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Garment Hangers

The present invention relates generally to inexpensive plastic ship-on or garment display hangers, of the type exemplified by the hanger of U.S. Patent 4,148,421, and more particularly to improvements in the garment-engaging grips of these type of hangers.

As understood, the garment-gripping structure of a typical throw-away or ship-on hanger includes a finger which is pushed slightly away from a gripping wall or surface as the garment is inserted in a slot bounded by said finger and wall. The garment gripped or supported on the hanger is then shipped to a retailer who conveniently, i.e. without extensive handling, hangs the product on a rod or other support of a display. It frequently inadvertently happens, however, that the finger portion of the grip which, as noted, is pushed slightly to one side, ruptures or breaks at its connection to the hanger because of stress which develops in the plastic construction material of the hanger.

Broadly, it is an object of the present invention to obviate or reduce the risk of breakage of the finger grip of a plastic garment hanger.

In accordance with the invention, there is provided a garment hanger of moulded plastics construction having a plurality of garment engaging grips, each grip being formed by a relatively rigid wall portion of the

hanger and a resilient finger spaced from the wall portion to define a garment receiving slot open at one of its ends, the finger being connected adjacent the open end of the slot to one end of a support leg whose other end is
5 connected to the main body of the hanger, so that the finger is positioned between and spaced from the said wall portion on the one hand and the support leg on the other, and wherein the finger is formed on one side with a garment engaging bump projecting towards the said wall
10 portion.

Features and advantages of the present invention, will be more fully appreciated by reference to the following detailed description of a presently preferred, but nonetheless illustrative embodiment in accordance with
15 the present invention, when taken in conjunction with the accompanying drawings, wherein:

Figs. 1 and 2 are plan views of prior art plastic hangers used for the same commercial purposes as the hanger of the present invention;

20 Fig. 3 is a plan view of an improved garment hanger according to the present invention in which, more particularly, the improvements reside in a first embodiment of garment grips which are significantly less susceptible to breakage than the grips of the hangers of Figs. 1 and 2;

25 Fig. 4 is a side elevational view, in section taken along line 4-4 of Fig. 3;

Fig. 5 is a front elevational view demonstrating the functioning of the within inventive garment grip; and

30 Figs. 6 and 6a are enlarged scale illustrations of the grip encircled by the reference line 6 of Fig. 5 and demonstrate, by progressive examination, the functioning of the grip.

As understood, there are numerous embodiments of inexpensive plastic injection moulded hangers to which
35 garments are attached at the factory or other manufacturing

site and shipped to the retailer, who then can conveniently transfer the same to his display racks. The hangers referred to are typically known as "ship-on" hangers and afford the obvious convenience to the retailer of having the garment being sold in a display position on a hanger which, in turn, can readily be placed on a support rod of a display rack with little or no handling. Moreover, the hanger is so inexpensive that it is feasible to discard it, if the customer so chooses, when the purchase is completed, the hanger having achieved its primary function of advantageously displaying the garment so as to contribute to the sale thereof.

The economic need for a ship-on plastic hanger, as just generally described, has thus resulted in numerous variations which differ from each other as to specific structural features which, as exemplified by the prior art hanger of Fig. 1, have certain basic or characterizing structural features. More particularly, in the typical prior art hanger, such as the one illustrated in Fig. 1 and intended to be the hanger of prior U.S. Patent 4,148,421 and generally designated 10' in said figure, the said hanger includes, as is well understood, a flat plastic body 12' which has integrally moulded garment-engaging grips 14' at strategic locations thereabouts, all as illustrated in Fig. 1. Further as is generally understood, each garment grip 14' includes a finger 16' in an location adjacent and opposite a wall surface 18' that is part of the plastic hanger body. As a result, there is formed between the finger 16' and wall 18' a slot 20' to receive therebetween a waistband or other part of a garment that is intended to be supported on the hanger 10'.

In referring to the prior art hanger 10' of Fig. 1, it is significant to note that in inserting the garment into the clearance 22' of the finger grip 14',

finger 16' will be urged in the direction of 24' in order to make allowance for the bulk of the garment waist-band or the like that is inserted into the slot or compartment portion 22' of said slot. Finger 16' remains
5 in this slightly angular position and, in practice, it has been found that, as a result thereof, stress concentrations occur in the plastics material of the hanger 10', which ultimately results in rupture of the finger 16'. This rupture, more particularly, occurs at the connecting
10 juncture of the finger 16' with the hanger body 12' at 26'.

There have, of course, been numerous attempts to obviate the rupturing of the garment-gripping fingers of the hanger at their juncture with the plastics hanger body, as above explained. For example, in another model
15 of a prior art hanger 10", as illustrated in Fig. 2, the finger 16" is comprised essentially as a reinforced edge or rib, similar, for example, to the peripheral ribs 28" which traditionally and effectively serve to increase the structural strength of the hanger body 12". This type of
20 solution, while somewhat effective, does not totally obviate the problem. In practice, even on the prior art hanger 10" of Fig. 2 it has been found that finger 16" of the integrally moulded grip 14" still ruptures at the location 26" when a garment waistband or the like is
25 inserted into the slot 20" incident to being gripped on opposite sides by the finger 16" and the garment-gripping wall surface 18".

An effective solution which obviates rupturing in a garment-gripping finger is illustrated in the ship-on
30 garment hanger illustrated more particularly in Figs. 3 - 5 and the detailed views Figs. 6 and 6a projected therefrom, which now will be explained in sufficient detail for a complete comprehension of the present invention. More particularly, the hanger 10 illustrated
35 therein embodies in many respects the conventional

structural features of the prior art hangers of Figs. 1 and 2 already described. Thus, for the sake of brevity, the conventional structural features embodied by the improved garment hanger of Figs. 3 - 5 will not again be described, it being sufficient that these structural features are designated by the same, but unprimed, reference numerals used in connection with the descriptions of the hangers of Figs. 1 and 2. What distinguishes the inventive hanger 10 are structural features embodied in the garment-engaging grips 14, which will now be described in detail and which consist of those structural features starting with reference numeral 30. More particularly, and as clearly illustrated in Fig. 3, each finger grip 14 includes a finger 16 in a position adjacent but spaced from a garment-gripping wall 18 so as to bound therebetween a slot 20 for the insertion of a garment waistband or the like therein. However, finger 16 is attached to the garment body 12 through the intermediary of a support leg 30, generally parallel with the finger 16 and wall position 18, the finger being connected to the leg 30 adjacent the open end of the slot 20. The importance of this is that finger 16 can then be integrally moulded with an additional clearance space 32 behind said finger, as well as with a clearance space 20 between it and the garment-engaging wall 18. Thus, each finger grip 14 embodied in the inventive hanger 10, being three in number at each end of the hanger as clearly illustrated in Fig. 3, has provision for a clearance space 32 on one side of the finger 16 as well as the usual clearance space 20 on the opposite side thereof. The provision of the clearance space 32 in the location just noted contributes significantly to the manner in which each garment grip 14 functions, all as will now be explained in detail and as best can be understood by progressive examination of Figs. 6 and 6a.

More particularly, as illustrated in Figs. 6

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and 6a, a garment waistband 34 is typically inserted into the slot 20 of finger grip 14 and this, of course, results in a slight angular movement in both the finger 16 and support leg 30 away from the wall surface 18, such movement, of course, being necessary to allow for the bulk of the garment waistband being inserted into the slot 20. Instead of remaining in the angular orientation illustrated in Fig. 6, however, the garment grip 14 assumes the condition illustrated more particularly in Fig. 6a. That condition, more particularly, is one in which the finger 16 remains in gripping contact with the garment waistband 34 but said finger 16 makes sufficient allowance for the bulk of the waistband 34 by easing slightly into clearance 32 or, in other words, in a direction towards and away from the garment-gripping wall surface 18. As a result, in the inventive hanger 10 of Figs. 3 - 5, the garment is under a firm grip in its interposed position between the finger 16 and the wall 18, but the bending stress imposed by the movement of the finger into the clearance space 32 is absorbed partially by the leg 30, as well as by the junctions between the leg and the main body of the hanger, and the junction between the finger and the leg.

As may best be observed in the enlarged scale illustrations of Figs. 6 and 6a, the side of the finger 16 in facing relation to the wall 18, and thus in facing relation also to the garment 34 interposed therebetween, is moulded with a gripping projection in the specific form of a bump 36. The bump or projection 36 is thus advantageously maintained in a pressed condition into the garment 34 incident to movement of finger 16 away from the wall 18, and this significantly enhances the frictional gripping force exerted on the inserted garment.

It is to be noted that use can effectively be made not only of a vertically oriented grip 14 but also a horizontally oriented embodiment thereof, and that

whether vertically or horizontally oriented the result is the same in that movement of the finger of the grip into a clearance behind the finger effectively relieves any rupture-causing stress in the construction material
5 at the connecting juncture between the finger and the body of the hanger.

From the foregoing it should be readily appreciated that there has been described herein a plastic ship-on hanger of styrene or similar construction
10 material in which there is effective provision for relieving the hanger of stress which ultimately results in rupture as a result of accommodating the bulk of the portion of the garment inserted into the gripping mechanism thereof. Although a preferred embodiment of a garment-
15 gripping means 14 has been described herein, it will be understood that a latitude of modification, change and substitution is intended in the description thereof, and that in some instances some features of the invention will be employed without a corresponding use of other features.

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CLAIMS:

1. A garment hanger of moulded plastics construction having a plurality of garment engaging grips, each grip being formed by a relatively rigid wall portion of the hanger and a resilient finger spaced from the wall portion to define a garment receiving slot open at one of its ends, the finger being connected adjacent the open end of the slot to one end of a support leg whose other end is connected to the main body of the hanger, so that the finger is positioned between and spaced from the said wall portion on the one hand and the support leg on the other, and wherein the finger is formed on one side with a garment engaging bump projecting towards the said wall portion.
2. A garment hanger according to claim 1, wherein the said support leg, finger and wall portion are substantially parallel with each other.
3. A garment hanger according to claim 1 or 2, wherein a plurality of said grips are provided at each end of the hanger, at least one grip at each end having its finger disposed substantially vertically (in the position of use of the hanger) and at least one at each end having its finger disposed substantially horizontally.
4. A garment hanger according to claim 1, 2 or 3, wherein each grip is substantially as herein described with reference to Figure 6 of the accompanying drawings.
5. A garment hanger substantially as herein described with reference to Figures 3 to 6 of the accompanying drawings.



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6. A garment hanger of plastics material having garment engaging-grips moulded integrally therewith, the grip comprising a garment-receiving slot bounded along one side by a wall surface of said hanger and along an opposite side by a resilient finger member of said plastic construction material located adjacent but spaced from said wall surface, said resilient finger member being additionally movable in a transverse direction towards and away from said wall surface by being disposed in a clearance position from any portion of said hanger on both its opposite sides, and a bump moulded on said finger member in facing relation to said wall surface, whereby said finger is movable away from said wall surface into one said clearance space to provide an enlarged size to said garment-receiving slot incident to the insertion of a garment therein while said bump thereon remains in gripping engagement with said inserted garment, such that said movement of said finger obviates any stress in said construction material at the connecting juncture of said grip with said hanger.

7. An improved plastic hanger as claimed in claim 6, wherein said resilient finger is of a U-shaped configuration.

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8. An improved plastic hanger as claimed in claim 7, wherein plural U-shaped resilient fingers are embodied at opposite ends of said hanger, and said fingers are horizontally and vertically oriented to facilitate the display attachment of garments thereto.

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