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(71) Applicant: **Ramirez Velazquez, Edgardo**
45040 Guadalajara, JAL (MY)

(72) Inventor: **Ramirez Velazquez, Edgardo**
45040 Guadalajara, JAL (MY)

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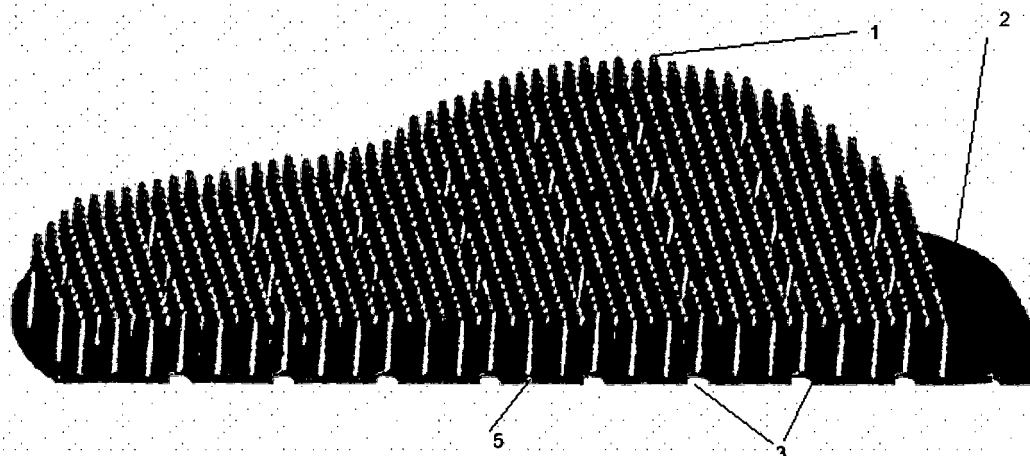
(74) Representative: **Gosdin, Michael**
Adam-Stegerwald-Strasse 6
97422 Schweinfurt (DE)

(54) **URINAL MAT**

(57) The invention relates to a urinal anti-splash mat which has sealed filaments and different conic levels consisting of small filaments that stop urine before it splashes thus avoiding the spread of diseases and liquid accumulation. This mat is manufactured to prevent bad odors

caused by urine accumulation when it splashes against urinal walls and/or against waste liquids inside them and falls outside the urinal and traps the falling liquid. In addition, it offers a more hygienic environment and prevents the spread of diseases.

Figure 4



Description**OBJECT OF THE INVENTION**

[0001] This invention refers to a sealed filament anti-splash urinal mat consisting of small strands that prevent liquid splashing thus eradicating the spread of diseases. This mat also has different conic levels to prevent the accumulation of liquids in the mat's base. This mat was manufactured in order to prevent bad odors from urine accumulated outside urinals when it splashes and contacts urinals' walls and/or waste liquids inside them, trapping liquid falling down and not letting liquid accumulate on the mat's base as it happens with other products, because it has different conic levels that lead liquids to the drainage and keep the mat free of waste liquid and bad odors. Likewise, it offers a more hygienic environment by preventing the spread of possible diseases to the users via cross contamination at the time they are splashed with urinal waste liquids.

INVENTION'S BACKGROUND

[0002] There are urinal mats in the market made from brush like filaments whose function is to stop urine that could splash sideways but they are worn out quickly and their filaments fold thereby decreasing their performance while letting urine accumulate and stop doing what they were made for.

[0003] With the mats available in the market nowadays, one has the inconvenience of having to replace them constantly because they are worn out or because they are smelly due to liquid and bacteria accumulation, therefore in order to avoid all those problems, it was decided to create a longer lasting mat that would prevent restroom bad odors and the spread of bacteria. The mats that we developed do not need to be replaced as frequently as other current mats that do not have sealed filaments; because it is precisely at the base of non-sealed strands that most of bacteria accumulate. Our mats have a sealed-filament system that prevents the accumulation or stagnation of bacteria and are made with different conic levels at the mat's base to avoid stacked bacteria in liquids and resin corrosion since mats are made from resin to stand the accumulation of liquids.

[0004] This mat was created thinking in preventing liquid splashes in urinals and its surroundings as well as in mat durability by having draining urine quickly and effectively through its different conic levels. This mat is manufactured from a strong plastic material resistant to the corrosion produced by liquid accumulation due to its different elevations that facilitates liquid drainage.

[0005] As a supplementary description and with the intention to provide a better understanding of the invention, attached hereto and forming integral part of the description, are sketches that in an illustrative and not limiting manner represent the following:

Figure 1 shows a front top elevation view of an anti-splash mat with sealed filaments that prevent liquid splashes and the base orifices through which fluids run to the drainage due to its different conic elevations that guide liquids to the mat's orifices. It also releases aroma and antibacterial substance.

Figure 2 shows a front elevation view of the mat's base where one can see the orifices through which urine flows to the drainage and minute studs/legs located and distributed in such a way that the mat is elevated eluding the liquid accumulation.

Figure 3 shows a side view of the mat where one can see the sealed filaments that interrupt liquid drops, and it also depicts the mat's base and studs/legs that elevate the mat to avert liquid accumulation.

Figure 4 shows a side cut perspective view that shows the different conic levels that guide liquid flow to the mat's base orifices thus preventing liquid accumulation and bad odors.

Figure 5 shows a zoom in cut side view of the different conic levels that lead liquids to the orifices located at the mat's base.

PREFERENTIAL EXECUTION OF THE INVENTION

[0006] The characteristic details of this mat are clearly shown in the following description and in the drawings attached hereto. It is also annexed a descriptive illustration that follows the same reference signs to indicate the parts and figures shown.

[0007] At first sight, one can perceive on the figures how is the urinal anti splash mat (1) structured with sealed-filaments to prevent urine splashes by cutting off its drop and bad odors caused by urine accumulation, because it also has different conic levels (5) that guide liquids to the orifices (3) located at the mat's base.

[0008] Orifices (3) are distributed in such a way that they go directly to the urinal's drain. They are distributed throughout the anti-splash mat's base, have sealed filaments and different conic levels (5) in each one of the orifices (3) to prevent possible accumulation of liquids at the mat's base (2).

[0009] The sealed filament (1) anti-splash mat's base (2) has different conic levels (5) distributed along the base (2) to lead liquids to the orifices (3) through which urine flows to the drain once the filaments had done their job of trapping the urine when falling preventing the splashes outside the urinal.

[0010] Underneath the mat's base (2) there are some studs/short legs (4) whose function is to let flow the liquids beneath the mat.

Claims

1. Urinal mat with sealed filaments (1) and different conic levels (5) manufactured from plastic resistant to corrosion caused by liquid accumulation, wherein the urinal mat also has a sealed filament system that traps urine when falling down, prevents its accumulation or bacteria cultures due to its different conic elevations that guide fluids to the orifices (3) located at the mat's base (2) that go to drainage exit.

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Figure 1

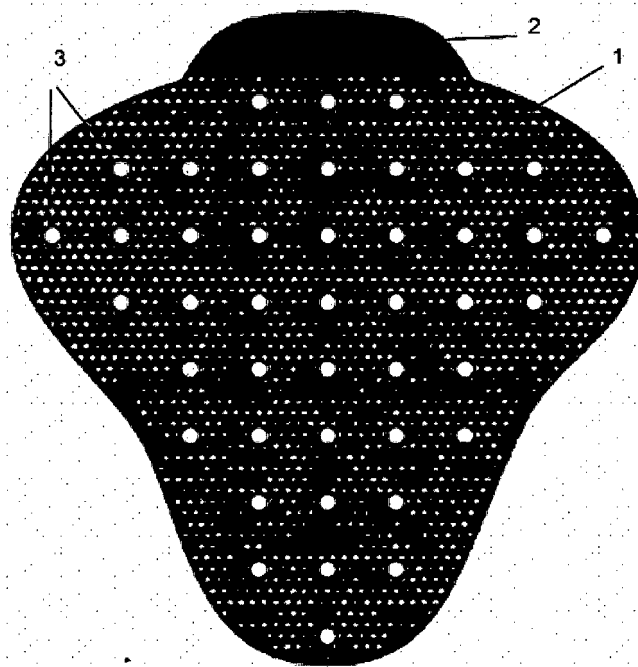


Figure 2

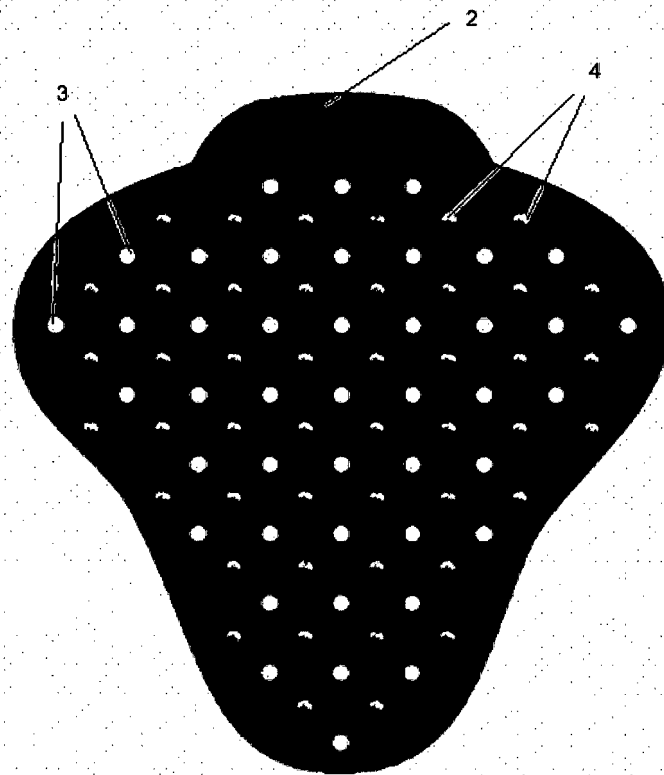


Figure 3

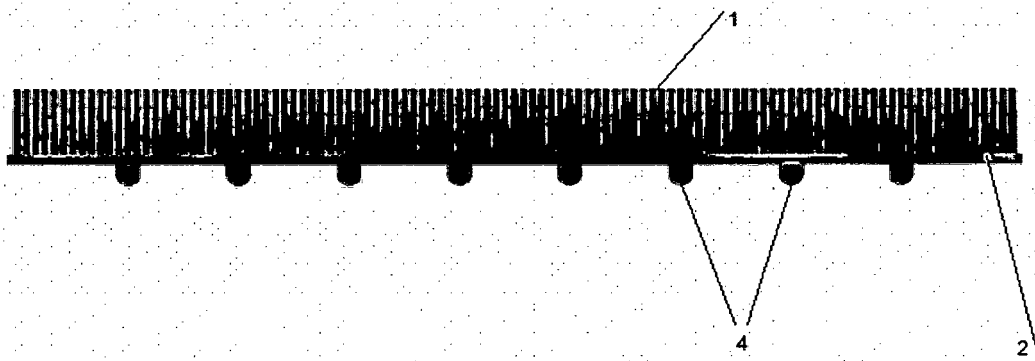


Figure 4

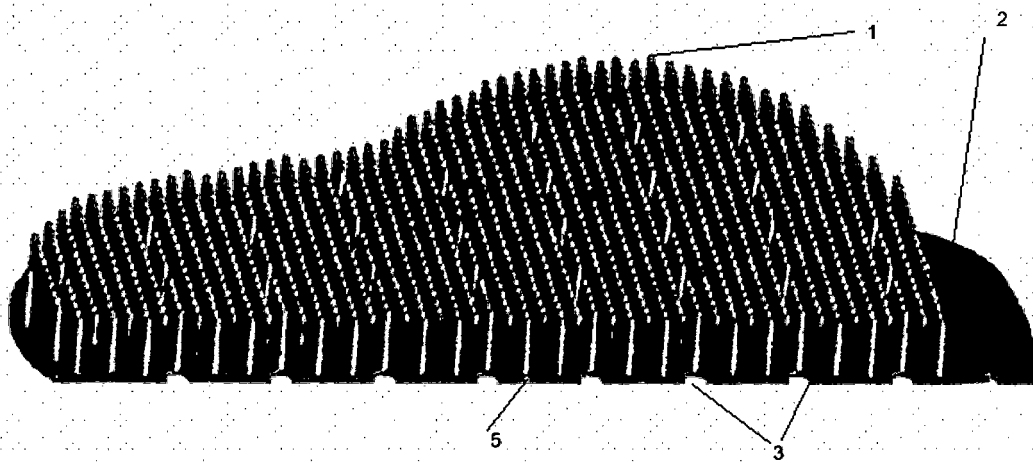
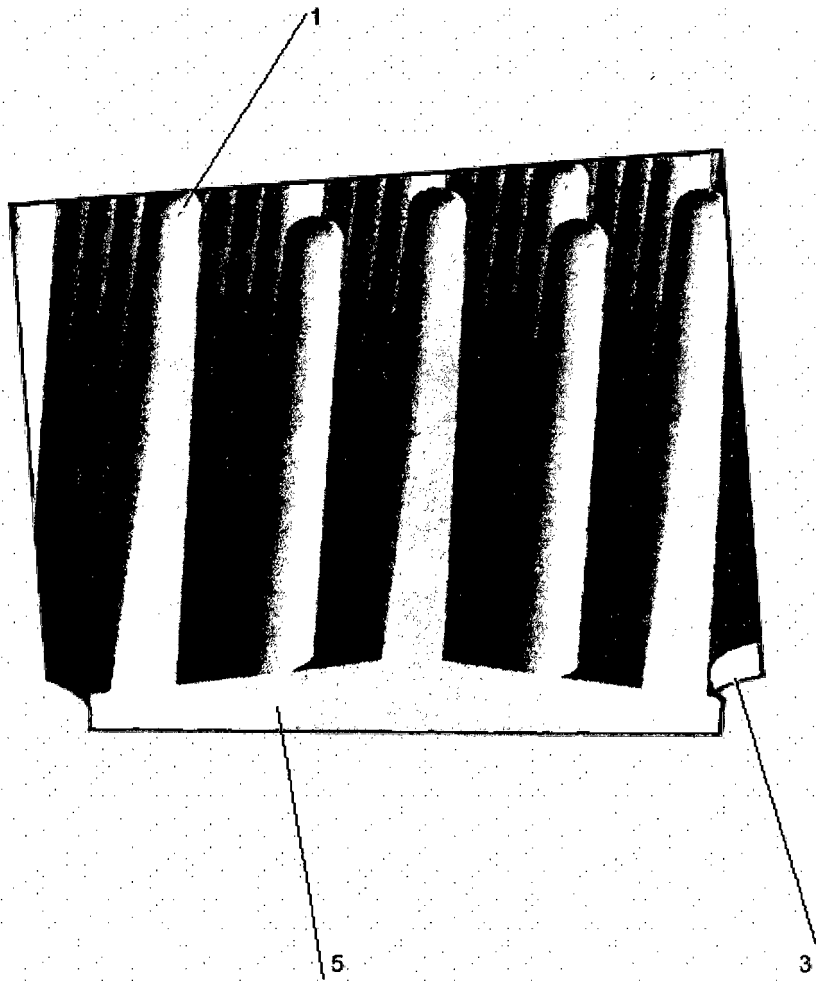


Figure 5



INTERNATIONAL SEARCH REPORT

International application No.
PCT/MX2013/000183

A. CLASSIFICATION OF SUBJECT MATTER

E03D13/00 (2006.01)

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
E03D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPODOC, INVENES, WPI, GOOGLE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US D520610 S (WRATE, L.A.) 09.05.2006, figures.	1
X	EkcoScreen-Anti-Splashback-Urinal-Screens. Datasheet [on line]. 09.11.2011. Janisan, Inc. [retrieved the 16.06.2014]. Retrieved from Internet: <URL: http://www.airfreshenersandmore.com/Washroom-Products-Urinal-Screens-Ekcos-Innovations-EkcoScreen-Anti-Splashback-Urinal-Screens/c16_15_104/index.html >.	1
A	US D625540 S (DUKES, S.A.) 19.10.2010, figures.	1
A	WO 2009038867 A1 (RUEDAS, J.F.) 26.03.2009, abstract.	1
A	GB 2472377 A (MCCARROLL, S.E.J.) 09.02.2011, abstract.	1

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance.	
"E" earlier document but published on or after the international filing date	
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"O" document referring to an oral disclosure use, exhibition, or other means.	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other documents, such combination being obvious to a person skilled in the art
"P" document published prior to the international filing date but later than the priority date claimed	"&" document member of the same patent family

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Name and mailing address of the ISA/

Authorized officer
M. Novoa Sanjurjo

OFICINA ESPAÑOLA DE PATENTES Y MARCAS
Paseo de la Castellana, 75 - 28071 Madrid (España)
Facsimile No.: 91 349 53 04

Telephone No. 91 3498466

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/MX2013/000183

Information on patent family members

Patent document cited in the search report	Publication date	Patent family member(s)	Publication date
USD520610S S1	09.05.2006	NONE	
USD625540S S1	19.10.2010	NONE	
WO2009038867 A1	26.03.2009	MX2010003011 A	31.03.2010
		KR20100082783 A	19.07.2010
		JP2010539366 A	16.12.2010
		EP2212482 A1	04.08.2010
		AU2008302692 A1	26.03.2009
		AU2008302692B B2	20.03.2014
		US2009070923 A1	19.03.2009
		US8056153 B2	15.11.2011
GB2472377 A	09.02.2011	NONE	

Form PCT/ISA/210 (patent family annex) (July 2009)