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(56) Documents cited
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UK CL (Edition J) **A4L L121**
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(54) **Garment hanger**

(57) A garment hanger of plastics material has a substantially rigid elongate support bar and a centrally mounted support hook of either plastics or metal. On each arm of the hanger on either side of the hook is slidably mounted a clip which is constructed so as to be slidable along the support bar in its closed non-supporting condition which in its supporting condition is locked on the support bar at least in one direction of movement along the support bar.

Each clip has two arms which pivot about the support bar and are normally biased by spring into the closed position. The clip has two arms with a projection extending from each into a slot. At least one of the slots is preferably provided with a saw-tooth configuration and the projection engaging therewith conveniently has a series of castellations which engage with the teeth to prevent movement of the clip when the clip is opened. The spring is preferably a metal or plastics leaf spring having a U-shaped configuration with the free ends biased towards each other.

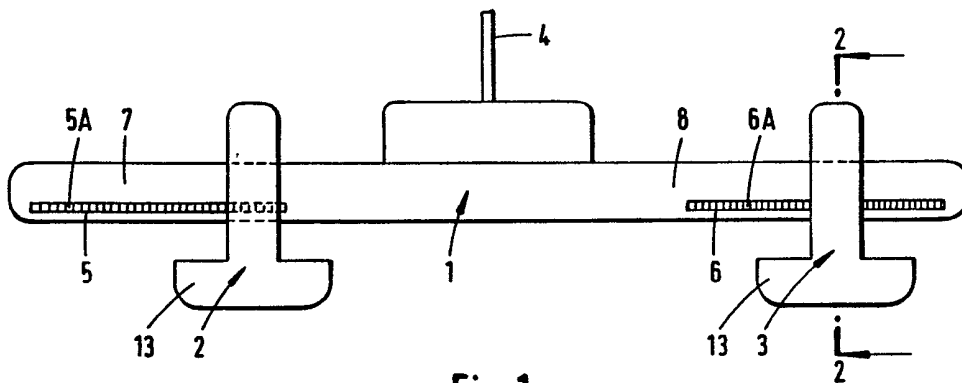


Fig.1

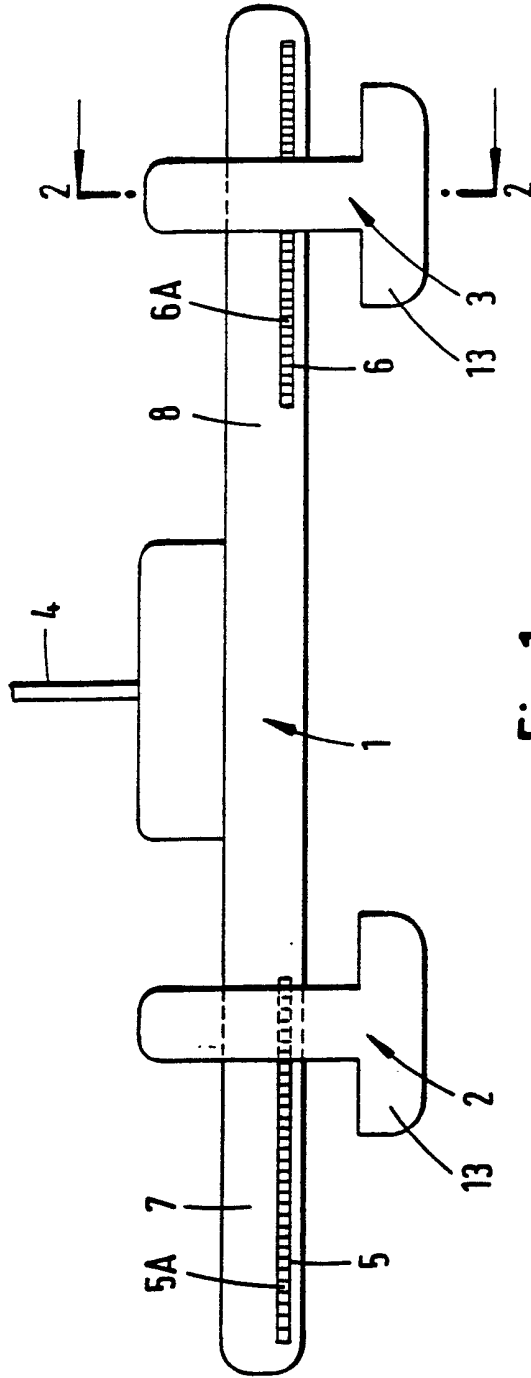


Fig.1

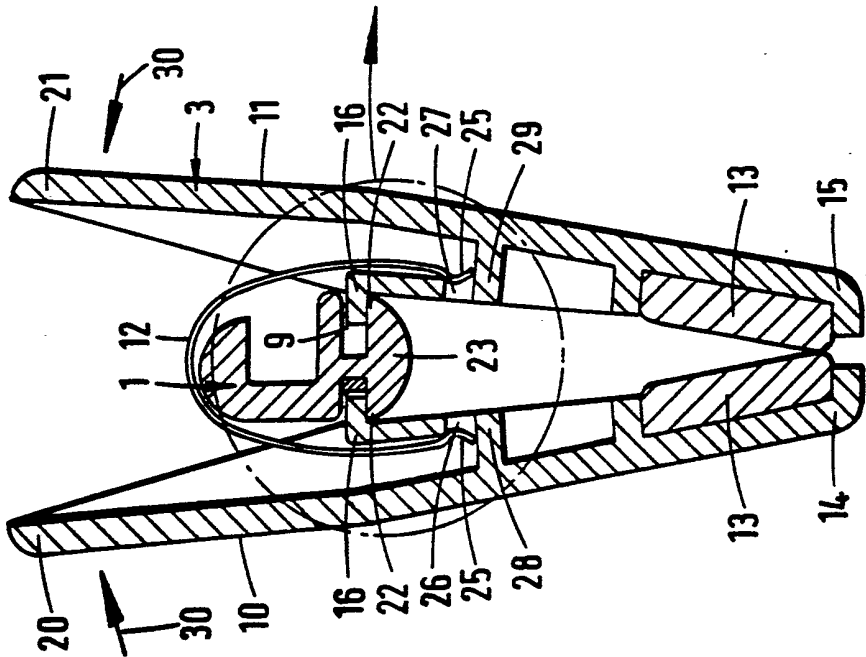


Fig. 2

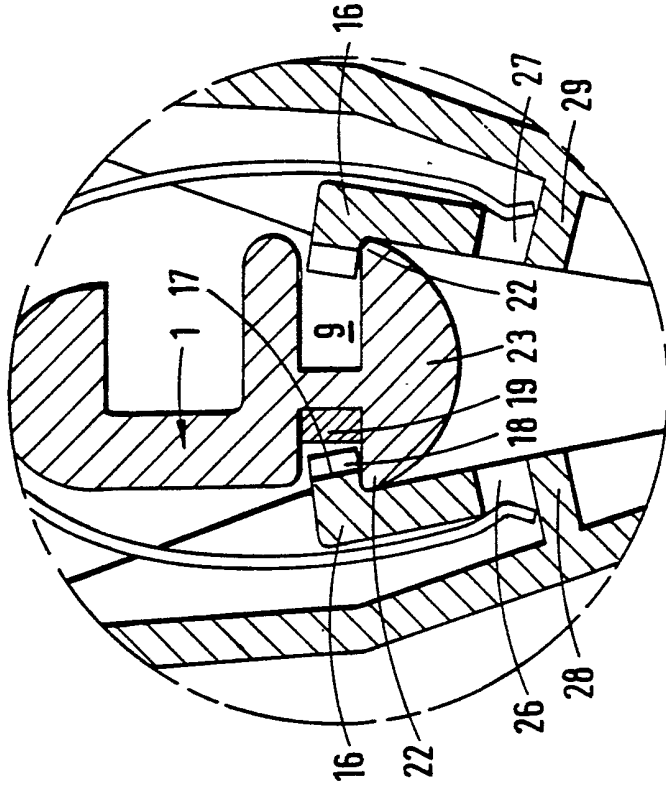


Fig. 3

GARMENT HANGER

This invention relates to a garment hanger, particularly of the type for supporting trousers or skirts.

According to the present invention there is provided a garment
5 hanger comprising a substantially rigid support bar extending on either
side of a support ~~hook~~ mounted on the support bar, gripping means for
gripping and supporting an article on the hanger, the gripping means
being slidable on the rigid support bar in a direction parallel to the
longitudinal axis thereof, and engagable means located on both the
10 support bar and gripping means so that when the gripping means is closed
the gripping means is movable along the support bar and when the gripping
means is opened the engagable means interengages to lock the gripping
means relative to the support bar.

15 In one preferred embodiment of a garment hanger according to the
present invention the engagable means comprises a projection
extending outwardly from the gripping means to engage a fixed tooth
arrangement on the rigid support bar, at least on one side thereof. In
the preferred embodiment the second element of the gripping means has a
20 projection extending into a guide slot in the rigid support bar, in the
side thereof opposite to that in which the teeth are provided. Preferably
the gripping means comprises two slidably mounted clips each having
gripping plates thereon. One clip is located on each arm, respectively.

25 An embodiment of the garment hanger will now be described by way
of example with reference to the accompanying drawings in which:

Fig. 1 shows a garment hanger according to the present invention,

30 Fig. 2 is a partial cross-sectional view of the hanger of Fig. 1
along line 2-2 thereof, and

Fig. 3 is an enlarged view of that part ringed in Fig. 2.

Referring specifically to Figs. 1 to 3 of the drawings there is shown a garment hanger having a rigid support bar 1 on which there are slidably mounted inverted T-shaped clips 2, 3 and a rotatable hook 4 which is of a standard form and only the vertical lower stem portion of 5 which is illustrated.

Elongate slot 5, 6 having teeth 5A, 6A therein provided on one side of each arm 7, 8, respectively, of the rigid support bar 1 and extends in a direction parallel to the longitudinal axis of the support 10 bar with one on each arm thereof. A blank guide slot 9 extends in a similar position to both slots 5 and 6 but on the reverse side of the support bar 1 to that having the slots 5, 6. The guide slot 9 extends the full length of the rigid support bar 1. No teeth are provided in the guide slot 9.

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The clips 2, 3 mounted on each arm 7, 8, respectively, of the rigid support member 1 are each provided, as illustrated in Fig. 2, with two arms 10,11 which are interconnected and biased to the position shown in Fig. 2 by a U-shaped leaf spring 12. Spring 12 is effective to bias 20 together gripping plates 13 at the ends 14, 15 of the arms 10, 11.

A projection 16 of an inverted L-shaped cross-section extends inwardly from each arm 10, 11 at a point substantially central of the opposed ends of each arm 10, 11. Each projection 16 extends into the 25 slots 5, 6 or the guide slot 9, respectively. The length of the portion of the projection 16 extending towards the support bar 1 is such that in the position shown in Fig. 2 the clip 3, for example, will slide backwards and forwards along the rigid support bar for selective location thereon until the projection 16 engages one end or the other of its 30 toothed slot 6. Each projection 16 is substantially as wide as the vertical portion of the respective inverted T-shaped clip 2, 3. Surface 17 of each projection 16 has a plurality of teeth 18 engagable with teeth 19 of toothed slot 5, 6. Guide slot 9 is blank but can if desired be similarly provided with teeth 19. In the present embodiment the teeth 18 35 on the projection 16 comprise a plurality of rectilinear costellations whilst the teeth 19 in the slot are of a saw-tooth configuration arranged

so that in a lockable state each clip is locked against outward movement thereof but allows inward movement towards the centre of the hanger.

5 When pressure is applied to spaced ends 20, 21 of the arms 10, 11 the arms pivot about a general point of engagement 22 of the arms with a semi-circular portion 23 of the rigid support bar 1. Such point of engagement is immediately below the toothed slot 5, 6. Because the arms 10, 11 pivot the projections 16 which are on the same side of the 10 pivot as the ends 20, 21 the teeth 18 of the projections 16 move into the grooves 6 and 9 as the gripping plates are separated. When the projection 16 on the arm 10 moves into the slot 6 the teeth 18 engage with the teeth 6A in the slot 6 to lock the clip 3 in position relative to the rigid support bar 1.

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The spring 12 is an elongate strip of spring metal formed into an inverted U-shaped configuration which is indented at its free ends 25. The indented ends of the spring 12 engage in recesses 26, 27 between 20 projections 16 and inwardly directed flanges 28, 29 of arms 10, 11 respectively. The inherent force of the spring 12 pushes the indented ends into the recesses and against the projections 16 thus forcing together the ends 14, 15 of the arms 10, 11.

25 The operation of the garment hanger will now be described with reference to clip 3. Clip 2 will operate in an identical manner to that of clip 3. When the waistband of a pair of trousers, for example, is to be supported between the gripping plates 13 of clip 3, the clips 2, 3 are moved along support bar 1 until they are in the required location. 30 Then ends 20, 21 are moved inwardly in the direction of arrows 30 in Fig. 2. The opposite ends 14, 15 begin to separate and as they do so teeth 18 on projections 16 begin to engage with teeth 19. When the ends 14, 15 are open sufficiently the waistband is inserted between gripping plates 13. The thickness of the waistband will be such as to maintain the 35 gripping plates 13 displaced one from the other leaving the clamp 3 in an open position thereby ensuring that the projection 16 engages with the teeth 6A in the slot 6.

Preferably, the rigid support bar 1 and clips 2, 3 are of a plastics material whilst the hook 4 and spring 12 are of metal or plastics material. Conveniently, the plates 13 can be hollowed and a rubber or a soft plastics buffer pad located in the hollow for engaging 5 with the material of the garment to be hung on the hanger thereby to support the trousers without damaging them. The buffer pads could be replaced by any conventional grip device or gripping material.

There has been described a garment hanger in which the clamps 10 are slidable relative to the main support bar and yet are fixable relative to that support bar when the clips are in an open position or held in such open position by the thickness of the garment being held on the hanger and clamped between gripping plates of the clips. Thus, the hanger can be utilised for garments of 15 various types, sizes, thicknesses and widths.

In one alternative embodiment the clips 2, 3 are interengagable with the teeth 5A, 6A in the slots 5, 6 respectively, so that the clips are locked against movement in either direction along the support bar 20 arms. Moreover, the guide slot 9 can incorporate therein a plurality of teeth along the whole or part of its length for engagement by the teeth 18 on projection 16, thereby to more firmly secure the slidable clip.

CLAIMS:

1. A garment hanger comprising a substantially rigid elongate support bar extending on either side of a support ~~hook~~ mounted on the support bar, gripping means for gripping and supporting an article on the hanger, 5 the gripping means being slidable on the rigid support bar in a direction parallel to the longitudinal axis of the elongate support bar, and engagable means located on both the support bar and gripping means so that when the gripping means is closed the gripping means is movable 10 along the support bar and when the gripping means is opened the engagable means interengages to lock the gripping means relative to the support bar at least in one direction of movement along the support bar.

2. A hanger as claimed in claim 1, wherein the engagable means 15 comprises a projection on the gripping means and stop means on the support bar so that upon engagement of the projection with the stop means the gripping means is locked relative to the support bar against movement in said at least one direction.

20 3. A hanger as claimed in claim 2, wherein the stop means comprises a slot in the support bar and a plurality of stops in and spaced along the slot.

4. A hanger as claimed in claim 3, wherein the stops comprise a 25 plurality of teeth in a saw-tooth configuration.

5. A hanger as claimed in claim 4, wherein the projection includes a plurality of teeth engagable with the teeth in the slot in the support 30 bar.

6. A hanger as claimed in claim 5, wherein the teeth on the projection are a plurality of rectilinear castellations.

35 7. A hanger as claimed in any one of the preceding claims, wherein the gripping means comprises a pair of arms together supported on the support bar for pivotal movement thereabout, and biasing means located

between the arms to force one end of the arms together for gripping an article therebetween.

8. A hanger as claimed in claim 7, wherein the arms of the gripping
5 means are each of an inverted T-shape configuration with the cross-piece thereof comprising gripping plates for gripping an article therebetween.

9. A hanger as claimed in claim 7 or 8, wherein the biasing means is a spring.

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10. A hanger as claimed in claim 9, wherein the spring is an inverted U-shaped spring in which the free ends thereof are biased together.

11. A hanger as claimed in claim 10, wherein the free ends of the
15 inverted U-shaped spring are indented and the indented portions are engagable in recesses located in the arms between the pivot point of the arms of the gripping means and the closed ends of the arms.

12. A hanger as claimed in any one of the preceding claims, wherein
20 the gripping means comprises two clips one on either arm of the hanger.

13. A garment hanger substantially as hereinbefore described with reference to, and as illustrated in, the accompanying drawings.