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(54) **Turtle shaped door closer/stopper cum bootwiper/boot mat/bootscraper made mainly of coco fibre and process of manufacture**

Schildkrötenförmige Kombination aus Türfeststeller und Fussabtreter im wesentlichen aus Kokosfasern und Herstellungsverfahren derselben

Cale-porte en forme de tortue comportant un paillasson, en majorité fait de fibre de noix de coco et son procédé de fabrication

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Description

[0001] Conventional door stops, such as the one known from US-A-2 798 755 are mainly made of metal items and not from natural products and cannot be used for a dual purpose also as a Bootwiper/Boot Scraper/ Boot Mat which is a necessity near a door in certain parts of the world. In such parts of the world where the climate is cold or dusty it is necessary to have a Door Closer/ Stopper for the door to be kept closed most of the time to keep away the cold air/dust from entering the buildings. It is also necessary to have a Bootwiper near the door to wipe the sole and the heel of the boots/shoes of the people entering the buildings as these will be covered with the snow/dust and dirt associated with ice, snow and the dust The Bootwipers are generally used to clean the ice/snow/dust in the boots/shoes in the cold/ dusty parts of the world. DE-A-10 03 930 discloses a door mat comprising a metallic filament grid with brushing material associated therewith.

[0002] Therefore it is proposed in the invention to introduce a dual purpose novel item made of mainly natural coconut fibre which can be used both as a Door Closer/Stopper and a Bootwiper/Boot Scraper/Boot Mat. Such an item has not been introduced in the past and the prior art are confined to individual items such as a conventional Bootwiper and a Door Closer/Stopper. These items made conventionally are of metal components which tend to get corroded when exposed to atmosphere. Metal components tend to get defaced in dusty atmospheres.

[0003] The object of the invention is to overcome the above disadvantages and hardships encountered while using the conventional Bootwipers and the Door Closers/Stoppers.

[0004] The invention foresees a combined door stop and boot mat as defined in independent claim 1. A method of manufacturing such an item is specified in independent claim 2.

[0005] The invention will now be described, by way of example only, and with reference to the following drawings of which Figures 1 to 9 show the various stages in the method of manufacture of the turtle shaped door closer/stopper in accordance with the present invention.

Figure 1 shows the rods being entwined with coconut fibre:

Figure 2 shows the interweaving of the rods bearing coconut fibre to form the shell:

Figures 3 and 4 show the completion of the process commenced in Figure 2:

Figure 5 shows the coconut fibres being formed into the shape of a shell:

Figure 6 shows the finished shell:

Figure 7 shows the shell and belly assemblies being combined together:

Figure 8 shows the tying of the shell and belly assemblies together:

Figure 9 shows the finished article.

Figure 10 shows the finished article from underneath:

Figure 11 shows the finished article from underneath:

Figure 12 shows a specification of various elements used to manufacture the present invention:

Figure 13 shows again various specifications of products used to manufacture the present invention:

Figure 14 shows a side view of a finished product in accordance with the present invention:

Figure 15 shows a front view of Figure 14:

Figure 16 shows a rear view of Figure 14:

Figure 17 shows a rear perspective view of Figure 14:

Figure 18 shows a plan view from below of Figure 17 showing the anti-skid pads, and.

Figure 19 shows a plan view from above of the embodiment of Figure 14.

[0006] The dual purpose item to be used as a Door Closer/Stoppers and a Bootwiper/Boot Mat/Boot Scraper is manufactured in the shape of a Turtle using mainly coconut fibre In the process of manufacture as shown in Figs. 1-6 twisted in coconut fibre rods are in turn cut and shaped to make the shell 100, belly 102, head 104, legs 106 and tail 108 of the Turtle. On the base of the belly the anti-skid rubber pads are pasted on the non-skid rubber pads with a suitable adhesive to resist movement and take part of the load (Refer Figs 11 and 18). Initially different parts are prepared using the twisted in coconut fibre rods. These rods are cut to required lengths and shaped to obtain the different required components for assembly. Main items are the shell 100 and the belly 102 and these are woven similar to weaving of a cadjan or a rush mat (See Figs. 2 & 3). Refer to Fig. 1 where the rods 150 for making the head 104, legs 106 and tail 108 are displayed. Fig. 6 shows the shell 100 and Fig 7 the attachments head 104, legs 1 to 6 and the tail 108 tied to the shell using the binding wire.

[0007] Edge rods are tied to the shell along the pe-

riphery and the edge rod is a combination of two or more twisted in fibre rods (Refer Figs. 8 & 9). This assembly thus becomes the top part of the Turtle. The assembly of the belly with the non-skid rubber pads 110 becomes the bottom part of the Turtle. Finally the shell and the belly assemblies are combined by tying them together with binding wire followed by the final finishing process, as shown in Figure 8

[0008] The anti-skid property of this Turtle shaped Bootwiper/Boot Mat/Bootscraper and the Doorcloser/ Stopper is another distinct advantage over the prior art items separately available in the market. Fig 18 shows the anti-skid rubber pads 110 most clearly.

[0009] The coconut fibre used to manufacture this Turtle shaped Bootwiper/Boot Scraper/Boot Mat and the Doorcloser/Stopper can be dyed in any colour prior to the manufacturing process to give a cosmetic or matching effect to the finished product. Different components such as the shell and the belly etc., could be made in different colours to obtain an attractive product. Even the size and shape of the end product could be chosen by varying the sizes and shapes of the components.

[0010] The different specifications to obtain the required size products are shown in Figures 12 and 13. The rod diameters weight of the fibre used and the size of the components determine the strength factor of the end product. A tolerance of ±10% is allowed in these figures for the manufacture of a preferred embodiment and these figures and the sizes do not in any way limit the scope of the claims given hereunder.

[0011] The raw materials other than the coconut fibre used can be changed to alternate suitable products such as aluminium wire or steel wire or any other metallic wire to make the fibre rods. The binding wire may be substituted with nylon/coir yarn/jut twine and the rubber pads may be replaced with any other anti-skid plastic or nylon material.

[0012] The belly component of the Turtle may be made by a material such as jute hessin or similar materials.

[0013] Where the component made out of coconut fibre may be made with dyed of different colours:

[0014] By referring to the enclosed drawings, the manufacturing process may be understood.

Claims

1. An anti-slip turtle-shaped combined door stop and boot mat comprising components consisting of coconut fibre rods twisted around metallic galvanised wire fibre rods, rubber pads and binding wire or coco yarn and/or jute and/or nylon yarn wherein the components are tied with the binding wire to take the shape of a turtle, the combined door stop/boot mat exhibiting a construction including the shell and the belly woven in a pattern similar to that of a cadjan or rush mat, four legs, a head, a tail, anti-skid rubber or nylon or plastic pads being provided on the exterior of the belly part.

2. Method of manufacturing a turtle-shaped combined door stop and boot mat made out of coconut fibre rods metallic, fibre rods, rubber or nylon or plastic pads and binding wire or coco yarn and/or jute and/or nylon yarn, the method comprising the steps of:

   A) making the shell, belly, head, legs and tail parts of the turtle-shaped combination out of the coconut fibre rods twisted around the metallic fibre rods where the shell and the belly are woven separately similar to the manner of wearing a cadjan or a rush mat using the combined coconut/metallic fibre rods cut to the required size and shape and bent,

   B) cutting the combined coconut/metallic fibre rods to the appropriate sizes and shaping them to obtain the head, legs and tail,

   C) tying the head, legs and the tail to the shell with the binding wire,

   D) providing an edge rod being a combination of two or more combined coconut/metallic fibre rods and tying it a round the shell's periphery with the binding wire,

   E) tying four non-skid rubber pads to the base of the belly and pasting four anti-slip rubber pieces on said anti-skid pads with an adhesive,

   F) interconnecing the shell and the belly by tying them together with the binding wire, followed by a final finishing step.

3. A combined door stop and boot mat as claimed in Claim 1 wherein the metallic fibre rods are made of Aluminium, Steel or any other metallic material.

4. Method of manufacturing a combined door stop and boot mat as claimed in Claim 2 where the metallic fibre rods are made out of Aluminum, Steel or any other metallic material.

5. A combined door stop and boot mat as claimed in Claim 1, 3, or 4 where the belly component is made out of jute hessin.

6. A combined door stop and boot mat as claimed in claim 1 or the method of claim 2 where the fibre component made may be dyed in different colours.

Patentansprüche

1. Kombination eines schildkrötenförmigen Antirutsch-Türfeststellers und Fußabtreters, der Komponenten enthält, die bestehen aus Kokosfaserstücken, welche um metallische galvanisierte Drahtfaserstäbe herum gedreht sind, aus Gummimatten und aus Bindedraht oder Kokosgarn und/oder Jute und/oder Nylongam, wobei die Komponenten mit dem Bindedraht verbunden werden, um die Gestalt einer Schildkröte anzunehmen, wobei der kombinierte Türfeststeller/Fußabtreter eine Konstruktion darstellt, welche in sich die Schale und die Bauchseite vereint, die in einem Muster gewebt sind, das ähnlich ist wie dasjenige einer Cadjanoder einer Binsenmatte, und weiter vier Beine, einen Kopf, einen Schwanz, während dem Rutschen entgegenwirkende Matten aus Gummioder Nylonoder Kunststoff auf der äußeren Fläche der Bauchseite vorgesehen sind.

2. Verfahren zur Herstellung eines kombinierten schildkrötenförmigen Türfeststellers und Fußabtreters, der hergestellt wird aus Kokosfaserstücken, aus metallischen Drahtfaserstäben, aus Matten aus Gummi- oder Nylon- oder Kunststoff sowie aus Bindedraht oder aus Kokosgarn und/oder Jute und/oder Nylongarn, wobei das Verfahren folgende Schritte mit umfasst:

   A) das Herstellen der die schildkrötenförmige Kombination darstellenden Teile der Schale, der Bauchseite, des Kopfes, der Beine und des Schwanzes aus Kokosfaserstücken, welche um die metallischen Drahtfaserstäbe herum gedreht sind, wobei die Schale und die Bauchseite getrennt auf eine ähnliche Weise gewebt werden wie die Art des Webens der Cadjanoder der Binsenmatten unter Verwendung der kombinierten Kokosnuss-/Metallfaserstäbe, die auf die erforderliche Größe und Gestalt geschnitten und gebogen worden sind,

   B) das Schneiden der kombinierten Kokosnuss-/Metallfaserstäbe auf die geeigneten Größen und ihr Verformen, um den Kopf, die Beine und den Schwanz zu erhalten,

   C) das Festbinden des Kopfes, der Beine und des Schwanzes an der Schale mit dem Bindedraht,

   D) das Bereitstellen eines Kantenstabes, der eine Kombination aus zwei oder aus mehr kombinierten Kokosnuss-/Metallfaserstäben ist, und dessen Befestigung um die Peripherie der Schale herum mit Hilfe des Bindedrahtes,

   E) das Befestigen von vier nicht rutschenden Gummimatten an dem Boden der Bauchseite und das Ankleben von vier nicht rutschenden Gummistücken an den nicht rutschenden Matten mit einem Klebemittel,

   F) das Verbinden unter einander der Schale und der Bauchseite, indem man dieselben mit dem Bindedraht zusammenbindet, gefolgt von einer abschließenden Endbearbeitung.

3. Kombinierter Türfeststeller und Fußabtreter gemäß Anspruch 1, bei dem die metallischen Faserstäbe aus Aluminium, aus Stahl oder aus irgendeinem anderen metallischen Material hergestellt sind.

4. Verfahren zur Herstellung eines kombinierten Türfeststellers und Fußabtreters gemäß Anspruch 2, bei dem die metallischen Faserstäbe aus Aluminium, aus Stahl oder aus irgendeinem anderen metallischen Material hergestellt sind.

5. Kombinierter Türfeststeller und Fußabtreter gemäß Anspruch 1, 3 oder 4, bei dem die Komponente der Bauchseite aus einem Jutegewebe hergestellt ist.

6. Kombinierter Türfeststeller und Fußabtreter gemäß Anspruch 1 oder Verfahren gemäß Anspruch 2, bei denen die Faserkomponente in unterschiedlichen Farben gefärbt sein kann.

Revendications

1. Combinaison antidérapante d'un arrêt de porte et d'un paillasson en forme de tortue et comprenant des composants constitués de tiges de fibres de noix de coco torsadées autour de tiges de fibres métalliques de fil galvanisés, des patins en caoutchouc et du fil de ligature, ou de fil de coco et/ou de jute et/ou de fil de nylon, les composants étant ligaturés avec le fil de ligature pour leur conférer la forme d'une tortue, la combinaison de l'arrêt de porte /du paillasson ayant une construction englobant une partie de carapace et une partie ventrale tissées dans un motif similaire à celui d'un paillasson de cadjan ou de jonc, quatre pattes, une tête, une queue, des patins antidérapants composés de caoutchouc, de nylon ou de plastique étant agencés sur l'extérieur de la partie ventrale.

2. Procédé de fabrication d'une combinaison d'un arrêt de porte et d'un paillasson en forme de tortue composée de tiges de fibres de noix de coco, de tiges de fibres métalliques, de patins composés de caoutchouc, de nylon ou de plastique et de fil de ligature ou de fil de coco et/ou de jute et/ou de fil de nylon, le procédé comprenant les étapes ci-des-

sous:

A) fabrication des parties de carapace, ventrale, de tête, des pattes et de la queue de la combinaison en forme de tortue, composée de tiges de fibres de noix de coco torsadées autour de tiges de fibres métalliques, la partie de carapace et la partie ventrale étant tissées séparément de manière similaire au tissage d'un paillasson de cadjan ou de jonc, par l'intermédiaire de tiges de fibres de noix de coco/métalliques combinées coupées aux dimensions et à la forme appropriées et pliées,

B) découpage des tiges de fibres de noix de coco/métalliques combinées aux dimensions requises et formage correspondant pour former la tête, les pattes et la queue,

C) ligature de la tête, des pattes et de la queue sur la carapace par le fil de ligature,

D) fourniture d'une tige de bordure composée d'une combinaison de deux ou de plusieurs tiges de fibres de noix de coco/métalliques et ligature correspondante autour de la périphérie de la carapace avec le fil de ligature,

E) ligature de quatre patins de caoutchouc antidérapants sur la base de la partie ventrale et collage de quatre pièces de caoutchouc antidérapantes sur lesdits patins antidérapants avec un adhésif,

F) interconnexion de la partie de carapace et de la partie ventrale par assemblage par ligature avec le fil de ligature, avant une étape de finition finale.

3. Combinaison d'un arrêt de porte et d'un paillasson selon la revendication 1, dans lequel les tiges de fibres métalliques sont composées d'aluminium, d'acier ou d'un quelconque autre matériau métallique.

4. Procédé de fabrication d'une combinaison d'un arrêt de porte et d'un paillasson selon la revendication 2, dans lequel les tiges de fibres métalliques sont composées d'aluminium, d'acier ou d'un quelconque autre matériau métallique.

5. Combinaison d'un arrêt de porte et d'un paillasson selon la revendication 1, 3 ou 4, dont le composant formant partie ventrale est composé de toile de jute.

6. Combinaison d'un arrêt de porte et d'un paillasson selon la revendication 1 ou procédé selon la revendication 2, dans lesquels les composants de fibres peuvent être teintés dans différentes couleurs.

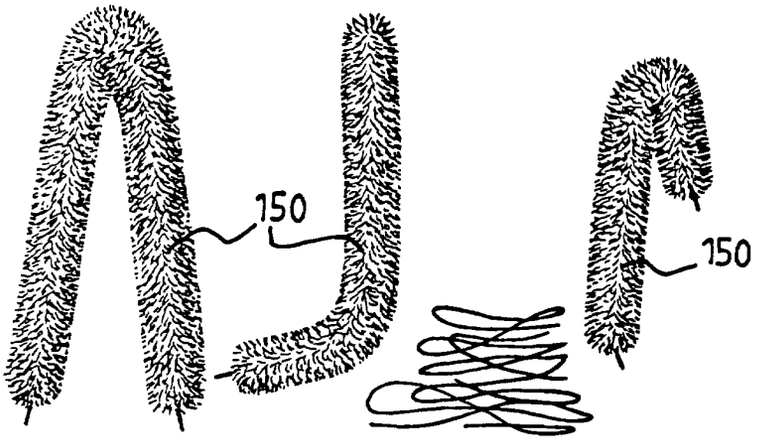

FIG.1

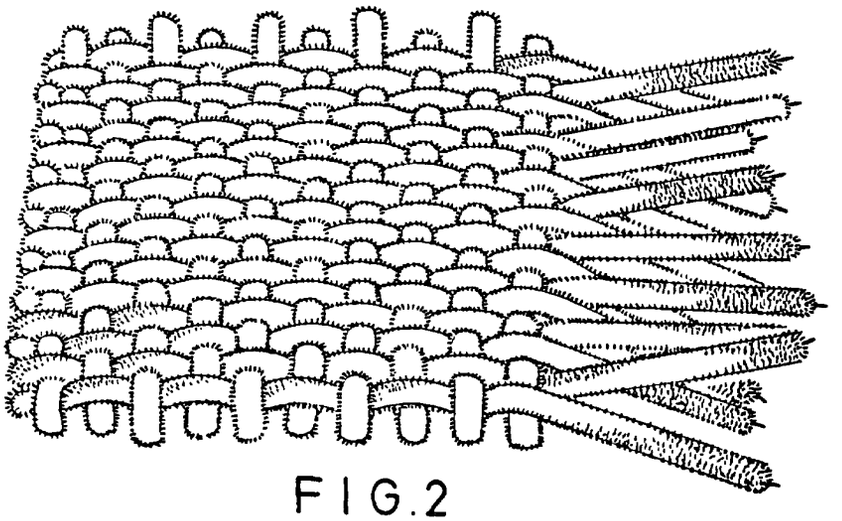

FIG.2

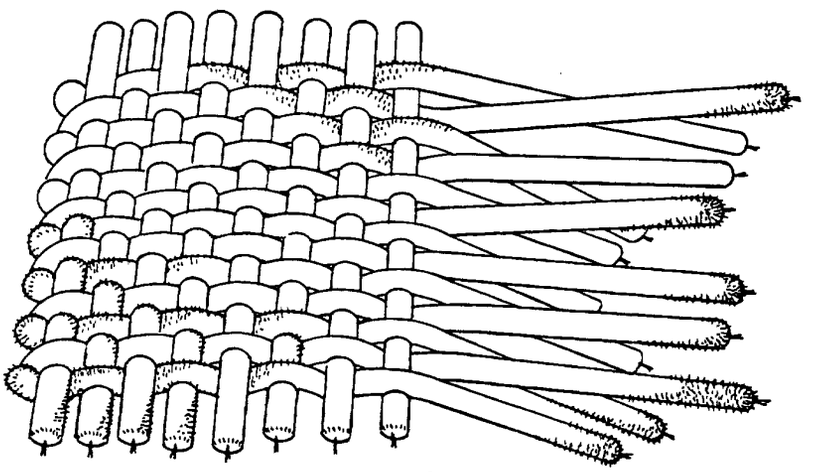

FIG.3

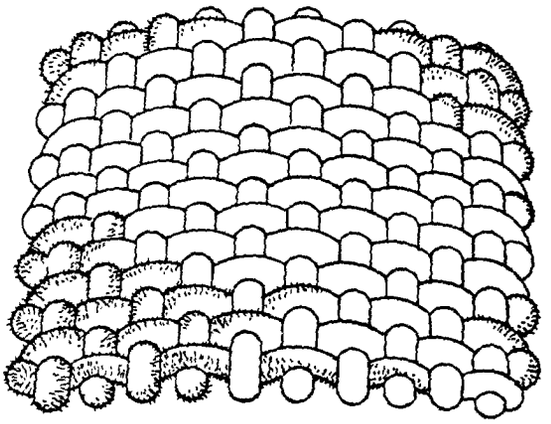

FIG.4

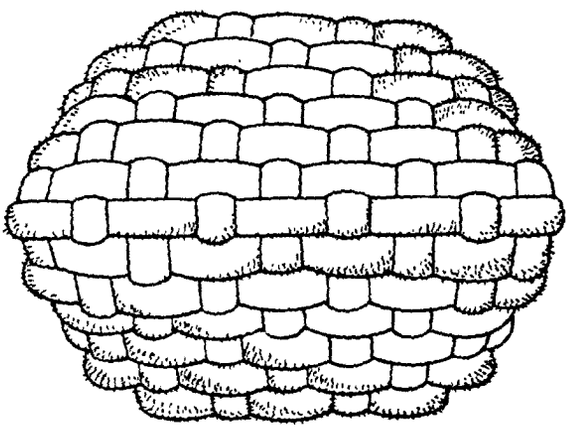

FIG.5

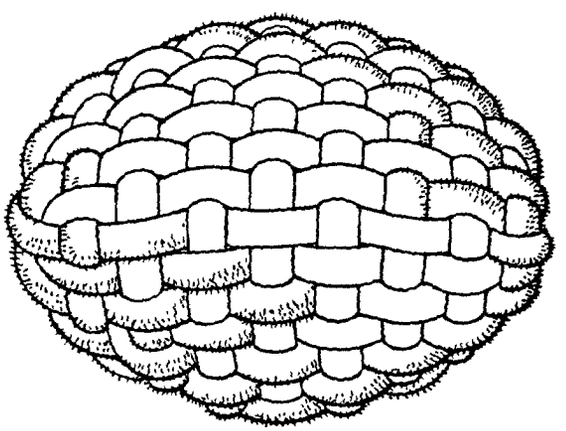

FIG.6

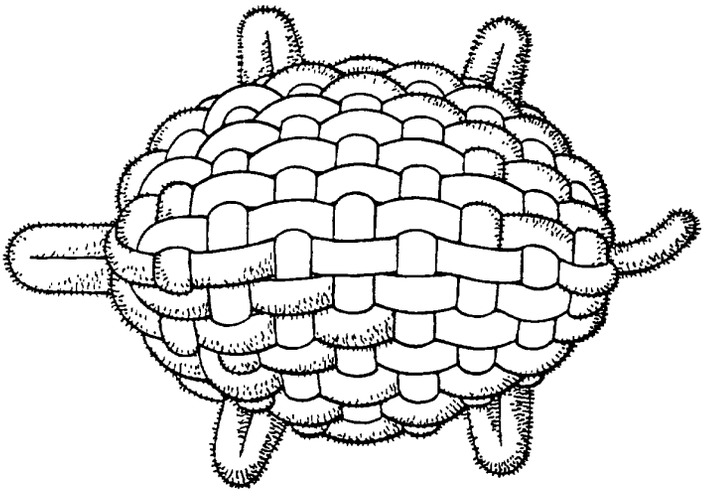

FIG.7

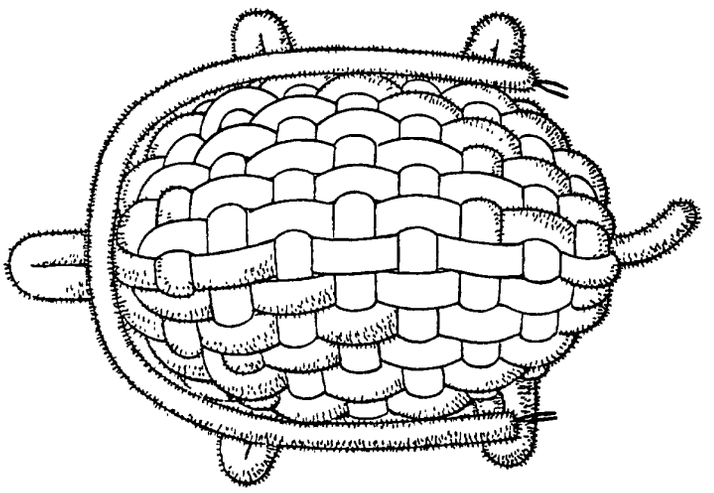

FIG.8

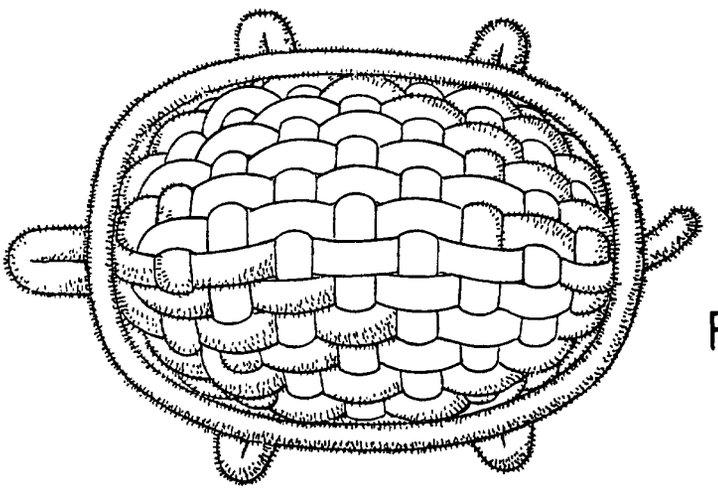

FIG.9

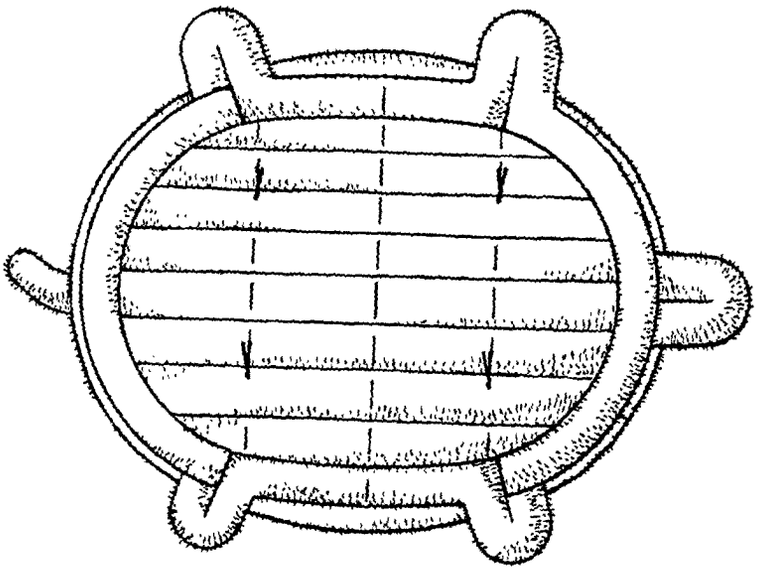

FIG.10

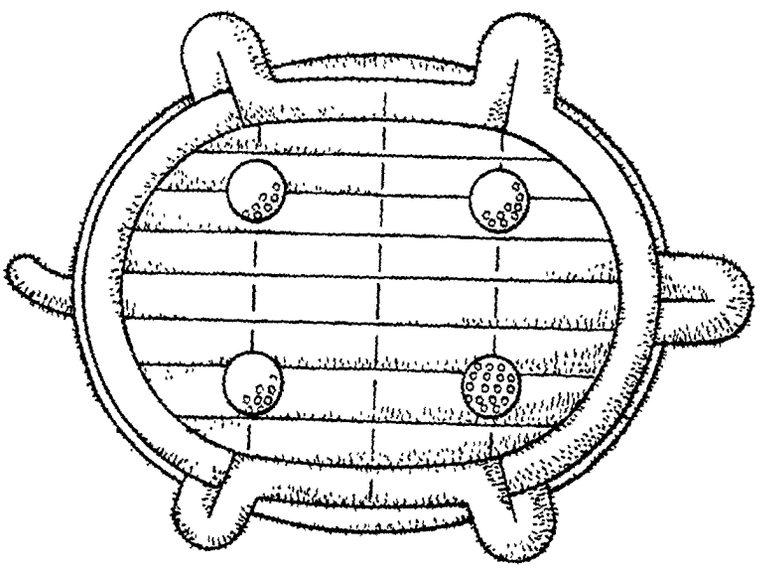

FIG.11

MATERIAL (RODS) SPECIFICATION-TURTLE

FIBRE - UNBLEACHED COCO
TWISTING WIRE - LOCAL GALVANISED IRON (G1)

TYPE	WEIGHT OF FIBRE / ROD (G)	TWISTING WIRE				TRIMMED ROD		NUMBER OF RODS USED
		LENGTH MM	WEIGHT GRMS	DIAMTR MM	LENGTH CM	WEIGHT GRMS	DIAMTR MM	
LARGE	33 22 35-40	1150 750 880	18 12 18	1.6 1.6 1.8	47 30 31	38 22 34	21 21 28	32 18 1
SMALL	33 22 35-38	1150 750 860	18 12 16	1.6 1.6 1.8	47 30 30	38 22 33	21 21 28	26 13 1

TOLERANCE - +10%

FIG.12

PRODUCT SPECIFICATIONS

	HEAD			LEG			TAIL			NON-SKID PAD ARRG.			OVERALL			
TYPE	LENGTH CM	WIDTH CM	ROD DIA MM	LENGTH CM	WIDTH CM	ROD DIA MM	AVERAGE LENGTH CM	ANGLE TO THE SHELL DEG	ROD DIA MM	MAXIMUM DIAMETER CM	THICKNESS MM	WEIGHT Grms	LENGTH CM	WIDTH CM	HEIGHT CM	WEIGHT Grms
LARGE	7	5	28	4	3·5	21	3·5	45	21	4·5	8	20	40	29	12	770
SMALL	5	5	28	3·5	3·5	21	3	45	21	4·5	8	20	34·5	24	10	580

FIG.13

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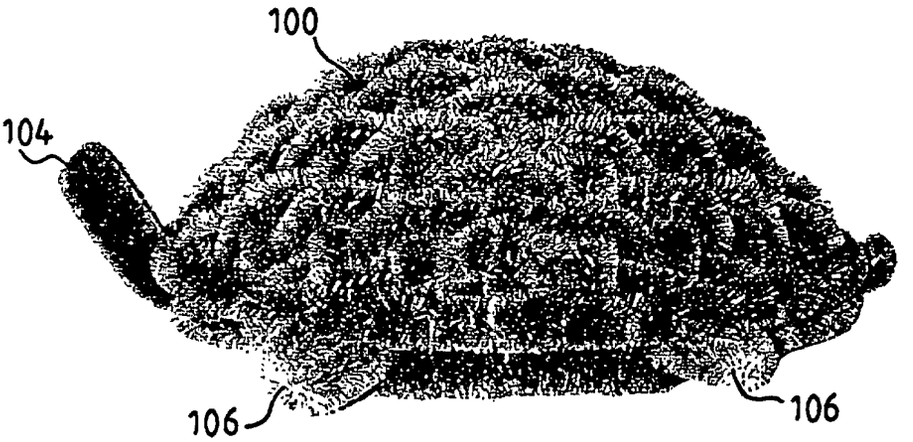

FIG.14

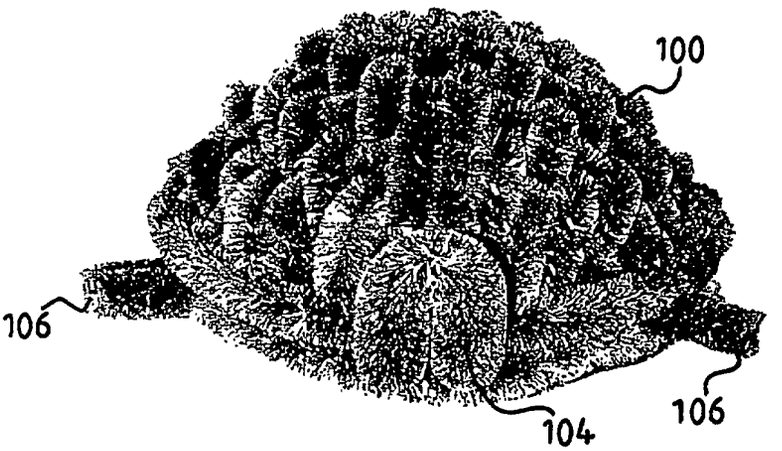

FIG.15

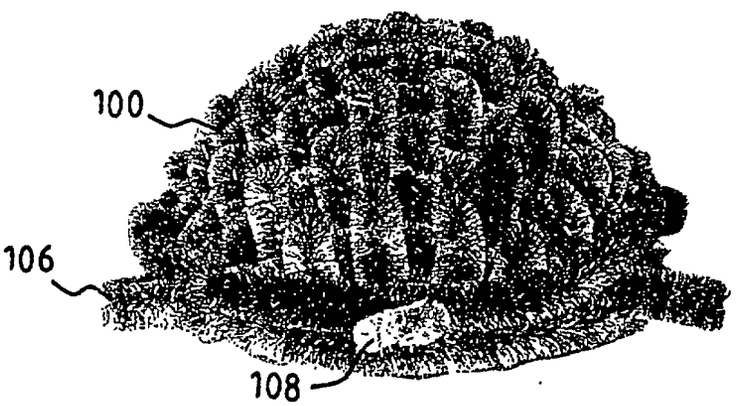

FIG.16

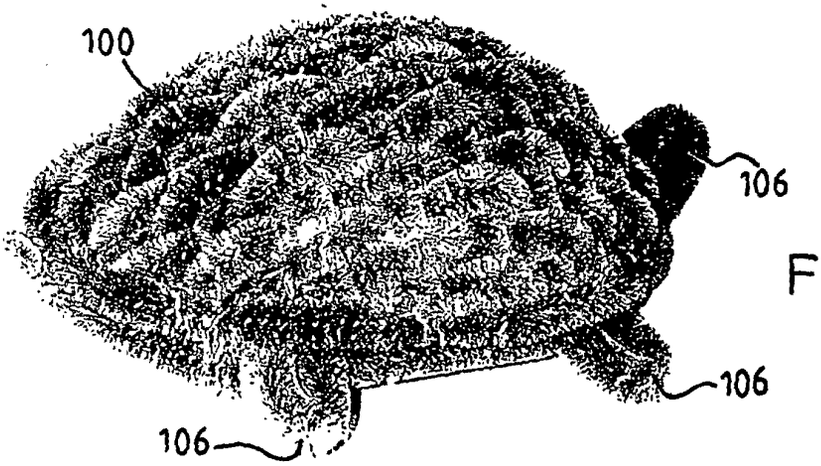

FIG.17

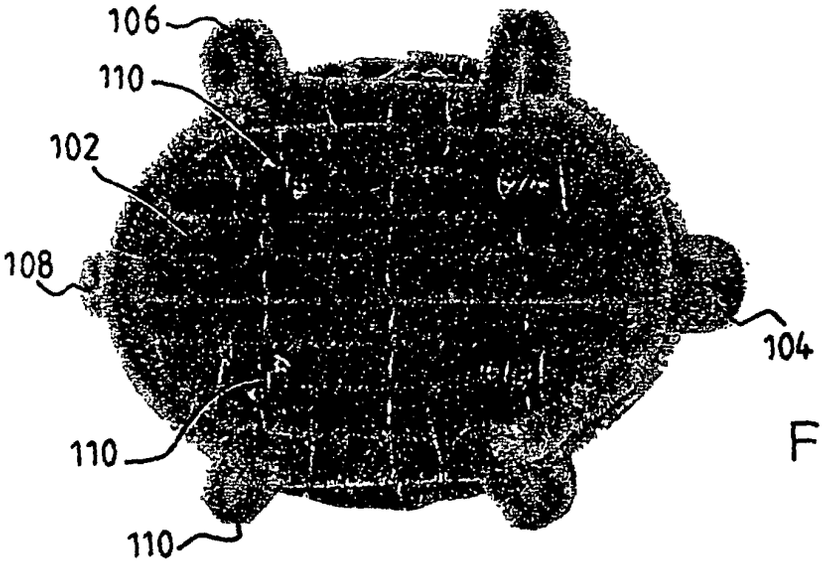

FIG.18

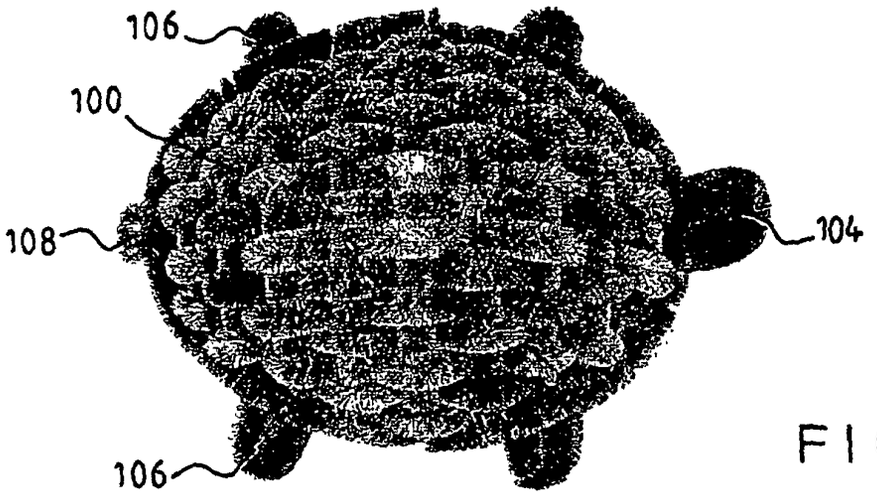

FIG.19