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(54) **Shower bench**

(57) This is a bench made with a laminar plastic component moulded in a single piece, especially designed for the safety and comfort of the person showering and providing his/her hygiene. The invention is provided with a spoon shaped concave seat, with lateral-rear guard fin and a front opening of three sectors de-

fined for the optimum sanitation of the private parts of men and women; also being provided with a foot rest, which combined with the front opening permits a safe and easy cleaning of the feet and side handles facilitating getting up from the seat. The seat projects in a curved way in the lower sector in four equidistant legs reinforced with respective cross beams.

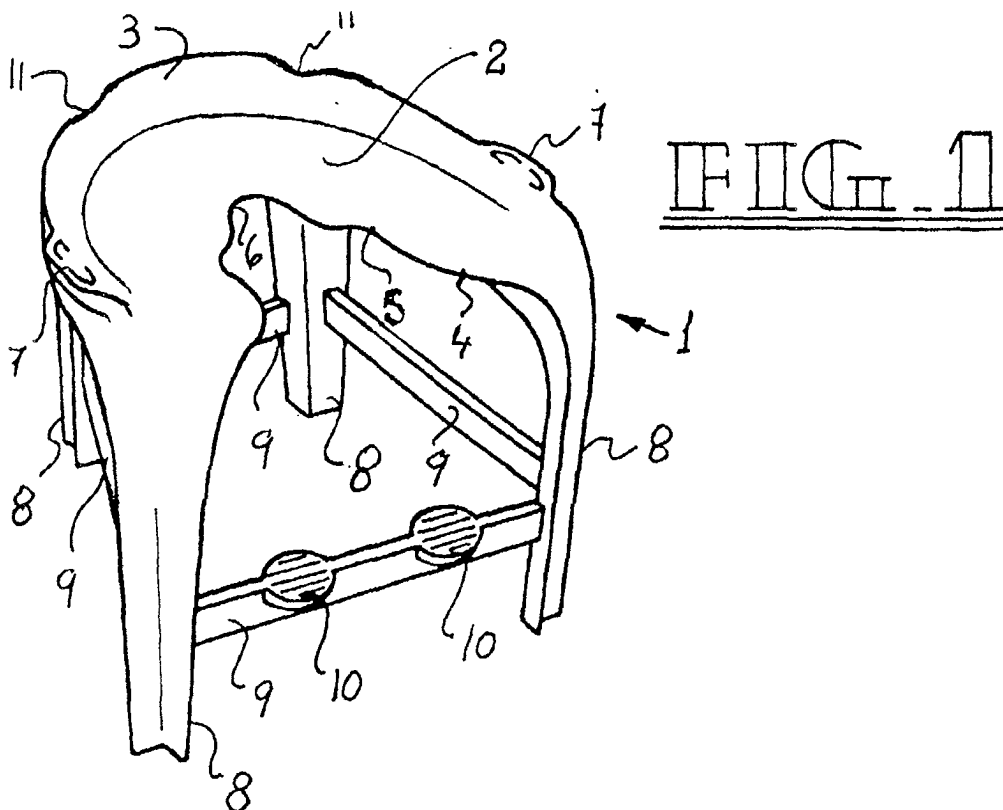


FIG. 1

Description

[0001] The present invention refers to a SHOWER BENCH.

FIELD OF THE INVENTION

[0002] It includes the field of personal health when showering and the safety devices provided by it.

BRIEF SUMMARY OF THE INVENTION

[0003] It consists of a bench made of a single piece moulded plastic component, especially designed for the safety and comfort of the person showering and his/her health, provided with a concave seat with a spoon shape and a lateral-rear guard fin and a three section front opening defined for optimum sanitation of the intimate parts of men and women, likewise having a foot rest which combined with the front opening permits a safe and easy sanitation of feet and side handles facilitating getting up from the seat, being projected in a curved manner to the seat in the lower sector in four equidistant legs reinforced with respective cross beams.

STATE OF THE ART

[0004] No showering bench with the features of our invention is known.

[0005] The search for patent documentation background made, although negative with respect to the background with the same features of our invention, some documents and the following differences with the present application should be mentioned only for illustrative purposes.

[0006] Argentinean Utility Model Application M960104292. It consists of a CHAIR FOR HYGIENIC USE consisting of a tubular support structure integrated by a pair of folded components in a "U" shape, arranged parallel in a inverted shape with its diverging branches terminating in perpendicular portions arranged with respect to the floor and finished with small wheels with axially rotating assembly. The seat consists of two rectangular boards assembled in an angular shape and separated from each other.

[0007] Our invention is different on being a bench carried out in a single piece moulded plastic laminar component, especially designed for the safety and comfort of the person who is showering and providing hygiene for the same, provided with a concave seat with a spoon shape, with a lateral-rear guard fin and a front opening with three sectors defining optimum sanitation of the private parts of men and women; also provided with a foot rest, which combined with the front opening permits a safe and easy cleaning of the feet and side handles which facilitates getting up from the seat. It does not have rolling means, since it would create a risk factor, since total immobility of the seat is required in the show-

er.

[0008] Argentinean Utility Model Application M960104292. This is a MOVABLE GERIATRIC CHAIR for family use, basically consisting of a chair with a back and arm supports and a quadrangular seat with a round hole in its middle sector and the seat finishing in four legs with wheels. As its name indicates, it is a geriatric chair made of plastic to reduce its costs and is not a device for comfort and safety in the shower, although provided with a central hole, which is more useful to fit acccons permitting the physiological needs of a seated patient, before performing the sanitation of the private parts of the user. The back, the flat seat and the arm support neither contribute to it and hinder hygiene, likewise the bearings which creates instability in the shower.

[0009] Our invention is different on being a bench designed for the safety and comfort of the patient showering and the provision of his/her hygiene, provided with a spoon shaped concave seat, with lateral-rear guard fin and a front opening with three sectors defined for the optimum sanitation of the private parts of men and women, also provided with a foot rest which combined with the front opening permits safe and easy cleaning of the feet and side handles facilitating getting up from the seat. It does not have rolling devices since it would create a risk factor, since total immobility of the seat is required in the shower.

[0010] US Patent No. 6,122,776 "BATHING SEAT". This is a special seat consisting of an inverted "U" shape pipe carrying base, with adjustable height and width, the parallel cross beams or extension pieces being of great length permitting the sliding of the seat over them. The seat is a rigid plate with holes, as well as the back. This seat permits a general shower with certain stability but the sanitation of the private parts is practically impossible.

[0011] PCT EUROPEAN PATENT APPLICATION No. PCT/AU9100016 "BATH SEAT ASSEMBLY". This patent comprises a tubular structure adaptable to a bathtub, supporting a flat seat with arm rests and back and an inflatable tab beneath the seat, permitting seat movement from its highest to lowest position. The difference with our invention is that due to the flattening of the seat, this seat is not provided with an access for the sanitation of the user's private parts.

[0012] US Patent No. 5,682,625 "INVALID BATH CHAIR WITH THERAPEUTIC WHIRLPOOL". The chair comprises a tubular structure over which a "U" shaped seat is fitted, with an opening towards the rear side of the chair, also having arm rests and a back for the user to maintain his/her stability. Beneath the seat and in relation to it, there is an irrigation plate which is connected to an electric compressor motor, which produces a compressed air source, beneath the seat, which on coming into contact with water falling from the shower, produces an upwards hydraulic whirlpool. Beyond the spectacularity that may be produced by the apparatus, the user cannot perform sanitation of his/her private parts (open-

ing of the seat backwards, arm rest, back, etc.). From the latter, the present invention is directed to provide the sanitation of a handicapped person as indicated in its title.

[0013] Our invention is different on being a bench made of a single piece moulded plastic laminar component, especially designed for the safety and comfort of the person showering and providing his/her sanitation, being provided with a spoon shaped concave seat with lateral-rear guard fin and a front opening of three sectors defined for the optimum sanitation of the private parts of men and women; also provided with a foot rest, which combined with the front opening permits a safe and easy sanitation of the feet and side handles facilitating getting up from the seat.

[0014] The present invention provides a series of advantages and solves the safety problems involved in bathing standing up under a shower.

[0015] The arrangement of this bench has been submitted to a plurality of tests with persons of all ages and sexes, as well as persons with satisfactory health conditions, and with elderly persons with certain difficulties, improving the bench in each test until achieving an optimisation of its function.

[0016] An advantage of this invention is the anatomic design of the spoon shaped concave seat inclined towards the rear sector, since it is achieved that the user is embedded inside it, retaining him/her firmly, in spite of all the movements made to achieve his/her sanitation. The concave shape of the spoon shaped seat will tend to centre him/her more in it. In other words, it prevents any accidental fall of the user, which may have severe consequences.

[0017] Another advantage of this invention is the lateral-contouring fin surrounding the seat along its sides and the rear sector, if it is taken into account that the seat has neither back, nor arm rest, hence preventing an accidental sliding beyond the seat.

[0018] An important advantage incorporated by this invention is the three sector front opening, permitting a complete, comfortable and safe sanitation of the user's private parts.

[0019] The foot rest is a complementary advantage provided by this invention, since in combination with the front opening, it permits a comfortable and safe sanitation of the feet, as well as necessary cutting of nails.

[0020] Likewise, especially in elderly persons, the handles included by this invention are an important advantage when getting up and leaving the seat, since they may support arm strength.

[0021] To highlight the already mentioned advantages, so that the users and experts in the matter may understand better, a preferred embodiment example is described below, which is schematically illustrated and without a determined scale in the attached drawing in which:

FIGURE 1 shows a perspective view of the bench

of this invention.

FIGURE 2 shows the same bench of this invention in an upper plan view.

FIGURE 3 shows the same bench of this invention in a side view.

[0022] To relate the mentioned drawings to the description made below, the parts or equal pieces observed in the different figures have been distinguished with a reference number.

[0023] The "SHOWER BENCH" described by this invention consists of a plastic laminar component moulded in a single part in the shape of a bench 1, comprising a spoon shaped concave seat 2 with a gradient towards the rear sector, having a lateral-rear guard fin 3 created in the front sector and gradually and symmetrically rising towards the rear sector forming a curved surface without interruption in continuity with the seat 2.

[0024] This seat 2 has a symmetrical front opening, with three sectors transversely entering, a first sector 4 with a wide and curved opening which starts from the contiguities of the sides and in a curved manner is closed over the centre of the seat where it continues in a half sector 5 with a slightly wider semicircular perimeter where it continues in a third sector 6, slightly trapezoidal longitudinal finished in a curved end adjacent to the contouring fin in the rear sector.

[0025] In the contouring fin sides 3, a pair of handles 7 symmetrically emerges in a same continuity of the material.

[0026] The seat 2 is projected towards the lower sector in curved edges, forming four equidistant legs 8, the latter being joined by respective cross beams 9.

[0027] In the cross beam 9 from the front sector there are two foot rest shoulders 10.

[0028] In the rear sector of the bench 1, two curved entrances 11 have been provided for the contouring fin 3, related to the legs 9, permitting their insertion one above the other, such that in a necessary case and in the use of these benches 1 by several people at the same time, like in clubs, geriatric residences, etc. they may be piled not occupying much space.

OPERATION

[0029] The bench is placed beneath the shower sector of the bathtub and the person may perform his/her private sanitation easily and safely; if he/she wants to sanitise his/her feet or cut his/her nails, it would be sufficient to lean them on the foot rest, it being possible to carry out the job with sufficient vision, comfort and safety.

[0030] From the description and that shown in the attached drawings, the constructive and functional advantages characterising the invention and considered as a beneficial advance in the technology are highlighted, so that the invention lies within the regulations of the law in the matter, the following claims protecting it.

Claims

1. A SHOWER BENCH of the type consisting of a laminar plastic component moulded in a single piece in the shape of a bench, **characterised by** comprising a spoon shaped concave seat with a gradient towards the rear sector, having a lateral-rear guard fin emerging from the front sector and gradually and symmetrically rising towards the rear sector forming a curved surface without interruption in continuity with the seat; the latter having a front symmetrical and transversely entering opening of three sectors, a first sector with wide and curved opening, leaving the adjacencies of the sides and in a curved manner penetrating the centre of the seat, where it is continued in a half semicircular perimetric sector, slightly wider, where it is continued in a third slightly trapezoidal longitudinal sector finishing in a curved end adjacent to the contouring fin in the rear sector.

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2. A SHOWER BENCH as claimed in claim 1, **characterised by** having on the sides of the contouring fin a pair of symmetrical handles on a same continuity of the material.

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3. A SHOWER BENCH as claimed in any of the previous claims, **characterised in that** towards the lower sector, the seat has a projection with curved edges, forming four equidistant legs joined by respective cross beams.

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4. A SHOWER BENCH as claimed in any of the previous claims, **characterised in that** the cross beam of the front sector has two foot rest shoulders.

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5. A SHOWER BENCH as claimed in any of the previous claims, **characterised by** having on the rear sector of the bench, two curved entrances of the contouring fin related to a pilable insertion of the legs.

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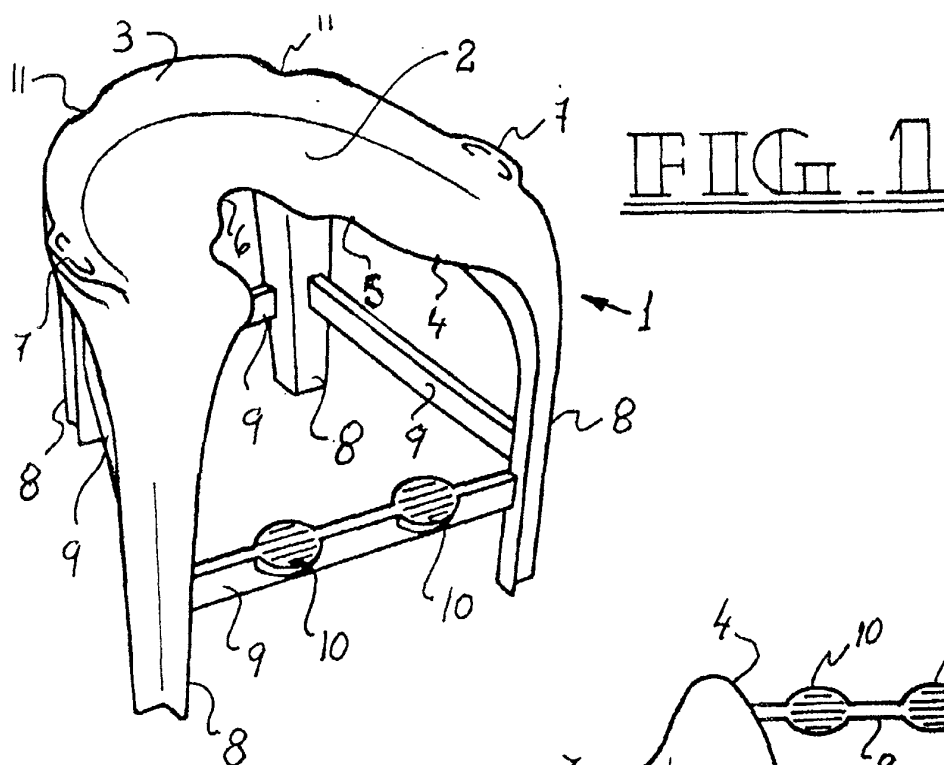
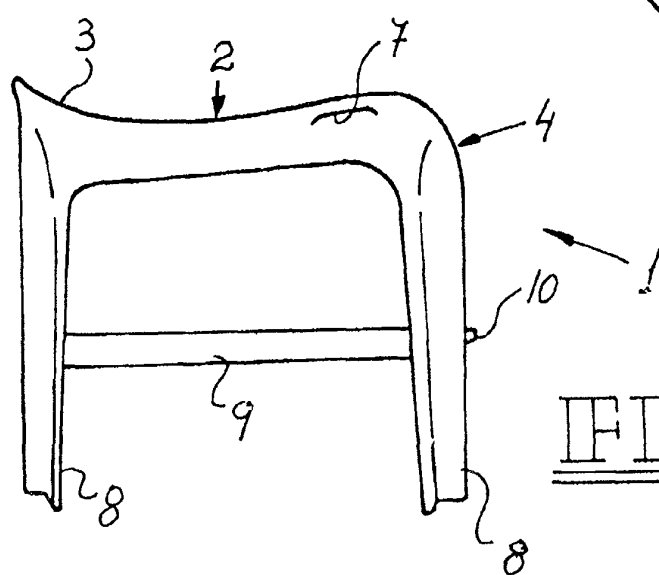
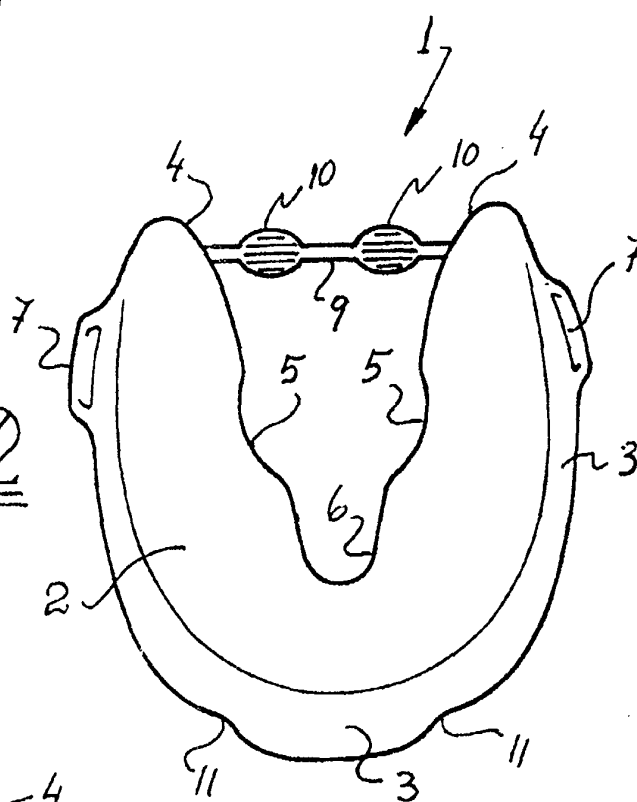


FIG. 2





European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 02 38 0024

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
A	US 4 574 409 A (MCAFFREY E MAYE) 11 March 1986 (1986-03-11) * the whole document *	1	A47K3/28
A	US 5 536 068 A (VALENTOR STEVEN ET AL) 16 July 1996 (1996-07-16) * the whole document *	1	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			A47K
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 25 April 2002	Examiner Delzor, F
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

EPO FORM 1503 03/82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 02 38 0024

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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25-04-2002

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US 4574409	A	11-03-1986	NONE		

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