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TROUSER CLAMP FOR WIRE CLOTHES HANGERS

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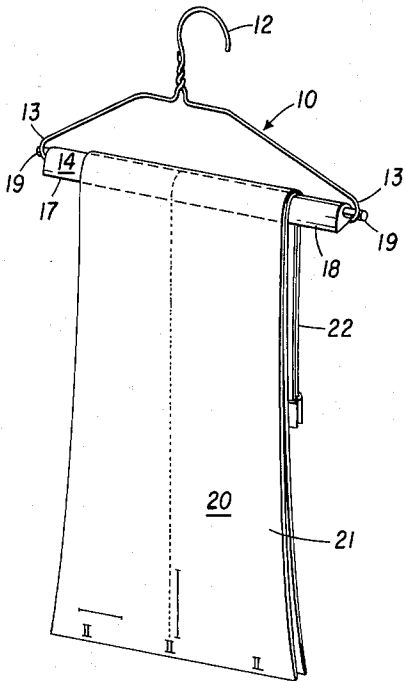


FIG 1

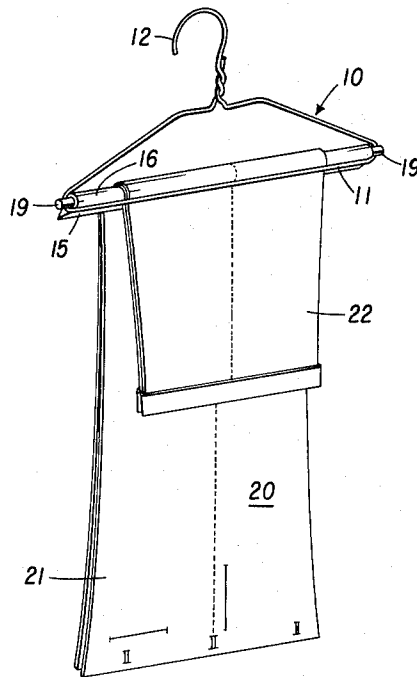


FIG 2

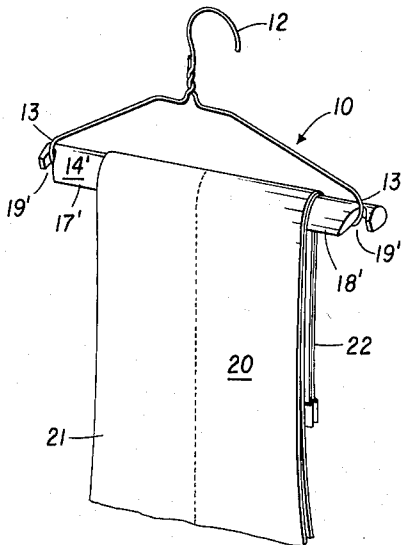


FIG 3

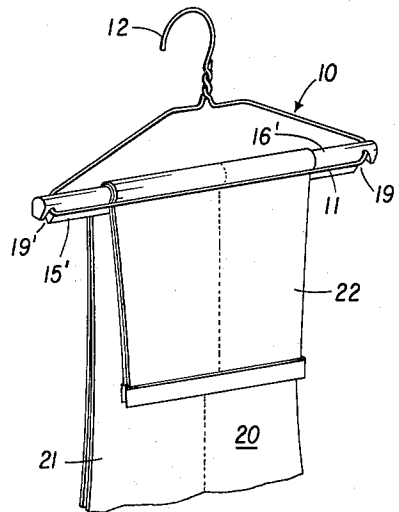


FIG 4

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## TROUSER CLAMP FOR WIRE CLOTHES HANGERS

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The present invention relates to an attachment for clothes hangers and particularly to a device for retaining a pair of folded trousers thereon.

Many devices of the nature of the present invention are known and in use but few if any provide an inexpensive, simple and reliable means for suspending a pair of trousers from a clothes hanger, particularly of the ordinary integral wire type. The present invention provides an integral, bar-like member over which the trouser legs are first folded in the customary manner. The bar, with the trousers thereon, is then placed over and along the hanger cross member with that half of the fold containing the cuffs or trouser ends located between the cross-member and a surface on the bar coextensive with the cross member itself. Suitable means at each end of the bar engage the hanger structure immediately adjacent the ends of the cross member in order both to retain the bar and trousers on the hanger and at the same time to permit the heavier weight of the other half of the fold containing the body portion of the trousers to move the bar toward the cross member in order to clamp the trouser legs between the latter and the bar. The necessary clamping pressure is applied by virtue of the weight of the suspended body portion of the trousers themselves so that self-adjustment of the pressure is thereby achieved, inasmuch as the heavier the trousers, the greater is the clamping pressure provided thereby.

The bar, being an integral structure, can be produced at a minimal cost from a wide variety of inexpensive materials: wood, suitable plastics, heavy corrugated board and the like. Furthermore, no change is necessary in the design or shape of the conventional wire hanger. Instead, the present device takes advantage of and utilizes the shape of the standard type of hanger so that it is as useful with those currently made as with those produced in the past. The principle employed in the present invention, however, is also adaptable to many other kinds of hangers or may even be incorporated in a hanger especially designed therefor. The bar may be used anywhere the ordinary wire type of hanger is utilized: hotels, motels, locker rooms, laundries, dry cleaners, etc. It could even serve as a "give-away" type of advertising novelty.

Accordingly, the primary object of the present invention is the provision of a trouser retaining and suspending device for a clothes hanger which utilizes the weight of the body portion of a folded pair of trousers to clamp the folded leg portion thereof between the device and the hanger cross member.

A further object of the present invention is to provide an integral trouser retaining and suspending device essentially in the form of a bar-like member generally overlying the hanger cross member so that the folded portion of the trousers containing the leg ends pass between the bar and the hanger cross member, the bar being retained on the hanger by means which permit the heavier folded portion of the trousers containing the body to move the bar toward the cross member and clamp the trouser legs therebetween.

Another object of the present invention is to provide an inexpensive, single piece trouser retaining and suspending device for removable attachment to a clothes hanger, particularly of the ordinary wire type, the device being essentially a bar-like member over which the legs of a

pair of trousers may be folded, the bar being coextensive with and generally overlying the cross member or wire of the hanger so that the lower leg portions suspended from one lateral edge of the bar pass between the bar and the hanger cross member, the bar being retained on the hanger by means which permit the heavier body portion of the trousers suspended from the other lateral edge of the bar to rotate the latter and clamp the lower leg portions between the bar and the hanger cross member.

Other and further objects, features and advantages of the present invention will become apparent from the preferred form thereof hereafter described read in conjunction with the drawings, in which:

FIGURE 1 is an upper perspective view of one side of an ordinary wire type clothes hanger incorporating the device of the present invention;

FIGURE 2 is an upper perspective view of the other side of the hanger shown in FIGURE 1;

FIGURE 3 is an upper perspective view of one side of the type of wire clothes hanger shown in FIGURES 1 and 2 but illustrating an alternate preferred form of the present invention; and

FIGURE 4 is an upper perspective view of the other side of the hanger shown in FIGURE 3.

Turning now to the drawings in particular, 10 designates generally an ordinary wire type clothes hanger fashioned integrally from a single length of wire. The customary horizontal cross member, in the form of a rectilinear cross wire portion 11, is bent at each end thereof first upwardly and then both reversely back over and generally upwardly from cross wire 11 and joined in order to form a suspension hook 12 centrally disposed above cross wire 11 and a pair of shoulders 13 at each end of hanger 10, all lying in a vertical plane through cross wire 11. The trouser retaining bar 14 shown in FIGURES 1 and 2 is in the form of a longitudinal member just shorter than the length of cross wire 11 and uniform in cross-section throughout its length, that section being somewhat airfoil in shape. Bar 14 generally overlies cross wire 11 with its trouser clamping surface or face 15, between its lateral edges 16 and 17, generally downwardly facing and bearing throughout its length against cross wire 11, while its trouser suspending surface or face 18 is turned generally upwards, edges 16 and 17 thus straddling cross wire 11. At the "leading" lateral edge 16 of bar 14 an integral pin-like projection 19 extends longitudinally outwards from each end of bar 14 sufficiently to engage the lateral side of one shoulder 13 on the same side of cross wire 11 as edge 16. Accordingly, the weight bar 14 between pins 19 and "trailing" lateral edge 17 retains bar 14 on cross-wire 11 in such a manner that clamping face 15 bears against cross wire 11, bar 14 at the same time being rotatable longitudinally of itself against shoulders 13.

In use, bar 14 is first detached from hanger 10 and the trousers 20 are then folded over its suspending face 18 in the customary manner with the heavier body portion 21 depending from its "trailing" lateral edge 17 and the generally shorter and lighter leg end portions 22 from its "leading" lateral edge 16. Bar 14 is then reassembled to hanger 10 so that the leg portions 22 immediately adjacent lateral edge 16 pass between cross wire 11 and clamping face 15 of bar 14 (see FIGURE 2). Thus the heavier weight of the body portion 21 depending from lateral edge 18 provides a lever-like action rotating bar 14 to cause clamping face 15 to secure leg portions 22 between the former and cross wire 11, pins 19 and shoulders 13 therefore providing a pair of fulcrums.

The embodiment illustrated in FIGURES 3 and 4 is similar to that of FIGURES 1 and 2. Bar 14' is essentially the same as bar 14 but somewhat longer and is

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provided with a deep notch 19' adjacent each end extending transversely of bar 14' from its "trailing" lateral edge 17' so that the crotch thereof bears against the lateral side of one shoulder 13 on the same side of cross wire 11 as "leading" lateral edge 16'. Notches 19' thus retain bar 14' upon cross wire 11 and, together with shoulders 13, provide a pair of fulcrums against which bar 14' may rotate longitudinally of itself when trousers 20 are suspended thereover in the same manner as in the embodiment of FIGURES 1 and 2.

It will be apparent that other means of securing bar 14 to hanger 10 could readily be utilized so that the weight of the body portion of the trousers folded over bar 14 is employed to clamp the folded leg portions between the bar and the hanger cross member. While for convenience and economy's sake the bar is made readily detachable from the hanger, this feature is not essential. If desired, the bar could be permanently attached thereto but suitably movable thereon in order to permit the trouser self-clamping action which is the essential feature of the invention. Accordingly, though the invention has been described with reference to particular embodiments and particular descriptive language has been used, it is not so limited. Instead, the following claims are to be read as encompassing such modifications and adaptations of the invention as would occur to one of ordinary skill in the art.

I claim:

1. A removable attachment for use with a garment hanger of the type formed from wire and when in use having an upper suspending portion, a lower straight horizontal cross portion, and upwardly extending shoulder portions connected at their upper ends to said suspending portion and at their lower ends to the ends of said cross portion, said attachment comprising a bar having a garment supporting portion of a length less than the length of the cross portion of said hanger, said garment supporting portion having a width greater than its height and being provided with a garment suspending upper surface and a garment clamping lower surface generally overlying and in contact with the cross portion of said hanger, said bar including end portions adjacent the ends of the garment

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supporting portion pivotally engaging the lower ends of said shoulder portions effective to provide a pair of fulcrums offset to one side of the cross portion of said hanger when the garment clamping surface of said bar overlies and is in contact with the cross portion of said hanger as aforesaid, the garment suspending surface of said bar extending outwardly a greater distance from the other side of the cross portion of said hanger than the offset distance of said fulcrums from said first side of said cross portion, whence the weight of a garment suspended around said bar over the garment suspending surface thereof and positioned between the garment clamping surface of said bar and the cross portion of said hanger will cause said bar to pivot on said hanger and clamp the garment between the cross portion of said hanger and the garment clamping surface of said bar.

2. The attachment of claim 1 in which the end portions of said bar are pin-like members of circular cross-section, said members being co-axial and together with the lower ends of the shoulder portions of said hanger providing said fulcrums.

3. The attachment of claim 1 in which the end portions of said bar are formed with somewhat V-shaped notches, the apexes of said notches, together with the lower ends of the shoulder portions of said hanger providing said fulcrums.

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