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(54) **Garment hanger.**

(57) A garment hanger having body form is provided in which a moulded half shell body form (1) representing a male or female torso or a part thereof receives a wire or similar outer frame (2) shaped to fit closely about outer formation (10) of the body form (1). For use with or without the body form (1) the frame (2) has a detachable retentive snap engagement with re-entrant portions (6) formed in the body form (1). A hook assembly (3, 4) is shown of two part construction in which a moulded block (3) is recessed at (30) to receive adjacent ends (20) of the frame (2) which are retained therein by the hook part (4). The arrangement is such that rotation of the hook (4) relative to the frame (2) is prevented. The body form (1) includes a peripheral flange (7) for location of the frame (2) about the body form (1).

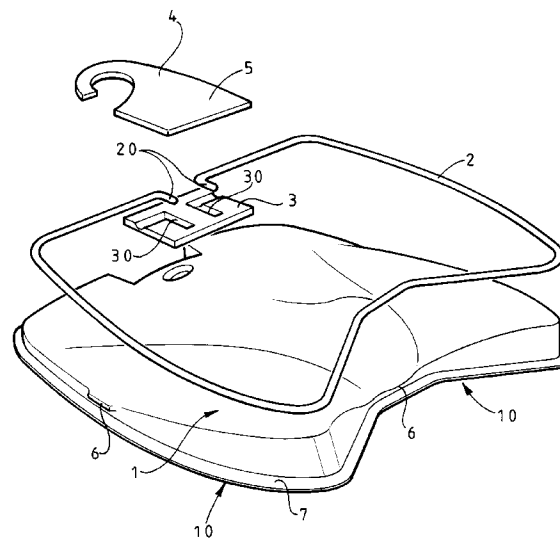


FIG 1

The invention relates to garment hangers for the storage and display of swimming costumes and the like in retail premises.

It has long been appreciated that swimming costumes, for example, can be displayed to their best advantage in retail premises by being mounted on moulded body forms which are contoured and shaped to represent a male or female torso.

Conventionally, those body forms are vacuum formed half-shells of thermoplastic sheet material, representing the contours of the front half only of the torso. Such moulded body shells have generally been made with an integral hook portion to provide the hanging function.

One major disadvantage of such body form garment hangers is that they occupy a large amount of rack space, because of the contouring of each body form hanger. Another disadvantage is that the integrally moulded hook portions are prone to damage, so that the body form garment hangers have a limited life.

The inefficient utilisation of display rail space can be compensated by hanging only one body form garment hanger on each display rail, with the intention that that particular swimming costume remains on display and any sales that are made are of packaged costumes stored nearby. This is not, however, an efficient way of displaying and serving the merchandise, and it is generally not followed in practice. In any case, such a sales practice makes even less satisfactory use of the available rack space than would the hanging of several swimming costumes on body form garment hangers, one in front of the other on the same rack.

According to the invention a garment hanger having a body form is characterised in this that a moulded body form e.g. of half-shell formation, is provided representing a male or female torso or a part thereof, together with an outer frame of wire or like elongate material shaped to fit closely about outer formation of the moulded body form for detachable retentive engagement therewith, said wire or like outer frame being provided with a hook for hanging it either with or without a moulded body form retained thereon. The outer edge formation of the moulded body form may have re-entrant portions formed therein to detachably retain it on the wire or like outer frame with a snap engagement. The wire is preferably plastic coated or may be made of plastics material, or elongate material may be employed e.g. of plastics strip material shaped such as by moulding to the required torso outline.

The hook of the wire outer frame may be formed as a bent portion of the wire of the frame itself, but is preferably a moulded plastics hook which also serves as an anchorage for the opposite ends of the piece of wire from which the wire outer frame has been formed. Such a moulded plastics hook may conveniently be formed in two parts, which can be assembled over the bent wire outer frame by means of integral clip portions, by adhesive, by welding (such as ultrasonic welding) or by any combination of fixing methods. It is even possible for the wire outer frame to be formed, and an injection moulded hook to be moulded in one piece directly onto the juxtaposed ends of the piece of wire from which the frame has been bent.

One advantage of the use of an injection moulded hook as opposed to a wire hook formed integrally with the remainder of the wire outer frame is that it provides a vehicle for the display of advertising or pricing information.

The body form can be a simple moulded half-shell form of a male or female torso or of a part thereof, and its ease of manufacture and its durability are both considerably improved by the avoidance of all need to mould an integral hook portion. The half-shell form can be made by vacuum moulding from a single sheet of thermoplastic material, such as 750µm polyvinylchloride, which may be either clear translucent or opaque. To display a male swimming costume (or similar goods such as briefs) the half-shell form is preferably of the male torso below the waist and down to the top of the legs. To display a female swimming costume, or alternatively a male vest and briefs, the half-shell form is preferably of the complete torso. The re-entrant portions moulded in the half-shell form are preferably at the hips and between the legs of a half torso, or below the arms and between the legs in the case of a full torso. Location of the re-entrant portions in this way has the advantage that if the retail outlet wishes to place a garment on the moulded half-shell body form and then place the wire outer frame over the top of the garment, then the wire outer frame tends to retain the garment in the optimum display position on the body form, and makes it relatively difficult for a purchaser or potential purchaser to remove the garment for examination prior to sale. This is of particular importance in view of the way in which it is envisaged that the garment hanger and body form of the invention will be used.

In use, it is envisaged that a specimen garment for display will be arranged on a moulded half-shell form supported by a wire outer frame (the garment passing either over or under the wire frame as indicated above) and that garment will be placed at the front of a display rack as a point-of-sale display. The main selling stock of identical garments will then be mounted on identical wire outer frames, but without the moulded half-shell body forms, and those garments will be hung on the display rack behind the front display item. The purchasing public will then see the front garment displayed to its best advantage, but will as a natural course take one of the identical and quite similarly displayed garments from behind when selecting their purchase. The advantages to the retailer are threefold. When the sales assistant takes the garment from the wire frame hanger

after selection by the customer, the risk of damage to the hanger is minimal, as compared with the risk of damage to a moulded half-shell body form with integral hook but no wire outer frame as in the prior art. The storage capacity of a single garment rack is very substantially increased, because only the front garment is on a three-dimensional form. All of the garments hanging on the wire outer frames behind that front moulded body form are on two dimensional frames only, which takes up very considerably less rack length. It will therefore be possible for retailers in general to have the whole of their stock on display, rather than having to have a separate store of garments in drawers or boxes beside the point of sale display. Finally, the cost advantage is very significant. Only the front garment hanger and body form on each display rack need include the moulded half-shell form which is by far the most expensive part of the combination. Therefore the costs associated with having every garment offered for sale on its own garment hanger are substantially reduced over the prior art discussed above.

Preferably a moulded half-shell female form includes recessed edge portions to help locate the shoulder and back straps of a bikini top, and the location and display of a swimming costume, particularly a bikini, is improved further by forming those particular portions of the outer edge of the moulded half-shell body form as a toothed or corrugated edge, the better to grip the appropriate strap portions.

A practical embodiment of the invention is shown by way of example in the accompanying drawings in which:-

Figure 1 is an exploded view of a garment hanger and body form of the invention, for displaying male briefs or a male swimming costume; and

Figure 2 is a schematic outline of a corresponding wire outer frame for a female garment hanger and body form according to the invention.

Referring firstly to Figure 1, the garment hanger and body form of the invention comprises a moulded half-shell form 1 which is a contoured representation of a male lower torso from the waist to the tops of the legs. An outer frame 2 of metal wire or other suitable elongate material is shaped to detachably fit closely around the outer edge 10 of the body form 1, and is formed from a single length of shaped wire, the adjacent ends of which are, in use, retained in a flat block 3 of moulded polystyrene. It can be seen from Figure 1 that recessed portions 30 are moulded into the block 3 to receive the correspondingly shaped ends 20 of the wire frame 2. The ends 20 are retained fast in the moulded block 3 by securing a moulded hook 4 in face to face contact with the flat block 3. The hook 4, also moulded from polystyrene, includes an area 5 for use as a graphics base. The shaping of the ends 20 of the wire frame 2 and the recesses 30 ensure that the block 3 and hook 4 cannot rotate relative to the frame 2 as the hanger is used. The arrangement also provides a secure anchorage for the ends 20 of the wire frame 2 in the block 3. If desired a hook member may be moulded about an upper part or adjacent ends 20 of the wire frame 2.

The wire frame 2 in use receives the body form 1 with a detachable snap engagement by means of three undercut portions 6 (only two of which are visible in Figure 1) of the body form at the hips and crotch. The re-entrant portions 6 overhang the wire frame 2 to hold it firmly against an outwardly directed peripheral locating flange 7 of the body form 1. Especially for use alone the wire outer frame 2 is substantially rigid but with sufficient inherent resilience for obtaining a required snap engagement.

The garment hanger and body form is supplied in two parts, either assembled or disassembled. The first part is the moulded body form 1, and the second part is the wire outer frame 2 and hook 3, 4. A retailer will receive substantially more of the wire frames 2 with hook assemblies 3, 4 than of the moulded body forms 1. A garment (in this case mens trunks) is placed on the body form 1, either over or under the wire outer frame 2. This displays the garment to its best advantage in a point of sale display, hanging from a garment rack. Behind the front displayed garment, a number of identical garments can be mounted on wire frames only of the combination of the invention, thus enabling more garments to be placed on a given rack than if each frame 2 had its own moulded body form 1. Also the risk of damage to these hangers is much less, since the wire frame 2 is much more robust than the moulded body form 1.

Figure 2 schematically shows the general outline shape of a wire or like outer frame 22 for a corresponding female full torso body form and having wire ends 20.

Claims

1 A garment hanger having a body form characterised in this that a moulded body form (1), e.g. of half-shell formation, is provided representing a male or female torso or a part thereof, together with an outer frame (2 or 22) of wire or like elongate material shaped to fit closely about outer formation (10) of the moulded body form (1) for detachable retentive engagement (6) therewith, said wire or like outer frame (2 or 22) being provided with a hook (4) for hanging it either with or without a moulded body form (1) retained thereon.

2 A garment hanger having a body form according to claim 1 wherein the outer edge formation (10) of the moulded body form (1) has re-entrant portions (6) formed therein to detachably retain it on the wire or like outer frame (2 or 22) with a snap engagement.

5 **3** A garment hanger having a body form according to claim 1 or 2 wherein the moulded body form (1) has peripheral formation or flanging (7) for location of the wire or like outer frame (2 or 22) thereabout.

4 A garment hanger having a body form according to claim 1, 2 or 3 wherein a hook member or hook assembly (3, 4) retentively receives an upper part (20) of the wire or like outer frame (2 or 22).

10 **5** A garment hanger having a body form according to claim 4, wherein said upper part (20) of the outer frame (2 or 22) comprises adjacent ends (20) of a length of wire or like elongate material shaped to form the outer frame (2 or 22).

6 A garment hanger having a body form according to claim 4 or 5 wherein the hook member or hook assembly (3, 4) includes recessed formation for retentively receiving said upper part or adjacent ends (20) of the outer frame (2 or 22).

15 **7** A garment hanger having a body form according to any of claims 4 to 6 wherein the hook assembly (3, 4) is of two part construction fastened together about said upper part or adjacent ends (20) of the outer frame (2 or 22).

8 A garment hanger having a body form according to claim 7 wherein the fastening of the two part construction of the hook assembly (3, 4) is by adhesion, welding and/or by interlocking engagement of the two parts.

20 **9** A garment hanger having a body form according to any of claims 4 to 8 wherein the hook member or hook assembly (3, 4) or a part thereof receives said part or adjacent ends (20) of the outer frame (2 or 22) whereby rotation of the hook member (4) or assembly (3, 4) relative to the outer frame (2) is prevented.

10 A garment hanger having a body form according to any of claims 4 to 9 wherein the hook member or hook assembly (3, 4) or at least a part thereof is of moulded plastics or like form.

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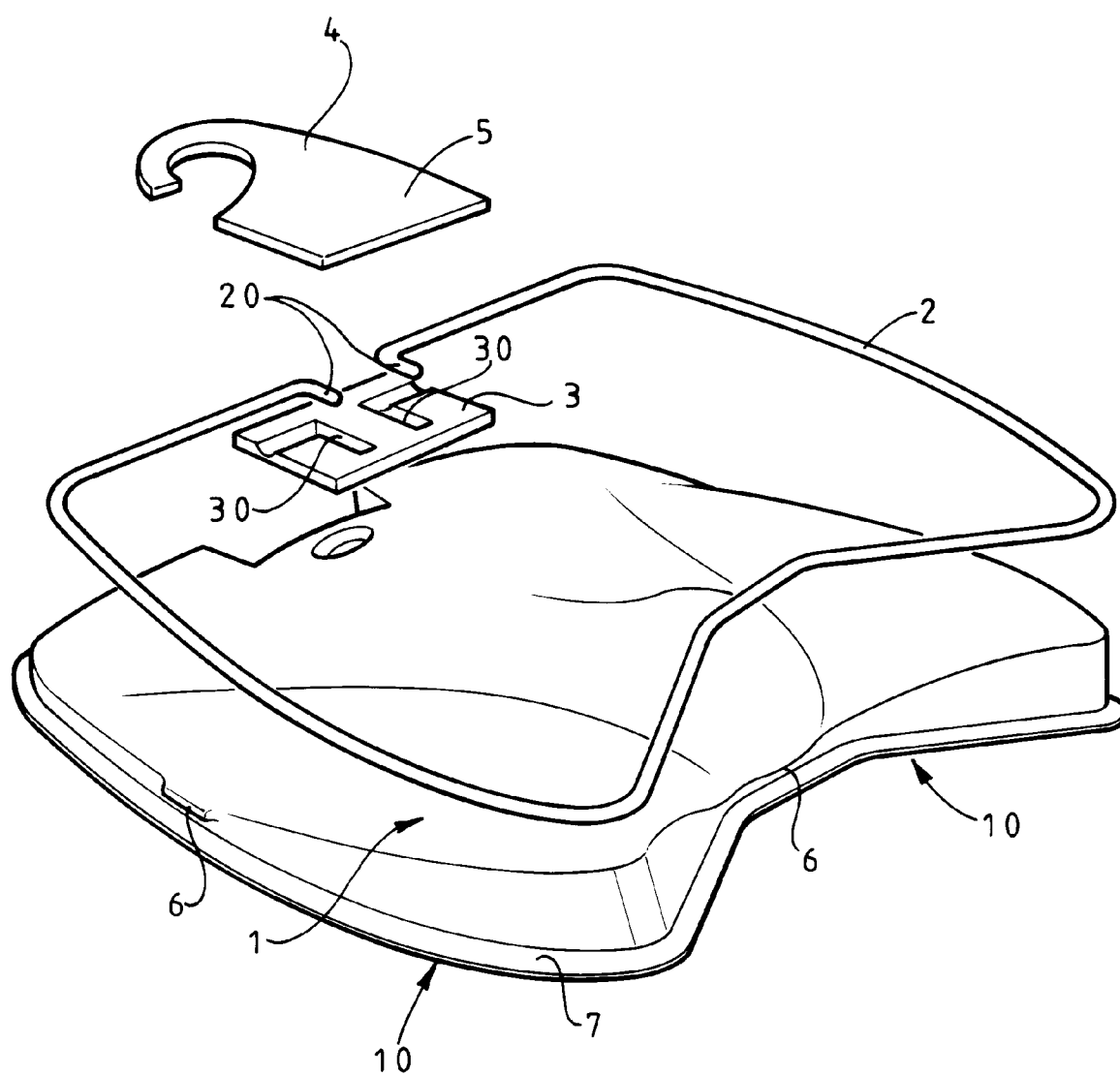


FIG 1

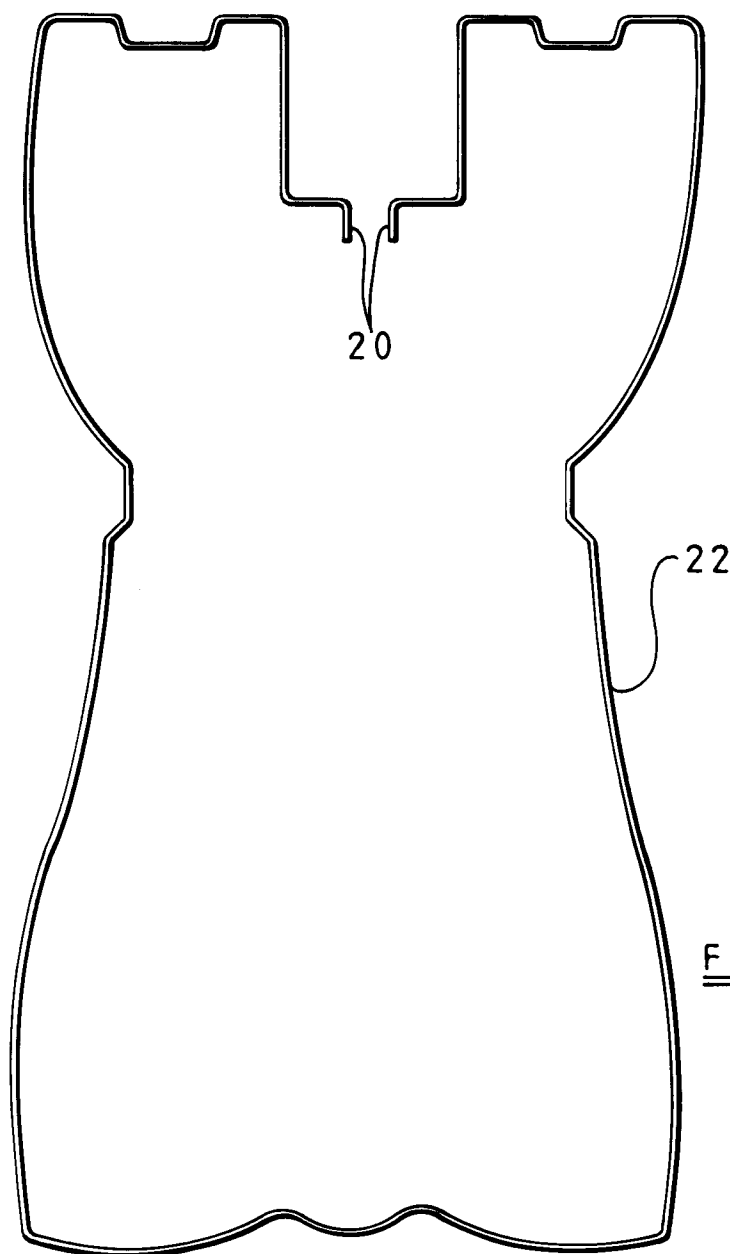


FIG 2



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 93 30 7884

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.5)
A	US-A-4 739 911 (QUINN) * abstract; figures 1-3 * ---	1,4	A47F7/19 A47F5/00
A	US-A-2 766 916 (MONROE JANG) * column 1, line 65 - column 2, line 35; figures 1-4 * ---	1	
A	US-A-3 289 339 (ROUDER) * column 1, line 50 - column 2, line 25; figures 1-3 * ---	1	
A	FR-A-1 076 564 (WINCKEL) * column 1, last paragraph - column 2, paragraph 1; figure 1 * -----	1	
			TECHNICAL FIELDS SEARCHED (Int.Cl.5)
			A47F
The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
THE HAGUE		12 January 1994	JONES, C
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			

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