 3 and 4, the mat has a peripheral upstanding rim for containment of water sludge and debris. The rim has an inverted V cross-section for strengthening purposes.

[0014]

There are multiple foam particles (32) are created on the under net lining (30) of the mat (100) of this invention. The multiple foam particles (32) of the mat (100) will cling to the fibers of the carpet under the mat (100), and create ~~a desired~~the drag between the mat and carpet, ~~so that.~~ By this way, the mat will not move on the carpet.

[0015]

From the above description, ~~it will be seen that~~ the structure of the mat (100) is simple, but the present invention is novel in design, ~~through by using the use of~~ three different ~~kinds~~sinds of material, ~~i.e.~~ a polyester fabric (10), a ~~polyvinylehloride (PVC) plastic~~ polyvinyl chloride (PVC) plastic plate or layer (20), and a ~~foam coated~~ net lining (30). Then bound these three parts to form a whole plate-shaped mat, and the mat (100) will not move on the carpet. It is therefore better and largely improved than the conventional mat.

In the claims:

~~What is claimed is:~~

16. A one piece floor mat for use in automotive vehicles, comprising:

a three layer laminated mat body that includes a middle layer, upper layer, and lower layer bonded together at the interfaces between said layers;

said middle layer comprising a flexible impermeable plastic sheet that is impervious to liquid flow therethrough;

said upper layer comprising a woven plastic sheet bonded to the upper surface of said middle layer;

said lower layer comprising a woven net fabric coated with a plastic foam, said lower layer being bonded to the lower surface of said middle layer;

said laminated mat body being embossed to form multiple water collection grooves on the mat body upper surface.

27. The floor mat of claim 16, wherein said laminated mat body has a peripheral upstanding rim for ~~containment~~containing of water sludge and debris collected on the mat body, said rim having an inverted V cross-section.

Abstract

An improved mat used in cars includes an upper polyester fabric ~~layer~~, a middle ~~polyvinylchloride (PVC) plastic plate or~~ layer, and ~~a foam-coated~~ under net ~~layerlining~~. All three ~~layers~~ parts are ~~placed~~ stuck together, and bound to form a ~~laminated~~ plate-shaped object. The plate-shaped ~~object of the~~ mat is formed by multiple ~~symmetrical~~ ~~sy,metrical~~ umbos ~~that define~~. ~~There are~~ multiple symmetrical bevel grooves ~~formed~~ between these umbos ~~naturally~~, and the grooves are downward. The sideways grooves ~~therefore~~ can collect the muck ~~from a person's on the~~ shoes. ~~When, and is~~ convenient, ~~a person can~~ ~~for people to~~ take the mat out to wash without ~~dirtying~~ dirty the carpet. ~~Foam~~ ~~Additionally, multiple foam~~ particles ~~are created~~ on the under net ~~layerlining~~ of the mat ~~prevent the~~. ~~The mat from moving~~ ~~will not move~~ on the ~~carpeted floor of the vehicle~~ carpet by these foam particles.